

## **The Relationship between General Motivation and Situation-Specific Attitudes and Beliefs Related to Learning English for Academic Purposes: It's Impact on Academic Success**

### **Genel Gdlenme ile İngilizcenin Akademik Amaçlı Öğrenilmesine İlişkin Duruma-özgn Yaklaşım ve İnançlar Arasındaki İlişkinin Akademik Başarı Üzerine Etkisi**

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#### **Abstract**

The present study aims to document students' perceptions of their learning experiences in an English-medium university, how certain situation-specific and learner-related variables are active in shaping these attitudes, and finally what is the impact of these variables on participants' academic success. Participants' English-learning background starting with secondary education as a variable yielded significant and positive associations with their academic success and their attitudes toward English-medium instruction. Positive attitudes that loaded on several factors correlated significantly and positively with each other and negatively so with factors of demotivated attitudes. Learner variables also proved to have a significant impact on participants' attitudes. The article concludes by making suggestions to policy makers in the ministry of education and concerned universities.

**Keywords:** foreign-language instruction; situation-specific variables; learner variables; student attitudes to English-medium education; tertiary education.

#### **Öz**

Bu çalışma öğretim dilinin İngilizce olduđu üniversitelerde öğrencilerin öğrenim deneyimleri ile ilgili görüşlerini, bu görüşlerinin oluşturulmasında etkili olan duruma-özg ve öğrenciye-özg deđişkenlerin belirlenmesi ve bu deđişkenlerin öğrencinin akademik başarısı üzerindeki etkisini belirlemek üzere yürtlmştr. Orta öğretimden başlayarak İngilizce-öđrenme deneyimleri ile öğrencinin akademik başarısı ve İngilizce ortamında öğrenim görme ile ilgili düşnceleri arasında anlamlı ve olumlu bir ilişki ortaya çıkmıştır. Birkaç faktr altında toplanan olumlu görüşler arasında yüksek oranda olumlu ve anlamlı korelasyon varken olumsuz gdlenme faktrleri ile arasında da zıt yönde ve anlamlı korelasyon ilişkileri gözlemlendi. Öğrenciye-özg deđişkenlerin de öğrenci görüşlerini etkilediđi belirlendi. Makalenin sonunda milli eğitim bakanlığı ve yükseköđretim kurumlarındaki yetkililere sonuçlarla ilgili önerilerde bulunulmakta.

**Anahtar kelimeler:** yabancı dil ortamında eğitim; duruma-özel deđişkenler; öğrenci deđişkenleri; İngilizce ortamında eğitime öğrenci yaklaşımları; yükseköđretim.

## **I. INTRODUCTION**

The authors of this article were initially inspired to answer some basic research questions regarding attitudinal and motivational issues that directly concerned their immediate teaching environment in tertiary level education. The study was inspired by the seminal investigation of writers like Crookes and Schmidt (1991), Gardner (1985), Tremblay and Gardner (1995), Csizér and Dörnyei (2005a), Oxford and Shearin (1994), Dörnyei (1990, 1994) into the standard applied linguistics approach to motivation. L2 motivation has been conceptualized as a multifaceted construct that comprises a number of more general, trait-like components and some that are more situation-specific and state-like (for reviews, see Clément and Gardner, 2001; Dörnyei, 2001; Gardner, 1985; Noels, 2001). The aim of this study is to carry out empirical research that takes into consideration context-specific components of motivation, and as such is believed to be a pioneering work in the field. It is necessary for current SL/FL discussions to direct some attention to educational settings where English is viewed as a tool, as in English-medium universities where content-based language learning takes place. The ultimate purpose is to examine how motivational levels and attributes impact the learning outcomes (i.e. academic success) in such educational contexts. The study investigates the patterns of the relationships between Gardner's socioeducational model of language learning, operationalized in the Attitude/Motivation Test Battery (AMTB) with its cultural-affective and pragmatic-instrumental dimensions, and the more cognitive aspects of motivation which have been the center of educational psychological research on motivation during the last two decades.

### **I. i. Progress of Research on Motivation in L2 Learning**

The most influential work in the field of motivation has been that of Gardner and Lambert and their associates in Canada, beginning in the 1950s and continuing to the present (Gardner and Lambert, 1959; Lambert, 1967; Gardner, 1980, 1983, 1985, 1988; Gardner et al., 1979). Motivation is primarily identified with the learner's orientation toward the act of learning a second language. Gardner and Lambert (1959) first made the distinction between integrative and instrumental motivation. Integrative motivation is defined as positive attitudes toward the target language group, with a potential for integrating into that community or at least an interest in meeting and interacting with members of the target language group. It is associated with components such as "interest in foreign languages", "integrative orientation", "attitudes toward the target language community" (Gardner, 1985). Instrumental orientation, on the other hand, refers to more functional reasons for learning a language, such as a better job or a higher salary. Gardner's socioeducational model stresses the idea that, unlike other subjects, learning a language involves learning aspects of behavior typical of another culture, and therefore attitudes and orientations will function as affective correlates of L2 behavior and proficiency.

The 1990's extended Gardner's model by adding some cognitive and situation-specific variables to the existing paradigm, and there was a shift toward viewing motivation as a more dynamic factor that is in a continuous process of evolution and change according to the various internal and external influences the learner is exposed to (see Dörnyei, 1994; 2001). As Skehan (1991) argues, the most challenging difficulty motivation researchers face is that of "clarifying the orientation-context links that exist. There would seem to be a wider range of orientations here than was previously supposed and there is considerable scope to investigate different contextual circumstances (outside Canada) by varying the L1-L2 learning relationship in different ways" (p.284). Similarly, McGroarty (1988) has argued that for a better understanding of the teaching and learning context, applied linguists need to understand better how the social contexts surrounding language acquisition affect the learning process. In response to this new emphasis on the sociocultural roots of learning and cognition, Bernard Weiner (1992) set out to conceptualize *social motivation*, involving a set of motivational influences that stem from the sociocultural environment rather than from the individual. As a result of the increasing social awareness in motivational psychology, L2 motivation as a *situated construct* has become one of the main targets of recent research.

Gardner and his colleagues originally formulated their theory based on their surveys conducted in a second-language acquisition (SLA) context. Although SLA contexts are varied, they are clearly different from the language-learning milieu generally termed as the foreign-language learning (FLL) context. In FLL situations, affective predispositions toward the target language community may not accurately explain the variances in language attainment because learners have not had sufficient experience of the target-language community to have attitudes for or against it.

Dörnyei (1990) has recently proposed a motivational construct for foreign language learning that consists of both an instrumental motivational subsystem and a cluster that may be thought of as "integrative" in a broad sense, as well as the need for achievement and attributions about past failures. Crookes and Schmidt (1991) propose that this model be tested in other settings to establish its generality. Tremblay and Gardner (1995) undertook an investigation of the relation of a number of new measures of motivation such as persistence, attention, goal specificity, and causal attributions to each other, to existing measures of attitudes and motivation (making use of the relevant scales of the AMTB), and to indices of achievement in French courses. These three articles have contributed to the structuring of the present study in ways described below.

## **I. ii. Other Theories of Motivation Relevant to the Study**

Much of the early research in L2 learning motivation focused on social psychology as the source of motivation with the individual located in the context of the target culture, and integrative motivation was perceived as the reflection of relations between the individual and L2 community. However, recent research in

the foreign language situation does not consistently support this emphasis on integrative motivation (Au, 1988; Dörnyei, 1990). In the foreign language context instrumental motivation, intellectual, and sociocultural motives, or other motivational factors may gain greater importance. Oxford and Shearin (1994) point to other branches of psychology which provide useful theoretical offerings as sources of motivation, such as general, industrial, educational, and cognitive developmental psychology.

Cognitive theories of motivation have introduced attribution theory, learned helplessness, and self-efficacy theory (Weiner, 1992) as alternatives to affective approaches. The central theme in attribution theory is the study of how causal ascriptions of past failures and successes affect future goal expectancy. Past success in a particular situation would encourage greater effort to be engaged in success-producing behaviors in the future and stimulate need for achievement, whereas past failure would produce fear and repress achievement behavior. Learned helplessness is a resigned and pessimistic state one finds himself/herself in when the person wants to succeed but has arrived at the feeling that success is impossible. Self-efficacy refers to the individual's self-appraisal of his or her ability to perform a specific action. Attributions of past success play an important role in developing self-efficacy. Once having developed a sense of self-efficacy, a failure will not be of much consequence.

Self-confidence is defined as the belief that one has the potential to "produce results, accomplish goals or perform tasks competently" (Dörnyei, 1994, p. 277). Self-confidence was first introduced to L2 literature by Clément and colleagues (1980), who conceptualized it in multi-ethnic settings as consisting of two components: language use anxiety and self-evaluation of L2 proficiency (i.e. low anxious affect and high self-perceptions of L2 competence). Self-confidence was later proved to be a major motivational component in the foreign language learning situations as well (Clément et al., 1994; Horwitz et al., 1986).

Three sets of motivational components were introduced in relation to the learning situation: course-specific, teacher-specific, and group-specific motivational components (Brown, 1990). Teacher-specific aspect of motivation is of greater interest for the authors of this study because it involves the modeling function of the teacher as the group leader; that is, student attitudes and orientations toward learning will be modeled after their teachers.

Instrumentality theory, in combination with goal-setting theory, suggests that performance is closely related to an individual's accepted goals. Other conclusions driven from goal-setting research are that goals affect performance by focusing attention on goal-relevant action, fuelling energy, exerting greater effort, and leading to the development of proper strategies for goal attainment (Lee et al., 1989). Motivation will increase if L2 learners believe that their learning performance will ultimately achieve a valuable result, such as career promotion, increase of salary, or higher professional reputation (expectancy value), and if they perceive an incentive value in these outcomes that makes the effort worthwhile (valence value). Industrial psychologists like Locke and Latham integrate some of the above theories to say that high self-efficacy leads to higher effort toward a goal; high -goal individuals tend to believe that pursuing a goal leads to achievement;

and higher goals produce higher standards for achieving self-satisfaction (Oxford and Shearin, 1994).

Tremblay and Gardner (1995) acknowledged the motivational theories and concepts discussed above but drew attention to the lack of empirical evidence that would prove their significance for L2 learning. They also argue that some of the components of the socioeducational model like Desire to Learn French and Attitudes toward Learning French could be considered as measures of valence, while French Class Anxiety and French Use Anxiety could be expected to correlate strongly with the performance expectancy (that is, self-efficacy) component of the expectancy theory.

### **III. iii. Context of the Study**

Unlike other studies which are concerned with the role of motivation in language learning (see Clément et al., 1980; Clément et al., 1994; Gardner, 1985; Dörnyei, 1990), this study aims to investigate the levels and nature of motivation in adult learners of English in an English-medium university, where English is acquired through content-learning by engineering students in a four-year undergraduate program. The situation is neither that of a second language learning, “where the language is typically used as the main vehicle of everyday communication”, nor altogether that of a foreign language learning “where language learners are surrounded by their own native language and have to go out of their way to find stimulation and input in the target language” (Oxford and Shearin, 1994, p. 14). In the given English-medium university all college-level courses in basic and advanced education areas, as well as language course, are taught in English in order to improve academic proficiency in English. English is used for textbooks, lectures and course materials. The aim is to broaden students’ general and specialized knowledge and build professional expertise in English. These students are expected to compete and take leadership in the international arena. English becomes a means for reading, writing, and talking about current issues in contents courses while the attained English skills are a by-product of this process. Thus, English is used for truly functional and communicative purposes. It seems reasonable to suspect that participants’ motivation and attitudes to learning English in an English-medium educational system will to some extent influence their success in the engineering courses in addition to other cognitive factors such as intelligence and aptitude.

Many studies which have investigated motivation and/or its subcomponents in relation to language learning have reported significant correlations with measures of achievement in a second language such as objective tests and course grades (Gardner, 1985). This study, however, investigates whether L2 motivation has significant correlations with measures of academic achievement in the content-learning context, and not with measures of subjects’ second language gain.

In consideration of the nature of the L2 learning context defined above, the objectives of this study are:

a) to assess our subjects' attitudes and beliefs related to learning English in a content-learning medium by using a situation-specific scale and examine its underlying constructs;

b) to focus on the relevance of social psychological factors, as operationalized through the AMTB measure, to the subscales that emerged from subjects' responses to the situation-specific scale;

c) to look for a relationship between the subscales of the attitude/motivation measures and subjects' academic success measured by the cumulative grade point average (CGPA) scores on subjects' formal transcripts; and

d) to investigate the predictive value of certain learner variables - name of department registered in, length of study in the department, the type of high school graduated from, learners' status as a first or final year student - on subjects' scores on the two motivation/attitude scales.

## II. METHOD

### II. i. Subjects

The sample consisted of 386 students enrolled in the engineering faculty of a Turkish university with the following distribution: Physical Engineering (55), Industrial Engineering (42), Food Engineering (61), Electrics and Electronics Engineering (75), Mechanical Engineering (95), and Civil Engineering (56). Of this total, 218 were first year students taking freshman courses (such as physics, calculus, chemistry, etc.) and 168 were senior students taking final year courses. All subjects had participated in and successfully completed a one-year intensive English program (of five hours a day) before they registered to their department courses. In addition, freshman students were currently taking two-semesters of freshman English as a four-credit course.

### II. ii. Measures

Sakui and Gaies (1999) have observed that questionnaires on learners' beliefs and attitudes have been developed and analyzed in two ways. The first method is to group items a priori into *logically-derived categories*, with the analysis of data focusing on similarities and differences in response patterns to items within a category (e.g. Horwitz, 1988; Wen and Johnson, 1997; Vallerand et al., 1993). The second is to collect responses to a large set of items presumably tapping different beliefs and attitudes and then to identify, usually on the basis of a factor analysis, a set of *empirically-derived categories* (e.g. Yang, 1992; Mori, 1997). In line with the second procedure, we initially formulated 50 items drawing upon information from a survey of the existing literature and the educational context of the study. This number was reduced to 32 after the elimination of the low reliability items. Ultimately, the questionnaire was composed of two sections: 1) a situation-specific scale of thirty-two written statements that concerned intentions, beliefs, values, interests, and attitudes specific to the participants' learning context and 2) fifty items adopted from the standardized measure of Attitude/Motivation Test

Battery (developed by Gardner and colleagues). For convenience of collecting data from such a large group, both scales were administered at one sitting. All questionnaire items were rated on a 5-point Likert scale ranging from strong agreement to strong disagreement. The scales were administered in English. Responses on the negatively worded items were recoded before scoring. The pilot study carried out with secondary year electrical engineering students yielded acceptable Cronbach alpha reliability indices for the two sections as .85 and .89, respectively, and .93 for the total of the questionnaire. The order of the first section and second section of the tool was counterbalanced to avoid the effect of the fatigue factor on the results.

### **II. iii. Procedures**

The administration of the questionnaire took place during May, 2007. The six freshman groups were administered the questionnaire simultaneously during their Physics mass course during a period of 15-30 minutes. The researchers were physically present during the administration of the questionnaires together with four other assistants who were given clear instructions regarding the contents and administration of the scale. Final year students were administered the questionnaire in their respective departments by the authors in person on different days according to the availability of the students and teachers. The courses containing the maximum number of students were employed. The students were explained the purpose and nature of the study, that their participation was voluntary, and that their responses would remain confidential.

## **III. RESULTS**

### **III. i. Overview of Analyses**

Firstly, the descriptive analysis values for the situation-specific scale are presented. This is followed by the examination of the psychometric properties of the new instrument. The analytical strategy was adapted from that of Noels and his colleagues (2003). To derive a distinctive and reliable subscale for each category of the situation-specific variables, factor analyses and reliability analyses were conducted. These subscales were later correlated with the standard subscales of the AMTB to investigate the relationship between these constructs. Lastly, researchers looked for any associations between participants' scores on all subscales and their academic achievement in non-language engineering courses (i.e. CGPA scores). Lastly, stepwise regression analysis was run separately to check for any causal relationships among the two scales as the dependant variables and the four learner variables. SPSS version 15.0 was used for statistical analysis.

### **III. ii. Descriptive Statistics**

Table 1 presents the descriptive statistics for the total and the two sections of the questionnaire comprising the situation-specific and the AMTB scales. The Cronbach's alpha indices for the situation-specific ( $\alpha = .87$ ), the AMTB ( $\alpha = .91$ ) and the total questionnaire ( $\alpha = .93$ ) yielded satisfactory internal consistency and reliability. An examination of the means, standard deviations, skewness, and kurtosis values for the final subscales suggested that a normal distribution was underlying the responses.

Table 1 Descriptive statistics for the combined scale

Sections	no. of mean items	SD	N	Cronbach's alpha	Skewness	Kurtosis	
Situation-specific	32	96.58	14.50	386	.87	-.162	.45
AMTB	50	172.95	16.63	386	.91	-.579	1.11
Total	82	269.53	28.60	386	.93	-.438	1.14

*Attitude/Motivation Test Battery:* The AMTB originally comprised 12 subtests, nine of which were used in this study because they matched the characteristics of the given context. The subscales, with the number of items and internal consistency reliability coefficients presented in brackets, are as follows: Interest in Foreign Languages (9 items;  $\alpha = .71$ ); Motivational Intensity (7 items;  $\alpha = .54$ ); English Class Anxiety (6 items;  $\alpha = .64$ ); Attitudes toward Learning English (5 items;  $\alpha = .46$ ); Attitudes toward English-speaking people (4 items;  $\alpha = .63$ ); Integrative Orientation (3 items;  $\alpha = .68$ ); Desire to Learn English (6 items;  $\alpha = .62$ ); English Use Anxiety (5 items;  $\alpha = .55$ ); and Instrumental Orientation (4 items;  $\alpha = .75$ ). Gardner's AMTB has undergone lengthy validation and widespread use since the 1960s. Good psychometric properties have been reported by Masgoret and Gardner (2003).

*Situation-specific scale:* Table 2 presents the descriptive statistics for the 32 items under this section and the factors they load on. Judging by the broad range of item means (i.e. 2.37 versus 4.25), it could be argued that the respondents were very careful and particular in answering the questionnaire and did not respond randomly or casually.

Table 2 Descriptive statistics for situation-specific scale

F <sup>1</sup>	Mean <sup>2</sup>	SD	Item
1	4.25	0.91	31 English is necessary as a global language because it enables international communication.
-	4.19	1.07	42 I chose to come to this university because I believed it would be an advantage to be educated in English.
1	4.10	0.91	12 I will try to continue to improve my English even after I start my engineering career.
1	4.07	0.91	48 Engineers that know English well are rewarded by getting a promotion or benefits in their jobs.
-	4.07	0.99	18 I would like to have more student exchange programs in our university so that I can study in another country for a semester.

1	3.96	1.00	26	After I graduate, I wish to go abroad for a time to improve my English.
1	3.95	1.02	50	Knowing English makes me feel like a member of the worldwide society of engineers.
1	3.88	1.04	49	When I graduate as an engineer, I will look for a job where I can make use of my English.
1	3.81	1.05	40	I wish we had native speakers of English as teachers in our department or school.
-	3.81	1.28	6	I don't need to know English in order to be qualified as a good engineer.
1	3.77	1.15	15	I wish our department program would allow us to take extra language related courses (speaking, writing, etc.) throughout the four years of school.
7	3.70	1.10	27	We should be given more opportunity to practice and develop our English in our classrooms.
1	3.67	1.19	22	I hope I will not have to use English when I start working as an engineer.
6	3.60	1.21	46	The members of my family do not really care whether I learn English or not.
-	3.52	1.06	41	In all my schooling years, I always had a strong desire to learn English.
2	3.51	1.33	4	English-medium education has a harmful influence on my native language Turkish.
5	3.51	1.11	28	Our department teachers often remind us how important English is for our future careers.
4	3.50	1.14	10	I believe I can learn a third language easily because I already know two languages.
6	3.48	1.18	47	The members of my family encourage me to learn a foreign language other than English.
8	3.47	1.33	23	I envy my teachers who are very proficient speakers of English.
3	3.41	1.23	43	I was never a successful student in my English classes.
2	3.38	1.23	1	When I am preparing for my lessons, I prefer to study from the English version of our course books.
4	3.22	1.09	13	My level of English is good enough to meet my needs in a work environment.
3	3.20	1.23	39	I usually had low grades in my English language classes at high school.
-	3.20	1.14	24	The department curriculum should allow us to learn foreign languages other than English.
3	3.04	1.30	19	My academic performance is unsatisfactory because I have difficulty understanding course content in English.

5	2.77	1.21	30	My English enables me to get higher grades in my courses.
2	2.73	1.16	38	I cannot show my intellectual capacity in my school performance because of the foreign language factor.
7	2.70	1.24	45	I don't want to spend a year of study in the Prep English program just to learn English.
2	2.68	1.36	29	I could become a better engineer if all our courses were lectured in Turkish.
2	2.65	1.30	8	I would prefer my courses to be lectured in Turkish and have supplementary English courses at each semester.
8	2.37	1.17	2	Most of our teachers are not competent in lecturing in English.

<sup>1</sup>Factor(s) on which item loads at 0.35 or higher

<sup>2</sup>Means are based on a five-point scale: 1. Strongly agree; 2. Agree; 3. Undecided; 4. Disagree; 5. Strongly disagree. N= 386

### III. iii. Factor Analysis of the Situation-specific Scale

Using a minimum-eigenvalue criterion of 1.0, a factor analysis was performed for the situation-specific items using principal component analysis technique. The analysis strategy involved an iterative process, whereby any item that did not contribute appreciably to the solution (i.e. those with loadings below .32, the minimum suggested by Tabachnick and Fidell, 1996) was eliminated. However, since items with factor loadings under .35 loaded on more than one factor, only items with loadings of .40 and above were kept (which eliminated items 6, 18, 24, 41, 42), leaving 27 items for the main study. The final analysis yielded an eight-factor solution which accounted for 57.75 % of the total variance. The internal consistency coefficient for the subscales varied between .82 and .25 (with a mean of .52). It was the two-item scales that depressed the mean coefficient, yielding lower reliability indices but strong loadings. The factor matrix produced by Varimax rotation is presented in Table 3.

*Goal-need significance of learning English* ( $\alpha=.82$ ): Factor 1 loads heavily on nine items (12, 26, 48, 49, 31, 15, 50, 22, 40), all of which concern the participants' recognition of the global significance of English as a means of international communication, professional affiliation, and higher professional reputation, as well as the participants' acknowledgement of a need for advanced levels of L2, either to be acquired at school or through one's persistent personal efforts following their formal education. In sum, the participants' see a certain instrumental value in L2 learning and express a desire for learning it. This factor directly relates to the *relevance* theory (Crookes and Schmidt, 1991), whereby learners perceive that personal needs such as achievement, affiliation, and power are being met by learning the L2, and Schumann's theory of *stimulus appraisal* (in Dörnyei, 2003).

*Attitude toward English-medium education* ( $\alpha=.73$ ): Factor 2 loads on five (8, 29, 4, 1, 38), four of which (8, 29, 4, 38) very specifically assess attitudes related to the use of L2 (as opposed to L1) as the medium of education in the university context. The focus of these items is whether such practice is harmful to L1, cognitive or professional development of the participants'. Item 1 concerns their

engagement in motivated study habits of using the English version of course books for study purposes, which is supportive of the objectives of an L2-medium education.

*Past Successes/Failures in Learning English* ( $\alpha=.71$ ): Three variables load under Factor 3. Two items (39, 43) express participants' self-evaluation of their prior success in English language classes, and the third item (19) attributes participants' low school performance to inability to understand course content in English. Weiner's (1992) attribution theory explains this construct by arguing that causal ascriptions of past failures and successes affect expectations of future success. Learners scoring high on this factor are high achievers while

*Self-confidence* in language learning capacity ( $\alpha=.51$ ): Two items load on Factor 4. They (10, 13) are indicative of subjects' self-confidence with relevance to ability to learn a third language and to meet the L2 requirements of a work environment. According to expectancy-value theory (in Oxford and Shearin, 1994), attributions of past accomplishments play an important role in developing self-efficacy.

*Attribution of Value* ( $\alpha=.28$ ): Two items loaded on Factor 5. Item 28 expresses the teachers' role of consciousness-raising concerning the significance of L2 learning for participants' future career. Item 30, on the other hand, reflects the importance attributed to L2 learning in achieving higher academic success. With respect to goal-setting assigned by teachers, Lock et al. ( ) conclude that assigned goals, if accepted by the individual, have the same effect as goals that the individual sets for himself. This variable can also be explained by *valence*, which is defined as the subjective value that an individual associates with a particular behavior (Lee et al., 1989).

Table 3: Situation-specific Scale: Varimax Rotated Factor Matrix, Communalities ( $h^2$ ), and Eigenvalues <sup>a</sup>

Items	Factor loadings							
	1	2	3	4	5	6	7	8
$h^2$								
12	.641							.49
26	.640							.49
48	.639							.49
49	.614							.61
31	.608							.51
15	.569							.45
50	.548							.54
22	.531							
.56								
40	.492							
.51								
8		.819						.72
29		.776						.67

4	.564								.56
1	.549								.48
38	.415								.46
39		.800							
.66									
43		.750							.64
19		.639							.61
13			.710						.63
10			.701						.58
30				.616					
.61									
28				.616					
.56									
47					.761				.71
46					.710				.68
2						.782			.63
23						.494			.56
45							.736		.69
27							.553		.51
Eigenvalue	5.78	2.23	1.62	1.48	1.20	1.16	1.08	1.03	

<sup>a</sup> Note: Only loadings of  $\pm 0.35$  or greater are included in this solution

*Parental Attitudes toward Learning a Foreign/Second Language* ( $\alpha=.49$ ): Factor 6 obtained appreciable loadings from two variables (46 and 47). Both items investigate parental encouragement of learning a second and/or foreign language. This factor closely resembles Gardner's Parental Encouragement construct (1985) adapted for university level students.

*Teacher as a Model* ( $\alpha=.31$ ): Two items yield strong loadings on factor 7 (23, 2). Both items concern participants' opinions of their teachers' efficiency in delivering lectures in English.

*Language-learning Opportunities* ( $\alpha=.27$ ): Two items load on Factor 8 (45, 27). Item 45 taps students' opinions related to the one-year intensive English program that they are exposed to before they can register to their department programs. Item 27 relates to the opportunities that the classroom medium offers for students to develop their communicative competence. The items assess participants' willingness to expend energy in the direction of learning L2 for an extended period of time. Such *persistence* (Maehr and Braskamp, 1986) is believed to be a necessary condition for achievement and an indicator of motivation.

### III. vi. Intercorrelations of the AMTB and Situation-specific Factor Scores

A correlational analysis of the relationships among the established subcomponents of the AMTB and the situated attitudinal/motivational scales will illustrate the common aspects which underlie both constructs. The intercorrelation matrix in Table 4 shows that with the exception of *English class anxiety* and *English use anxiety*, most of the subscales on the AMTB correlate positively and significantly with the subcategories of the situation-specific scale. *Goal-need*

*significance* stands out in its highly significant positive relationships with *instrumental orientation* ( $r=.61$ ), *interest in foreign languages* ( $r=.57$ ), *integrative orientation* ( $r=.58$ ), and *desire to learn English* ( $r=.58$ ), and *Attitudes toward English-speaking people* ( $r=.49$ ). As expected, *English Use Anxiety* had a moderately negative relationship ( $r=-.38$ ) with goal-need significance, as with all other situation-specific subscales.

*Attitude to English-medium education* and eight of the AMTB subscales correlate highly and positively. Significant correlation indices appeared particularly with *desire to learn English* ( $r=.40$ ), *interest in foreign languages* ( $r=.38$ ), and *instrumental orientation* ( $r=.35$ ) and *motivational intensity* ( $r=.37$ ), while a significant negative relationship appeared for *English use anxiety* ( $r=-.38$ ).

*Past Successes/Failures in Learning English*, not surprisingly, shows the highest positive relationship with *attitudes toward learning English* ( $r=.45$ ) and *interest in foreign languages* ( $r=.37$ ). Also significant is its negative relationship with *English use anxiety* ( $r=-.32$ ).

*Self-confidence* in language learning capacity has a significant negative correlation with *English use anxiety* ( $r=-.41$ ). This is in complete agreement with Clément et al.'s (1980) conceptualization of self-confidence as including the components of language-use anxiety (the affective aspect) and self-evaluation of L2 proficiency (the cognitive aspect).

*Attribution of Value*, most importantly, has a significant relationship with academic achievement at  $p<.05$ , and most of the other AMTB components. An awareness of the pragmatic value of learning English through self-experience and teacher-driven motivation correlates significantly with *motivational intensity* ( $r=.30$ ), *desire to learn English* ( $r=.30$ ) and other subscales at close coefficient values.

*Parental Attitudes toward Learning a Foreign/Second Language* appears to correlate significantly and positively with eight of the AMTB factors, the most significant relationship being with *motivational intensity* ( $r=.30$ ), and a significantly negative relationship with *English anxiety* ( $r=-.26$ ). According to Dörnyei, an important channel of developing self-efficacy is “from the persuasion, reinforcement and evaluation by others, especially teachers or parents” (1994, p.277).

*The teacher as a model* is the perception of the teacher as the group leader, embodying the “group conscience” (Brophy and Kher, 1986), and therefore student attitudes and orientations toward learning will be modeled after their teachers. This theory is confirmed in our study by the significant positive correlations between this construct and *desire to learn English* ( $r=.33$ ), *interest in foreign languages* ( $r=.29$ ) and most of the other subscales except for the anxiety scores.

*Language-learning Opportunities* show moderate correlations with all categories of the AMTB except for the two anxiety measures where the data yield insignificant positive or negative relationships.

### III. v. Correlations among the AMTB and Situation-specific Scales and Academic Achievement

Pearson product-moment correlation matrix calculated for participants' AMTB and situation-

Table 4 Intercorrelations among the subcomponents of the AMTB and situation-specific scale

situation-specific factors	AMTB factors									CGPA
	1	2	3	4	5	6	7	8	9	
1. Goal-need significance.	.57**	.40**	.16**	.36**	.49**	.58**	.58**	-.38**	.61**	.11*
2. Attitude toward English-medium Education	.8**	.37**	.14**	.27**	.25**	.34**	.40**	-.38**	.35**	.12*
3. Past Successes /Failures	.37**	.24**	-.09	.45**	.06	.20**	.34**	-.32**	.10*	.29**
4. Self-confidence	.36**	.18**	.01	.28**	.05	.13**	.29**	-.41**	.12*	.12*
5. Attribution of Value	.29**	.30**	.16**	.15**	.26**	.29**	.30**	-.26**	.29**	.12*
6. Parental Attitudes	.29**	.22**	.03	.25**	.13*	.23**	.23**	-.28**	.16**	.01
7. Teacher as a model	.29**	.21**	.06	.20**	.27**	.18**	.33**	-.20**	.27**	-.03
8. L2 learning opportunities	.14**	.20**	.04	.17**	.19**	.17**	.16**	-.08	.18**	.05
CGPA	.16**	.13*	-.05	.24**		-.01	.02	.17**	-.12*	.07

Note: N=386 \*p<.05 \*\*p<.01

AMTB scale: 1= Interest in Foreign Languages; 2= Motivational Intensity; 3= English Class Anxiety; 4= Attitudes toward Learning English; 5= Attitudes toward English-speaking people; 6= Integrative Orientation; 7= Desire to Learn English; 8= English Use Anxiety; 9= Instrumental Orientation

specific scores revealed a moderately significant relationship ( $r=.69$ ,  $p<.01$ ) between the two constructs, and very strong relationships between each scale and the composite score ( $r=.93$ ,  $p<.01$  and  $r=.91$ ,  $p<.01$ , respectively). When we correlated subjects' scores on the two measures and their CGPAs as the indicator of academic success, indices revealed a mildly significant relationship between participants' academic performance in their engineering courses and their general attitude/motivation scores ( $r=.14$ ,  $p<.01$ ) and context-specific attitudes to learning content through a L2 ( $r=.18$ ,  $p<.01$ ).

As will be seen from Table 4, on the situation-specific measure academic success correlated most significantly with *past successes/failures* ( $p<.01$ ) and with the following subscales at  $p<.05$  level: *goal/need significance*, *attitude toward English-medium education*, *self-confidence*, and *attribution of value*. The subscales of the AMTB that yielded the most significant correlations with CGPA scores were *attitudes toward learning English*, *interest in foreign languages*, and *desire to learn*

English at  $p < .01$  level, while significant positive correlations with *motivational intensity* and negative correlation with *language use anxiety* were at  $p < .05$  level.

### III. vi. Learner Variables as Predictors of Scores on the AMTB and Situation-specific Scales

The final analysis attempted to determine whether the four learner variables as a) being a first year/fourth year student, b) department registered in, c) length of study in the program (i.e. the total number of years spent studying in the program) d) type of high school graduated from, would predict a student's motivational strength and orientations as measured by the AMTB and the situation-specific scales. The data were submitted to a linear regressions analysis performed in a stepwise manner. A separate analysis was conducted for each scale. (The level of significance for a variable to enter the regression was set at  $p = .05$ ). Table 5 and Table 6 show the results of the regression, with  $r$  as the simple correlation of the predictor with the outcome measure,  $\beta$  as the standardized coefficient, the  $t$  statistics showing the significance of the beta coefficient, and  $p$  as the significance level of the  $t$  statistics.

Table 5 Data for Stepwise Regression of the AMTB scale

Variables in Equation	r	beta	t	p
Type of high school	.11	.11	89.23	<.01
Variable excluded from equation		entry beta	t to enter	p
Length of study	-.10	-.10	-1.95	.05
Department name	.09	.09	1.68	.09
First/Last year	-.08	-.08	-1.53	.13
R= .11		R <sup>2</sup> = .01		

As Table 5 indicates, only one type of learner variable, *type of high school graduated from*, had a significant effect on participants' AMTB scores, while the other three variables did not prove to be significant predictors of the general motivational tendencies. The same pattern was observed for the situation-specific scale; as will be seen from Table 6, the three variables of *length of study*, *department name* and participants' standing as a *first year or last year*

Table 6 Data for Stepwise Regression of the Situation-specific scale

Variables in Equation	r	beta
t	p	
Type of high school graduated from	.11	.11
	<.01	56.56

Variable excluded from equation	entry beta	Vari t to enter
Length of study	-.03	-.03
Department name	.06	.06
First/Last year	-.02	-.02

R= .11      R<sup>2</sup>= .01

*students* were similarly excluded from equation whereas the *type of high school* participants graduated from had a significant effect on participants' beliefs and attitudes related to their language-learning context.

#### IV. DISCUSSION AND CONCLUSIONS

The purpose of this study was to illuminate the situation-specific aspects of attitudes and motivation and how they can be associated with the more general, trait-like components of motivation measured by Gardner's socio-educational model. As other researchers have suggested, Gardner's definitional model needs to be broadened to allow for more psychological and cognitive reasons for learning a second language. It is reasonable to expect learners' attitudinal orientations and motivation to be determined by their past and present educational experiences and their consequences, their perceptions of the social influences and circumstances surrounding their education, as well as their beliefs about how efficiently their present education is meeting their prospective career goals and needs.

In answer to the first research question, a principal components analysis yielded eight components of attitudes and beliefs related to the learners' immediate learning environment. The *goal-need significance* factor bears significant relationships with all of the components of the AMTB and participants' academic achievement. Participants that have set for themselves L2 learning goals relevant to their future career development and that wish to be affiliated with English-speaking colleagues and academics also perceive a high instrumental and integrative value in learning English, unlike the subjects' of Csizér and Dörnyei (2005b) for whom professional interest "has not developed into an ideal language self" (p.638). In agreement with Csizér and Dörnyei's (2005a) assertion, our data show that overall interest in foreign languages is just as influential in creating a strong commitment to learning an L2 as motivation to learn only a specific language. Participants with high levels of English use anxiety based on bad language learning experiences, on the other hand, seem to avoid goal-setting behavior and do not associate a career-focused need with learning English. Our findings are consistent with the goal-setting theory (see Lee et al., 1989; Trembley and Gardner, 1995) in that specific language-related career goals lead to higher school performance by increasing

effort, persistence and attention to learning content through English, as illustrated by the positive correlation between this measure and participants' CGPA scores.

Another significant component that affects positively motivational disposition and CGPA is favorable *attitudes toward English-medium education*. Although subjects suspect English-medium learning of having some harmful influence on L1 (i.e. by being prevented from acquiring and expressing professional concepts in their L1), they do not believe their professional skills and qualifications are any poorer for this, nor wish to be educated in any other way. Participants with positive attitudes are seen to be more desirous to learn English and other foreign languages, indicate stronger motivational intensity, and achieve higher scores on the instrumental and integrative measures. This construct also emerges as an important factor affecting subjects' academic achievement scores.

The situational component that most significantly affects academic achievement is participants' earlier experiences of *success or failure in learning English*. Participants with successful language-learning experiences tend to be the low anxiety group that have very positive attitudes toward English-medium education and a high interest in learning English and other foreign languages; the opposite is true for students who experienced failures in the earlier stages of learning English. This result agrees with Dörnyei's (1994) argument that "bad learning experiences" could be expected to affect motivation, and hence subjects' subsequent language-learning behaviors, and also with Weiner's (1992) attribution theory stating that past failures and successes affect future goal expectancy and self-efficacy. A solid background of success in learning English in high school and other language programs has the strongest relationship with achievement in English-medium tertiary education. This argument connects meaningfully with the importance our results attribute to subjects' high school background, which also appreciably and significantly affects participants' scores the AMTB and situation-specific measures.

The study also highlights the motivational importance of *self-confidence*, which is mainly a state of low English-use anxiety and high self-perceptions of English competence in relation to a future career/job context. Although this construct was initially operationalized in an interethnic context (Clément, 1986), the present study also suggests that the construct is a significant determinant of academic achievement (together with the anxiety component) where English as a second language is the medium of education.

Significant correlational relationship was established between *attribution of value* to language learning (which might also be called *valence*) and academic achievement. The value that department teachers attribute to learning English and the participants' own conviction that it contributes to his/her success leads to significant correlation indices with instrumental orientation and motivational intensity among others. As Oxford and Shearin (1994) indicated, a necessary condition for perceiving value in studying a language is an awareness of the consequences that would follow from the mastery.

Among the AMTB components established by Gardner and colleagues, the strongest indicators of academic achievement (at  $p < .01$ ) are *attitudes toward learning English*, followed by *desire to learn English* and *interest in foreign languages*. Gardner (1985), too, points out that motivation for language learning includes not only goal orientation, but also the desire to learn the language and attitudes toward the language-learning situation. Our results, therefore, confirm the relevance of a social psychological approach to the understanding of L2 motivation in the given context. The integrative and instrumental subsystems overlap with most situation-specific scales areas because work and professional development are often a major reason for mixing in with another culture. Despite the marked differences in the context of the study, our findings related to English-use anxiety and self-confidence are similar to those found in other studies (Clément, et al., 1980, Clément, 1986); both of these clusters are strongly and negatively associated with each other and both contribute to academic performance in a significant way. It is possible to explain this outcome by reference to the assertion that “anxiety consumes attentive and cognitive resources which could otherwise be allocated to “other cognitive performances (Gardner et al., 1992), as witnessed by its negative correlation with academic success. In fact, English-use anxiety is a strong variable that has been seen to associate negatively with all the components of the situation-specific construct. Our results are congruent with other studies which have found language anxiety to correlate negatively with global measures of achievement such as objective tests and course grades (Horwitz et al., 1986) as well as specific processes like vocabulary recall and short-term memory capacity (MacIntyre & Gardner, 1991). English-class anxiety, on the other hand, which is also associated with the learning environment is Gardner’s model (1985), has a facilitating effect rather than a debilitating one, alerting students to the significance of the language learning process for meeting their needs (Scovel, 1991).

The study attempted to make a contribution to the long lasting debate over whether instrumental or integrative orientations gain superiority in motivating learners in different learning contexts. Integrative and instrumental orientations did not appear to be independent contributors to academic success but they jointly and indirectly affect this measure through strong associations with success predicting factors like goal/need significance and positive attitudes to English-medium education.

As for the learner variables, participants’ status as a *first- or fourth-year student*, *total duration of study* in the program, and the *name of the department registered to* do not function as significant predictors of their attitudinal and motivational configurations. Our students hold certain L2 motivational values and opinions related to English-medium education which do not change as a function of which department they study in, whether they are regular students or not in the program, and whether they are at the beginning or end of their university education. A significant predictor of the level of motivation and context-related attitudes is the type of high school participants graduated from. In the educational system of the given country, students coming from different types of high schools (which were categorized as five types in the questionnaire) are typically exposed to different amounts of English learning because while some of these high schools provide a

one-year intensive English program to their students in addition to increased hours of English on their curriculums other schools do not have such L2 fostering curriculums. Therefore, students enter these universities with varying degrees of English proficiency. University entrance examinations do not include an L2 component as a prerequisite for potential students of these faculties and institutions where education is carried out in the L2 medium.

Some of the pedagogical implications that could be derived from the results of this study could be summarized in this way: Students with bad or inadequate learning experiences of learning English in their earlier years of schooling, and therefore with high levels of anxiety related to the use of English, may well suffer from the consequences of this when they become students in English-medium universities. Hence, we suggest that students that aim for an engineering education in such universities should be required to possess a reasonable proficiency in English before they can be admitted to these programs. One can infer that a one-year intensive English program in these institutions does not raise students' proficiency to the desired degree. They could benefit greatly from an awareness of the importance of goal-setting behaviors and of learning an L2 for their future careers, and this might require assistance and guidance from the academic staff, administrators in orientation programs and other personnel in career offices. Positive attitudes need to be invoked in these students by using influences which extend beyond the school context, such as establishing international students exchange programs with other English-medium universities, participating in summer practice programs abroad through institutional contacts, and launching academic staff exchange programs that will enable social and linguistic contact with L2 speaking academics.

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