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# An Analysis About the Relationship Between Online Homework and Perceived Responsibility, Self-Efficacy and Motivation Levels of the Students

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| ARTICLE INFO | ABSTRACT |
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| Received: 30 Dec. 2021<br><br>Accepted: 2 Mar. 2022 | The aim of this study is to analyze the effects of students' online homework performances on their self-efficacy, perceived responsibility and motivation levels in the Foreign Languages College at Gaziantep University. The research design of this study is correlational survey model. 441 students who study at the Foreign Languages College participated in this study. In the analysis of the study PLS-SEM approach was adopted and Smart PLS 3 program was used. As a result of the study, no correlation between students' online homework performances and self-efficacy, perceived responsibility and motivation was observed; while meaningful correlations between self-efficacy and perceived responsibility and self-efficacy and motivation levels were observed.<br><br>**Keywords:** online homework, self-efficacy, perceived responsibility, motivation |

## INTRODUCTION

Social cognitive theory dates back to the 1970s, a time when paradigm shifts in psychology occurred. Bandura (1977) published *social learning theory* that changed the direction of psychology. At that time the studies about human behaviour started to change their focus on control from environment to organism. On the same dates Albert Bandura published his article "Self-efficacy" (Luszczynska & Schwarzer, 2005). According to social cognitive theory, people are active implementers in their lives, human mind is not just a mechanism controlled by environmental events. Increasing personal competence ranges from cognitive commentation competence to selection and action competence. In this respect, analyzing the nature of self-directedness has given way to explore the mechanisms of self-efficacy and to feature the effects of self-efficacy on human behaviour. In addition to this, in social cognitive theory, self-regulation, self-efficacy, perceived responsibility and motivation have become emphasized concepts (Bandura, 2005). In higher education, online homeworks have become commonly used parts of education systems with the development of the usage area of portals designed for this purpose. A variety of visual aids and authentic materials are provided to students through online resources and thus homeworks are designed to be content-rich.

The importance of homeworks are emphasized with the need to have meaningful feedback and the positive effects of online homeworks on students (Shuman, 2015). It is an expectation for students who complete their homeworks to perform better and to develop self-efficacy perceptions (Kitsantas & Zimmerman, 2005), a student who does homework spend more time on course material and also practicing a skill often means accomplishing that skill more successfully (Shuman, 2015). Personality traits constitute some factors that impact learning and achievement and these factors are mediated by variables such as motivational variables, ability self-concept, test anxiety and achievement motivation which may have an increasing value in predicting achievement (Fuente et al., 2020).

Students' homework habits are effective on their cognitive processes; as they manage their homeworks by carrying out a range of self-regulation processes such as planning, time management, finding a suitable place to study and motivating themselves. Students are supposed to complete their homework by implementing self-regulated behaviours such as planning their homework independently, preventing distractors, being insistent on challenges, organizing the environment, tackling undesired emotions and reflecting what they learn (Ramdass & Zimmerman, 2011). A student who has a habit of doing homework regularly would have a different attitude towards learning process and this also reveals the effect of his attitude towards his efficacy and perceived responsibility. Similarly, the results a student obtains with his/her negative or positive homework behaviours affect his/her motivation level. In this study, our aim is to reveal the relations among university students' self-efficacy beliefs, perceived responsibility, motivation levels and their online homework performances.

## Online Homework

A well-accepted definition of homework appears in Dr. Harris Cooper's "Homework" book, which was published in 1989 (Cooper, 1989). Cooper (1989) defined homework as "the tasks assigned to students by school teachers that are meant to be carried out during nonschool hours." For years, studies have been conducted about the efficiency of homework and besides the studies which emphasize the positive effects of homework on students' success and cognitive development (Cooper et al., 2006; Dillard et al., 2011; Kitsantas & Zimmerman, 2009), there are studies which state no effect at all (Huesgen, 2012). In a study by Kitsantas and Zimmerman (2009), the authors worked with university students and they concluded that homework has a positive effect on self-efficacy and it encourages students to take more responsibility. Educational institutions around the world have changed the way they transfer knowledge with the innovations in the field of information technology and the common use of the internet. In higher education there is a proliferation of internet-based technologies and tools that guide teaching and learning (Dendir, 2022). Compared to the traditional homework online homework has alot of advantages such as giving a more detailed information about students' activities and recording these activities. For students there are many benefits of the use of web platforms to assign homework. Immediate and individualized feedback can encourage students to practise the exercises to achieve mastery. Also, online tools allow teachers to reduce the time spent on grading the homework and monitor students' learning (Magalhaes et al., 2020).

## Self-Efficacy

Bandura (1989) explains reciprocal causation between social cognitive theory and human behaviour by grounding the interaction among thought, affect, and action. Expectations, beliefs, self-perceptions, aims, and intentions are the factors which channel and shape behavior. Also, the effects of the behaviours partly determine the ways of thinking and emotional reactions (Bandura, 1989). In social cognitive theory people are not controlled by inner perceptions or environment automatically, instead they function by developing their motivation, behavior, and progress through a set of effects which are interacted mutually. In the same potential environment, the people who have a high sense of self-efficacy focus on benefits; on the other hand, the people who have a low sense of self-efficacy focus on problems and risks (Krueger & Dickson, 1994). Self-efficacy is people's beliefs in their abilities to reach performance levels that are determinants of the crucial events in their lives (Bandura, 1994). Self-efficacy beliefs determine how people feel, think, act and how they motivate themselves. The people who have a high sense of self-efficacy see challenges as an opportunity to struggle, if these people fail or confront obstacles they can fix their efficacy perceptions (Bandura, 1994). Thus, it can be stated that learners' self-efficacy perceptions are effective on their motivation levels. Self-efficacy expectations are central in social cognitive theory proposed by Bandura (1994); a person's beliefs about his/her ability in acting to achieve desired personal goals form the construct of self-efficacy (Freire et al., 2020).

## Perceived Responsibility

In higher education scientific reasoning, communication and critical thinking come to mind in learners' educational construct and in fact the center of assessment in education is in these areas in general. A fundamental structure which at first does not come to mind is perceived responsibility for learning and it is defined as a student's acceptance of academic expectations willingly. According to Davis and Murrell (2003), academic responsibility is the key to improvement and learning (Swain, 2012). Homework practices are expected to improve students' perceived responsibility for academic outcomes (Kitsantas & Zimmerman, 2005). According to Bacon (2003), the students who can take responsibility academically are motivated internally and emphasize personal control over academic experiences, however; the ones who take less responsibility act upon performance but they focus less on processing information deeply (Swain, 2012). Social cognitive theorists classify students' activities into two groups: motivational processes (success expectations, adapting to school, etc.) and self-control processes (responsibility for learning and regulating affect, behavior, and concentration). Self-regulated learning involves motivational and self-control processes which are related to each other. In the process of becoming self-regulated learners a key element in educational researches is how students use motivational, cognitive and self-control resources at school (Corno, 1992). In this regard, it can be stated that for students perceived responsibility has an important role in becoming a self-regulated learner.

## Motivation

Within the context of self-regulated learning, students can regulate their cognition, motivation and affect. Regulating motivation and affect involve attempts to regulate a variety of motivational beliefs some of which are goal orientation (aims in fulfilling a task), self-efficacy (efficacy perceptions in fulfilling a task), perception of task difficulty, task value beliefs (the importance of the task, its usefulness, its relatedness), and personal interest (enjoying the content) (Pintrich, 2004). Self-efficacy plays a key role in self-regulating motivation; motivation is generated mostly cognitively. People motivate themselves with forethought practice and shape their actions prospectively with forethought (Zimmerman, 1989). There are three different kinds of motivators: casual attribution, outcome expectations and common goals. Self-efficacy beliefs are operated in all these cognitive motivation types (Zimmerman, 1989). Students go through a variety of self-regulated behavioral processes when they do their homework, even though the effects of homework behaviour in these processes have been analyzed, the effects of online homework are a topic which have not been studied much yet (Ozcan, 2016).

## The Scope of the Study

Within the scope of this study online homework has been given through Oxford self-access online homework platform which is used as a part of the program in Foreign Languages College at the Gaziantep University. This portal enables students to do homework in a planned and systematic way by following the curriculum. Thus, students can get instant feedback and also the instructors can monitor students' activities. Using online homework programs at the universities in Turkey has started very
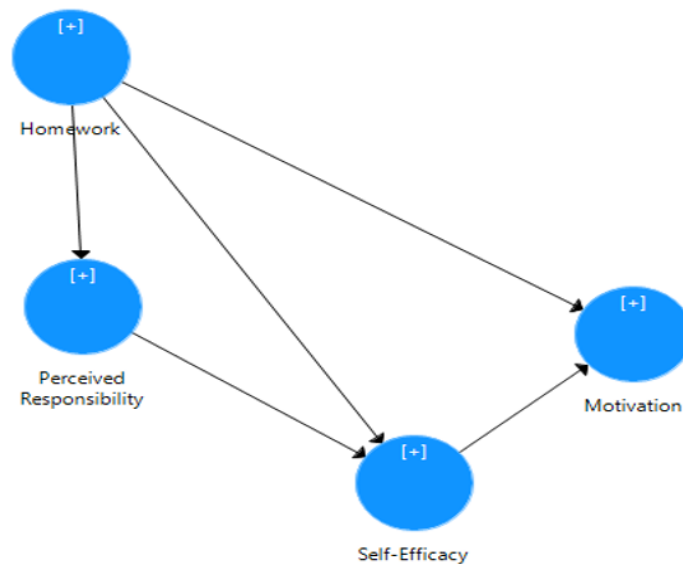
**Figure 1.** Research model

recently which may be the reason why there are few studies in literature about the effects of online homework. Studies to be conducted about this topic have great importance in increasing the efficiency of online homework applications in the future. The online homework grades of the students in Foreign Languages College at the Gaziantep University were obtained with the calculations at the end of the program module they studied in and the hypotheses were created by means of the analysis of the literature review foresaw. This study aims to analyze the effects of online homework performances of students on their self-efficacy beliefs, perceived responsibility and motivation levels. Accordingly, our main hypothesis in this study is that students' online homework performance is effective on their perceived responsibility, self-efficacy beliefs and motivation levels. In the scope of this main hypothesis the hypotheses below constitute the framework of our study.

1. Students' homework performances have a significant and direct effect on their perceived responsibility.
2. Students' homework performances have a significant and direct effect on their self-efficacy beliefs.
3. Students' homework performances have a significant and direct effect on their motivation levels.
4. Students' perceived responsibility has a significant and direct effect on their self-efficacy beliefs.
5. Students' self-efficacy beliefs have a significant and direct effect on their motivation levels.

On the basis of the hypotheses above, the research model of this study is given in **Figure 1**.

## METHOD

The aim of this study is to analyze the relations among the students' homework performances, self-efficacy beliefs, perceived responsibility, and motivation levels at Foreign Languages College; so in order to analyze the relations in the hypothetical model the study was designed with correlational survey method in quantitative approach.

### Participants and Procedure

In this study, participants were chosen with random sampling technique. Sample group involves 441 students who are voluntary participants studying in Foreign Languages College at the Gaziantep University in 2020-2021 academic year. Their departments are College of Engineering and Architecture, College of Aviation and Space Sciences, College of Medicine, College of Education, and College of Liberal Arts and Sciences. The average age of the participants is 17 and 245 of these students are male while 196 of them are female students. During data collection process all students who study in A2, B1, and B1+ levels participated in the study. During data collection process the scales were prepared via google documents in digital media and the links were sent to the students because they were having their classes online due to the COVID-19 pandemic. The researcher herself attended online sessions of each class and kept a close eye on students to make sure that they were given enough time to fill in the scales. She also informed students about the necessity of giving close attention to each item. At the same time students were informed that the research was based on voluntariness and the data would be used for only scientific reasons. The total duration of data collection process was observed as about 20 minutes.

### Measures and Data Collection

In the scope of the research self-efficacy for learning scale (SELF), perceived responsibility scale, motivation scale on learning English and Oxford online learning homework platform were used as data collection tools.

### Self-efficacy for learning scale

"Self-efficacy for learning scale" which was developed by Zimmerman (2005) was used in this study to reveal the students' self-efficacy levels for learning. Items in this scale assess the use of self-regulated processes by students in different academic learning experiences such as reading, note taking, writing, and studying. The first version of this scale which was developed by Zimmerman and Kitsantas (2005) was composed of 57 items, for the upcoming studies the researchers agreed on a shorter version and they reduced the number of items to 19 (Zimmerman & Kitsantas, 2008). Self-efficacy for learning scale was translated into Turkish by two academics who are specialized in language teaching. Thereafter, a lecturer who is specialized in educational studies checked the scale for its adaptation to field terminology and Turkish language. After all, the scale was applied to five students who had studied in Foreign Languages College before, and they gave feedback about the items in the scale. With these feedbacks the scale was finalized and applied for the data collection. For the Turkish version of the scale, confirmatory factor analysis was done; Cronbach's alpha was calculated for reliability. The Turkish version of the scale has acceptable fit indices (GFI=.92, NNFI=.91, CFI=.93, RMSEA=.064, and SRMR=.052), Cronbach's alpha reliability coefficient is calculated as .78. and composite reliability is calculated as .80.

### Perceived responsibility scale

Perceived responsibility for learning scale was developed and applied by Zimmerman and Kitsantas (2005) to study the effects of homework on success. Zimmerman and Kitsantas (2005) observed self-efficacy and perceived responsibility for learning as mediating variables to learn the effects of homework on academic success. This scale involves 18 items which represent academic outcomes such as motivation, behaviour and learning processes. Perceived responsibility scale was translated into Turkish by two academics who are specialized in language teaching. Also, a lecturer who is specialized in educational studies checked the scale for its adaptation to field terminology and Turkish language. After all, the scale was applied to five students who had studied in Foreign Languages College before, and they gave feedback about the items in the scale. With these feedbacks the scale was finalized and applied for the data collection. For the Turkish version of the scale, confirmatory factor analysis was done; Cronbach's alpha was calculated for reliability. The Turkish version of the scale has acceptable fit indices (GFI=.92, NNFI=.90, CFI=.92, RMSEA=.047, and SRMR=.059), Cronbach's alpha reliability coefficient is calculated as .82. and composite reliability is calculated as .81.

### Motivation scale on learning English

Motivation scale on learning English in this study was developed by Karci and Gundogdu (2018). While developing this scale the aim was to measure motivation levels of preparatory class students at a university in learning English. The scale involves 15 items and it was designed for students who study English at any department of university. The factors of this scale were specified by confirmatory factor analysis and when fit indices were observed the Chi-square value was seen significant ($c^2$=167.62, N=219, sd=84, p=.000). The calculated sd/$c^2$ rate is ½. Fit indices are RMSEA=0.06, GFI=0.90, AGFI=0.86, CFI=0.96, NNFI=0.95, RMR=0.05, and SRMR= 0.06. The cronbach alpha value changes between 0.52 and 0.62 (Karci & Gundogdu, 2018). Composite reliability is calculated as .86.

#### Data Analysis

In the scope of the study 663 students returned the scales but because of the deficient data of some students and because there are extreme values, the analysis was conducted on 441 participants. In the analysis of the data Smart PLS 3 program was used. In this direction, tests of hypothesis were conducted with factor analysis and bootstrap method on the fit data that passed in primary review. In the analysis of this study the reason why PLS-SEM attitude was preferred can be summarized as: PLS-SEM attitude is estimation-oriented, distribution hypothesis focuses on nonparametric values. Statistical tests for parameter display are jackkniffing or bootstrapping. Measurement model is formative and reflective. In this attitude goodness of fit indices are not necessary and Smart PLS software is used (Olya, 2017, as cited in Polat, 2018). Before the findings were observed, the structure of the factors was analyzed on the foreseen estimation model with the data obtained from participants. Accordingly, in order to have the required minimum value of .400 in PLS-SEM studies, the factor loadings of the variables in the estimated model of the study were arranged and the ones disrupting the structure were removed from the model. Similarly, composite reliability (CR) and Cronbach's alpha values were observed above .70.

## RESULTS

In this part of the study the findings are presented with the clarification of the hypotheses. The values obtained with the path analysis conducted are in **Figure 2**.

According to **Figure 2**, the relation between students' online homework performances in learning English process and their perceived responsibility is statistically nonsignificant (p≤.5), while the relation between self-efficacy beliefs and motivation is statistically significant. Accordingly, bootstrapping analysis was conducted on the foreseen estimated model and with this analysis t-test points related to "path coefficients' values were controlled to see which are significant with %5 margin of error ratio (≥1.96). The results obtained are presented in **Table 1**.

According to **Table 1**, there is no statistically significant relation between homework performances and motivation levels in Foreign Languages College (β=-0.025; t=0.584; p≤.05). Hereof, students' homework performances do not affect their motivation levels in a statistically significant way. Similarly, the relation between homework performances and self-efficacy beliefs (β=-0.069; t=1.445, p≤.05); the relation between homework performances and perceived responsibility (β=-0.002; t=0.019, p≤.05) are negative
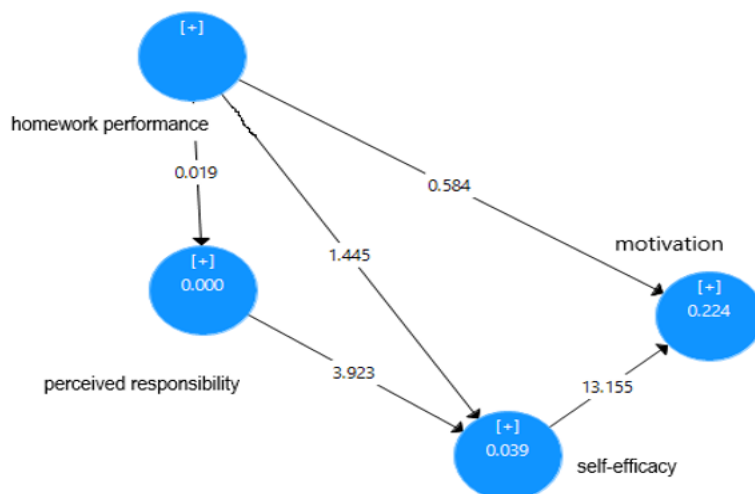
**Figure 2.** The correlation among online homework (homework performance), perceived responsibility, self-efficacy beliefs (self-efficacy), and motivation levels of students in Foreign Languages College

**Table 1.** Path coefficients t-statistics values of the structural model

|  | O | M | SD | t-Statistics(\|O/SD\|) | p-Value |
|---|---|---|---|---|---|
| Homework≥Motivation | -0.025 | -0.026 | 0.044 | 0.584 | 0.559 |
| Homework≥Self-efficacy | -0.069 | -0.068 | 0.048 | 1.445 | 0.149 |
| Homework≥Perceived responsibility | -0.002 | -0.002 | 0.081 | 0.019 | 0.985 |
| Self-efficacy≥Motivation | 0.471 | 0.479 | 0.036 | 13.155 | 0.000 |
| Perceived responsibility≥Self-efficacy | -0.186 | -0.220 | 0.047 | 3.923 | 0.000 |

Note. *p≤.05; p≤.001; O: Original sample; M: Sample mean; SD: Standard deviation

and statistically insignificant. The relation between self-efficacy and motivation levels is positive and statistically significant (β= 0.471; t=13.155, p≤.05). Thus, it can be concluded that self-efficacy beliefs affect motivation levels in a significant way. The relation between perceived responsibility and self-efficacy is negative and statistically significant (β=-0.186; t=3.923, p≤.05).

## DISCUSSION AND CONCLUSIONS

Several studies about homework focus on the effects of students' homework peformances on learning experiences (Cooper et al., 2006; Kitsantas & Zimmerman, 2009; Peng, 2009). In her study, Shuman (2015) observed the comparison between traditional homework and online homework. According to the results of this study, doing any kind of homework (traditional or online) improves students' learning outcomes significantly compared to a state in which students do not do any homework. The result of this study is important because it means that increasing the time spent on going through the knowledge learned in class also increases learning. In this study, there has not been a significant relation among homework performance, self-efficacy, motivation, and perceived responsibility. Shuman (2015) observed that homework has a positive effect on academic success, in this study it was revealed that homework does not have any significant relation with affective characteristics (self-efficacy, motivation, and perceived responsibility). Therefore, homework increases students' academic success but it does not contribute to the development of affective characteristics. In other words, homework is ineffective in motivating students and improving their beliefs in becoming successful and their perceived responsibility towards learning. The reason of this may be the quality of homework and students' perceptions towards homework. In a study conducted in high school by Ekici and Akdeniz (2018), the metaphors that students emphasize most about homework are suffering, unliked food, inessentiality, repetition, waste of time etc. According to Cooper (2001), for enabling students to benefit from homework, assigning homeworks which are suitable for students' age and level and assigning the right type and amount of homework are highly important. If homework is a repetition of the activities done in classroom; that is, if homework is in knowledge level or comprehension level, students generally think of it as a duty which they want to get rid of by completing immediately. Also, when homework is not suitable for students' levels and the amount of homework is too much, students' academic interests decline and emotional tiredness and negative attitude towards school come up (Cooper et al., 2006; Katz et al., 2014; Yuladir & Dogan, 2009). Consequently, these homeworks are inadequate in motivating students who complete their homework and they are also inadequate in improving students' beliefs in becoming successful.

Students' beliefs about the benefits of homework is another topic of discussion, generally students tend to avoid homework or get somebody to do it (Keskin & Ozer, 2016). A student who does not believe in the profit of homework does this homework by copying contents from the Internet or by getting help from others. This way of doing homework leads students to cheat or to confine themselves to perform in minimum level. Yildirim (2008) states if homework does not appeal to children's interests and curiosity, it does not provide any benefit, especially homeworks that are assigned every day are so boring for children and generally they are not completed.

Another important topic is the amount of homework. While a certain amount of homework contributes to academic success, there are findings in some studies about the contribution of less homework on academic success compared to much homework (Walberg et al., 1985). When the amount of homework is too much it may be so boring and this may result in negative effects on the development of students' affective characteristics. It is highly important for teachers to act according to students' readiness levels, interests and needs while planning homeworks. Also, homeworks should be designed to measure up students' long-term and short-term personal needs (Cooper, 1989). In this regard, doing a detailed research about the quality of homework and perceptions towards homework is seen important for future studies.

In literature the effects of homework have been a topic of discussion for a long time, in their study Kitsantas and Zimmerman (2009) concluded that homework performances are related to students'grades regardless of their gender and at the same time homeworks have positive effects on students' self-efficacy because they encourage students to take more responsibility during learning process. In our study, homework performances are not related to self-efficacy beliefs significantly, the reason of this may be students' seeing homework as an obligatory part of the educational program in Foreign Languages College. Related to this study, Peng (2009) observed students' motivation levels and an online homework platform which provides instant feedback. According to the results of this study, having the chance to submit a homework again in online platform motivated students who perform poorly. In our study homework performances are not related to students' motivation levels significantly the reason of which may be students' lack of ability in using computer programs and so they have difficulty during this process. Using technology in online homework programs is a topic of research for future studies.

In their study, Prat-Sala and Redford (2010) observed the relation between motivation and self-efficacy. According to the results of this study, the students who have high self-efficacy develop a more strategic attitude towards studying. Moreover, the changes in students' attitudes towards learning depend on their self-efficacy beliefs, in this direction it was concluded that students' self-efficacy perceptions are related to their internal and external motivation levels. Similarly, in their study Gaylor and Nicol (2016) concluded that self-efficacy and motivation levels are related. Also in our study, self-efficacy and motivation levels were observed as positively related. In this regard, it can be stated that for students having a high sense of self-efficacy increases motivation levels in their studies.

Kitsantas and Zimmerman (2009) conducted a study with path analysis in which they concluded a significant relation between homework performance and perceived responsibility in a positive way. In our study, homework performances are not significantly related to perceived responsibility, the reason of this may be because students fulfill their homework responsibility with the anxiety of being graded. In both studies self-efficacy and perceived responsibility are observed the same, the reason of which may be explained as students' having high self-efficacy beliefs are more willing and ready to take responsibility.

In our study, the relations among students' performances in online homework, self-efficacy beliefs, perceived responsibility and motivation levels were observed and according to the findings it was revealed that students' homework performances are not related to self-efficacy beliefs, perceived responsibility and motivation levels in a positive way. It was concluded that students' self-efficacy beliefs and motivation levels are siginifically related. Similarly, self-efficacy beliefs and perceived responsibility are significantly related.

### Limitations of the Study

In this study, the data were collected online when preparatory class students had their classes online because of the COVID-19 pandemic. The researcher got in touch with the students during these classes by attending them and by sharing the questionnaire links. This created a limitation in reaching students and resulted in some deficiencies in questionnaire results. The results of this study were limited to the 3rd module homework grades in 2020-2021 in Foreign Languages College at Gaziantep University and the grades in other modules were not included.

### Recommendations

It is advisable to conduct this study with different samplings such as students from different departments or different classes so that more comprehensive data can be obtained about the effects of online homeworks. In addition, in future studies observing some variables such as the types of homeworks and the frequency of assigning them would provide more detailed information and different aspects about the effects of online homework. In addition, it is advisable to get feedback from teachers about the efficiency of online homework in higher education classrooms which can provide more data for future studies.

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