



Participatory Educational Research (PER)  
Vol.10(1), pp. 1-16, January 2023  
Available online at <http://www.perjournal.com>  
ISSN: 2148-6123  
<http://dx.doi.org/10.17275/per.23.1.10.1>

Id: 1120688

## Effects of Using the Staged Self-Directed Learning Model at Distance English Learning

Erdoğan Doğru\*

*The School of Foreign Languages, Bolu Abant İzzet Baysal University, Bolu, Türkiye*  
ORCID: 0000-0002-0804-1857

Raşit Özen

*The Department of Educational Sciences, Bolu Abant İzzet Baysal University, Bolu, Türkiye*  
ORCID: 0000-0001-6918-9348

---

### Article history

**Received:**  
24.05.2022

**Received in revised form:**  
20.07.2022

**Accepted:**  
14.10.2022

### Key words:

Self-directed learning; distance education; English as a foreign language; attitude toward English; attitude toward distance education

This research aimed to investigate the effects of giving learners self-directed learning (SDL) instruction based on the Staged Self-Directed Learning Model (SSDLM) during distance English learning on their SDL readiness, achievement, attitudes toward English course and distance education. The study sample consisted of one hundred forty-six freshmen enrolled in two different departments at the Faculty of Education in Bolu Abant İzzet Baysal University in Türkiye in 2017/2018 Academic Year. All the participants took part in a twelve-week quasi-experimental study with pre-test and post-test. The English course program was common to both groups, but the SDL instruction program prepared according to the principles of SSDLM was unique to the experimental group only. The research data were collected using the Self-Directed Learning Readiness Scale, Attitude toward English Courses Scale, Attitude toward Distance Education Scale, and Achievement Test developed specifically for this English course. The obtained data were analyzed through the independent samples t-tests with bootstrap technique. The findings revealed no observable difference in SDL readiness scores between the groups. It may be because changing the way people learn requires longer time. However, remarkable differences in some other variables were observed in favor of the experimental group. These variables were attitude toward learning, importance of English and attitude toward distance education. These findings can be evaluated as the indication of some developments on the brink. All the findings were discussed in detail with this in mind and, suggestions were made accordingly.

---

### Introduction

Great changes in the field of education pursue great changes in the conditions and requirements of real life. Currently, the most required human type can be claimed to be a self-directed learner, who feels responsible for her/his learning and moves in that direction. This

---

\* Correspondency: [dogru\\_e@ibu.edu.tr](mailto:dogru_e@ibu.edu.tr)

claim can be verified from various aspects. As well-known from the history of educational psychology, a human is viewed as passive object by behaviorist approaches, mentally active subject by cognitive approaches, and a whole person by humanist approaches to learning (Schultz and Schultz, 2015). Educational literature, on the other hand, has emphasized humans with all individual characteristics for many decades in line with this final view. This emphasis can be accepted as the emphasis on self-directed learning (SDL) because SDL is an umbrella term that is formed from the combination of many individual characteristics such as curiosity, interest, enjoyment (Tough, 1971), motivation (Garrison, 1997), learning strategies (Knowles, 1975), previous education (Hiemstra and Brockett, 2012) and many others. Similarly, globally essential institutions such as OECD (Organization for Economic Co-Operation and Development), UNESCO (United Nations Educational, Scientific and Cultural Organization), and European Commission have formed different frameworks for 21<sup>st</sup>-century competencies, all of which emphasize learning to learn, lifelong learning and SDL in addition to various important individual characteristics (cf. Malone and Waite, 2016; Voogt and Roblin, 2012). The final shot has been taken by COVID-19 for even ordinary people to comprehend the importance of self-learning while making distance education the dominant delivery mode of instruction everywhere in the world.

In fact, distance education had already been on the rise before the pandemic. The rising trend resulted from the developments in the field of communication and information technologies was so rapid at the beginning of this age (Hiemstra, 2003) that it seemed distance education was about to take dominance. It may have several underlying reasons, but Moore (1987) attributes the rising trend of distance education entirely to the discovery of SDL. Dabbagh and Kitsantas (2012) hold a similar view that SDL is an ideal learning model for distance education in which learners are expected to direct their own learning processes. Research indicates that learners have control and responsibility for their academic development in distance education (You and Kang, 2014), and distance learners should find their way on their own (Lee, Choi, and Cho, 2019). Research also indicates that distance education helps the learners to be autonomous and search for knowledge in a self-directed way (Siemens, 2008), provides a suitable environment for constructivist learning principles (Tam, 2000), has the capacity to combine formal education and informal learning (Carr, Balasubramanian, Atieno and Onyango, 2018) and is related to lifelong learning (Boekaerts, 1999).

### ***Web-Based Distance Education***

Distance education, which is done through the internet, is quite important because internet is not only a medium for distant classes, but it also serves numerous resources for accessing to information on any field. It is known that internet is the most widely used tool in accessing to information in today's world. Internet, as the medium of web-based distance education, is also claimed to support SDL by providing learners with opportunities such as increasing learner control and access to knowledge (Bulik and Honor, 2000), making learning activities possible even at peak times of the day, enabling the learner to learn on her/his own pace, monitoring personal developments, evaluating the learning outcomes (Draves, 2002) and enabling even the rural people to compensate their disadvantages (Hiemstra, 2006). Individuals can learn anything by means of tools on the internet such as Google and YouTube (Boles, 2014) and use the internet for lifelong learning (Kind and Evans, 2015).

It is seen that web-based distance education serves opportunities for learning success. However, it can be stated that the individual should feel responsible for his/her own learning and do the necessary activities to learn for the success of learning activities on the internet. An individual



who has these qualities can be defined as self-directed learner. In fact, self-directed learners are known to exploit the opportunities on the internet. A recent study (Bonk and Lee, 2017) shows that self-directed learners can make learning activities on every field such as personal development, curiosity, professional development, personal interest, science, environment, history, health, universe, culture, foreign language and so on. A self-directed learner will probably do his/her best on web-based distance education. As a result, it can be concluded that SDL and web-based distance education match each other reciprocally.

### ***Self-Directed Learning***

According to a widely accepted definition, SDL is a process “in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies and evaluating learning outcomes (Knowles, 1975, p. 18)”. SDL has been explained with its various dimensions by many theorists. Any literature review shows that the models developed by Garrison (1997), Candy (1991), Brockett and Hiemstra (1991), and Song and Hill (2007) are dominant in this field. Theoretical SDL models have some common features such as self-concept, autonomy, and motivation. In theoretical frameworks of SDL, learners’ individual choices are valued (Merriam and Bierema, 2014), learning strategies are emphasized (Garrison, 1997), and self-directed learners are expected to create an influential “community of inquiry” which is defined in social constructivist view as a community using co-operation among participants to create meaningful learning environment (Garrison, Cleveland-Innes and Fung, 2010).

Candy (2004) claims that individuals are both obliged to and capable of the requirements of SDL. Learners should become aware of the benefits of SDL, especially in today’s world because change is rapid, new knowledge is continuously created, and an ever-widening access to information makes new strategies of acquisition necessary (Meshkat and Hassanzade, 2014). In such a world, individuals need to take the initiative for their learning with or without the help of others. In order to achieve this, learners need to diagnose their own learning needs, set personal goals, make decisions on resources, implement appropriate learning strategies and evaluate the learning outcomes (Knowles, 1975). Such learners are defined as self-directed learners and are described as being self-managing, self-monitoring, and self-modifying (*Costa and Kallick, 2003*).

### ***The Staged Self-Directed Learning Model***

SDL skills are accepted as transferrable to learners through instruction (Dabbagh and Kitsantas, 2012), especially by integrating some support elements into the program of a specific lesson (Kuo, Walker, Schroder and, Belland, 2014) or by just exposing the learners to SDL experiences (Vonderwell and Turner, 2005). In fact, many SDL researchers have developed instructional models (Rana, Ardichvili and Polesello, 2016; Wilcox, 1996), structured some strategies (Azevedo, Cromley and Seibert, 2004), listed some principles (Francom, 2010) and suggested pieces of advice (Bharathi, 2014; Boles, 2014). However, Grow’s (1991; 1994) Staged Self-Directed Learning Model (SSDLM) is a quite inclusive instructional model. Moreover, it is claimed to be best-known (Merriam, 2001) and most used (Knowles, Elwood and, Swanson, 2014). According to SSDLM, any course teacher can help the learners to be self-directed through four stages basically by means of changes in teacher’s roles.

Grow (1991) defines SDL readiness (SDLR) as a combination of motivation and ability emphasizing its situational and task-specific properties. However, it seems that motivation is

viewed as more privileged because Long (1989) emphasizes the psychological dimension of SDL and claims that pedagogic approaches will create self-teaching rather than self-directed learning. Moreover, SDL arises only when the individual has the internal motivation or at least can make autonomous choices (Deci and Ryan, 2000). Therefore, SDL instructions seem pretty delicate. SSDLM is sensitive to this delicacy and gives a crucial task to practitioners in SDL instructions: While the teacher slowly changes her own approach from pedagogy to andragogy, she should be ready to go back and forth spirally when needed.

Table 1 shows the four stages of SSDLM and sample activities for learner-teacher pairings. The teacher maintains the instruction with the matched role for a pre-determined period, and then s/he switches to one stage higher teacher’s role. It is hypothetically accepted that learners will presumably be ready for the following stages at the end of these pre-determined periods.

**Table 1. The Staged Self-Directed Learning Model (Grow, 1991)**

Stage	Learner	Teacher	Examples
Stage 1	Dependent	Authority	Coaching with immediate feedback. Drill. Informational lecture. Overcoming deficiencies and resistance.
Stage 2	Interested	Motivator	Inspiring lecture plus guided discussion. Goal setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects.
Stage 4	Self-directed	Delegator	Internship, dissertation, individual work or self-directed study-group

Table 2 shows sixteen learner-teacher pairings probable during SDL instructions. Four pairings are labeled as “match”, and the other six pairings are labeled as “near match”, all of which are accepted as ideal in SSDLM. On the other hand, four pairings labeled as “mismatch” and two pairings labeled as “severe mismatch” are claimed to be problems to solve. Therefore, the teacher will switch to the appropriate roles in these cases; otherwise, learners may resent either excessive guidance or freedom.

**Table 2. Learner-teacher pairings (Grow, 1991)**

	<b>T1: Authority</b>	<b>T2: Motivator</b>	<b>T3: Facilitator</b>	<b>T4: Delegator</b>
<b>L4: Self-directed</b>	Severe mismatch	Mismatch	Near match	Match
<b>L3: Involved</b>	Mismatch	Near match	Match	Near match
<b>L2: Interested</b>	Near match	Match	Near match	Mismatch
<b>L1: Dependent</b>	Match	Near match	Mismatch	Severe mismatch

***Purpose of the Study***

Developments in many fields such as the internet, communication, and information technologies have primarily changed the viewpoints against the required human type and learning. This study assumes that SDL offers a good framework for these new viewpoints. According to this assumption, SDL instruction may have good outputs in terms of learning and learners’ attitudes toward variables that are closely related to learning.

Therefore, this study aimed to explore the effects of using Grow’s (1991) SSDLM at a distance English learning on SDLR, course achievement, attitude toward English course, and attitude toward distance education through examining the following research question:

RQ: Are there significant differences in the participants’ pre-test and post-test score differences of SDLR, course achievement, attitude toward English course, and attitude toward distance education according to control and experimental groups?



## Method

### *Participants*

After receiving the university's ethics committee approval and permission for the scales, the researchers invited a convenience sample of 146 first-year students enrolled in the departments of Teaching of Turkish Language and Teaching of Social Sciences at the Faculty of Education at Bolu Abant İzzet Baysal University in Türkiye, and they all consented to do so. 71 (f= 52, m=19) undergraduates in control group and 75 (f= 54, m= 21) undergraduates in experimental group took place in this quasi-experimental study with pre-test and post-test. The students enrolled in the department of Teaching of Turkish Language had been assigned to two different groups by the faculty as they usually did every year. This was a usual activity in order to form more teachable groups in terms of size. They had assigned the students with odd student numbers into one group and those with even student numbers into another. The same process had also been done for the department of Teaching of Social Sciences. The groups formed in this way were directly assigned to control and experimental groups as the official formation of the groups by the faculty seemed equal. Moreover, the equality of the groups was tested by means of independent samples *t*-tests. For this, the data obtained from the pre-tests of Achievement Test and all the other scales were analyzed. In the analyses, it was observed no differences in any pre-test scores between the groups ( $p > 0.05$ ,  $\eta_p^2 < 0.01$  for all the scores) at the beginning of the study.

### *Instruments*

English course achievement was measured by the Achievement Test (AT), including 52 multiple-choice questions developed by the researchers following a pilot study. It was designed to measure grammar and vocabulary knowledge, and comprehension skills within the scope of 12-week instruction of Basic English. SDLR was measured by SDLR Scale (SDLRS) developed by Fisher, King and, Tague (2001) and adapted to Turkish by Şahin and Erden (2009). It has 40 items covering the sub-dimensions of self-management (SM), desire for learning (DFL), and self-control skills (SCS). Attitude toward English courses was measured by the adapted form of the Attitude towards English Course Scale (ATECS) developed by Tuncer, Berkant, and Doğan (2015). The researchers adapted the scale for this study after an analysis of internal consistency, and the adapted form has 17 items for covering the sub-dimensions of attitude toward learning (ATL), desire and anxiety (DA), and importance of English (IE). Attitude toward distance education was measured by the Attitude towards Distance Education Scale (ATDES) developed by Kışla (2015). It is a one-dimensional scale and has 35 items.

### *Procedure*

At the beginning of the fall term of the 2017-2018 academic year, researchers visited all the participants in their face-to-face classrooms. During these visits, the participants completed the SDLRS, ATECS, ATDES, and AT as pre-tests. Then, 12-week instruction started with two different instructors appointed to each group randomly. English course program was common to both groups, but the SDL program was unique for the experimental group.

The control group instructor implemented the English program in a teacher-directed way with her techniques such as direct instruction, drills, question and answer, rule explanations, dictating, and so on. Teacher-directed way is adopted as the standard medium of English

courses by many instructors at the university. In this process, students don't experience self-learning much and they mainly rely on teacher directions during the course. However, there is always a possibility that the participants in the control group may experience self-learning practices by using instructional websites on the internet with their own decisions. This must be accepted as the natural course of events in life. The researchers had no concern with the participants' autonomous decisions. What the control group instructor did was not to promote the participants to exercise self-learning practices.

In the experimental group, English and SDL programs were implemented concurrently by the instructor, who was well-informed on the SDL instruction program by the researchers. SDL literature claims that a self-directed learner can set personal goals, make decisions on resources, implement learning strategies and self-assess the value of the outcomes. Therefore, according to the SDL program, needed activities were set for the participants to accomplish these goals. The activities aimed to gradually transfer the locus of control from the teacher to the learners in the three stages. Transferring the locus of control was the hard core of the intention in the instruction of the experimental group participants. The participants were also trained on using learning strategies with the approach of training through resources during the class (Vural, 2016) by the instructor herself. They were set free and even promoted on using the internet sites such as Google, YouTube, and any other English teaching site through this process. Finally, they were asked and promoted to do all the activities self-directedly at the fourth stage and prepare an activity report on a specific English grammar topic freely chosen from a selection by themselves. With the activity report, the participants informed the instructor about the phases of the self-learning process such as the title of the topic they selected, their goals, the keywords they used in the searching procedure, topic summaries, the learning strategies they used and self-evaluation about the process.

The main aim of the procedure explained above was to create a difference between the groups by changing the learning way of the participants in the experimental group with the help of SDL instruction program. Grow (1991) claims that ordinary students at schools are assumed to be teacher directed. It implies that the students will stay teacher directed to a large extent as long as all the procedures in the classrooms stay traditional. Thus, the traditional practices in the control group will not change the learning way of the participants, or at least, they will have no contribution in this sense.

Both instructors opened forum pages on the distance education system during the 12-week duration on topics such as English interactions and technical and systemic problems, serving for the learners to reach teacher and peer help. Forum pages were supposed to be functional tools for any learners who aimed to create a community of inquiry. It was supposed that especially learners in the experimental group would prefer creating an influential community of inquiry, which is valued in SDL literature (Rubin, Fernandes, and Avgerinou, 2013). Moreover, the researchers set meetings to discuss the process with both instructors every week. All the instruments that were implemented as pre-tests were re-implemented as post-tests at the end of the term.

### ***Preliminaries***

The researchers collected pre-test and post-test scores of the participants both in control and experimental groups. Thus, they had two different sets of data for two different groups. The researchers agreed to make these two sets of data into one set for each scale score and analyze them through independent samples t-tests instead of paired-sample t-tests. They did it by



subtracting the post-test scores from the pre-test scores for each scale scores. Moreover, these calculated scores were transformed into the values of reliable change indexes (RCI) as recommended in the literature (Field, 2018) to remove the effects of unknown variables. The RCI values were calculated by dividing the subtractions of the post-test scores from the pre-test scores by the standard error value. All the *t* values found in this study were based on the analyses done with these RCI values.

Kolmogorov-Smirnov values calculated to test the normality of RCI values showed that the data were not normally distributed ( $p < 0,05$ ). Frequently, non-parametric tests are preferred by many researchers in such cases. However, independent samples *t*-test with the bootstrap technique is also recommended to solve the distribution problem. Field (2018, 367) contends that “bootstrapping gets around the problem of distribution by estimating the properties of the sampling distribution from the sample data.” Since they are accepted as valid analyses in such cases, independent samples *t*-tests with bootstrap were preferred in this study, and the results were reported as suggested in the literature (Field (2018, 627). Effect sizes were also considered in addition to the significance degree ( $p < 0.5$ ). For this, partial eta squared ( $\eta_p^2$ ) values (Ferguson, 2009) were calculated, and the values equal to or close to 0.01, 0.06, and 0.14 were commented on respectively as small, medium and, big (Cohen, 1988).

**Results**

Table 3 reveals that the only statistically significant *t* values were found for the analyses of score means of ATL, IE and, ATDES. The score means of ATL sub-scale were higher in experimental group ( $\bar{x} = 3.14$ ,  $SD = 11.95$ ) than control group ( $\bar{x} = -3.65$ ,  $SD = 11.28$ ). This difference, -6.78, BCa 95% CI (-10.17, -3.24), was significant,  $t(144) = -3.529$ ,  $p = 0.00$ , and represented a medium effect of  $\eta_p^2 = 0.08$ . The score means of IE sub-scale were higher in experimental group ( $\bar{x} = -0.08$ ,  $SD = 11.44$ ) than control group ( $\bar{x} = -3.99$ ,  $SD = 12.43$ ). This difference, -3.90, BCa 95% CI (-7.83, -0.04), was significant,  $t(144) = -1.973$ ,  $p = 0.05$ , and represented a small effect of  $\eta_p^2 = 0.03$ . The score means of ATDES were higher in experimental group ( $\bar{x} = -5.35$ ,  $SD = 11.47$ ) than control group ( $\bar{x} = -10.38$ ,  $SD = 12.21$ ). This difference, -5.03, BCa 95% CI (-8.96, -1.05), was significant,  $t(144) = -2.563$ ,  $p = 0.04$ , and represented a small effect of  $\eta_p^2 = 0.03$ . However, no significant differences were found in the score means of SDLRS, AT and DA, sub-scales between the groups.

Table 3. Results of independent samples t-tests with bootstrap

Measurements	Group	n	$\bar{X}$	SD	MD	Bootstrap		t	p	$\eta_p^2$	
						BCa CI Lower	Upper				
SDLRS	AT	Contr.	71	16.71	11.84	0.23	-3.76	4.01	0.117	0.90	0.00
		Exp.	75	16.48	12.37						
	SM	Contr.	71	-5.76	10.00	-1.57	-5.54	2.17	-0.791	0.43	0.00
		Exp.	75	-4.19	13.79						
	DFL	Contr.	71	-3.55	10.87	-2.17	-6.19	1.85	1.092	0.28	0.00
		Exp.	75	-1.38	13.11						
SC	Contr.	71	-4.04	9.07	-1.14	-5.12	2.83	-0.57	0.57	0.00	
	Exp.	75	-2.90	14.39							
ATL	Contr.	71	-3.65	11.28	-6.79	-10.17	-3.24	-3.529	0.00*	0.08	
	Exp.	75	3.14	11.95							
ATECS	DA	Contr.	71	1.25	12.93	1.92	-2.10	5.74	0.955	0.34	0.00
		Exp.	75	-0.67	11.21						
	IE	Contr.	71	-3.99	12.43	-3.91	-7.83	-0.04	-1.973	0.05*	0.03
		Exp.	75	-0.08	11.44						
	ATDES	Contr.	71	-10.38	12.21	-5.03	-8.96	-1.05	-2.563	0.04*	0.03
		Exp.	75	-5.35	11.47						



*Note: AT: Achievement Test, SDLRS: Self-Directed Learning Readiness Scale, SM: Self-Management, DFL: Desire for Learning, SC: Self-Control, ATECS: Attitude toward English Scale, ATL: Attitude toward Learning, DA: Desire and Anxiety, IE: Importance of English, ATDES: Attitude toward Distance Education Scale*

## **Discussion, Conclusions, and Recommendations**

The analyses in this study revealed no differences in the scores of SDLR and course achievement. However, it was promisingly found differences in attitude toward English courses and attitude toward distance education in favor of the experimental group. This case can be metaphorically evaluated that some fruit grows before the development of SDLR within the process of SDL instruction. Therefore, seemingly failed or presumably delayed results in the development of SDLR were discussed first in detail, and then the discussions of findings about the other variables followed. The second part of the discussion was evaluated by keeping in mind that though SDL instruction seems ineffective, the participants might be at the early stages of some potential developments.

### ***Self-directed learning readiness***

Implementation of SDL instruction was expected to enhance SDLR scores (Grow, 1991; 1994) and correspondingly create a difference in achievement scores (Chou, 2012; Khiat, 2017; Wang, 2012) and attitude scores between the groups. Therefore, the basic expectation of this study was that SDL instruction would develop learners' SDL skills. The other expectations related to achievement and attitudes were based on the realization of this basic expectation which did not come true in reality. This situation has been explained below depending on several potential variables such as learners, teachers, implementation, and distance education in relation to SDL.

#### *Learners*

It is essential to examine the learners' characteristics in the first plan because learners are at the center of SDL. According to related literature, some learners may develop resistance to the autonomy given in SDL instructions because of several reasons, such as biological, psychological, or cognitive growth and maturity levels. The fact that SDL is associated with adult learning under the title of andragogy (Knowles, 1975) and psychological maturity (Grow, 1991) can be understood as its relationship with age in a sense. Turkish environment reflects a similar appearance. Direct relationships were found between Turkish students' SDLR levels and ages (Bakaç and Özen, 2018; Özbek, Erođlu and Donmuş, 2017; Topala, 2014). Positive relationships were also found in the Turkish environment between SDL and meta-cognitive awareness (Dağal and Bayındır, 2016) and technological pedagogical content knowledge (Bakaç and Özen, 2018), both of which can be claimed to develop with increasing grade and age. These findings indicate that Turkish undergraduates, like the ones in other cultures, tend to have higher levels of SDLR over time. The sample of this study consisting of Turkish first-year students can be evaluated within this framework and is claimed to be still in the developmental process.

#### *Teacher*

Teachers have been given crucial tasks, such as regulating matches and gradually giving autonomy to students in SDL literature. For example, Du (2012) remarks that teachers who claim they adopt SDL practices might sometimes perform teacher-directed practices in reality. A similar illusion might have happened in this study as well. An indication was observed by



the researchers in an informal way during the implementation process. The researchers noticed that many learners labeled the activity report as an “assignment” in forum chats among each other. Activity report had been planned as a kind of autonomous activity, rather than an assignment. The teacher would accomplish the SDL process by supporting the learners’ autonomy (Purdy, 1986); however, it seems that she presumably directed the learners. Therefore, this case can be evaluated as a severe mismatch between the learners’ SDLR levels and the teacher’s role. It is known that the experimental group instructor did not report any mismatches during the process. Grow (1991) suggests that the teacher should realize matching problems and make necessary regulations in such severe mismatch cases. Otherwise, the model may lose functionality because of the student’s perception of either excessive or insufficient direction.

Some plans had been made to give the autonomy to the learners in preparing the activity report. For example, the learners were offered three different selectable grammar topics, similar to the “Cafeteria Style Method”, defined as the freedom of self-direction (Arendt, Trego, and Allred, 2016). An extended four-week deadline was set, and it was announced that authenticity would be adequate. In this way, it had been aimed to create an autonomous atmosphere for the learners, because Deci and Ryan (2000) claim that SDL can be developed only when the individual has the internal motivation or can make autonomous choices. According to this claim, external interventions which damage the internal motivation, such as reward, punishment, threat, deadlines, any directions, evaluations, or imposed targets (Deci and Ryan, 1985; Deci, Nezlek, and Sheinman, 1981), may also damage the SDL instructional processes. Despite all these, the instructor might not have adequately supported learners’ autonomy for unknown but predictable reasons. Nottidge and Louw (2017) conclude that many instructors prefer an SDL format with the teacher’s occasional direction instead of pure student direction. Indeed, the experimental group instructor in this study expressed that she developed a similar understanding increasingly during the process. She might have reflected on the understanding she developed during the process.

### *Implementation*

Different factors related to implementation, such as duration or task quality, are essential. Sze-Yeng and Hussain (2010) define the process of developing SDL characteristics as a steep learning curve. According to this, it is a highly extended and complicated process for the learners to emerge from their comfort zone and finally reach to SDL level which is relatively less comfortable for the learners. Moreover, resistant learners want the SDL instruction process to extend over a long time and cover the other courses (Özcan, 2015). The participants might have developed a resistance and breaking that resistance might have needed more time and effort. The twelve-week period may be inadequate for breaking that resistance.

Task-based reasons also deserve to be taken into account. It is known that learner autonomy is the hard core of SDL, and learners cannot behave autonomously when the task goes beyond their capacities (Francom, 2010). Learners facing complicated tasks may prefer to depend on the teacher as they do not fully understand what and how they will do. The learners in this study may also have experienced similar difficulties with the activity report.

### *Distance Education*

SDL instruction is subject to difficulties of distance education. Furthermore, it seems to need more face-to-face instruction, primarily due to its dominant affective feature. It is known that learners have difficulties when they have excessive responsibilities and the teacher does

not physically exist in the medium (Dabbagh and Kitsantas, 2005). In distance education literature, the success of any program is explained by factors such as the number of learners' entrance to the education management system (Kupczynski, Gibson, Ice, Richardson, and Calloo, 2011), creating an influential community of inquiry (Rubin et al., 2013) and comment qualities of teachers in the forums (Kwon, Shin, and Chang, 2019). Fail of any program, on the other hand, is explained by factors such as technical problems (Valentine, 2002), the reluctance of learners against distance learning (O'Malley and McCraw, 1999), lack of face-to-face interaction (Howland and Moore, 2002) and teachers' highly teacher-directed practices (Boling, Hough, Krinsky, Saleem and Stevens, 2012). In addition, Turkish students are claimed to believe that distance education decreases course attendance (Yıldız, 2015) and the students do not have adequate internet access opportunities (Metin, Karaman, and Şaştım, 2017).

It is impossible to specify any unique factor for the failure of SDL instruction since any of the numerous factors listed above were not observed in this study. However, it can be claimed that various factors related to distance education may undermine SDL instructions. Therefore, it seems that SDL instructions cannot be done in a pure distance education medium because SDL needs more face-to-face interactions. Instead, blended learning can be claimed to be more convenient. Some comparative studies conclude that blended learning makes student participation and cooperation easier (Geng, Law, and Niu, 2019), contributes to the development of positive attitudes toward the course (Akgündüz and Akinođlu, 2016), and helps the learners acquire self-regulatory and self-directed learning skills (Uz and Uzun, 2018) much better than distance education.

### ***Achievement***

No difference was found in the scores of AT between the groups. A study (Pachnowski and Jurczyk, 2000) exists in the literature reports revealing no relationship between SDL and achievement. However, that study seems to have a limited capacity to generalize because it contains a small sample size of seventeen undergraduates. In a massive study, Carpenter (2011) reports a positive relationship between SDL and achievement of online courses. He also reports that the relationship between SDL and course grade is positive in distance learners but negative in face-to-face learners.

Similarly, Chou (2012) reports a positive relationship between SDL and achievement in an online course. However, that study is limited to the only a one-hour period of a lesson and to only one specific topic, which makes the task straightforward and accessible. Khat (2017) found a relationship between SDL and grade point average of undergraduates but based on a subjective survey. Wang (2012) found a relationship between SDL and learning English through TV dramas based on the opinions of five Chinese teachers who can be claimed to have reached biologically to a particular age, psychologically to a particular maturity, and sociologically to a particular position, unlike the participants in this study. As a result, the findings of the studies listed above should be evaluated in comparison to this study cautiously since each of them has many different specific conditions. Moreover, it should be remembered that the SDL instruction did not have any effects on self-directed readiness.

### ***Attitude toward English Course***

Significant differences were found in the scores of ATL and IE sub-scales in favor of the experimental group but no difference in the scores of the DA sub-scale. These findings are substantially in line with the findings of many studies in the literature. For example, Özcan (2015) reports that English instruction based on SDL positively contributes to the learners'



motivation, attitudes toward the course, and beliefs about learning a language. Sohrabi and Iraj (2016) report that learners express positive opinions about flip classrooms, which are claimed to be similar to SDL classrooms in the literature (Hao, 2016). In some other studies (Dağal and Bayındır, 2016; Sırakaya and Özdemir, 2018), positive relationships have been reported between SDL and learning motivation. Ahmed (2015) concludes that excessive teacher-directed instruction causes anxiety in learners. Some studies also report that attitude toward English is positively related to many variables such as lifelong learning tendencies (Aşkın, 2015; Kahraman, 2019), academic self-concept (Saracaloğlu, Varol and Gencel, 2014), academic self-efficacy (Saeid and Eslaminejad, 2017), meta-cognitive awareness (Dağal and Bayındır, 2016), co-operative learning (Baş, 2009) and risk-taking (Dehbozorgi, 2012) all of which are known to be related to SDL. It is seen that the results of the studies mentioned here are somehow related to self-directed readiness, for which the present study did not observe any differences between the groups.

### ***Attitude toward Distance Learning***

A significant difference was found in the scores of ATDES in favor of the experimental group, which is in line with the literature. As known, the participants in the experimental group were promoted to freely surf the internet sites such as Google, YouTube, and any other English teaching site. These practices might have attracted distant learners as they supported autonomous choices and self-regulation. The learners might have enjoyed this approach and so might have developed positive attitudes toward distance education.

Some researchers suggest that distance learners prefer free internet resources instead of course books (Sohrabi and Iraj, 2016) and see Google as the primary information searching method and a redemptory tool (Zander, Boustedt, Eskerdal, McCartney, Mostrom, Sanders and Thomas, 2012). Moreover, self-directed learners are claimed to get motivated internally, appreciate autonomy and take pleasure in the fact that they are not dependent on others (Bonk and Lee, 2017). Some researchers in the literature also report that self-regulated learning contributes to learners' attitudes and level of self-efficacy (Cho, Kim, and Choi, 2017). On the other hand, there is a relationship between attitude toward English and attitude toward distance education (Yavuz, 2016).

The benefits of SDL in daily life can be observed, and this study shows that those benefits can be carried into the medium of formal education utilizing SDL instruction. Although the SDL instruction failed to enhance learners' SDLR in this study, it brought out some other positive consequences in terms of learners' score levels of attitude toward learning, the importance of English, and attitude toward distance education. The failure can be explained depending on several factors such as learner, teacher, implementation, and distance education, all of which are primarily discussed in this study. SDL is a natural individual characteristic that can emerge within the course of real life. Therefore, teachers who want to foster SDL characteristics of learners in formal education should focus on creating situations in line with learners' natural tendencies just like in daily life and wait for any developments on the side of learners. SDL instructions may do a good job, but self-directedness should not be anticipated to come out automatically after any formal SDL instruction because it seems that it depends much more on the individual's decision after his/her personal experiences.

According to this study, SDL instruction proved to have some benefits. It is recommended that future researchers may investigate some other benefits of SDL instruction. This study also made the following points clearer, which future researchers should take into consideration in SDL

studies. First, the classroom practitioners should be determined cautiously. Duration is a crucial factor, so an adequate period should be set for implementation. The delivery mode of instruction is another crucial factor since achieving the objectives in relation to affective characteristics may need more face-to-face instruction. Blended learning may be the more appropriate delivery mode of instruction in this sense. Finally, setting tasks at an optimum level is crucial since too tricky and too easy tasks damage motivation and influence the locus of control.

## Note

This study is based on the doctoral thesis titled “Effects of using the staged self-directed learning model at distance English learning on readiness, achievement, attitudes and retention” written by the first author under the supervision of the second author at the Department of Educational Sciences, Bolu Abant İzzet Baysal University.

## References

- Ahmed, S. (2015). Attitudes towards English Language learning among EFL learners at UMSKAL. *Journal of Education and Practice*, 6(18), 6-16. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1079681.pdf>
- Akgündüz, D. & Akinođlu, O. (2016). The effect of blended learning and social media-supported learning on the students' attitude and self-directed learning skills in science education. *The Turkish Journal of Educational Technology*, 15(2), 106-115. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1096457.pdf>
- Arendt, A., Trego, A. & Allred, J. (2016). Students reach beyond expectations with cafeteria style grading. *Journal of Applied Research in Higher Education*, 8, 2-17. doi: 10.1108/JARHE-03-2014-0048
- Aşkın, İ. (2015). *An investigation of self-directed learning skills of undergraduate students* (Doctoral dissertation). Ankara: Hacettepe University Institute of Educational Sciences. Retrieved from <http://www.openaccess.hacettepe.edu.tr:8080/xmlui/bitstream/handle/11655/11936/a0a4444d-ef7b-4fc3-9575-f6343ce59410.pdf?sequence=1&isAllowed=y>
- Azevedo, R., Cromley, J. G. & Seibert, D. (2004). Does adaptive scaffolding facilitate students' ability to regulate their learning with hypermedia? *Contemporary Educational Psychology*, 29(3), 344-370. doi: 10.1007/s11251-005-1273-8
- Bakaç, E. & Özen, R. (2018). The relationship between preservice teachers' self-directed learning readiness levels and technological pedagogical content knowledge (tpack) competencies. *Education Sciences (NWSAES)*, 13(2), 90-105. doi: 10.12739/NWSA.2018.13.2.1C0682
- Baş, G. (2009). The Effects of cooperative learning method on students' achievement, their attitude towards the lesson and the maintenance levels of their achieved knowledge in English lessons. *Milli Eğitim Dergisi [Journal of National Education]*, 184, 240-256. Retrieved from <https://dergipark.org.tr/tr/download/article-file/442935>
- Bharathi, P. (2014). Self-directed learning and learner autonomy in English language teacher education: Emerging trends. *International Journal for Teachers of English*, 4(1), 1-8. Retrieved from [http://eltvoices.in/Volume4/Issue\\_1/EVI\\_41\\_1\\_Bharathi.pdf](http://eltvoices.in/Volume4/Issue_1/EVI_41_1_Bharathi.pdf)
- Boekaerts, M. (1999). Self-regulated learning: Where we are today. *International Journal of Educational Research*, 31, 445-457. doi: 10.1016/S0883-0355(99)00014-2
- Boles, B. (2014). *The art of self-directed learning*. USA: Tells Peak Press.
- Boling, E. C., Hough, M., Krinsky, H., Saleem, H. & Stevens, M. (2012). Cutting the distance in distance education: Perspectives on what promotes positive, online learning experiences. *Internet and Higher Education*, 15, 118-126. doi: 10.1016/j.iheduc.2011.11.006
- Bonk, C. J. & Lee, M. M. (2017). Motivations, achievements and challenges of self-directed informal learners in open educational environments and moocs. *Journal of Learning for Development*, 4(1), 36-57. Retrieved from <https://jl4d.org/index.php/ejl4d/article/view/195>
- Brockett, R. G. & Hiemstra, R. (1991). *Self-direction in adult learning: Perspectives on theory, research and practice*. New York, NY: Routledge.



- Bulik, R. J. & Honor, J. (2000). Self-directed learning in a digital age: Where next to browse is informed by reflection. In H. B. Long & Associates (Eds.), *Practice and theory in self-directed learning* (pp. 265-276). Schaumburg, IL: Motorola University Press.
- Candy, P. C. (1991). *Self-Direction for Lifelong Learning*. San Francisco: Jossey-Bass.
- Candy, P. C. (2004). *Linking thinking: Self-directed learning in a digital age*. Canberra, Australia. Retrieved from <http://www.voiced.edu.au/content/ngv31516>
- Carpenter, J. (2011). *Self-direction in the online and face-to-face classroom: A new look at Grow's staged self-directed learning model* (Doctoral dissertation). Illinois: Umi Dissertation Publishing. Retrieved from ProQuest Dissertation and Thesis database. (Order No: 345774)
- Carr, A., Balasubramanian, K., Atieno, R. & Onyango, J. (2018). Lifelong learning to empowerment: Beyond formal education. *Distance Education*, 1, 69-86. doi:10.1080/01587919.2017.1419819
- Cho, M., Kim, Y. & Choi, D. (2017). The effect of self-regulated learning on college students' perceptions of community of inquiry and affective outcomes in online learning. *The Internet and Higher Education*, 34, 10-17. doi: 10.1016/j.iheduc.2017.04.001
- Chou, P. N. (2012). The relationship between engineering students' self-directed learning abilities and online learning performances: A pilot study. *Contemporary Issues in Education Research*, 5(1), 33-38. doi: 10.19030/cier.v5i1.6784
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Costa A. L. & Kallick, B. (2003). *Assessment strategies for self-directed learning*. Thousand Oaks, CA: Corwin Press.
- Dabbagh, N. & Kitsantas, A. (2005). Using web-based pedagogical tools as scaffolds for self-regulated learning. *Instructional Science*, 33, 513-540. doi: 10.1007/s11251-005-1278-3
- Dabbagh, N. & Kitsantas, A. (2012). Personal learning environments, social media and self-regulated learning. *Internet and Higher Education*, 15, 3-8. doi: 10.1016/j.iheduc.2011.06.002
- Dağal, A. B. & Bayındır, D. (2016). The investigation of the relationship between the level of meacognitive awareness, self-directed learning readiness and academic achievement of preschool teacher candidates. *Universal Journal of Educational Research*, 4(11), 2533-2540. doi: 10.13189/ujer.2016.041106
- Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L. & Ryan, R. M. (2000). What is the self in self-directed learning? In G. A. Straka (Ed.), *Conceptions of self-directed learning: Theoretical and conceptual considerations* (pp. 75-92). New York, NY: Waxman.
- Deci, E. L., Nezlek, J. & Sheinman, L. (1981). Characteristics of the rewarder and intrinsic motivation of rewardee. *Journal of Personality and Social Psychology*, 40, 1-10. doi: 10.1037/0022-3514.40.1.1
- Dehbozorgi, E. (2012). Effects of attitude towards language learning and risk-taking on EFL students' proficiency. *International Journal of English Linguistics*, 2(2), 41-48. doi:10.5539/ijel.v2n2p41
- Draves, W. (2002). *How internet is changing how we learn*. Paper presented at the Seventh Annual Teaching on the Community Colleges Online Conference.
- Du, F. (2012). Using study plans to develop self-directed learning skills: Implications from a pilot project. *College Student Journal*, 46(1), 223-232.
- Ferguson, R. S. (2009). An effect size primer: A guide for clinician and researchers. *Professional Psychology: Research and Practice*, 40(5), 532-538. doi: 10.1037/14805-020
- Field, A. (2018). *Discovering Statistics Using IBM SPSS statistics*. London: Sage Publications Ltd.
- Fisher, M. J., King, J. & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Today*, 21, 516-525. doi: 10.1054/nedt.2001.0589
- Francom, M. G. (2010). Teach me how to learn: Principles for fostering students' self-directed learning skills. *International Journal of Self-Directed Learning*, 7(1), 29-44. doi: 10.1.1.469.3531&rep=rep1&type=pdf#page=34
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Quarterly*, 48(1), 18-33. doi: 10.1177%2F074171369704800103

- Garrison, D. R., Cleveland-Innes, M. & Fung, T. S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the community of inquiry framework. *The Internet and Higher Education*, 13, 31-36. doi: 10.1016/j.iheduc.2009.10.002
- Geng, S., Law, K. M. & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. *International Journal of Educational Technology in Higher Education*, 16(17), 2-22. doi: 10.1186/s41239-019-0147-0
- Grow, G. O. (1991). Teaching learners to be self-directed. *Adult Education Quarterly*, 125-149. doi: 10.1177%2F0001848191041003001
- Grow, G. O. (1994). In defense of the staged self-directed learning model. *Adult Education Quarterly*, 44(2), 109-114. doi: 10.1177%2F074171369404400206
- Hao, Y. (2016). Exploring undergraduates' perspectives and flipped learning readiness in their flipped classroom. *Computers in Human Behavior*, 59, 82-92. doi: 10.1016/j.chb.2016.01.032
- Hiemstra, R. & Brockett, R. G. (2012). *Reframing the meaning of self-directed learning: An updated model*. Paper presented at the Adult Education Research Conference (p. 154-161). New York: Kansas University Libraries New Prairie Press.
- Hiemstra, R. (2003). More than three decades of self-directed learning: From whence have we come. *American Association for Adult and Continuing Education*, 14(4), 5-8. doi: 10.1177%2F104515950301400402
- Hiemstra, R. (2006). Is the internet changing self-directed learning? Rural users provide some answers. *International Journal of Self-Directed Learning*, 3(2), 45-60. Retrieved from <https://oltraining.com/SDLwebsite/IJSDL/IJSDL3.2-2006.pdf#page=49>
- Howland, J. L. & Moore, J. L. (2002). Student perceptions as distance learners in internet-based courses. *Distance Education*, 23(2), 183-195. doi: 10.1080/0158791022000009196
- Kahraman, S. (2019). *The relationship between prospective teachers' lifelong learning tendencies and attitudes towards English course*. (Unpublished master's thesis). Bolu: Abant İzzet Baysal University Institute of Educational Sciences.
- Khiat, H. (2017). Academic performance and the practice of self-directed learning: the adult students perspective. *Journal of Further and Higher Education*, 41(1), 44-59. doi: 10.1080/0309877X.2015.1062849
- Kıřla, T. (2015). Development of an attitude scale towards distance learning. *Ege Eđitim Dergisi [Ege Education Journal]*, 17(1), 258-271. doi: 10.12984/eed.01675
- Kind, T. & Evans, Y. (2015). Social media for lifelong learning. *International Review of Psychiatry*, 27(2), 124-132. doi: 10.3109/09540261.2014.990421
- Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. New Jersey, NJ: Prentice Hall Regents.
- Knowles, M. S., Elwood, F. H. & Swanson, R. A. (2014). *The adult learner: The Definitive Classic in Adult Education and Human Resource Development*. New York, NY: Routledge.
- Kuo, Y. C., Walker, A. E., Schroder, K. E. & Belland, B. R. (2014). Interaction, internet self-efficacy and self-regulated learning as predictors of student satisfaction in online education courses. *Internet and Higher Education*, 20, 35-50. doi: 10.1016/j.iheduc.2013.10.001
- Kupczynski, L., Gibzon, A. M., Ice, P., Richardson & Chaloo. (2011). The impact of frequency on achievement in online courses: A study from a South Texas University. *Journal of Interactive Online Learning*, 10(3), 141-149. doi: 10.1.1.1078.5521&rep=rep1&type=pdf
- Kwon, K., Park, S. J., Shin, S. & Chang, C. Y. (2019). Effects of different types of instructor comments in online discussions. *Distance Education*, 40(2), 226-242. doi: 10.1080/01587919.2019.1602469
- Lee, K., Choi, H. & Cho, Y. H. (2019). Becoming a competent self: A developmental process of adult distance learning. *The Internet and Higher Education*, 41, 23-33. doi: 10.1016/j.iheduc.2018.12.001
- Long, H. B. (1989). Self-directed learning: Merging theory and practice. In H. B. Long (Ed.), *Self-directed learning: Merging theory and practice* (pp. 1-12). Norman, OK: Research Center for Continuing Professional and Higher Education of the University of Oklahoma.
- Malone, K. A. & Waite, S. (2016). *Student outcomes and natural schooling pathways from evidence to impact report 2016*. doi: 10.13140/RG.2.1.3327.7681



- Merriam, S. B. & Bierema, L. L. (2014). *Adult learning: Linking theory and practice*. San Fransisco, CA: Jossey-Bass.
- Merriam, S. B. (2001). Andragogy and self-directed learning. *New Directions for Adult and Continuing Education*, 89, 3-14. Retrieved from <http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=39e02e98-01f8-49f2-9138-decfbaf6d543%40sdc-v-sessmgr03>
- Meshkat, M. Hassanzade, A. (2014). Effect of self-directed learning on the components of reading comprehension. *Rals*, 4(2), 3-15. Retrieved from [https://rals.scu.ac.ir/article\\_10535\\_290357ff91c2178d071562db7f3c4b16.pdf](https://rals.scu.ac.ir/article_10535_290357ff91c2178d071562db7f3c4b16.pdf)
- Metin, A. E., Karaman, A. & Şaştım, Y. A. (2017). Student perspectives on distance education and the assessment of the efficiency of distance education English courses: Banaz Vocational College. *Journal of Karabük University Institute of Social Sciences*, 7(2), 640-652. Retrieved from <https://dergipark.org.tr/en/download/article-file/374271>
- Moore, M. G. (1987). Self-directed learning and distance education. *Journal of Distance Education*, 1(1), 7-24. Retrieved from <http://www.ijede.ca/index.php/jde/article/view/307/762>
- Nottidge, T. E. & Louw, A. J. (2017). Self-directed learning: Status of final-year students and perceptions of selected faculty leadership in a Nigerian medical school: A mixed analysis study. *African Journal of Health Professions Education*, 9(1), 29-33. doi: 10.7196/AJHPE.2017.v9i1.708
- O'Malley, J. & McCraw, H. (1999). Students perceptions of distance learning, online learning and traditional classroom. *Online Journal of Distance Learning Administration*, 2(4), 1-10. Retrieved from <https://www.westga.edu/~distance/ojdl/winter24/omalley24.html>
- Özbek, R., Eroğlu, M. & Donmuş, V. (2017). Investigation of teacher candidates' readiness for self-directed learning. *International Journal of Curriculum and Instructional Studies*, 7(13), 17-35. Retrieved from <https://asosindex.com.tr/index.jsp?modul=articles-page&journal-id=1836&article-id=315924>
- Özcan, A. (2015). *The effect of self-directed learning based English instruction on students' motivation, attitude, language learning beliefs and vocabulary*. (Doctoral dissertation). Konya: Necmettin Erbakan University Institute of Educational Sciences. Retrieved from <https://acikerisim.erbakan.edu.tr/xmlui/bitstream/handle/20.500.12452/790/10073906.pdf.pdf?sequence=1&isAllowed=y>
- Pachnowski, L. M. & Jurczyk, J. P. (2000). Correlating self-directed learning with distance learning success. *Annual Meeting of the Eastern Educational Research Association* (s. 1-15). Eric number: ED441000.
- Purdy, L. N. (1986). Telecourse: Using technology to serve distance learners. In G. H. Vogel (Ed.), *Advances in Instructional Technology* (pp. 3-12). San Fransisco: Jossey-Bass.
- Rana, S., Ardichvili, A. & Polesello, D. (2016). Promoting self-directed learning in a learning organization: Tools and practices. *European Journal of Training and Development*, 40(7), 470-489. doi: 10.1108/EJTD-10-2015-0076
- Rubin, B., Fernandes, R. & Avgerinou, M. D. (2013). The effects of technology on the community of inquiry and satisfaction with online courses. *Internet and Higher Education*, 17, 48-57. doi: 10.1016/j.iheduc.2012.09.006
- Saeid, N. & Eslaminejad, T. (2017). Relationship between student's self-directed learning readiness and academic self-efficacy and achievement motivation in students. *International Education Studies*, 10(1), 225-232. ERIC Number: EJ1124824
- Saracaloğlu, A., Varol, S. & Gencil, İ. E. (2014). Relationship between the level of foreign language learning and the cognitive and affective features of students of physical education and sports school. *Journal of Theory and Practice in Education*, 10(4), 970-998. Retrieved from <https://dergipark.org.tr/tr/download/article-file/63447>
- Schultz, D. P. & Schultz, S. E. (2015). *A history of modern psychology (11th edition)*. Boston: Cengage Learning.
- Sırakaya, D. A. & Özdemir, S. (2018). The effect of flipped classroom model on academic achievement, self-directed learning readiness, motivation and retention. *Malaysian Online Journal of Educational Technology*, 6(1), 76-91. Eric Number: EJ1165484

- Siemens, G. (2008). Connectivism: A Learning theory for the digital age. Retrieved from <https://www.learningnetwork.ac.nz/shared/professionalReading/TRCONN2011.pdf>
- Sohrabi, B. & Iraj, H. (2016). Implementing flipped classroom using digital media: A comparison of two demographically different groups perceptions. *Computers in Human Behavior*, 60, 514-524. doi: 10.1016/j.chb.2016.02.056
- Song, L. & Hill, J. R. (2007). A conceptual model for understanding self-directed learning in online environments. *Journal of Interactive Online Learning*, 6(1), 27-41. Retrieved from <https://www.ncolr.org/jiol/issues/pdf/6.1.3.pdf>
- Sze-yeng, F. & Hussain, R. M. (2010). Self-directed learning in a socioconstructivist learning environment. *Procedial Social and Behavioral Sciences*, 9, 1913-1917. doi: 10.1016/j.sbspro.2010.12.423
- Şahin, E. & Erden, M. (2009). Reliability and validity of self-directed learning readiness scale. *E-Journal of New World Sciences Academy*, 4(3), 695-706. Retrieved from <https://dergipark.org.tr/en/download/article-file/185900>
- Tam, M. (2000). Constructivism, instructional design and technology: Implications for transforming distance learning. *Educational Technology and Society*, 3(2), 1-15. Retrieved from <https://www.jstor.org/stable/pdf/jeductechsoci.3.2.50.pdf?acceptTC=true>
- Topala, I. (2014). Attitudes towards academic learning and learning satisfaction in adult students. *Procedia-Social and Behavioral Sciences*, 142, 227-234. doi: 10.1016/j.sbspro.2014.07.583
- Tough, A. M. (1971). *The adult's learning projects: A fresh approach to theory and practice in adult learning*. Toronto: Ontario Institute for Studies in Education.
- Tuncer, M., Berkant, H. G. & Dogan, Y. (2015). The validity and reliability of the scale of attitude toward English lesson. *Journal of Research in Education and Teaching*, 4(2), 260-266. Retrieved from [http://www.jret.org/FileUpload/ks281142/File/26.murat\\_tuncer..pdf](http://www.jret.org/FileUpload/ks281142/File/26.murat_tuncer..pdf)
- Uz, R., & Uzun, A. (2018). The influence of blended learning environment on self-regulated and self-directed learning skills of learners. *European Journal of Educational Research*, 7(4), 877. doi:10.12973/eu-jer.7.4.877.
- Valentine, D. (2002). Distance learning: Promises, problems and possibilities. *Online Journal of Distance Learning Administration*, 5(3), 1-11. Retrieved from <https://www.westga.edu/~distance/ojdla/fall53/valentine53.html>
- Vonderwell, S. & Turner, S. (2005). Active learning and preservice teachers' experience in an online course: A case study. *Journal of Technology and Teacher Education*, 13(1), 65-84. Retrieved from file:///C:/Users/hp/Downloads/Active\_Learning\_and\_Preservice\_Teachers.pdf
- Voogt, J. & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies*, 44:3, 299-321. doi: 10.1080/00220272.2012.668938
- Vural, L. (2016). Öğrenme stratejileri ve öğretimi [Learning strategies and their teaching]. In G. Ekici (Ed.), *Öğrenme-öğretme kuramları ve uygulamadaki yansımaları [Learning and teaching theories and their reflections in practice]* (pp. 593-607). Ankara: Pegem Akademi.
- Wang, D. (2012). Self-directed English language learning through watching English television drama in China. *Changing English*, 19(3), 339-348. doi: 10.1080/1358684X.2012.704584
- Yavuz, R. (2016). *The relationship between education faculty freshmen students' attitudes towards distance education and towards English course*. (Unpublished master's thesis). Bolu: Abant İzzet Baysal University Institute of Educational Sciences.
- Yıldız, M. (2015). *The relationships among distance education instructors' knowledge, belief and practices towards distance education*. (Unpublished master's thesis). Ankara: Hacettepe University Institute of Educational Sciences.
- You, J. W. & Kang, M. (2014). The role of academic emotions in the relationship between perceived academic control and self-regulated learning in online learning. *Computers and Education*, 77, 125-133. doi: 10.1016/j.compedu.2014.04.018
- Zander, C., Boustedt, J., Eckerdal, A., McCartney, R., Mostrom, J. E., Sanders, K. & Thomas, L. (2012). *Self-directed learning: Stories from industry*. Retrieved from [https://www.researchgate.net/profile/Anna\\_Eckerdal](https://www.researchgate.net/profile/Anna_Eckerdal)