

## Prediction of English as Foreign Language Courses' Grades

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### **Abstract**

The grade point average (GPA) of students in their English as a foreign language (EFL) course plays an essential role in the educational and vocational careers. These grades also influence the curriculum design and program policy of EFL. This study uses Ajzen's theory of planned behavior (TPB) model to predict the grades EFL students would receive at the end of the semester. A mixed-method questionnaire based on TPB was designed for 380 students who are taking prerequisite EFL courses at a university in Saudi Arabia. The questionnaire was distributed among the students at the beginning of the semester, whereas their grades were collected after the semester. The data were analyzed quantitatively and qualitatively. Results corroborate that Ajzen's theory fits the obtained data. The learners' intentions to achieve high or low course grades were remarkably affected by the attitudes of the students and the important people around the learners. Therefore, the attitudes of the relatives and friends of students are important in collectivist cultures like Saudi Arabia. The participants' grades were also slightly affected by their intention and self-efficacy beliefs. Meanwhile, qualitative results identified other important factors that influence learners' grades (e.g., cognitive, curriculum, students' responsibilities, motivation, teaching, awareness, and testing factors). Thus, additional factors must be included in future models that predict learners' grades for a considerable effect size. Researchers should also employ quantitative and qualitative methods to improve their understanding and perspective of the situation.

**Keywords:** Prediction of grades; EFL courses; Theory of planned behavior; learners' beliefs; intention

## التنبؤ بتقديرات مقررات اللغة الإنجليزية كلغة أجنبية

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### المستخلص:

تلعب تقديرات الطالب في مقررات اللغة الإنجليزية كلغة أجنبية دوراً أساسياً في المجالين التعليمي والمهني. فيما تؤثر هذه التقديرات في تصميم المناهج وسياسات برامج اللغة الإنجليزية كلغة أجنبية. وتقوم هذه الدراسة على نظرية أجزن في التخطيط السلوكي للتنبؤ بتقديرات طلاب اللغة الإنجليزية كلغة أجنبية والتي سوف يحصلوا عليها نهاية الفصل الدراسي. وقد صُمم استبيان مختلط وفقاً لنظرية السلوك المخطط ووزع على ٣٨٠ طالب من الطلاب الذين يدرسون متطلب مقرر اللغة الانجليزية كلغة أجنبية في إحدى الجامعات السعودية. وقد وُزِع الاستبيان على الطلاب بداية الفصل الدراسي بينما تم أخذ تقديرات الطلاب في نهاية الفصل الدراسي. وبعد تحليل البيانات كماً ونوعاً، أثبتت النتائج أن نموذج نظرية أجزن يتفق وبيانات هذا الدراسة، حيث تأثرت نية الطلاب للحصول على تقديرات عالية أو منخفضة بشكل ملحوظ بموقف الطلاب والأشخاص الهامين لديهم والمحيطين بهم. لذا يعتبر موقف أقارب وأصدقاء الطالب عامل هام في الثقافات الجماعية كالمجتمع السعودي، وتأثرت درجة الطلاب بشكل بسيط بنيتهم وإيمانهم بكفاءتهم الذاتية، بينما أظهرت النتائج النوعية عوامل هامة أخرى تؤثر على تقديرات الطلاب (عوامل المعرفة، عوامل المنهج، عوامل مسؤوليات الطلاب، عوامل الدافعية، عوامل التدريس، عوامل الوعي، عوامل الاختبارات)، لذا يجب أن يتضمن النموذج في المستقبل عوامل إضافية للتنبؤ بتقديرات الطلاب لكي يكون حجم التأثير أكبر. كذلك ينبغي على الباحثين استخدام طرق كمية ونوعية في جمع البيانات لزيادة فهم الحالة المستهدفة.

**الكلمات المفتاحية:** التنبؤ بالتقديرات، مقررات اللغة الإنجليزية كلغة أجنبية، نظرية السلوك المخطط، آراء الطلاب، النية

## 1. Introduction

Grades are the indicators of students' performance in a course by measuring how learners achieved the learning outcomes. Grades also help school administrators and instructors understand students' performance and, thus, design interventions and curriculums. Grades also give students feedback about their progress and achievement of the learning outcomes. Moreover, grading systems motivate learners to study harder and achieve higher goals than usual. Grades reflect the effectiveness of teaching methods, textbooks, learners' motivation, learners' achievements, curriculum objectives, assignments, quizzes, and exams. They also influence the lives of learners. An outstanding grade allows a student to enter college, obtain scholarships, earn certificates, and obtain employment.

Given such importance, grades must be predicted before they appear on students' transcripts. The prediction of grades will help instructors and curriculum designers to create interventions that will improve the learners' grades and provide weak learners with extra treatment to improve their level of achievement. Thus, a valid and

reliable theoretical framework that helps predict learners' performance must be produced. This framework will provide precise and efficient results that explain the factors that influence grades.

One such framework is Ajzen's theory of planned behavior (TPB), which uses people's beliefs to predict their behaviors. While TPB has been tested in several fields (e.g., marketing, advertising, crimes, public relations, health care, and sports management), it has not been tested in the prediction of learners' grades. Thus, the present study uses TPB to predict the learners' grades in EFL courses.

## 2. Literature Review and Theoretical Framework

The prediction of grades is a complex topic to investigate. Previous studies focused on the prediction of the students' grades in EFL courses and their success in the learning environment. Researchers used international standardized English tests, such as TOEFL and IELTS, to predict academic success. They corroborated that such tests have weak to moderate effects in students' success at the university. Woodrow (2006) investigated the predictive

validity of the IELTS and identified the variables that may influence academic success. These variables include previous professional and English language learning experience. It also covered the views of academic staff on English proficiency and if such views influenced the staff's assessment of graduate education assignments. Participants included students and academic staff in the postgraduate education units of an Australian university. The results proved the predictive validity of the IELTS. Weak but significant correlations were obtained between the overall IELTS bands and the GPA of students. Meanwhile, Wongtrirat (2010) conducted a meta-analysis of studies from 1987 to 2009 that examined the correlations among TOEFL, GPA, and course completion. The results validated that TOEFL has a weak predictive ability on the GPA and course completion of international undergraduate and graduate students. Other studies, meanwhile, investigated the factors that predict standardized English tests. Demetriou (2016) examined the relationship between vocabulary measures and IELTS ratings. Such examination aims to identify which measures of lexical richness are suitable for predicting IELTS ratings. The diversity of the learners' vocabulary correlates with their

IELTS rating. Moreover, the qualitative analysis confirmed that vocabulary accounts for a high percentage of variance in ratings. It also provided insights into other aspects that may influence raters. These aspects could be added to future models to increase the productivity of IELTS scores.

Meanwhile, other researchers used local tests to predict learners' success. Daller and Phelan (2013) claimed that local tests are more effective in predicting learners' success than international standardized tests. They investigated the alternative measures of language proficiency that can predict the learning success of international students in an English speaking country. They used a battery of language tests at the beginning of the academic year to predict the average marks of students at the end of the academic year. They affirmed that students' marks could be predicted using tests that focus on vocabulary knowledge. In addition, Stappenbelt and Barrett-Lennard (2008) examined the effectiveness of specialized English language tutorials in improving the grades of international engineering students at an Australian university. The passing rates and grades of students who received tutorials have improved. Meanwhile, other researchers

correlated language learning courses and classes with students' passing rates. Kennelly, Maldoni, and Davies (2010) confirmed that the percentage of students' attendance is correlated with their passing rates. Moreover, Johnson and Tweedie (2017) proved taking English for academic purposes programs predict the GPA of undergraduate nursing students of a Canadian university in the Middle East.

Researchers used different methods to predict language learners' success in the undergraduate and graduate environments. International standardized tests, such as IELTS and TOEFL, were used alongside local tests, private tutorials, attendance of EFL percentage, and extra EFL courses. While these studies have acceptable results, they did not provide a comprehensive understanding of the factors that help language learning success. Moreover, they did not investigate the effects of motivational and attitude factors on the actual achievement of students at the end of the courses or programs.

A few researchers used beliefs and attitudes as a predictor of the success of language learners' success in their environment. One of these is Dörnyei's (2009) Second Language Motivational Self System. Moskovsky, Assulaimani, Racheva,

and Harkins, (2016) used Dörnyei's model as a theoretical framework to examine the level of the EFL proficiency of Saudi EFL learners. They designed a questionnaire containing three constructs: the ideal second language self, the ought-to second language self, and the second language learning experience, as well as learners' intended learning efforts. A total of 360 learners responded to the questionnaire. They also participated in reading and writing tests that were adapted from IELTS exam materials. The three main constructs successfully predicted the intended learning behavior. However, Dörnyei's model constructs were not consistently correlated with the students' achievement in the test. Thus, Dörnyei's model does not always have behavioral consequences.

Similarly, Kim and Kim (2011) designed a questionnaire to investigate the effect of perceptual language learning styles, imaginations, ideal second language selves, and motivated second language behaviors of Korean secondary school students on their final exam scores. These constructs did not have a notable impact on students' final exam scores. Moreover, Lamb (2012) affirmed similar results in the Indonesian

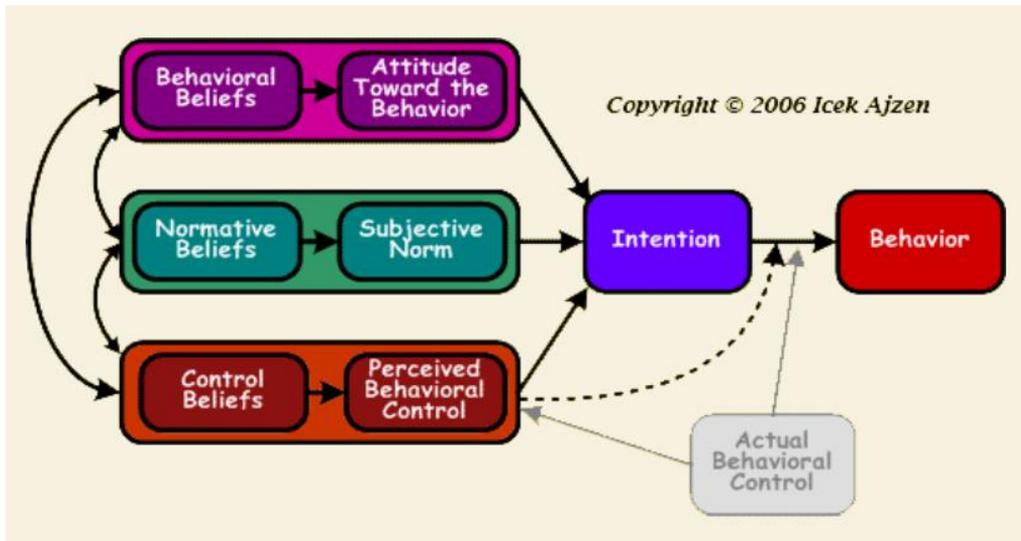
context. Lamb verified that Dörnyei's constructs only marginally influenced second language achievement via test scores. Dörnyei and Chan (2013) designed a questionnaire to predict learners' course grades, alongside the intended learning efforts of Chinese learners in Hong Kong. The questionnaire construct was confirmed to be capable of predicting motivated language learning behaviors. However, the correlations between the questionnaire constructs and the actual courses grades were not strong compared with the reported motivated behavior. Moreover, some of the questionnaire constructs (e.g., ought-to self) have no impact on grades.

Moskovsky, Assulaimani, Racheva, and Harkins, (2016) realized that most of the studies that used Dörnyei's model did not relate the questionnaire to actual behaviors, such as course grades and exam scores. By far, the capacity of self guides to affect second language achievement has not been established conclusively. Only a few studies attempted to relate self guides to actual behaviors (Dörnyei & Chan, 2013; Kim & Kim, 2011; Yang & Kim (2011). Most of the previous research that adopted Dörnyei's model focused on demonstrating the

link between the self guides and learners' intended learning efforts. These studies assumed that high intended learning efforts would necessarily lead to high second language achievement. Similarly, Alhamami (2018) used Ajzen' TPB to predict students' intention to attend face-to-face and online EFL classes. Alhamami contended that TPB could predict intention considerably. EFL students prefer face-to-face more than online classes. However, these studies only focused on predicting the learners' intended behaviors.

Only a few studies tried to predict the language learners' real behaviors, such as exams scores, course grades, and GPA of the complete program. Most of the studies that focused on students' beliefs and attitudes only predicted the learners' motivation and intended behaviors but not their real behaviors. In addition, these studies did not find a significant correlation between the intended and actual behaviors of the learners. Thus, a reliable and valid theoretical framework that has been tested in other fields is needed to fill the gap. Such a framework will enable the prediction of language learners' grades in EFL environments.

### **3. Theoretical Framework**



**Figure 1. Model of Ajzen's theory of planned behavior. By Icek Ajzen, (2006).**

### 3.1. Theoretical Framework

TPB is an extension of the theory of reasoned action. Martin Fishbein and Icek Ajzen developed a theory of reason action in the late 1970s. It proposes that one's intention to perform or not to perform a given behavior is a function of the following variables: (a) the person's attitude toward the behavior; and (b) the person's subjective norm, which represents one's general perception of the importance of the performance or nonperformance of the behavior (Fishbein & Ajzen, 1975). Meanwhile, the components of the theory of reasoned actions are behavioral intention (BI), attitude-behavior (AB), and subjective norm (SN). Such components can be

expressed by the following equation:  $BI = AB (W1) + SN (W2)$ , where  $W$  represents empirically derived weights.

In 1985, Ajzen introduced TPB as an extension of the theory of reasoned actions. He extended theory beyond easily performed voluntary behaviors by adding perceived behavior control as the third predicting cognitive variable to intention. TPB addresses the model's limitations in dealing with behaviors over which people have incomplete volitional control. Ajzen argued that the nonperformance of behavior is controlled by the lack of proper opportunities, skills, and resources. A person may be highly motivated by positive attitudes and norms. However, he or she might not

perform a specific behavior due to a lack of control over his or her own activities.

As in the theory of reasoned actions, the individual's intention to perform a given behavior is the central factor of TPB. Intentions refer to the motivational factors that influence a certain behavior. They are indicators of how much effort people are planning to exert to perform the behavior. "As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance" (Ajzen, 1991, p. 181). Beliefs are the building blocks in TPB, especially the behavioral beliefs that are most noticeable and readily accessible in memory. Ajzen (2007) stressed,

*The most frequently emitted behavioral, normative, and control beliefs are assumed to be the salient beliefs in the population and to determine prevailing attitudes, subjective norms, and perceptions of behavioral control. These salient beliefs focus on the particular behavior of interest, and they serve as the fundamental explanatory constructs in the theory. (p. 3)*

According to Ajzen (2007), other general factors, such as personality traits, gender, education, intelligence, motivation, and values, indirectly influence behaviors through salient beliefs. For instance, male students are less likely to major in language studies than female students. TPB would explain this gender effect by hypothesizing that female students hold more favorable behavioral, normative, or control beliefs about majoring in second language studies than male students. TPB assumes that human social behavior is reasoned or planned. Moreover, individuals consider the behavior's expected consequences, the normative expectations of important people, and the factors that may impede the performance of such behavior (Ajzen, 2007). TPB is designed to explain and predict human behaviors. It also aims to provide a framework for devising necessary behavioral change interventions in the future. Figure 1 illustrates that human behavior is predicted by intention. Intention is guided by the following constructs:

- a. Attitude Toward Behavior (AB). AB is the degree to which the performance of the behavior is positively or negatively valued. It is determined by the total set of accessible behavioral beliefs that

link the behavior to various outcomes and attributes. In this study, AB refers to the EFL learners' attitude toward achieving high or low grades in the course.

- b. Subjective Norms (SN). SN is the perceived social pressure to engage or not to engage in a behavior. SN is determined by the total set of accessible normative beliefs on the expectations of significant others. In this study, SN refers to the beliefs of significant others that EFL learners will achieve high or low grades in the course.
- c. Perceived Behavioral Control (PBC). PBC refers to people's perceptions of their ability to perform a given behavior. PBC is determined by the total set of accessible control beliefs, i.e., the presence of factors that may facilitate or impede the performance of the behavior. PBC is an accurate reflection of the actual behavioral control. Thus, together with intention, it can be used to predict behaviors. In this study, PBC refers EFL learners' beliefs about their ability to achieve high or low grades in the course.

Ajzen chose to differentiate these three constructs. However, some

researchers might not separate them. Ajzen (2007) corroborated that theoretically, personal evaluation of a behavior (AB), socially expected mode of conduct (SN), and self-efficacy (PBC) concerning behavior are different concepts. Each of them has an essential function in social and behavioral research. Thus, Ajzen (2007) gave the following example to illustrate these constructs:

*People may believe that the behavior of exercising, among other things, improves physical fitness and is tiring (behavioral beliefs), that their family and friends think they should exercise (normative beliefs), and that time constraints make it difficult to exercise (control belief). Taken together, the total set of behavioral beliefs produces a favorable or unfavorable attitude toward the behavior; the total set of normative beliefs results in perceived social pressure to perform or not to perform the behavior, or subjective norm; and, in their totality, control beliefs give rise to a sense of self-efficacy or perceived control over the behavior. (p. 2).*

Ajzen (2006) stressed that intention is an indication of a person's readiness to perform a given behavior. Thus, it is considered to be the immediate antecedent of behaviors. Intention is based on attitude toward the behavior, subjective norm, and perceived behavioral control. Each predictor is weighted for its importance about the behavior and population of interest. According to Ajzen (2006), the behavior is the observable response in a given situation of a given target. Single behavioral observations can be aggregated across contexts and times to produce a broad representative measure of behaviors.

In TPB, behavior is the result of compatible intentions and perceptions of behavioral control. Theoretically, PBC is expected to moderate the effect of intention on behaviors in the sense that a favorable intention produces the behavior only when PBC is strong. In practice, the intentions and perceptions of behavioral control are generally found to have major effects on behavior but none for significant interaction (Ajzen, 2006). Thus, TPB can be represented as follows:  $\text{Intention} = \sum \text{AB} + \text{SN} + \text{PBC}$ .

The present study uses the intention of students to learn and achieve grades in EFL courses as an

indicator of their obtained grades at the end of the semester. Students who have positive AB, SN, and PBC beliefs will have a positive intention to learn and achieve good grades in the course. Positive intention about the grades at the beginning of the semester will correlate with the obtained grades at the end of the semester. Meanwhile, negative AB, SN, and PBC beliefs will form a negative intention. Such a negative intention about learning and obtaining grades at the beginning of the semester will correlate with lower grades at the end of the semester.

### 3.2. Research Questions

Predicting the grades of learners is important. However, the intention and its factors must also be understood because the intention is the proxy for expected outcomes. However, predicting learners' intention can be difficult because it is influenced by several factors. Therefore, researchers need a valid and reliable theoretical model, such as Ajzen's TPB, to examine and analyze the learners' intention and predict their grades as an outcome of their course achievement.

1. To what extent does Ajzen's TPB model help language educators to understand learners' beliefs and predict their grades?
2. What are the effects of EFL

learners' attitudes, the beliefs of significant others, and the self-efficacy beliefs of learners on their intention to achieve high grades?

3. What is the effect of EFL learners' intention at the beginning of the semester on their actual obtained grades at the end of the semester?
4. What are the other important factors that influence learners' grades on EFL courses?

## **4. Methodology and Research Design**

### **4.1. Questionnaire**

The researcher followed the guidelines and recommendations provided by Ajzen (2006) and Francis et al. (2004) in constructing a valid and reliable TPB questionnaire. Francis et al. (2004) designed and published a manual in designing an effective questionnaire to measure the TPB constructs based on current practice. Moreover, the researcher used published surveys that used TPB as a theoretical framework as a default for designing the final questionnaire. Such surveys include Ajzen (2006), Alhamami, (2018), Fishbein and Ajzen (2010), and Knabe (2012). After designing and translating the questionnaire items. The questionnaire was sent to eight instructors in the same institution for

reviews and revisions. These reviewers are native Arabic speakers and are fluent in English. Thus, they also helped in checking the accuracy of translation. In addition, the researcher piloted the questionnaire on 32 students via the Internet using the Blackboard learning management system. The researcher posted the questionnaire and asked the students to fill in the questionnaire items. Subsequently, the researcher met the students and asked them about the questionnaire items as well as their feedback. The final research design and final questionnaire items are based on the feedback from the reviewers and students.

The final draft of the questionnaire consisted of three sections in Arabic (participants' mother tongue). The first section contained biographical information about the participants. The second section contained 25 close-ended items that measure intention, AB, SN, and PBC. Each of the four constructs has five items to measure it. As recommended by Francis et al. (2004), items were presented in the nonsystematic order to ensure reliability. The questions used to assess AB were interspersed with the questions used to measure SN and PBC. Moreover, the last section of the survey contained two open-ended questions, which sought for

students' comments about the factors that help them to achieve courses grades. Thereafter, the researcher posted the questionnaire on students' university accounts at the beginning of the semester via the blackboard learning management system. The researcher also asked the instructors of these target courses to encourage their students to fill out the online questionnaire, which appeared on their accounts. Meanwhile, permission from the administration of the college that supervises these EFL courses was obtained before conducting the research. The students' voluntary agreement to participate in this study was taken using an online consent form written in their mother tongue. Students must sign an online agreement proving their voluntary participation before they can respond to the questionnaire.

#### 4.2. Analysis

After finishing the courses, the students' grades were collected from the university system and manually encoded in an Excel sheet. A total of 13 surveys were discarded after screening because participants did not answer all the items. In addition, seven surveys were excluded at the end because the participants did not receive grades for the course. They either withdrew the course or were absent during the final exam. The

researcher then manually scrutinized and inspected the students' answers to exclude surveys that do not show active engagement. For instance, some students chose only one answer for all 25-survey items. Thus, a total of 21 questionnaires were excluded because these participants appeared to have not actively engaged in responding to the survey. The final number of completed surveys dropped to 380.

The researcher transferred the survey data from the Excel Spreadsheet to SPSS, a statistical software that checks scale reliability. Cronbach's alpha was used to measure the internal consistency of the items in each construct. Cronbach's alpha results affirmed the acceptable reliability of the scale in the four constructs, as shown in Table 1. The data were checked on the basis of the following assumptions: internal consistency, univariate outliers, multivariate outliers, normality, and multicollinearity. After these assumptions were met, the data were analyzed using AMOS statistical software.

The TPB model was tested via confirmatory factor analysis (CFA) using AMOS. CFA is a component of structural equation modeling for testing conceptual and theoretical models. CFA is used when the

observed measures and the underlying factors from previously tested theoretical models are correlated. It is widely used in the social sciences because of its ability to isolate observational errors from the measurement of latent variables. It allows the modeling and testing of intricate patterns of relationships as a whole. It captures the relationships accurately between TPB constructs. It also captures the relationships

between indicating items and the measured latent variables in the TPB survey. Meanwhile, model fit is the issue of how the model that best represents the data reflects underlying theory or to what extent is the theoretical model supported by the obtained data. Model fit shows how well a theory fits the sample data in a study. Various fit indices can be used as guidelines.

**Table 1: Internal Consistency Results Using Cronbach's Alpha (n = 380)**

Variables	K	Alpha
Intention	5	.91
Direct AB	5	.87
Direct SN	5	.85
Direct PBC	5	.77

Note. *k* = number of items in the construct.

### 4.3. Context and Participants

The study was conducted in four intensive EFL courses at a public university in Saudi Arabia. The EFL courses are core courses in students' undergraduate study plans. The courses are offered to students at different levels based on their study plans and majors. The courses integrate all EFL skills, such as reading, writing, listening, and grammar, in one course. Such courses were titled ENG 011 course (n = 124), ENG 012 course (n = 125), ENG 015 course (n = 39), and ENG 019 (n = 92), respectively. A total of 301 male

and 79 female students joined the study. The students are attending in three separated campuses: Male Campus A (n = 191), Male Campus B (n = 110), and Female Campus (n = 79). Table 2 presents the descriptive data of the participants.

**Table 2: Participants Descriptions (n = 380)**

<i>Participants Genders</i>		
Gender	Frequency	Percent
Male	301	79.2
Female	79	20.8
<b>Total</b>	<b>380</b>	<b>100.0</b>
<i>Courses Titles</i>		
Courses	Frequency	Percent

ENG 011	124	32.6
ENG 012	125	32.9
ENG 015	39	10.3
ENG 019	92	24.2
<b>Total</b>	<b>380</b>	<b>100.0</b>
<i>Campus Titles</i>		
<b>Campus</b>	<b>Frequency</b>	<b>Percent</b>
Male A Campus	191	50.3
Male B Campus	110	28.9
Female Campus	79	20.8
<b>Total</b>	<b>380</b>	<b>100.0</b>

#### 4.4. Results

CFA was used via AMOS to empirically validate the TPB model. The CFA model explains how the observed and latent variables are related to one another. Initially, the model was specified. The researcher tested the plausibility of the model based on sample data that comprised all observed variables. The primary task was to determine the goodness-of-fit between the hypothesized model and the sample data. Thus, the structure of the hypothesized model was imposed on the sample data to test how well the observed data fits such a restricted structure. The results of CFA via AMOS were used to evaluate the model fits of the measurement model to confirm the hypothesized structure.

#### 4.5. AMOS Model Results

Following the guidelines from Ajzen (2006), Fishbein and Ajzen

(2010), and Francis et al. (2004) for analyzing TPB surveys, the researcher used the mean of the three measures (AB, SN, and PBC) to predict the mean of intention and predict the course grades by the mean of intention ( $n = 380$ ). CFA analysis with AMOS was used to test Ajzen's theory model as a predictor of EFL students' intentions and courses grades. In the AMOS model, the observed and endogenous variables were intention mean and course grades; the observed and exogenous variables were AB mean, SN mean, and PBC mean; and the unobserved and exogenous variables were error one and error two. The model contained 15 distinct sample moments, 13 distinct parameters to be estimated, 7 variables in the model, 5 observed variables, 2 unobserved variables, 5 exogenous variables, and 2 endogenous variables. The degree of freedom was  $15 - 13 = 2$ . The chi-square was 6.30, whereas the probability level was 0.04. The CFA showed an acceptable overall model fit. Hence, the theorized model fits well with the observed data; thus, the hypothesized CFA model fits the sample data very well. Therefore, the proposed research model fits the data reasonably. Table 3 illustrates the model fit results.

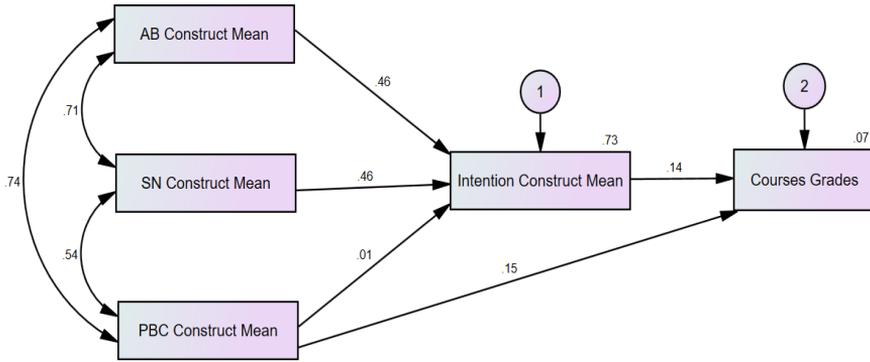
**Table 3: Model Fit Results for the Model When the PBC Connect to Grades**

<b>Models</b>	<b>Acceptable Threshold Levels</b>	<b>Model Results</b>
Chi-squared test, $\chi^2$	$p > 0.06$	6.30
Relative $\chi^2$ ( $\chi^2/df$ )	Highest 5.0 (Wheaton et al., 1977) Lowest 2.0 (Tabachnick & Fidell, 2007)	3.15
RMSEA	Range from .05 to .10	.08
GFI	>.90	.99
AGFI	>.90	.95
RMR	Small value of RMR	.05
SRMR	<.05	.02
NFI	>.95	.99
CFI	>.95	.99
NNFI(TLI)	>.95	0.98

*Note.* RMSEA = root mean square error of approximation; GFI = goodness-of-fit statistic; AGFI = adjusted goodness-of-fit statistic; RMR = root mean square residual; SRMR = standardized root mean square residual; NFI = normed-fit index; NNFI = nonnormed fit index; TLI = Tucker-Lewis index; CFI = comparative fit index.

The path diagram output (Figure 2) shows the standardized model with  $r^2$ . The values associated with each path are standardized regression coefficients. A straight arrow represents a path in the model. The

scores in the straight arrows represent standardized effects. A curved arrow represents a correlation between two variables. The scores in the curved arrows represent covariance.



**Figure 2 Model of TPB Constructs and EFL Course Grades**

The three variables significantly predicted intention, with a 73% overlap between the three predictors and outcome of intention ( $r^2$ ). When predicting intention, I erred by approximately .71 intention-rating points based on a scale from 1 to 6. AB and SN remained significant predictors, with AB as a standardized direct effect of .46 ( $p = .00$ ), SN as a standardized direct effect of .46 ( $p = .00$ ), and PBC was not a significant predictor of intention ( $p = .90$ ). The intention mean variable significantly predict course grade ( $p = .03$ ), with a

standardized direct effect of .14. PBC mean variable significantly predict course grades ( $p = .02$ ), with a standardized direct effect of .15. AB mean and PBC mean had the highest correlation, whereas SN mean and PBC mean had the lowest correlation.

AMOS also reported the standardized direct and indirect effect or loading, unstandardized direct effect, and indirect effect. Table 4 reports the effects of model predictors on intention and course grades.

**Table 4: Effects of Model Predictors on Intention and Course Grades**

Variables	PBC		Intention		Course Grades			
	DE	SDE	DE	SDE	DE	SDE	IE	SIE
AB Mean			.44	.46			.11	.06
SN Mean			.47	.46			.12	.06
PBC Mean			.01	.01	.31	.15	.00	.00
Intention					.26	.14		
Course Grades	.30	.15						

*Note.* DE = direct effect; SDE = standardized direct effect; IE = indirect effect; SIE = standardized indirect effect; TE = total effect; STE = standardized total effect.

SN and AB have the same standardized direct effect on intention, whereas PBC has a very low standardized direct effect on intention. However, PBC has a stronger standardized direct effect on courses grades than intention variable, whereas SN and AB variables have the same standardized indirect effect on course grade. A one-point increase in the AB mean and SN mean was associated with an increase in intention by .44 and .47 points, respectively. Meanwhile, a one-point increase in intention mean and PBC mean was associated with an increase in course grades by .26 and .31 points, respectively.

#### 4.6. Qualitative Results

Initially, the researcher converted students' answers into Word format, drew a table, and placed each answer in a separate box. Thereafter, the researcher read the whole data several times to familiarize himself with the data by looking for meaning and determining which pieces of data have value. Several answers were irrelevant, such as thanking the researcher for conducting the study. The researcher focused on answers that are relevant to the research questions of this study. Subsequently, the researcher coded each answer by identifying the themes or patterns that may consist of factors that influence

learners' grades. A code was assigned to each answer that discusses the factors. The researcher then analyzed the code and established a connection between codes, and groups these general codes into focused categories. The results of the two questions were categorized into eight based on the codes (Cognitive Factors, Curriculum Factors, Students' Responsibilities Factors, Motivation Factors, Teachers' Factors, Awareness Factors, and Testing Factors)

**a. Cognitive Factors.** The participants wrote several factors that influence learners' grades. These factors can be classified under cognitive construct. One important factor is the weak background of English proficiency from high school. Students' knowledge of English in high school can help predict their performance in English classes at university. University EFL classes assume that learners have achieved the learning outcomes of EFL classes in secondary school. In Saudi Arabia, students start learning English in the elementary school. However, students graduate from secondary school with differing English proficiency levels. Another important factor is the knowledge of the English language culture. Language and culture cannot be separated. Learners' background of English language culture will help

them to achieve good scores in EFL classes. The third factor is learning English at a young age. The participants stressed that learning English at a young age will help them to speak English fluently and achieve excellent grades in EFL classes. The fourth variable is having a large amount of vocabulary. The participants posited that mental lexicon plays an important role in learners' level of proficiency. Memorizing word meanings help learners read and understand EFL texts. In addition, understanding the English grammar significantly contributes to the learners' level of proficiency. Subsequently, learners who have weak knowledge of English grammar and vocabulary will achieve low grades.

**b. Curriculum Factors.** The participants presented several factors related to the curriculum that influence their grades. The design of the curriculum is an important factor to predict the outcome of the courses. The participants complained about having several materials to be covered in one semester. They realized that studying the assigned materials before the exams is difficult for them. One semester is sufficient for achieving the learning outcomes of the curriculum. Another factor is related to the courses' weekly contact hours,

of which the learners also complained. They were unfamiliar with attending more than 10 hours a week of EFL courses and felt that attending the same course every day is tedious. Another factor is taking courses study skills and adapting to university life. The participants stressed that taking courses on study skills and strategies will improve their grades in EFL university courses. They asserted that curriculum designers should include such courses. In addition, curriculum designers should introduce additional courses that target low-level students. In these courses, low-level learners will study more and improve their level of proficiency to meet the requirements of the EFL core courses. In addition, curriculum designers should design extra quizzes and assignments that can be taken by learners who would like to improve their grades. These extra quizzes and assignments will improve the learners' language proficiency and course grades. Another important factor that negatively influences learners' grades is taking other university courses besides the intensive EFL courses. Curriculum designers should reduce the number of other university courses, such as Islamic Studies, Mathematics, and Chemistry. The participants asserted that concentrating on EFL courses in addition to university core courses

that they should take in the same semester is difficult. Consequently, the learners achieved low grades in EFL courses because other university core courses take time and effort to study. The last factor is the correlation between learners' university major and EFL courses. The participants highlighted that the curriculum should be adapted to meet learners' university majors and future goals. For instance, chemistry students should study EFL courses that help them to understand chemistry in English rather than general English. Medical students would study more medical terms. Designing English for specific purposes of courses will encourage the learners to study hard and subsequently achieve good grades.

**c. Student Responsibilities.** The participants wrote variables that influence grades. These factors are related to the students themselves. They demonstrated that they take full responsibility for their learning impact in achieving the learning outcomes. For instance, doing the courses' assignment on a regular basis and submitting them on time help learners attain full marks. In addition, attending EFL classes on a regular basis helps learners understand the course contents. Missing EFL classes negatively affect the learners' level.

The participants should take full responsibility in attending classes and doing assignments on a regular basis to achieve good grades. In addition, learners should participate in class activities and complete the textbook exercises. Actively attending EFL classes by taking notes and participating in activities help learners to fully understand the lessons and achieve the goals of each unit in the textbooks. Active learners tend to achieve better grades. Revising the lessons on a regular basis is also an important factor in fully understanding the materials. It prepares the learner for the exams. Cramming for exams tends to be ineffective because students will not be able to cover the large materials in the course. Another factor is participation. The last factor is the learners' responsibility to manage their time. The participants realized that they must effectively manage their time to meet university requirements and their social responsibilities outside the university on a daily basis.

**d. Motivation Factors.** The participants listed factors that are related to their motivation to study and achieve good grades in EFL courses. The participants found a correlation between their attention inside classrooms and their

motivation. The more motivation they have, the more they pay attention to the teacher during the class. In addition, having high motivation encourages them to study outside of the university. Motivation influences their desire to continue their learning even after they finish the course. Another important factor that influences learners' motivation is support from their classmates. The participants cited that their classmates can motivate or demotivate them to study harder in EFL classes. In addition, the participants mentioned that the support and help from their family to study influence their motivation to achieve better grades at university. Another group that influences their motivation to study is university teachers. The motivation and support from instructors encourage the learners to attend classes, complete assignments, take quizzes and achieve better grades in the courses. The participants also mentioned that their desire to learn and love of the English language are other important factors that motivate the learners to study. Self-efficacy and belief in being able to learn English are another important factors that motivate the participants to study and subsequently achieve better grades. They affirmed that these factors will give them a strong determination to learn and overcome the difficulties

during the semester.

**e. Teacher Factors.** The participants presented variables in relation to teachers that influence their grades in the course. To illustrate, the participants mentioned that teaching methods help them understand the lessons and obtain good scores in the assignments, exams, and quizzes. The participants posited that teachers should use methods that match the objectives of the course. Interesting teaching styles help learners pay further attention inside the class. Additionally, the participants expressed that they prefer instructors who can speak their mother tongue (Arabic) because the students are not fluent in English. Beginner learners need a teacher who can use their mother tongue in the class to translate difficult terms and guide them to understand the instructions in exams and quizzes. In addition, the participants suggested that instructors should understand students' circumstances. Several students undergo issues and problems outside the university that affect their performance in classes. The manner in which the teacher treats his students has a huge impact on his students. Teachers might help the learners to eliminate the negative impact of social life outside the university. Another important factor is the use of

private instructors. Several participants realized that having private instructors who help them in studying the course materials increase their marks in assignments and quizzes. However, other participants might not be able to afford private instructors.

**f. Awareness Factor.** The participants cited the factors that influence their grades, which can be classified into the awareness category. For instance, a few of the participants mentioned that instructors should remind the learners that assignments and quizzes are included in their final mark in the courses. Students should be aware that the results of the activities inside the classrooms will be calculated at the end of the semester and will be included in their course record. Another important factor is student's awareness of the important points and content in the course. The majority of the content of textbooks is more important than others because it focuses on the course objective. Therefore, learners should concentrate on these parts. In addition, learners should be well informed about testing methods. The learners should be trained on taking exams. Giving examples before the exam gives the learners a full picture of the testing methods. Furthermore, learners should be aware that the

English language is important in their major courses and their future. Learners should be aware that English is the language of the 21st century and will open up considerable opportunities for them. Consequently, learners will study diligently and achieve good grades.

**g. Testing Factors:** The participants mentioned several points related to exams. The participants stressed that course grades depend heavily on the results of the exam, especially the final exam, that accounts for 50% of the course grade. The participants deemed that several exam items need more time to complete. They suggested that time allotment for the final exams should be increased or the number of exam items should be reduced. The timetable for the final exam is another important factor. Students need ample time between each course final exam, which should be conducted on separated days, with two to three days between university courses. Giving students exam results is another crucial factor. The participants affirmed that each student should see the midterm exam paper and discuss it with instructors, such that the learners learn from their mistakes and avoid repeating them. The test questions in the final exam should cover a range of the learning. Final exams should consider different

levels of difficulty: not too easy and not too difficult. Learners should not have other responsibilities during exams, such as attending classes and submitting projects. The participants stated that these exam-related factors can influence their exam marks and course grades effectively and subsequently.

## 5. Discussion

The current results contribute to the literature by shedding light on factors that were not addressed sufficiently in the previous literature using a mixed method research. Previous literature studies used international standardized tests, such as IELTS and TOEFL (e.g., Wongtrirat (2010) local tests (e.g., Daller and Phelan, 2013), private tutorials (e.g., Stappenbelt and Barrett-Lennard, 2008), and attendance (e.g., Kennelly, Maldoni, & Davies, 2010) to predict learner outcomes. In addition, the results predicted not only the intended behavior but also the actual behavior, an issue that was raised by Moskovsky, Assulaimani, Racheva, and Harkins (2016). The results of the present study demonstrate how the TPB can increase our understanding of the factors that influence and determine the students' course grades in EFL courses. The results further provide useful information regarding

the prediction of students' intention. Model fit results of this study confirmed that the data fit the hypothesized measurement model of Ajzen's theory. The model results of the chi-squared test, relative  $\chi^2$  ( $\chi^2/df$ ), RMSEA, GFI, AGFI, RMR, SRMR, NFI, CFI, NNFI, and TLI met the acceptable threshold level, as shown in Table 3. This result was an indication that the model could be used in language-learning contexts. The non-significant Chi-square here indicates that the fit between the overidentified model and data is not significantly worse than the fit between the just-identified model and data. RMSEA estimates lack-of-fit compared with the saturated model. GFI depicts that the proportion of the variance in the sample variance-covariance matrix is accounted for by the model. This value should exceed .9 for a good model. AGFI (adjusted GFI) is an alternate GFI index in which the value of the index is adjusted for the number of parameters in the model. The fewer the number of parameters in the model relative to the number of data points (variances and covariances in the sample variance-covariance matrix), the closer the AGFI will be to the GFI. RMR is an index of the amount by which the estimated (by the model) variances and covariances differ from the observed variances and covariances.

The smaller the value, the better. NFI, CFI, NNFI, and TLI goodness of fit indices compare the hypothesized model to the independent model rather than the saturated model. The homogenous sample was composed of participants that come from the same culture, mother tongue, nationality, similar age, and educational and political backgrounds, which could explain the similarity of the language learners' attitudes and intention. Although they were attending four different language courses at three campuses, the majority of the learners would like to achieve better course grades. Homogeneity of this sample also helps to find a similar pattern during the analysis of qualitative data.

Figure 2 and Table 4 show that the three TPB constructs, namely, AB, SN, and PBC, contributed to the prediction of learners' intention to achieve high or low course grades. SN and AB have the same influence of prediction of learners' intention, which shows that in the context of this study, society influences learners' attitudes. Attitudes of groups, such as parents, teachers, relatives, classmates and close friends, have a significant impact on learners' inside the classrooms. The PBC construct was not a significant predictor of learners' intention. The results contradict those of Armitage and Conner (2001), who

reviewed 185 articles that used TPB and found that the SN construct was the weakest predictor of intention. This notion can be explained by the fact that the Arab culture is a collectivist one. This culture emphasizes family and relatives more than individual needs or desires. Individualist culture, which is common in the United States and Europe, emphasizes personal achievement more than opinions of other people in the society, such as relatives. In the western world culture, which is more individualist, the PBC will be more important to predict people intention, whereas in the Arab culture, which is collectivist, the SN construct will be important for predicting people intention. In Chinese culture, which is collectivist, Magid (2012) and Shek and Chan (1999) confirmed that family duties and obligations play important roles in shaping students' motivation than in many Western learning contexts.

Although each of the TPB constructs was measured using five indicating items in the survey, high correlations exist between the constructs that predict intention (Figure. 2). For theoretical reasons, the three constructs might have been significantly correlated with each other. Ajzen (2006) stressed that AB, SN, and PBC "are conceptually

independent predictors of intentions. However, they are typically found to be inter-correlated empirically because the same information can influence behavioral, normative, and/or control beliefs, which are known as theoretical antecedents of [AB, SN, and PBC, respectively]” (p. 9). He corroborated that accessible behavioral beliefs are assumed to account for AB, accessible normative beliefs for SN, and accessible control beliefs for PBC. However, accessible beliefs cannot be presumed to be internally consistent.

The present study provides evidence that learners who have a positive attitude about achieving higher grades and toward people who are significant to them will shape a positive intention of achieving high course grades. Learners who have negative attitudes and are surrounded by people who do not encourage them to achieve a better grade, will not have a strong motivation to achieve better grades. Intention and PBC significantly predict learners' course grades. Figure 2 and Table 4 illustrate the effect of both constructs on course grades. Although they both significantly predict learners' course grades, the size effect was not large (.07). The low p-value indicates that we can be reasonably sure that both predictors have an effect on the

dependent variable (course grades). The low  $R^2$  value depicts that a considerable extent of unexplained variance exists. In social science, prediction with a small effective size can lead to significant outcomes. One of the features of scientific research that are conducted in laboratory is the large effect size. However, an important point when dealing with human behaviors and beliefs is that the variances cannot be limited. Hence, a small effect size can lead to a major understanding of the human behavior and beliefs. These notions matched the qualitative results.

The qualitative results verify that other factors, such as those related to cognition, curriculum, students' responsibilities, motivation, teachers, awareness, and testing in EFL courses, are not related to belief. These factors help to predict the learners' grades in EFL. These qualitative factors contribute to the explanation of the variance in the participants' grades. A number of these factors were found in previous studies. For instance, some of the cognitive factors that the participants mentioned matched Demetriou's (2016) finding. He confirmed that vocabulary size is correlated with IELTS scores. Daller and Phelan (2013) also contended that the knowledge of vocabulary could help

predict language learners' test scores. Combining these cognitive factors with Ajzen's TPB constructs would improve the prediction of course grades. In addition, curriculum factors that learners mentioned were also found to be important in previous studies. For instance, Stappenbelt and Barrett-Lennard (2008) concluded that the use of specialized English language tutorials improved international engineering students' grades at an Australian university. Johnson and Tweedie (2017) proved that taking English for academic courses predicts undergraduate nurse students' grade point average in the program in a Canadian university in the Middle East. These curriculum interventions improve learners' grades and subsequently increase their grade point average in academic programs. Moreover, the factors that are categorized under students' responsibilities matched those in previous studies. Kennelly, Maldoni, and Davies (2010) validated that students' attendance percentage correlated with their pass rating in English for the academic purposes program.

As illustrated in the qualitative results of this study, course grades cannot be predicted by one factor or a construct. Different factors might be at play in predicting students' grades.

Cognitive factors, such as learners' previous standardized tests results, are crucial in predicting students' grades. Previous tests that students took before joining the courses can help instructors to predict learners' success in learning environments, such as IELTS and GRE. Woodrow (2006) confirmed that IELTS scores with previous professional and language learning experience can help in predicting the probability of success of non-English speaking graduate students in Australian universities. Previous course grades might also be another factor that can predict grades. For instance, students' previous course grades help in predicting the students' grades in future courses. Daller and Phelan (2013) claimed that the use of local tests is more effective in predicting learner success than international standardized tests. They investigate alternative measures of language proficiency that can predict the study success of international students in an English speaking country. Previous learning experiences might also help to predict learners' success, for example, students' high school grade point average, having taken additional English learning courses in high school, type of learning environment that they joined in previous EFL courses using online or face-to-face, materials, and teaching methods.

Replicating this study in a different context is also recommended, especially in individualist cultures, to explore the influence of PBC construct on intention. The results of this study are limited to the context of collectivist cultures, such as Saudi Arabia. Explanatory factor analysis can help elucidate language course grades. Future studies that focus on course grades can design a model by conducting several qualitative methods before designing the model to identify which factors might influence course grades in language learning. The researchers conducted interviews with students who achieve lower grades to pinpoint similar factors within this group. Another interview or focus group interviews were also conducted on students who achieve high grades in courses to explore the similar causes of their success. To build predictive modeling methods, the qualitative results validate that important variables are related to cognition, curriculum, motivation, teachers' and students' responsibilities, awareness about course grades, and testing factors. Using mixed methods to analyze the results affirms that the quantitative results cannot explain all the variance in predicting language course grades. Therefore, we recommended the use of quantitative and qualitative methods to examine language

learners' beliefs to understand the factors that influence their learning. Using one method will provide limited results and therefore, will limit the comprehensive understanding of language learning environments.

## 6. Conclusion

Prediction is important for forecasting the future. Unfortunately, prediction is not a common objective in applied linguistics studies. Predictive studies are common in medical and scientific research, such that the need for studies that forecast the learning process and outcomes in language learning and teaching arises. The TPB model is a good predictor of language learners' behaviors and outcomes and can be used to predict other language learning behaviors, such as doing assignments, participating in language classroom discussions, and joining other foreign language courses. The TPB model is commonly used in health science (Ajzen, 2008). Using the TPB model and expanding its factors in an educational setting can help in understanding several language learning processes. The results of the study corroborate that Ajzen's TPB model can be a compelling theoretical framework in understanding language learners' attitudes, attitudes of people around learners, and learners' self-efficacy. The model significantly

predicts learners' intention and course grades. However, the model could not explain all variables in language course grades. The need for qualitative methods is necessary to understand the factors that influence learners' achievement in the courses. Notably, the outcomes of social psychology theories might differ from one culture to another. In a collectivist culture, such as Saudi Arabia, the attitudes of teachers, parents, and friends influence learners' intention more than their self-efficacy beliefs. The prediction of course grades can help educators provide intervention at the beginning of the semester for students with risks. The results of this study confirm that several important factors influence language learners' grades, such as their strong intention to achieve higher grades in the course and cognitive, curriculum, psychological, teachers', student responsibility, awareness, and testing factors also influence learners' grades.

## References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.

Ajzen, I. (2006). *Constructing a TPB questionnaire: Conceptual and methodological considerations*. Retrieved from

<http://www.unibielefeld.de/ikg/zick/ajzen%20construction%20a%20tpb%20questionnaire.pdf>

- Ajzen, I. (2007). Theory of planned behavior. In R. Baumeister & K. Vohs (Eds.), *Encyclopedia of social psychology* (pp. 988–990). Thousand Oaks, CA: Sage.
- Ajzen, I. (2008). Theory of planned behavior. In S. Boslaugh (Ed.), *Encyclopedia of epidemiology* (pp. 1033–1036). Thousand Oaks, CA: SAGE Publications.
- Alhamami, M. (2018). Beliefs about and intention to learn a foreign language in face-to-face and online settings. *Computer Assisted Language Learning*, 31(1-2), 90–113.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471–499.
- Daller, M. H., & Phelan, D. (2013). Predicting international student study success. *Applied Linguistics Review*, 4(1), 173–193.
- Demetriou, T. (2016). Predicting IELTS ratings using vocabulary measures (Doctoral dissertation, University of the West of England).
- Dörnyei, Z. (2009). The L2 motivational self-system. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and*

- the L2 self* (pp. 9–42). Bristol, UK: Multilingual Matters.
- Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 self-images, sensory styles, and imagery capacity across two target languages. *Language Learning*, 63(3), 437–462.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. New York, NY: Psychology Press.
- Francis, J., Eccles, M.P., Johnston, M., Walker, A.E., Grimshaw, J.M., Foy, R., & Bonetti, D. (2004). *Constructing questionnaires based on the theory of planned behavior: A manual for health services researchers*. Retrieved from <http://pages.bangor.ac.uk/~pes004/exerci> [seçpsych/downloads/tpbçmanual.pdf](http://pages.bangor.ac.uk/~pes004/exerci)
- Johnson, R. C., & Tweedie, M. G. (2017). A comparison of IELTS, TOEFL, and EAP course results as predictors of English language learning success in an undergraduate nursing program. In C. Coombe, P. Davidson, A. Gebril, D. Boraie, & S. Hidri (Eds.), *Language assessment in the Middle East and North Africa: Theory, practice and future trends* (pp. 36–53). Dubai, UAE, TESOL Arabia.
- Kennelly, R., Maldoni, A., & Davies, D. (2010). A case study: Do discipline-based programmes improve student learning outcomes? *International Journal for Educational Integrity*, 6(1), 63–73
- Kim, Y. K., & Kim, T. Y. (2011). The effect of Korean secondary school students' perceptual learning styles and ideal L2 self on motivated L2 behavior and English proficiency. *Korean Journal of English Language and Linguistics*, 11(1), 21–42.
- Knabe, A.P. (2012). *Applying Ajzen's theory of planned behavior to a study of online course adoption in public relations education* (Doctoral dissertation). Marquette University, WI. Available from ProQuest Dissertations and Theses database. (UMI No. 916922475)
- Lamb, M. (2012). A self system perspective on young adolescents' motivation to learn English in urban and rural settings. *Language Learning*, 62(4), 997–1023.
- Magid, M. (2012). The L2 motivational self system from a

- Chinese perspective: A mixed methods study. *Journal of Applied Linguistics*, 6(1), 69–90.
- Moskovsky, C., Assulaimani, T., Racheva, S., & Harkins, J. (2016). The L2 motivational self system and L2 achievement: A study of Saudi EFL learners. *The Modern Language Journal*, 100(3), 641–654.
- Shek, D. T. L., & Chan, L. K. (1999). Hong Kong Chinese parents' perceptions of the ideal child. *Journal of Psychology*, 133(3), 291–302.
- Stappenbelt, B., & Barrett-Lennard, S. (2008). Teaching smarter to improve the English communication proficiency of international engineering students—collaborations between content and language specialists at the University of Western Australia. *Australasian Journal of Engineering Education*, 14(2), 115–124.
- Wongtrirat, R. (2010). *English language proficiency and academic achievement of international students: A meta-Analysis*. ProQuest LLC. 789 East Eisenhower Parkway, PO Box 1346, Ann Arbor, MI 48106.
- Woodrow, L. (2006). Academic success of international postgraduate education students and the role of English proficiency. *University of Sydney Papers in TESOL*, 1(1), 51–70.