

Teachers' Scaffolding Strategies in Internet-based ELT Classes

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Abstract

Social distancing due to COVID-19 has necessitated the immediate implementation of Internet-based English language teaching (ELT) in developing countries. This abrupt transition from face-to-face to online learning and teaching environment has brought up many concerns, particularly about maintaining ELT education in crises, one of which is how teachers scaffold students in Internet-based classrooms. Although there is an extensive body of research devoted to scaffolding students' learning in face-to-face ELT classes, effective teachers' scaffolding strategies in online classes are still worth receiving further scholarly attention. Therefore, this article reviews contemporary research on scaffolding strategies for teachers to apply in their Internet-based ELT classes. After discussing the inherent difference between scaffolding and support, and the relationship of scaffolding, support, and linguistic competence, the author synthesizes and systemizes scaffolding functions, intentions, and strategies applicable to the Internet-based English class. The author also suggests practical recommendations that teachers can utilize to scaffold students in differential teaching and learning contexts on the Internet. Finally, this article addresses some common challenges and suggests solutions for teachers to conduct scaffolding strategies effectively in Internet-based ELT classrooms.

Keywords: Distance Learning, Emergency, ELT Classrooms, Internet-based Teaching, Scaffolding Strategies, Remote Teaching

The World Health Organization's official announcement of the COVID-19 epidemic in 2020 has led to the emergence of new issues in language teaching. As a result of this unpredicted global pandemic, educational institutions have been forced to shift from traditional face-to-face education to an online setting as an emergency plan. Many educational institutions, universities, colleges, and language training centers have suffered significant difficulties conducting online courses in the middle of the transition because their academic staff has not been fully equipped with e-learning technology and online pedagogical methodology and techniques. In reality, the abrupt shift from the familiar traditional offline class environment to the internet-based and computer-based ones is a more emergency option than a well-prepared solution. Thus, educational institutions and English training centers must rely on ready-made meeting platforms such as *Zoom, Microsoft Teams, or Google Meet*. This adaptation of Internet-based classrooms has posed many concerns, including multitasking demand, distractions, low motivation, and low levels of interaction between professors and students. Foremost among these is that ELT teachers are not familiar with technology, hence the hesitation and mishandling of scaffolding activities (Cho & Cho, 2016). With the limited literature on applying scaffolding strategies in online English classes, teachers face even more practical challenges and imminent pedagogical problems. Thus, the application of scaffolding strategies in online ELT classrooms is a promising research field worth further consideration, especially in this digital era when more institutions initiate distance teaching and learning.

In this article, the author critically reviews, synthesizes, and systematizes knowledge from primary and secondary studies about types, functions, intentions, and strategies of scaffolding for teachers to apply in the online differentiated teaching process under the umbrella of social-constructivist language acquisition and learning theories. After explaining the current context necessitating further research into teacher scaffolding strategies in internet-based ELT classrooms, the author defines and classifies scaffolding types in online classes and provides a conceptual framework of scaffolding strategies. Then, following perspectives on modes of communication in online classes, including synchronous, asynchronous, and hybrid, the article provides the tools and suggestions to scaffold students in online ELT classes with different ages, computer literacy, and language competence. The author also considers classes of different sizes, the dichotomy of language skills, and exam-oriented classes so that differential scaffolding can be provided situationally. The article concludes by addressing common concerns when incorporating scaffolding in online classes and pedagogical implications on what to do to foster student language learning through scaffolding and content included in teacher training programs for internet-based teaching.

Previous Research on Scaffolding

Through the history of research in language acquisition, learning, and teaching, many scholars have contributed to the concepts revolving around teaching strategies that foster the learning trajectories as a dialectic process. One of the most popular strategies is scaffolding, a term coined by Wood et al. (1976). Since its introduction, scaffolding has been a popular term in English language teaching, referring to strategies that facilitate the co-constructed learning process. Scaffolding is an apprenticeship that supports the children's skill and knowledge enhancement to achieve a higher competence (Rogoff, 1991). The practice of scaffolding is used to reduce the difficulty of the learning process and simultaneously allow students to focus on high-order thinking activities to construct new knowledge (Ghanizadeh et al., 2020).

The value of scaffolding has received considerable attention from educators and educational researchers in the past few decades. Learning mediation through scaffolding strategies is efficacious in enhancing classroom interaction (LaScotte, 2018; van de Pol et al., 2010),

reducing classroom anxiety, increasing willingness to communicate (Alavi & Esmaeilifard, 2021; Sheen, 2008), and fostering learner collaboration (Rojas-Drummond & Mercer, 2003). Particularly in ELT, scaffolding strategies prove effective in sharpening both English receptive and productive skills. Reading instructors can scaffold students' uptake of relevant skills and knowledge before, during, and after their reading task (Clark & Graves, 2005). The same effects are also demonstrated in listening comprehension (Ahmadi Safa & Rozati, 2017). Regarding the effectiveness of using scaffolding strategies to enhance productive skills, a small-scale study by Adillah (2019) shows that scaffolding impromptu speaking activities could reduce anxiety and enhance the oral presentation skills of Malaysian undergraduate students. This is in line with an experimental study by Zarandi and Rahbar (2016) with 60 Iranian EFL students. The study proves that learners can significantly improve their overall speaking ability by learning to use scaffolding strategies. Similarly, scaffolding is also effective in enhancing learner writing performance in different genres, for example, creative narrative (Rababah & Almwajeh, 2018) or persuasive (Felton & Herko, 2004).

While research on the incorporation of scaffolding in online classes has emerged as a novel research trend for at least two decades, a thorough review of the literature reveals a significant gap in the documentation about the application of scaffolding in second language teaching. Guzdial's (1994) and Zhang and Quintana's (2012) studies into scaffolding strategies in computer-based science and technology classes show that students' metacognitive scaffolding activities can enhance students' online skills such as programming, self-inquiry, and self-regulation. Noticeably, in a study by Zhang and Quintana (2012), the researchers designed software utilizing the scaffolding strategies to work along with teachers' and peers' support in facilitating students' online inquiry processes. At the end of the research, there was an enhancement in 16 middle school students' efficiency, self-regulation, and content engagement. Another research by Ge et al. (2011) proves the promising potential of scaffolding strategies in expanding professional knowledge among liberal arts, social sciences, management, and engineering undergraduate students. Although there is a vast body of literature on computer-assisted teaching with scaffolding strategies, there is limited research on applying scaffolding strategies in language learning and teaching in online classes.

A limitation of several contemporary studies into scaffolding is their failure to address that scaffolding language learning and acquisition should be both universal and differential as each learner has their own Zone of Proximal Development (ZPD). ZPD is defined 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” (Vygotsky, 1978, p.84). Thus, although scaffolding interactivity according to the students' ZPD is a universal concept of the language learning and teaching journey, it is necessary for teachers to implement adaptive instructional practices (Visnovska & Cobb, 2015). In fact, ELT learners differ in many aspects, for example, age, psychological factors, subject-matter knowledge, or proficiency (Ellis, 2015). Moreover, when learning and teaching in Internet-based classrooms, teachers should remember that not all students are at the same level of digital literacy. Hence, although this review is aimed to provide an overall picture of how to scaffold ELT learners in the e-learning environment, readers should not generalize scaffolding as an elixir of perfect teaching techniques. Scaffolding should be applied with thoughtful and differentiated consideration according to learners' characteristics and classroom contexts. It is indeed the teachers' responsibility to conduct reflective teaching based on the fundamental knowledge provided in this review so that it can best suit their current teaching situation.

Scaffolding versus Support

As the meaning of scaffolding evolves with time, some researchers define that scaffolding is what teachers do and say, also known as a supportive construction, to help children complete a task that they are not capable of fulfilling by themselves (Clark & Graves, 2005; Pearson & Fielding, 1991). However, within the scope of this article, it is worth noting that the fundamental contrast between scaffolding and support is interactivity. In recent years, several researchers have stated that the definition of scaffolding is increasingly used as a synonym of support (Puntambekar & Hübscher, 2005). We should bear in mind that, in this review, the idea of incorporating scaffolding strategies is not the provision of one-sided and isolated support from teachers but inherently well-rounded interactions, in line with Vygotsky's social-constructivist theory and the Zone of Proximal Development. According to Vygotsky, the learning process occurs on an interpersonal level before transferring into the intrapersonal level. Thus, the focus of scaffolding should be on interactions that stimulate the active participation of the learners to internalize the external world. Since the negotiation of the novice L2 users (learners) and more experienced users (teachers) is the typical core of scaffolding strategies, it is convincing that scaffolding is an indispensable tool in the teachers' pedagogical repertoire. Vygotskian social constructivism opines that individual learning occurs through social interactions with other society members, such as parents, peers, or educators. Therefore, without such pivotal interchanges created by interaction, through scaffolding, in language learning, full developmental potential cannot be achieved (Chi et al., 2001).

The substantial role of interaction in scaffolding is even more significant in second and foreign language classes, as the acquisition of an additional language only occurs through interaction. The interaction hypothesis believes that native speakers or more competent language users can initiate negotiation that calls for language adjustments to connect input, learner capacities, and output in a linguistically productive way. As novice language users internalize these interactions and acquire them as comprehensible input, they eventually become more independent second language users (Thornbury, 2006). Scaffolding instruction provides linguistic and rhetorical comprehensible input to support and challenge the learner. When students engage in demanding tasks, they can work towards the target language cognitively. Scaffolding helps students move from incompetence to full competence in a second language by allowing them to understand the system of structures, language use, and language appropriateness. It is provisional pedagogical support that enables learners to complete learning tasks or activities, which then gradually diminishes and disappears as learners gain mastery of the required knowledge or skills. In second language acquisition, this mastery of language should start as an enhancement from either complexity or fluency to accuracy (Ellis, 2015). Figure 1 that the author provides below emphasizes the dialectic relationship between the degree of support provided and the learner competence, also known as the “fading” of support (van Lier, 2004, p. 151) when learner proficiency improves over time.

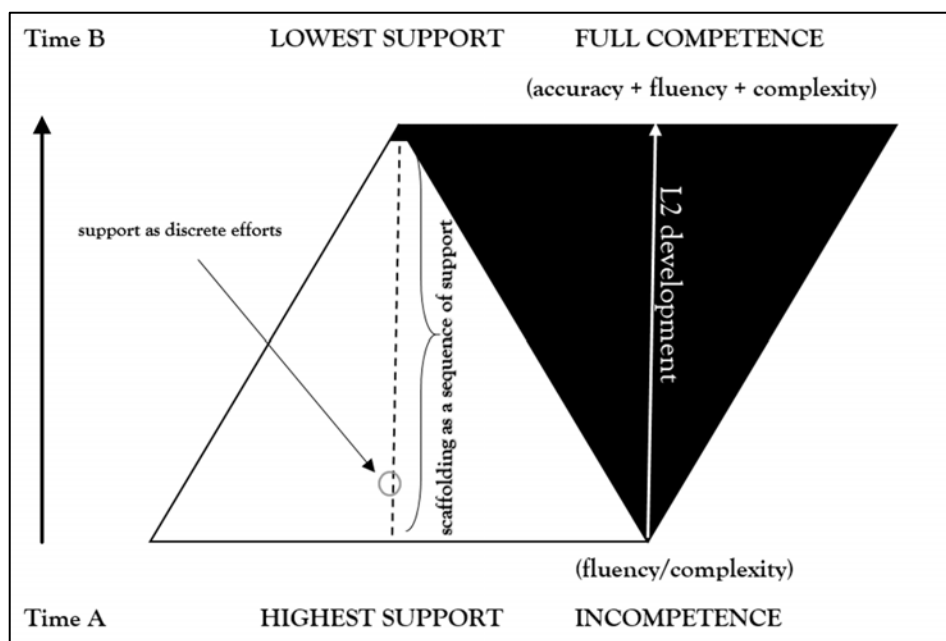


Figure 1. Scaffolding, Support, and Linguistic Competence

Although a teacher's one-shot support aims to guide, encourage, direct, and orientate the students, it is not a formative process. In contrast, scaffolding is more of multiturn support readdressing the same subjects or topics until the learners can fulfill a linguistic task by themselves. For scaffolding to succeed in a second language classroom, Sharpe and Michell (2005) suggest four conditions:

1. The less competent must take the primary responsibility for the task.
2. The task must be able to create enough challenges to encourage active learner engagement.
3. There must be a gap in knowledge between the participants for mutual support to take place.
4. Expert task participants take an active role in supporting the less competent participants.

To be more specific, unlike support, the scaffolding process should rest with the proactive role of the novice participant whose desire, interest, and duty will motivate them to seek help from more experienced peers, teachers, and mentors. However, the task must be challenging enough to prevent the more experienced and competent students from falling into the boredom zone. In the scaffolding process, the task experts should be ready to support their novice peers or students. Without such acts of kindness and willingness, scaffolding is doomed to failure. With the scaffolding strategies from teachers, learners also familiarize themselves with text and discourse features in academic genres and other daily life domains. In a broad sense, scaffolding is episodes of guidance.

Types of Scaffolding

Throughout the development of scaffolding, there are different attempts to develop scaffolding taxonomies. In general, scaffolding can be classified into three kinds: vertical, sequential, and instructional (Applebee & Langer, 1983; Cazden, 1983). Adults can extend children's knowledge within the vertical scaffolding process by asking them more questions, while sequential scaffolding occurs when children participate in games. Instructional scaffolding is

the core of formal tutorials as the learner is assisted by a task expert who models the learning task. Within the instructional scaffolding process, there are four subcategories of scaffolding: conceptual, metacognitive, procedural, and strategic scaffolding (Hannafin et al., 2013). When conducting conceptual scaffolding, teachers guide the learners to focus their attention on the scope and definition of the problem found in the task. In contrast, metacognitive scaffolding assists learners in structuring their thinking, finding possible solutions dealing with a problem, and reflecting on the continuous process during resolution. On the other hand, procedural scaffolding provides advice and support, based on which the learners can understand properties such as function and uses of language. Finally, strategic scaffolding guides the learners on macro-strategies for problem analysis and approaches, for example, how to find an alternative solution to solving the reasoning gap in a linguistic task quickly.

With technology integration in language teaching, scaffolding may also come in two other types: content and technical scaffolding. Technical scaffolding facilitates students in developing technical skills with the cyber environment to support their learning. Content scaffolding may support students in extending the information or articulating their verbal or written response to a task that is conducted online (Reingold et al., 2008)

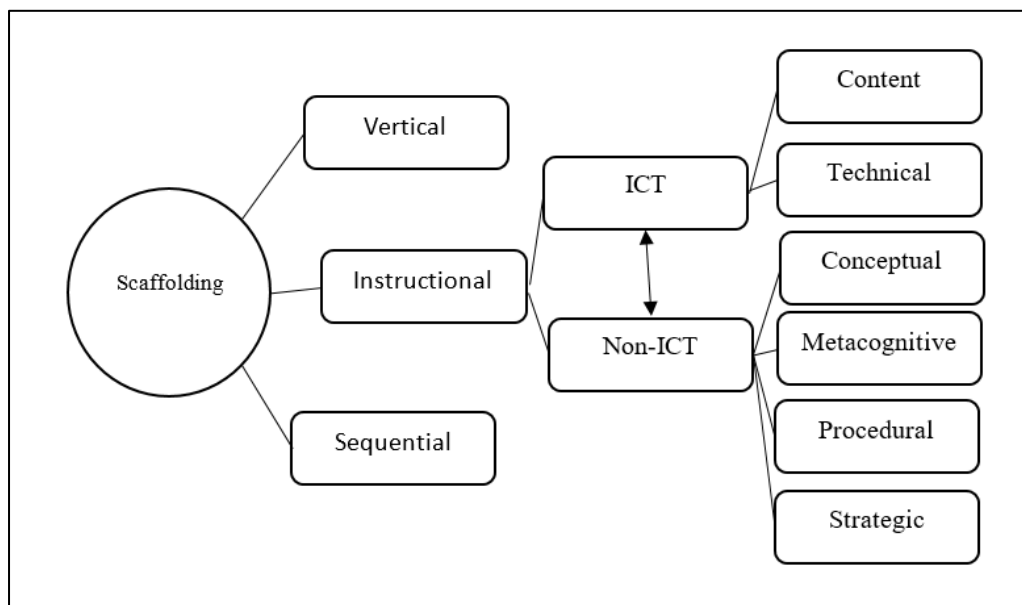


Figure 2. Types of Scaffolding

Scaffolding in the Online Environment

Synchronous, Asynchronous, and Hybrid E-Learning: When Contingency Matters

In the middle of the worldwide pandemic, physical meetings and classes accommodating large groups of people can result in irreversible consequences. This reality further necessitates the application of online classes into creating a virtual classroom environment that utilizes two fundamental modes of communication, including synchronous and asynchronous. Synchronous e-learning is live, scheduled, and real-time tutorials that require the presence of both teachers and learners simultaneously. In other words, synchronous e-learning is the interactions between teachers and students via a simulated cyber classroom in real-time. On the other hand, asynchronous e-learning works on the premise that learners interact with the resources that are created by a learning community stored on the Internet. Thanks to the

computer-mediated means of instruction, asynchronous e-learning can occur anytime and anywhere without the concomitant presence of students and learners at a specific time. Khan (2006) believes that asynchronous classrooms can allow the self-paced learning process to occur without any geographical and time constraints. When combining synchronous and asynchronous modes of communication in an English language classroom, teachers can create a hybrid e-learning model that inherits the strengths of both approaches. Synchronous e-learning is valued by the students who have positive perceptions of the importance of interaction, whereas asynchronous e-learning is suitable for learners with high autonomy (Beyth-Marom et al., 2005). Hence, the combination of the two modes as a hybrid approach can cater to the diverse needs of different learners (Karaaslan et al., 2018; Shahabadi & Uplane, 2015). In the hybrid classroom, teachers and learners can exchange more information, build better rapport, and collaborate more effectively (Haythornthwaite & Kazmer, 2008).

As mentioned in the previous section, scaffolding should be a process of modifying teachers' support episodes according to the learner's language competence development. Regarding scaffolding's contingency, the teacher should tailor, adjust, titrate, and calibrate their support episodes according to the level of the students through diagnostic and scaffolding strategies (van de Pol et al., 2010). Given that, the hybrid mode of communication should be beneficial for the contingent nature of scaffolding. On the one hand, because scaffolding works on interaction, the lack of spontaneous synchronous communication between the teachers and the learners may become a noticeable hindrance. Ge (2011) notes that the exclusion of synchronous mode of communication in e-learning class results in the students' inability to concentrate. On the other hand, teachers must constantly assess the student's level to provide contingent support both inside and outside the classroom, which necessitates the formative assessment (Shepard, 2005) through asynchronous e-learning. Without an asynchronous mode of communication, students cannot have adequate time to seek for and reflect on feedback, raise questions, and attempt for the initiatives in discussions, all of which contribute positively to the scaffolding process (Hyland & Hyland, 2006).

The Model of Scaffolding Strategies in ELT Classes and Internet-based ELT Classes.

According to van de Pol et al. (2010), scaffolding has three main functions in the classroom, including metacognitive, cognitive, and affective support. The first function is metacognitive support that maintains students learning direction and fosters thinking about thinking strategies (Jazebi et al., 2018). On the other hand, cognitive support encourages cognitive structuring and reduces the degree of freedom. Cognitive structuring manifests various means of assistance that help students organize and structure intake, and reducing the degree of freedom simplifies the complicated tasks that students cannot complete themselves. Affective support, which includes recruitment, contingency management/frustration control, and learner pre-engagement, is another scaffolding function that supports the learners' feelings and emotions with a task. Task pre-engagement prepares students' willingness to participate in the task, whereas recruitment refers to helping and motivating the students emotionally to adhere to the tasks. During the tasks, scaffolding strategies can motivate students and minimize disappointment through a system of reward and punishment, which signifies the contingency management/frustration control intention of cognitive support. The focus of van de Pol et al. (2010) was, by and large, on the intrapersonal functions of scaffolding strategies, whereas there was a lack of attention to interpersonal functions.

Nonetheless, the three functions by van de Pol et al. (2010) do not suffice in second language classes because the focus of the course should prioritize linguistic, communicative, and social-cultural competence of the learners over other factors. Thus, it is also pivotal that teachers

provide mindful and responsive support for the students' language output. To scaffold the learner linguistically, teachers should use intelligible language for the learners to open up their potential for more complicated language acquisition (Bradley & Reinking, 2011; Lucero, 2014). Through interactions, teachers can scaffold students' understanding and explain academic knowledge within lessons (Dutro & Moran, 2004). Linguistic scaffolding aims to increase learner exposure to the target language on the micro-level and assist the learners in producing their own oral and written language on the macro-scale. The longitudinal target of linguistic scaffolding is to enable learners to experience and participate in long conversations that support their academic linguistic development (Lucero, 2014). Besides, learners need to focus on their target language's social and cultural aspects to learn a foreign language. Jazebi et al. (2018) add that the social support function of scaffolding, in other words, aims to foster a reciprocal learning environment, while the cultural scaffolding function aims to enhance learners' comprehension and production through the use of cultural and historical artifacts. Social and cultural aspects are two inextricable zones in the interpersonal world of the learners that should not be separated. Therefore, social and cultural functions of scaffolding are grouped into sociocultural support in the following scaffolding strategies table (see Table 1).

In addition to traditional scaffolding strategies that teachers apply in a face-to-face class, teachers should pay more attention to technical and content scaffolding in an Internet-based ELT classroom. In a computer-assisted environment, particularly an Internet-based ELT classroom, technical scaffolding can guarantee the effectiveness, ease, and comfort of the learning process mediated through technical tools and online venues (Ozan, 2013; Yelland & Masters, 2007). Technical scaffolding can range from basic instructions on how to navigate through the software layouts to more complicated functions such as modifying or coding their own learning tools (Neumann, 2018). However, within this article whose focus is on ELT classes, the technical scaffolding may not extend beyond basic use of learning tools, as the need to scaffold students to code software or create a new application is more popular in other technology-oriented and programming courses than in a second or foreign language class. Through the use of hyperlinks and hypermedia embedded systems, teachers can deliver technical scaffolding through elements of the software's interface (Azevedo & Jacobson, 2008).

As online classrooms offer students distinct forms of interaction, teachers' content scaffolding strategies may differ from what students usually experience in an offline class. It is acknowledged that less experienced language students, such as young learners with less prior knowledge, should receive content scaffolding that differs qualitatively from those with more extensive prior knowledge (Azevedo & Jacobson, 2008). Teachers in online classes can use a hypermedia-embedded platform with hyperlinks to pictures, questionnaires, or surveys to prompt students' evaluation and prediction of content. Teachers can also map learning content after the post-test as a collaborative activity to help students summarize their subject-matter knowledge (Shapiro & Niederhauser, 2004). Reingold et al. (2008) also suggest that content scaffolding in online classrooms can take the form of adding, elaborating, correcting information, and providing feedback and correction for written and verbal articulation of task response. Acknowledging Internet-based ELT classroom as a part of the flexible and resource-based education, teachers can use available content on the Internet to help students link concepts in their mother tongue and those in the target language, or in other words, support students to use the known in their L1 to scaffold the unknown in their L2 (Mahan, 2020). In other words, the first intention of content scaffolding should be to give students adequate support to activate interdisciplinary and translinguistic prior knowledge. Furthermore, because of the unavoidable discrepancies between online interaction and face-to-face interaction, teachers should also understand that the way that students express their knowledge or make

contributions to the lesson content may be different from what happens in traditional classrooms. For example, in an English-speaking training session, a weak Internet connection may prevent students from watching an entire educational clip or presenting a lengthy conversation. Therefore, content scaffolding should also focus on giving feedback and providing advice on helping students shape the spoken or written content effectively and concisely in online communication.

Table 1. The Model of Scaffolding Functions, Intentions, and Strategies in Internet-based ELF classes

Functions	Intentions	Strategies
Cognitive support	<ul style="list-style-type: none"> • Cognitive structuring • Reduction of the degree of freedom 	marking critical task features, elaboration prompting, meaning-based negotiation, critical debate, reviewing and repeating of tasks, modeling, writing prompt, providing hints
Linguistic support	<ul style="list-style-type: none"> • Increased exposure • Language production assistance 	enhanced input, recast, repetition, prompting for elaboration, exchanging experience in language use, small talk, focus-on-form, post-lesson reflection, model essay/talk, translanguaging
Affective support	<ul style="list-style-type: none"> • Recruitment • Contingency management/ frustration control • Learners pre-engagement 	encouraging, providing constructive feedback, providing reward system, explaining and listening to negative emotions, pre-task activities, and discussions.
Metacognitive support	<ul style="list-style-type: none"> • Direction maintenance • Metacognition emphasis 	problematizing and disagreeing with common solutions to tasks, describing how learners think, proving argumentative template, modeling think-aloud process
Socio-cultural support	<ul style="list-style-type: none"> • Teamwork spirit stimulation • Encouragement of cultural integration and comparison 	prompting participation, offering and soliciting suggestions, building rapport before and after class, varying interaction patterns, whole-class feedback, letting students vote for the best task-response, collaborative writing/presentation, post-task sharing, providing argumentative templates, elicitation of the L1 and L2 cultural comparison, incorporating authentic materials in class
Technical support	<ul style="list-style-type: none"> • Highlighting technical features to enhance the effectiveness of online learning • Ensuring comfort and ease in using the system 	providing visual cues to support technical use, providing communication forms for students to request help from teachers and friends, administering real-time interactive help page, providing task-orientated suggestions with technological tools, giving feedback on how to use tools effectively for group work/presentation, instructing students on how to navigate the software, setting up hypermedia-embedded interactive systems that students can consult when having problems, providing sitemaps, annotations, and navigation prompts
Content scaffolding	<ul style="list-style-type: none"> • Activating interdisciplinary and translinguistic prior knowledge to promote task completion • Organizing and classifying knowledge • Shaping effective content exchange 	brainstorming, recalling prior schemata, content evaluation prompting, mapping of lessons, collaborative summary of lesson content, adding, elaborating, and correcting information, providing feedback and correction for written and oral articulation of task response, supporting concept transferring between L1 and L2, feeding back and advising on content delivery

Table 1 illustrates some suggested strategies for each scaffolding function for an ELT classroom in general. By and large, they revolve around rapport building, input enhancement, repetition of tasks, prompting, questioning, feeding back, discussion, negotiation, and debate. Although some strategies have exclusive functions, many of these strategies function differently across various contexts. For example, input enhancement is exclusively used for scaffolding students' linguistic development by input flooding or highlighting the target language (Thornbury, 2006), whereas prompting can support students socially, meta-cognitively, and cognitively. To illustrate, prompting participation can be used when grouping the students into teams, and teachers can also prompt students to elaborate and justify their answers. Likewise, by providing argumentative templates, teachers can foster students' critical thinking about how they should perform a debate or an inquiry (Li & Lim, 2008) while ensuring that debate does not turn into a fight to maintain a supportive and cordial classroom environment.

Teachers' Scaffolding Strategies in Different ELT Distance Learning and Teaching Contexts

Initiating and Familiarizing with Internet-based ELT Classes

The main purpose of teaching and learning with an Internet-based classroom is not just to create a robust and thorough academic online platform but to sustain the continuity of education in a flexible manner with readily available resources during unexpected emergencies (Hodges et al., 2020). Besides the courses planned and designed from the beginning of an academic year for regular online classes, distance classrooms can be a situational form of instruction and tutorial in times of crisis such as war or pandemic. Instead of designing bureaucratic ICT websites that are overloaded with complicated technologies, it is suggested that online classrooms be designed based on measurable and achievable objectives, flexible, interactive, and engaging (Schlesselman, 2020). The focus of internet-based ELT classrooms should be about how to exploit free ready-made software and applications to create a system to implement teachers' scaffolding strategies. Particularly, regarding the unpredictable nature of online teaching during emergencies, for example, a bombardment in wars or the hospitalization of a student during an epidemic, it is pivotal that teachers prioritize an asynchronous mode of communication over a synchronous one in the hybrid e-learning system created temporarily in hardship.

Amidst natural disasters, wars, or pandemics, it is a demanding task for education institutions, especially those in developing countries, to set up a *learning management system (LMS)* in time to guarantee education. Therefore, a flexible *LMS* system available for free on the Internet that require little technical effort, e.g., *Google Classroom*, *Moodle*, or even a *Facebook group*, should be a priority as it is where teachers can post asynchronous activities to scaffold the students' learning process and a notice board to inform the learners of any changes without extensive expertise in information technology. Also, it is a place for the teacher to schedule synchronous learning sessions with the students. Admittedly, apart from the traditional form of e-learning, the outbreak of COVID-19 has forced us to adapt to teaching in emergency situations. ELT classes in times of crisis are different from well-established traditional e-learning systems that have been carefully set up and maintained by technical experts. Internet-based ELT classrooms may be a simple teacher-run system during such difficult periods. Therefore, it is of paramount importance that teachers know how to initiate an online classroom from scratch by choosing a free *LMS system* and enrolling all the students or any social networking sites that can create a group for students to join to provide asynchronous scaffolding and an e-conference platform to provide synchronous scaffolding.

With an internet-based ELT classroom having been established, a teacher can then provide scaffolding by:

1. designing and adapting their scaffolding strategies based on their prior experience with their class,
2. classifying and evaluating their available resources (e.g. technical resources, educational content),
3. inquiring and adapting their teaching plan and the scaffolding strategies according to their experience in synchronous teaching sessions and formative assessment in asynchronous activities.

It is suggested that teachers constantly inquire what they know about the class, classify resources, and design educational experiences for distance teaching (Whittle et al., 2020). Some may argue that teachers usually face tremendous difficulty in providing scaffolding to students about whom they do not have prior understanding. In fact, before the first day of any course, most teachers should have already had access to the class profile, including their placement test results or student academic reports, which can provide fundamental knowledge about the class. Even if access to these profiles is impossible in crises such as wars or pandemics, scaffolding is a contingent process by nature, and thus, it is inherently accompanied by constant diagnostic processes (Smit et al., 2013). By starting the class with both implicit and explicit assessment strategies and need analysis, it is highly likely that teachers can sketch an overall picture about their students before adding more specific details to that picture through formative assessments when more learning and teaching sessions have been conducted.

It is noted that the three steps mentioned above comprise a cyclical process that teachers can conduct several tasks at once rather than follow a consecutive procedure. For example, teachers can identify the available resources to prepare for a new class according to the syllabus provided by the institution (suggestion 2) before meeting the class to assess their strengths and weaknesses, inquiring the class about their learning expectations (suggestion 3), and adapting the suitable scaffolding strategies (suggestion 1). By contrast, they can also teach the class first based on their experience if they have taught the same level of students in the same program before while also constantly assessing the learners' needs to adapt their scaffolding strategies.

Within each lesson, teachers can design their lesson plans and adapt their scaffolding strategies with the suggested tools listed in Appendix 1. Although appendix 1 provides an overview of accessible and available software and applications for teachers to acclimatize themselves with the new teaching experience, one caveat is that appendix 1 is not a one-size-fits-all solution to all types of classrooms as scaffolding strategies are contingent on both the classrooms' and learners' characteristics. Therefore, the author recommends that teachers thoroughly contemplate their teaching situations, including class size, mode of online classroom communication, learner age, linguistic proficiency, language skills being taught, and the course's orientation, before choosing their scaffolding strategies.

Teachers' Scaffolding Strategies and Different Class Sizes

Although scaffolding originally referred to one-on-one interactions, the broad social context of Vygotsky's zone of proximal development is the premise on which whole-class scaffolding is based (Smit et al., 2013). Within a whole-class environment, scaffolding is applicable because interactions between task participants still allow contingency, fading, and transferability of

responsibility to take place. Nevertheless, according to Smit et al. (2013), problems arise when teachers have to work with multiple ZPDs and teach different skills simultaneously in a classroom with many students. The answer to this question is a shift from individual ZPDs to group-ZPD, which enables teachers to adapt their scaffolding strategies by considering the whole group's interactions and performance as one united entity (Guk & Kellogg, 2007; Nathan & Kim, 2009). However, a critical question that the author raises when this article is written is whether whole-class needs, performance, and proficiency equate to those of an individual student in the same class. Even if scaffolding is operational as whole class practice, there is still concern about its ability to cater to individual needs, especially in large-size classes.

The author hereby classifies whole-class scaffolding into two sub-themes for further discussion, including small-group scaffolding and large-size class scaffolding. In terms of scaffolding small groups, van de Pol et al. (2014) suggested that teachers should implement scaffolding strategies to diagnose student understanding, create shared understanding, provide contingent support, and finally check students' learning. Teachers can use metacognitive and cognitive scaffolding strategies, such as prompting or providing diagnostic questions, to gain an overall understanding of the students' knowledge. For example, teachers may ask students to talk about what they understand about a definition or how they come up with an answer. Teachers can also implement content scaffolding in this stage by letting students talk about what they have learned in the past that contributes to their current understanding of a topic. By carefully choosing high-quality scaffolding strategies to interact with the class and assess students' levels, teachers can, to a certain extent, assess what the class can and cannot do. In an Internet-based classroom, this scaffolding practice can occur in the form of synchronous activities led by teachers as class discussions or asynchronous activities like writing comments in *tell-me-what-you-know-about-this* threads on the LMS platforms. This diagnostic stage should be followed by a stage when the teachers scaffold the class to create a mutual understanding about one topic. Within this stage, teachers can check whether their understanding of the learners' knowledge is correct. Different from other teaching contexts where teachers can use diagnostic strategies to continuously scaffold students cognitively and metacognitively (van de Pol et al., 2014) to elaborate and clarify shared understanding of a topic, language teachers have to attend to further linguistic scaffolding strategies because sometimes misunderstandings do not stem from language learners' lack of subject-matter knowledge but rather from their linguistic incompetence. Therefore, linguistic scaffolding strategies are pivotal to help students relate their prior knowledge in L1 to what they want to say in L2 through elicitation, recasting, rephrasing, and even translanguaging (Fang & Liu, 2020) until both sides reach a total agreement on mutual comprehension. After establishing mutual understanding of the group, various scaffolding strategies, ranging from cognitive scaffolding, metacognitive scaffolding, content scaffolding, linguistic scaffolding to sociocultural scaffolding, can be applied dependent upon the lesson that the teachers are teaching.

While small-group scaffolding receives more research attention, how teachers should scaffold a large size group remains virtually untouched. Among very limited research on scaffolding and class size, Wass et al. (2011) conducted a three-year study to investigate classroom aspects that scaffold students' critical thinking development. The researchers concluded that first-year students remained anonymous to the teachers in large classes and mainly relied on their peers. However, as time passed by, the sophomore and junior university students reported that verbal scaffolding through conversation with teachers could develop their ZPD in critical thinking ability in large-size classes. In contrast, a localized research article by Nasr et al. (2020) cannot conclude any differences in teacher perception about their scaffolding in different class sizes.

However, this one-shot survey-based research article merely captured what teachers thought about their implementation of scaffolding in different class sizes rather than whether these scaffolding strategies were effective or not. Due to the lack of empirical research projects, a caveat is that any assumptions that generalize the effectiveness of scaffolding in facilitating students' uptake in small-group classes into a class-size classroom context are reckless, which is also an urgent call for more in-depth research into scaffolding students in large classes in the future.

Considering the current status of available research, the author suggests that teachers should divide the large number of students in a class into smaller groups in virtual rooms where four or five students can work together. The teacher can switch back and forth between those groups and provide adequate scaffolding as they usually do in smaller groups. After dividing the class into separate smaller groups, teachers can reapply the strategies they use in small group contexts. More attention should be paid to technical, affective, and sociocultural scaffolding. Particularly, because the class may be divided into several small groups, teachers can only attend to one group at a time, during which time members of other groups solely rely on peer scaffolding. Therefore, teachers have to foster good rapport between group members and establish supportive dynamics among them to guarantee that they are willing to collaborate without constant attention from the teachers. Teachers may assign specific roles to each student so that they can report any problems back to the teachers or call for teacher scaffolding if necessary. In online classrooms, technical support should also be presented to group members by giving them an orientation session and software navigation guidance before dividing students into groups. Also, while students are working in their groups, the teacher should move around each virtual room to scaffold students technically so that they can use digital tools successful in completing their tasks (e.g. how to share *PowerPoint* slides on *Zoom* so that the group members can read an English text together, or how to write a collaborative essay on *Google Docs*). After allotting time for the group to work together, the teachers can gather them back to a whole class session to compare the groups' task outcomes and exchange knowledge. Although the division of a large-size class into smaller groups is the provisional solution relying on research on students' uptake of teachers' scaffolding in a small group, it is still important to call for more empirical research on how scaffolding strategies can be effective in large classes.

Teachers' Scaffolding Strategies in Different Modes of Online Classroom's Communication

To successfully teach and scaffold students in online ELT classrooms, teachers must be well-equipped with comprehensive knowledge of how to scaffold students on both synchronous and asynchronous platforms. Although synchronous sessions require careful organization and design, their unpredictable characteristic means that learning and teaching in such contexts are hardly foreseeable, and therefore hard to control (Kear et al., 2012). To begin with, it is evident that online conference software is not suitable for whole-class teaching with a large number of students. To illustrate, if two or more students turn on their microphones and talk at a time, the entire class will turn into deafening chaos. Therefore, teachers have to divide the class into smaller groups to do the assigned tasks to conduct a successful lesson. Once students are divided into small online groups, for example, in *Zoom breakout rooms*, other problems occur as teachers cannot observe the entire class simultaneously. Noticeably, tasks that require a heavy cognitive load may be too challenging for students to complete by themselves. Thus, during synchronous sessions, cognitive scaffolding strategies should be implemented to help students work in groups. Before letting students deal with challenging learning tasks, teachers may break down the activity into smaller chunks or demonstrate how students can complete

the activity. Then when the students are in virtual rooms with their classmates, the teacher should switch between these groups to continue supporting them to reduce the cognitive requirements that are too demanding for them to handle.

Technical scaffolding is also part and parcel of scaffolding ELT classes, particularly in online sessions. Besides providing technical manuals in the asynchronous platforms, teachers should also set up preparatory sessions for the class. Teachers can utilize both synchronous and asynchronous learning tools to equip students with adequate knowledge of how to navigate the software in advance. They should also appoint a team leader who is more digital literate or has higher technical efficacy than other students in each group. Before a synchronous meeting, teachers can give the leaders guidance on their tasks and train them to solve technical problems when the teacher is not present. After these preparatory training sessions, before the students are assigned a new task, the teacher should inform them of the technical features that they can use to complete the tasks more effectively and who is the team leader that they can turn to if the teacher is not immediately available to help them. However, teachers should set clear boundaries on what these leaders are responsible for to prevent unexpected consequences and side-effects such as over-dominance and conflicts among students. As a precaution, any synchronous sessions should be recorded if the students encounter technical or personal problems that interrupt their learning. Also, it is suggested that teachers have another standby device lest their current laptop or phone crash in the middle of the lesson. These recordings then can be uploaded on the *LMS* so that the students can watch them again if necessary. Besides, teachers should set up discussion topics on the asynchronous platform where students can report technical issues that they encounter so that teachers can support them before the next lesson.

Within the Internet-based environment, teachers can also provide linguistic and socio-cultural scaffolding strategies on both asynchronous and synchronous platforms by using authentic linguistic materials (Shrestha et al., 2021). These materials demonstrate a cultural system of behavior or linguistic semiotics passed from one person to another. These language affordances are ubiquitous on the Internet in the form of images, memes, videos with a bold quote, or jokes from English users who use English as their mother tongue or as an international language. One of the most effective ways to utilize language affordances in the classroom is by incorporating them into vocabulary or grammar lessons. For instance, linguistic semiotics can be presented in photos or clips, and students can have some time to discuss the meaning of these words in groups in some discussion threads before coming to class. Teachers can also explain or instruct the students to use online dictionaries to compare the definitions that students have identified. After students have learned new vocabulary, teachers can divide them into groups and require them to use viral memes from social networking sites to illustrate the meaning of the words. Although online linguistic affordances can help develop the learner's cultural integration and linguistic comprehension, each step of scaffolding activity should be conducted rigorously. It is suggested that teachers should provide students with appropriate photos or videos that have already been carefully chosen rather than letting students search for random images on the Internet. After each lesson, these social memes, pictures, and videos can be uploaded on asynchronous platforms for students to review their lessons in their free time.

In order to turn the teacher's support into scaffolding, there should be other formative strategies to infallibly sustain the learners' agency and autonomy. Admittedly, asynchronous learning can create considerable challenges because students must learn without contingent support from the teacher. Valencia-Vallejo et al. (2018) suggest that course syllabus, course timeline, and classroom etiquettes be introduced and discussed among class members at the beginning of a course to familiarize themselves with the learning environment as a form of socio-cultural and content scaffolding. Furthermore, although the current COVID-19 situation prevents teachers

from directly providing emotional support to students, they can incorporate some sociocultural support by developing the teacher-student rapport before and after class to offer timely solutions to common problems of the whole class. Teachers can establish open forums or online groups that can act as a community where students can share their experiences and issues. These suggestions help students keep their active roles in learning and reduce the teacher's workload. However, solely delivering guidelines and orientation at the beginning of the course in asynchronous posts seems to be insufficient and not interactive, which can reduce learner motivation in an asynchronous learning environment. Amidst other approaches supplying supplementary scaffolding materials in revision sessions between main lessons can play a significant part in providing support for students with varying degrees of needs (Martin et al., 2019). These materials should focus on the aspects that learners wish to improve. Also, they can come in various forms, from *Youtube* videos that teach pronunciation to online English standardized tests. Rather than only sending them the materials, teachers should advise on how to use these materials according to their needs.

Teachers' Scaffolding Strategies for Different Learner Ages

Besides other classroom characteristics, learner age can also affect the choice of teacher's scaffolding strategies. During the scaffolding stage, teachers should pay close attention to some unique characteristics of young children that are uncommon among adult learners. According to Jean Piaget's theory of cognitive development, young learners often construct knowledge from engaging in and exploring their immediate learning environment (Piaget, 1970). As youngsters often have a short attention span, compared to adult learners, they can only concentrate totally within approximately ten minutes before they are distracted and get bored (Harmer, 2007). Short attention span is related to the children's cognitive functions; therefore, teachers can utilize cognitive support strategies to help their students. Grossman et al. (2014) assert that scaffolding aiming at cognition is of foremost importance while using English for teaching. One of the techniques is modeling, by which teachers can vividly demonstrate the tasks and their implementation. Salazar and Larenas (2018), who support modeling for pre-school EFL learners with audio-visual-based materials, state that as young learners tend to imitate their teachers, modeling can help students perform the tasks better. Teachers can also use enhanced input by adding colorful visual aids to their lessons, which involves imagination and creativity, according to Nunan (2010), to scaffold learners' linguistic development and enhance their interest. Assisted by providing visual content during the scaffolding process, young students can respond and focus better. According to Salazar and Larenas (2018), preschoolers in EFL class understand better if teachers present brightly decorated lessons and show videos or games before giving them spoken instructions. Kayumova and Sadykova (2019), similarly, contend that young ELF learners can significantly benefit from visual and audio presentations to keep students stay focused in online classes. Another way to support young students cognitively is to create critical tasks for them. Critical marking task features can also be supportive of young learners' cognitive development. For small children who mostly cannot deal with complicated questions such as negotiation or debate, teachers can provide hints for them to find solutions to a specific simple-outcome task. It is congruent with Riwayatningsih et al. (2021)'s study with EFL classrooms of fifth-grade students, where teachers employed tasks to encourage students to think of solutions. The teachers can help students with language or direct them to the right path to responses. Also, the activities can be divided into smaller parts and gradually become more sophisticated in response to students' familiarity with task performance.

Furthermore, in terms of social-cultural scaffolding strategies, Riwayatningsih et al. (2021) also agreed that by varying interaction patterns, from individual to group work, teachers can facilitate students' learning by allowing them to discuss with their peers. Kayumova and

Sadykova (2019) agree that whole-class interactive activities can also draw young learners' attention and motivate them to learn in a playful online environment when students can implement some sociocultural scaffolding exercises to help expand their knowledge of the social cultures as well as online etiquette. Finally, in terms of affective support, as young students are encouraged to learn by engaging in interactive activities like games, teachers can use pre-task support activities to draw students' attention and motivate them to learn. The effects of online game-based activities on students' motivation to learn have been proven in the research of Abdulhussein and Alimardani (2021), in which both students' motivation and vocabulary can be expanded thanks to story-based online video games. Also, the use of interactive games during the lessons is useful. As suggested by Yunus and Hua (2021), Quizziz is an example of an interactive program that can boost students' motivation, concentration, interaction with the lessons, and knowledge of grammar features.

While scaffolding is paramount during a child's cognitive and linguistic development at early ages, teachers ought to also pay constant attention to the fading nature of scaffolding young learners. According to a study that Murphy and Messer (2000) conducted with 122 children aged five to seven, scaffolding can be helpful for implicit acquisition of knowledge and skills. However, teachers should reduce and withhold their scaffolding when the young learners get into the stage of abstraction nonverbal level, at which children begin to work more effectively on their own to generalize and transfer knowledge. That is, as students stop receiving scaffolding at this stage, the experience of working alone consolidates the abilities to deal with certain tasks that they have gained prior knowledge from their teachers, thus allowing them to focus more on the general cognitive representations and utilize the knowledge that they learned to solve similar tasks in the future.

On the other hand, adult learners are radically different from children in many aspects because they are more internally motivated, experienced, responsible, and problem solving-oriented (Knowles et al., 2020). Adult learners generally have better critical reasoning and social knowledge, as they have more experience in problem-solving (Ransdell, 2010), so teachers can provide them with metacognitive and cognitive scaffolding to pique their interests. In addition, teachers can use critical debates or negotiation tasks for students to interact and employ their knowledge and experience, as student-oriented learning activities can enhance their motivation and enthusiasm (Gorges & Kandler, 2012). Secondly, as many adult learners are disciplined and studious (Yoo & Huang, 2013), teachers can provide them encouraging comments for their homework before or after the online sessions or give them recognition for their diligent efforts. By selectively using metacognitive, cognitive, social-cultural, linguistic, and affective scaffolding strategies, teachers can help older learners narrow the gap between them and other young students.

However, when turning to online platforms, teachers can encounter numerous difficulties with adult learners, such as the lack of technical language. Thus, the first strategy that should be employed is technology-related linguistic support. As lessons for adult learners can be more complex, teachers should provide linguistic scaffolding with technical terms, for example, the language used on online conference platforms such as breakout rooms, waiting rooms, passwords, and code, especially for those who do not have first-hand experience with such technology. Old-aged learners usually find it hard to keep pace with up-to-date and constantly changing multimedia applications of online courses (Pham et al., 2021). In case older students are easily distracted in the class because they are not familiar with technology, teachers can also provide them with further practice by using learning tools more at home through asynchronous tutorials with Q&A sessions. Yoo and Huang (2013) report that adult learners have higher academic achievement and motivation when provided with technology-related instructions in an encouraging manner.

Apart from technical support, teachers should also provide affective scaffolding for adult learners. Older learners are supposed to encounter more difficulties when learning a second language compared to youngsters. In some specific cultures, Shumin (2002) argues that old students try their best to avoid making mistakes due to the fear of being judged by others and losing their faces. In order to create the most comfortable environment for adult learners, especially during online classes, teachers should not force them to do activities that increase their self-doubt or emotional vulnerability. For example, teachers should not ask them to turn on webcams or microphones when their linguistic abilities are inadequate or when they explicitly make excuses not to join a discussion. Social-cultural scaffolding, such as small talks or other pre-task activities, can also be helpful to motivate adult learners. According to Shumin (2002), talking about daily issues can connect people because adult learners can express themselves and boost their sense of community. Despite the discipline and self-motivation to overcome the boredom of learning (Harmer, 2007), adult learners are usually responsible for many tasks besides their academic duty. Family obligations, for example, are one of the sources of distraction that students usually face when learning online (Yates et al., 2021). Working and studying can make students suffer from fatigue, and teachers should not judge them when they are distracted in the class (Cozma, 2015). In those cases, teachers can sympathize and provide support for students to continue learning effectively. For example, when content scaffolding strategies are necessary, teachers can provide students with summaries of the lessons, mind maps, and recordings to help them learn later (Biwer et al., 2021).

Teachers' Scaffolding Strategies for Different Linguistic Proficiencies

For scaffolding to be successfully conducted in an ELT classroom, teachers also need an in-depth understanding of the learners' linguistic backgrounds, strengths, and weaknesses. Fenner and Snyder (2017) suggest that teachers should have a general repertoire of scaffolding strategies for learners of all levels. Besides the fundamental strategies mentioned above, they also recommend specific strategies to scaffold students at the beginning and intermediate levels. For beginners, teachers can give them materials and instructions both in their mother tongue and the target language, which reduces the linguistic loads so that students can comprehend the lesson more easily. Teachers are advised to also use *sentence frames* or *fill-in-the-blanks* exercises to help students answer reading comprehension questions in the lesson. Regarding intermediate learners, teachers can continue translanguaging for unfamiliar topics or complicated tasks while allowing linguistic scaffolding to fade gradually in familiar and simple-outcome tasks. At this point, *sentence frame* exercises become *sentence stems* in which students have to put more effort into providing the endings for each question or statement. They also suggest keeping *word walls* and *word banks* for the students to develop their lexical resources. In contrast, for advanced learners, teachers can combine the strategies eclectically depending on each learning context.

Admittedly, the strategies provided in Fenner and Snyder (2007) are still in the form of experiential suggestions rather than based on the theory of language acquisition and language teaching. In real teaching situations, choosing the right scaffolding strategies are more challenging as scaffolding different students in the same classroom must be both differential and universal. Although the learner may have the same level of proficiency, they may vary significantly in learner characteristics, strengths, weaknesses, preferred learning styles, or learning strategies. Therefore, teachers have to understand both individual characteristics and language acquisition theory to provide appropriate scaffolding. Besides, based on the cognitive capacity theory, learner acquisition of English should first start with fluency or complexity enhancement before moving on to accuracy enhancement (Ellis, 2015). These scaffolding strategies can begin as activities that allow students to experiment with the new target language,

such as enhancing input and guided discovery. Feedback and comments should be delayed after the students have finished their speech in order not to interrupt their fluency and flow of ideas. As learners' proficiency improves, teachers can enhance the difficulty level of the tasks and further scaffold language accuracy. Focus-on-form activities, accompanied by corrective feedback, reflection, and discussion on grammar points and vocabulary items, can come in handy for teachers who want to build up learners' accuracy (Lightbown & Spada, 1990).

In a mixed-level class where students have different language proficiency levels, teachers can pair the more experienced students with their less-experienced counterparts (Bekiryazıcı, 2015). This group pattern will allow peer scaffolding to take place as the more competent students can support the underperforming peers. While students are working together in mixed-level groups, teachers should provide the class with social scaffolding to ensure that students know how to work cooperatively and assign the work appropriately according to each student's ability. Without teachers' sociocultural scaffolding, conflicts may occur when the advanced student dominates the whole group or when the less competent learners feel depressed and disheartened.

Scaffolding Different Language Skills

Although scaffolding strategies are effective in developing learners' both receptive and productive skills (Ahmadi Safa & Rozati, 2017; Arfaei Zarandi & Rahbar, 2016; Clark & Graves, 2005; Rababah & Almwajeh, 2018), the nature of teaching and learning online as a resource-based environment requires further modifications and adaptations to teachers' scaffolding strategies repertoire to enhance learners' academic performance. Teaching receptive skills, such as reading and listening, in online classes, teachers have an advantage over an offline class to provide students with more diverse support tasks which fit the learners' multisensory learning strategies. For example, teachers can provide visual cues such as pictures or short video clips to support learner comprehension of reading or listening to text. According to Afitska (2016), the lack of visually presented support can put more pressure on students' cognitive load. Thus, instead of merely giving a reading or a listening task to complete, teachers can give them more visual support through available resources, such as *YouTube* or *Google Photos*, to scaffold them cognitively. Noticeably, these multimedia-based supports can incorporate authentic materials as a form of sociocultural, affective, and content scaffolding. These authentic materials can also provide learners with a real-life understanding of the target language's culture and engage them actively in the authentic language rather than course-book readily made content.

To further facilitate learners' linguistic development, teachers can also provide enhanced input in the reading texts or the listening tasks to guide the student through the self-discovery process and acquire linguistic input from the text. Also, if the textual content of the listening or reading texts permits, teachers should also conduct opportunistic teaching practices that focus on forms so that students can acquire new lexical items and grammar points from what they read or listen to. Receptive tasks may vary in level of difficulty and support requirement; therefore, teachers should choose suitable linguistic tasks for the group-ZPD such as collaborative gap-filling or chart filling-tasks. As students try to answer questions in listening and reading exercises, teachers can ask them to clarify and justify what they say or explain why their classmates choose a specific answer option through *What-do-you-think-he/she-was-thinking* activity (Leong et al., 2019) as a strategy to scaffold learners' cognitive and metacognitive development. These activities should take place in the classroom as a reflection-in-action activity and after class as a reflection-on-action practice to help learners acquire critical reasoning about their cognitive process (Anderson, 2020).

As online language classrooms usually face more challenges in terms of interactivity between learners and teachers, teachers' scaffolding strategies are of utmost importance to stimulate more communication in the classroom that helps learners develop their productive skills. Speaking in front of a computer screen to a microphone provides students with a distinctive experience from what they usually feel in a face-to-face classroom. For example, while many teachers usually ask the students to turn on their webcams while speaking to the microphone, students have many concerns, including shyness, fear of exposing personal space, or other people's interference in the background (Gherheş et al., 2021). Additionally, the feeling of typing an essay on the computer may be different from writing it on a piece of paper. Therefore, foremost among all scaffolding strategies are socio-cultural and affective scaffolding. Teachers should arrange consulting sessions to listen to the students' emotional issues and support them emotionally through encouragement and a reward system. Besides, it is essential to establish online learning etiquette and culture to minimize the threat of losing face or the fear of privacy violation among the students. To encourage students to talk and write more in online classrooms, teachers can also provide them with content scaffolding through modeling or drawing a whole-class mind map before letting the students practice speaking in pairs or groups. More interactive scaffolding can be provided in asynchronous platforms when teachers record their feedback or ask students to discuss with their friends about their writing online. In an asynchronous platform, teachers can also assign joint writing or joint speaking exercises for students to cooperate to write or present different parts of a task. According to Limbu and Markauskaite (2015), students believe that the asynchronous online collaborative writing environment by teachers is a scaffolded and interactively guided space where they can combine expertise to produce good task outcomes and acquire a deeper understanding of content, develop new teamwork skills, and collaboration. Therefore, it is concluded that collaborative, productive tasks can provide linguistic, content, and social-cultural scaffolding.

Regarding feeding-back for a productive task, linguistic scaffolding should prioritize the development of learner fluency and complexity at lower levels (Ellis, 2015). Therefore, teachers may consider delaying feedback by sending comments in asynchronous platforms instead of interrupting while the students are writing or giving their presentation in synchronous learning sessions. Furthermore, when feedback and comments are posted on asynchronous platforms, students will have more time to contemplate their performance in the synchronous sessions so that they can 'learn from their productive failure' (Kapur, 2015, p. 51). Within these asynchronous feedback exchange, teachers can also encourage the students to provide each other feedback as a form of peer scaffolding, which in turn enhance students' self-organization, interdependence, and independence in learning (Giri, 2018).

Scaffolding Interactivity and Communication in Exam-Oriented Classes

Despite the widespread implementation of communicative language teaching over the past few decades (Butler, 2011), exam-oriented classrooms are still prevalent among many EFL classrooms, particularly in Asian countries (Hill, 2010). In a high-stakes exam context, the ultimate objective is for students to pass an exam with high marks. The content of such a course focuses mainly on grammar and drill practice so that students can familiarize themselves with the format of the test. This teaching-for-testing approach to learning English can significantly reduce the levels of classroom interaction and communication. Therefore, teachers must utilize scaffolding strategies that will enhance the interaction and communication of the learners. In this section, the author attempts to illustrate how teachers can transform the characteristics of an exam-oriented culture, which frequently trains students to cope with tests, into an interactive and communicative classroom that can counterbalance the pressure of high-stakes exams' preparation. To begin with, in order to provide learners with cognitive and metacognitive

support interactively, the teacher can direct students to discuss in online groups and help them identify some typical exam traps instead of letting them listen passively to the teacher's explanation. Regarding those who are new to the exam format, teachers should provide them with a set of prompting questions and the mapping of exam features or mark the critical features of the exams to guide learners through the process of identifying test traps. Once the students have finished, teachers can summarize the proposed solutions that they have discussed with their students and help them practice using these suggestions.

For linguistic scaffolding, teachers can reuse the topic of a mock test to teach students related vocabulary in speaking sessions. Rather than simply assigning speaking topics from the mock test, they can require students to complete projects or give presentations to boost communication and teamwork. Teachers, in particular, can demonstrate how students can apply what they have learned in real-life situations. For example, during the role-play section, teachers can create specific and realistic contexts where students must use English as their means of communication. During and after the role-play task, teachers should give real-time and goal-directed feedback, and they should be able to intervene when necessary. To create good outcomes, teachers who use role-play should help students establish attainable goals and provide feedback that allows for skill development and enhances self-awareness (Jackson & Back, 2011).

Lastly, teachers should use mock tests to cater to the students' affective needs. One example is that teachers can deliver mock tests to train students on time management or give them a clear picture of the obstacles they may face in the exam room. In order to reduce the students' anxiety during exam preparation, teachers may occasionally administer mock tests with topics closely related to the students' interests, experience, career, study, or background knowledge. For less competent learners, teachers can also assign friends to assist them to acclimatize to the test for a few sessions before they are familiar enough with the test to complete it by themselves. In sum, although teaching for an exam has an inextricable relationship with many EFL training systems, the teachers' role in scaffolding social interactivity and communication development is undeniable.

Scaffolding Students of Different Levels of Digital Literacy

Some of the most common complaints that the author, also a teacher in an internet-based ELT program, usually encounters are about losing connection or not being able to access the platform. The lack of technical training for the students due to the abrupt shift from the traditional teaching model may result in the inability to exploit the technical resources. Mahyoob (2020) describes that EFL learners in remote towns of Saudi Arabia reported their incompetency in using online applications such as *Google Classrooms* or *Microsoft Teams*. Akhter (2020) reports that during COVID-19 online sessions, many students do not have devices for regular practice, so they must seek support from teachers or school IT centers.

Thus, teachers need to offer possible technical scaffolding to encourage their students to learn. Akhter (2020) also suggests technical scaffolding as a viable and imminent solution. This recommendation is in line with Mahyoob (2020) and Dashtestani and Hojatpanah (2020), who suggest that schools and teachers can give prior training and technical support sessions for using applications. Students who have little experience with computers, therefore, can have basic knowledge of techniques they can use in class. Also, teachers can model the techniques on those online tools for students to follow, as visual cues are easily memorized (Neumann, 2020). Akhter (2020) also claims that technical assistance for online classes should be prepared in advance in future online courses, equipping students beforehand when they enter the classes according to the courses' particular requirements. Mahyoob (2020) claims that they can be unconfident and uncomfortable with using technology at first, but gradually they can overcome

the problems. To further technically scaffold the students who are not confident with their computer skills, teachers may create a checklist for the students to know all the technical steps they should follow to guarantee a successful and uninterrupted learning experience. During the synchronous session, teachers can provide technical scaffolding via a phone or another social platform by asking questions like: "Have you checked the URL?" or "Why don't you try to reset your computer?" if any technical problems come up.

Teachers can also group competent computer users and less competent ones together in order to facilitate peer technical scaffolding. Before the lesson begins, teachers can ask their students to write digital literacy can-do statements. Nikolov (2016) agrees that can-do statements can be beneficial for teachers to estimate their students' computer efficacy. Also, it is suggested that teachers call for willingness from students to support their friends in terms of technicality. For example, teachers can publicly poll the whole class to find computer-competent students who volunteer to help their friends. In some cases, some shy students do not want to admit their computer incompetence for fear of losing face. To tackle this issue, Akcaoglu and Lee (2016) suggest that teachers first allow students to work in small groups, which in turn enhances their social presence, comfort, and interaction. For example, in online discussions, students can talk to their friends easier than in large classes where they have to talk directly to the teacher. When a student does not know how to use a specific tool, other students with prior experience with online learning can help their friends overcome technical issues. After a session, technical scaffolding can be conducted in the form of a class discussion on *Google Classroom* or the class *Facebook group* where students can share their technical problems and receive support from their teachers and peers.

Touching on Other Concerns about Scaffolding Strategies in Internet-based ELT Classrooms

Research has proved that the positive impact of online teaching and learning is more significant if the learning process is instructor-led and collaborative (Means et al., 2012), which indicates the significant role of teachers' scaffolding strategies. Nonetheless, there are still many concerns from students, parents, educators, and administrators. Parents in the survey by Misirli and Ergulec (2021) worried that their children might have poor technical skills, communication, motivation, concentration, testing, and evaluation. Also, the parents had concerns about the balance between live learning sessions and offline activities. Some academic staff also reported their lack of trust in remote teaching and learning effectiveness since students did not actively engage (Schlesselman, 2020). To help teachers implement scaffolding strategies effectively, the following section elaborates on aspects regarding preparation, dealing with technical issues, fostering conversations, and other factors that may negatively impact the scaffolding process.

Teacher Training and Preparation

Under time constraints, teachers need time to get used to the new teaching experience and design the learning content (Khlaif et al., 2021). However, it is worth noting that teachers have no choice but to accept the unexpected nature of crises and emergencies. School administrators should set up training sessions for teachers regarding how to apply the readily available ICT tools to support their teaching practice. Teachers should also receive training about adjusting their online scaffolding strategies according to the student's individual characteristics. As the classroom content and scaffolding strategies on both synchronous and asynchronous teaching platforms consider individualism, they can engage and motivate the students to learn more effectively (Grant & Courtoreille, 2007). Also, the school management should keep records regarding the teachers' initiatives, their invaluable experience, and online lesson plans for

future training and implementation of online classes. It is advisable that the teacher training programs should provide them with strategies to scaffold students' cyberculture and internet etiquette in addition to adequate tools for internet-based classrooms.

The Importance of Institutional Support

Although the author has mentioned that teachers need to provide students with technical scaffolding in Internet-based ELT lessons, institution administrators must bear in mind that teachers are not certified technical specialists. In fact, institutional support is a decisive factor in how willing teachers are to use technology with students (Clausen, 2007). Therefore, although this article investigates how teachers apply scaffolding strategies in Internet-based ELT classes, the author would like to underscore here the role of institutions. Teachers and students should have the contact of the technicians or technical experts of the schools so that they can seek professional support. School management should also impose regulations and codes of ethics for teachers and students to follow in the online community to maintain harmonious relationships in the online classrooms. In the long run, administrators should also provide professional consultant service to scaffold students socially, culturally, and affectively in this novel learning context.

Interactions, Conversations, and Discussions Beyond Barriers

One concern about online teaching is the decrease in interactions, conversations, and discussions between students (Schlesselman, 2020). However, it is not the technology that creates this hindrance but rather the lack of familiarity with online pedagogical tools. Teachers can consult the strategies and corresponding tools suggested in Appendix 1 to guarantee an interaction-based teaching and learning context so that conversations and discussions can be scaffolded through the application of sociocultural scaffolding strategies. *Zoom's breakout room* is a practical solution to create a private group discussion time within a live lesson. Furthermore, the interaction between teachers and students should not be restricted to the synchronous learning section. Teachers and students can share their perspectives in the form of a video clip or discussion thread uploaded on the classroom platform. Teachers can also invite parents to join these learning discussions to keep track of their children's academic journals. There are also many virtual reality applications, such as Second Life, that create a simulated community online in which each student can transform into a virtual character. Research has shown that as students and teachers interact in these virtual reality classrooms, communication will be more authentic, and therefore, teachers can encourage students to interact more in the classroom (Aydin, 2013; Balcikanli, 2012).

Other Factors That Hinder Learning

Although e-learning can take place anywhere, teachers should consider other factors that can hinder students' participation in the classroom and provide appropriate scaffolding. Students' problems can range from distractions from the surrounding environment, their family members, noise to medical issues such as near-sightedness (Chin et al., 2016; Peper et al., 2021). Because it is impossible for teachers to know what is happening at the learners' place, teachers should combine different scaffolding strategies into their teaching. Deadline, testing, and assessment should be conducted formatively as a negotiable part of learning to prepare for their future education (Khan, 2006). In an ELT class, the students' limited linguistic ability may also hinder them from talking about their issues. It is, therefore, suggested that teachers allow students to switch to their L1 if necessary to guarantee the success of the scaffolding process (Bhooth et al., 2014).

Conclusion

After explaining the context necessitating internet-based ELT classrooms, the article has provided the definition and classification scaffolding types in online classes. The article has also presented tools and recommendations for teachers to scaffold students in an online ELT class, having discussed viewpoints on three communication modalities in online classrooms, including synchronous, asynchronous, and hybrid. In internet-based ELT classes, teachers should use both ICT and non-ICT scaffolding techniques, which can provide a series of interrelated content, technical, conceptual, metacognitive, procedural, and strategic support. Scaffolding in online classrooms should be flexible, interactive, and engaging rather than solely relying on advanced technology.

The author has also discussed how to provide both differential and universal scaffolding in different contexts. Despite originating from one-on-one scaffolding, most contemporary studies have proven that small-group scaffolding is inevitable in language classes. For large-size classes, teachers should divide them into smaller groups and investigate the group-ZPDs to provide appropriate scaffolding according to learners' mutual understanding of the shared tasks. Also, the hybrid model of teaching and learning, which consists of both synchronous and asynchronous sessions, is more effective in providing differential scaffolding. Besides, while young learners need to receive adequate scaffolding at certain stages to help them reduce the cognitive load, teachers should sometimes withdraw their scaffolding when students enter the abstraction generalization stage to utilize their knowledge for other tasks in the future. On the other hand, although adult learners are more cognitively developed, they should receive technical and social support to help them acclimatize to unfamiliar learning contexts. While scaffolding students of different language competencies, teachers should focus on scaffolding their linguistic fluency or complexity before moving on to accuracy. In mixed-level classes, pairing advanced learners with less advanced students is one solution to encourage peer scaffolding, although teachers should scaffold the class socially and culturally lest interpersonal conflicts occur. In exam-oriented classes, besides other scaffolding strategies, teachers should provide students with more affective support to curb their academic and exam pressure. Linguistic scaffolding for this class should also focus on enhancing students' interaction and communication, which is usually ignored in exam-based lessons. Additionally, teachers have to remember that when working online, technical scaffolding should always be provided in case the students are not familiar with new technology.

The article has also addressed concerns when incorporating scaffolding in online classes and pedagogical implications for fostering student language learning through scaffolding in internet-based ELT classes. The abrupt shift from face-to-face to online ELT classes has created many challenges for teachers, students, and administrators due to the depletion of resources, especially in developing countries. Besides the unfamiliarity of teachers and students with online ELT classes, the depletion of teaching and learning resources may result in problems related to the technical infrastructure, teaching materials, assessment and curriculum, and institutional policy. First, teachers should incorporate the ready-made resources and applications available on the Internet to provide scaffolding strategies that fully exploit the internet-based ELT class's flexible and mobile nature. It is also important to note that learning and teaching in under-resourced contexts should consist of negotiable sectors, from deadlines to exams. Instead of solely relying on formal and summative assessments that are highly subjective technical failures, teachers in developing countries should opt for formative assessment through projects, tasks, presentations, portfolios, and learning journals to assess students more effectively. Teachers can also use online authentic linguistic resources available

on social networking sites as learning affordances to supplement the limited teaching materials. Communication in online classes should be both synchronous and asynchronous so that students who have to be absent from class may review the lesson independently. Technical and peer scaffolding in both L1 and L2 should assist students throughout their learning process. School administrators should initiate a system of teaching records so that teachers can review and reuse them in the future as a part of their professional training. Finally, institutional policy should give teachers more agency so that they can flexibly adapt their teaching content, curriculum, testing and assessment approaches, the ratio of synchronous and asynchronous sessions within a course to scaffold students based on their real-time teaching and learning context in Internet-based ELT classes.

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Appendix

Appendix 1. Some Commonly Found Software and Applications for the Delivery of Scaffolding Strategies in Internet-based ELT Classes (*)

Scaffolding strategies	Mode	ICT tools	Examples
Feeding-back, Modelling, Providing argumentative template, exchange information and experience, group discussion	asynchronous	email, social networking sites' private groups (e.g. Facebook, Twitter), Google Classroom	Teachers send feedback, model texts, model presentation (audio, video, text), or other materials to students' email or post the scaffolding materials to a virtual "wall" provided by the platform. Then, it is of paramount importance that they should ask students to practice at home and report any problems or good applications that they encounter back to an online experience-sharing forum, which may enhance the interactivity of scaffolding strategies in asynchronous sessions.
	synchronous	Zoom's breakout room, Skype, Google meet, Microsoft Team, and other online conference applications	Teachers divide and allocate students into virtual rooms in an allocated amount of time. These rooms allow teachers to provide scaffolding for smaller groups of students according to their group-ZPD rather than trying to scaffold them as a large-size class. This breakout room is also a place for peer technical and content scaffolding as the students share their mutual knowledge. Teachers can switch back and forth between the groups to provide support, feedback, and model how to do the task. These groups are also more effective for teachers to observe the learners' uptake of teachers' scaffolding to guarantee the effectiveness of their strategies (van de Pol et al., 2014).
Enhanced input, marking critical task features, collaborative writing	asynchronous + synchronous	Zoom screen-sharing function, whiteboard, annotation, Google Drive, Google Docs's collaborator invitation, Microsoft Office's share-to-cloud mode, Microsoft Sway for online presentation	Teachers can share their monitor screen with students or create an online file that allows students to connect and edit via the Net. When working with the text, teachers can use formatting tools embedded in the application to underline, bold, highlight text as textual enhancement scaffolding strategies.
Modeling think-aloud processes, problematizing problems and finding solutions	synchronous	Zoom's whiteboard, Microsoft sway, Microsoft Office, Online Whiteboard, real-time online mind-mapping platforms (e.g. Miro, Mindmeiser)	While connecting with the students through a conferencing platform like Zoom, Microsoft Team, or Google Meets, teachers can broadcast their whiteboard or

			mind maps created on other free mind-mapping applications and demonstrate the modeling process. Teachers can also ask students to contribute to the mind maps by sharing permission to edit them in real-time.
	asynchronous	Mind-mapping application (e.g. Miro, Mindmeister) video, screen capture (screen recorder) YouTube, Google classroom, Groups on social networking sites	As in the synchronous mode of e-learning, teachers can create mind maps, record the screen to demonstrate the thinking process, and upload the video on sites working as a discussion forum for students.
Increasing students exposure to target language (linguistic flooding), strategies to increase cultural integration	synchronous	Video conferencing platforms (e.g. Skype, Google Meets, Zoom, Paltalk) with native speakers of English Live streaming conversations on Facebook, YouTube AI-based interlocutor	Video conferencing platforms can connect people from different locations in the world. By inviting students, especially in a multicultural class, to talk about their home cultures, teachers can both scaffold the learner linguistics and learner sociocultural competence. These students can also play the role of “more competent task participants” in investigating the diversity of cultures. Students can also interact with AI-based chatbots like, Google, Siri, or other language training chatbots to enhance their exposure to the target language.
	asynchronous	Authentic sources of the target language (e.g. Wikipedia, YouTube, social networking sites) Online cloud storage (e.g. Google drive, Dropbox, Mediafire) free websites for news and culture (National Geographic, BBC, CNN)	Authentic materials are abundant on the Internet. By attaching URLs or uploading materials onto the cloud storage, teachers can give students more access to the authentic target language sources.
Using reward system	Synchronous + asynchronous	Verbally rewarding students’ uptake of knowledge after giving constructive feedback for student performance on Google Quiz (employed in Google Classroom and Google Form) Virtual gifts (digital icons, reward tags, free e-books)	After students finish their exercises on Google Quiz, teachers can choose the option to give written feedback to the e-quiz. They can also mark and release scores on Google classroom or via emails. It is important that these comments are provided contingently according to students’ efforts rather than just on their task outcomes. Also, teachers should take notice of the learners’ uptake of teachers’ feedback. If learners try to apply teacher suggestions to their next activities, reward them virtually in synchronous sessions. Suppose they fail to take up the teachers’ comments, model how they should apply them in their tasks. Virtual

Building rapport and teamwork spirit	Synchronous	<p>Online team quiz games (Kahoot, Quizlet)</p> <p>Designing Augmented Reality stories together (Aurasma, HP reveal)</p> <p>Second life augmented reality</p>	<p>gifts can accompany constructive feedback according to the students' preference.</p> <p>By conducting task-based and project-based activities together (e.g. using Aurasma or HP reveal to create an infographic), teachers can scaffold students socially. Also, these tools enhance the feeling of authenticity in students' communications (Balcikanli, 2012). As lockdowns and shutdowns prevent the students from face-to-face interactions, these tools create a virtual and augmented reality that can help students, through their virtual character, connect and socialize in a simulated digital community that resembles real-life to build up their social rapport. Teachers can also create their own character in that society and provide emotional support for students.</p>
	Asynchronous	<p>Project management platforms (Trello, Basecamp)</p> <p>Online voting system (Google forms, or Vote feature of Facebook Messenger, Breakout room's <i>raise hand</i> function)</p>	<p>Teachers can create a Google form for students to vote for the best team as an asynchronous activity. Teachers can also allow them to use vote features in Facebook messenger or Zoom in a synchronous session.</p> <p>Also, teachers can allow students to play games in team online with Kahoot or Quizlet.</p>

() This appendix includes suggestions from the author's personal experience about common tools that are easily accessible to teachers on the Internet. This appendix is not intended to be exhaustive.*

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