### The Role of Non-classroom Faculty in Student Learning Outcomes in Higher Education Context

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Researchers have identified a number of learning experiences including faculty-student interaction which affect students' gains in learning outcomes in higher education. This study specifically focused on the relationship between out-of-class faculty-student contact and student learning gains in a language teacher education program. The study was based on data gathered from 116 senior students at English Language Teacher Education Department of Cukurova University, Turkey. The results suggest that the main contribution of contact with faculty members is attributed to gains in knowledge and subject matter competence. On the other hand, faculty contact is not seen as a source of intellectual growth and practical competence by the participant students. The findings of the study prove to be valuable for showing insights about the relationship between faculty-student interaction and specific learning gains.

#### Introduction

The ultimate purpose of higher education is educating the whole person (Berdahl, 1995; Bowen, 1997; Kellogg Forum on Higher Education for the Public Good, 2002; Kim, 2007). In more specific terms, higher education exists to promote student learning in the areas of cognitive skills and intellectual growth, subject matter competence, emotional and moral development, practical competence, independent learning skills, and vocational competence, as demonstrated by various research in higher education literature. Pascarella and Terenzini (1991) analyzed the results of thousands of studies in this area, and as a result of their extensive analyses they found that attending higher education was associated with significant gains in several domains, including verbal skills, quantitative skills, cognitive growth, selfconcept, self-esteem, moral development, attitude, and value changes. Their comprehensive work also pointed out that the learning opportunities and the nature of the students' personal experiences play a significant role in learning outcomes. In fact, as was suggested by many other researchers as well, the students' experiences during college have more impact on the students than the nature of the colleges or universities themselves (Terenzini and Pascarella, 1994; Kuh, 1995; Terenzini, Pascarella, & Blimling, 1999; Astin, 2003; Winston, 2003; Pascarella, 2006; Goodman, 2007).

A research conducted by Astin (1993) showed that popular measures of academic program quality such as educational expenditures per student, faculty/student ratios, faculty salaries, and research productivity alone had little or no direct effect on student development. Instead, learning, academic performance, and retention all were associated with the students' interactions with their peers, with faculty members, with involvement in out-of-class activities. In their study, Chickering and Gamson (1991) synthesized the existing evidence on the impact of higher education on students, and they made a

list of seven broad categories or principles for good practice in undergraduate education: (1) student-faculty contact, (2) cooperation among students, (3) active learning, (4) prompt feedback to students, (5) time on task, (6) high expectations, and (7) respect for diverse students and diverse ways of knowing. That is, they named student-faculty contact as one of the good practices in post-secondary education.

In accordance with Chickering and Gamson, several researchers also highlighted the strong association faculty - student contact to enhanced student learning. For example, a study conducted by Umbach and Wawrzynski (2005) demonstrated that faculty do matter. The findings of this study suggested that the educational context created by faculty behaviors and attitudes has a dramatic effect on student learning and engagement. Institutions in which faculty members create an environment that emphasizes effective educational practices have students who are active participants in their learning and perceive greater gains from their undergraduate experience. Similarly, Astin (1993) found that student-faculty interactions were positively correlated with both personal and intellectual growth. Also Hattie (2003) sees faculty members as an important source of variance in influencing learning outcomes. Students' out of classroom contacts with faculty members have also been associated with gains in academic and cognitive development (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1994). Also, a review of literature by Sax, Bryant, and Harper (2005) revealed the existence of significant relationships between the amount of time students spend interacting with faculty members and a variety of educational and personal outcomes, including academic skill development, social self-confidence, academic and social integration, altruism/social activism, leadership ability, artistic inclinations, occupational values, gains in educational and degree aspirations, satisfaction, and retention.

Drawing upon prior research on faculty-student contact, it can then be argued that student involvement with faculty members outside of the classroom enhances almost all aspects of learning and academic performance. This study further explores the nature of learning gains that students relate to their face-to-face interaction with the faculty members outside the classroom lectures. We propose that for understanding the possible effects of out-of-class faculty contact on student learning, and thus, for improving the quality of learning at formal higher educational institutions, students' involvement in out-of-class interactions with their faculty members needs to be examined more closely. To this end, the study specifically focuses on the relationship between out-of-class faculty-student contact and students' self- reported learning gains. The overall purpose of the study is to identify the associations between out-of-class faculty-student contact and learning outcomes as perceived by students themselves.

### Method

#### Scope of the Study

This study was part of a large-scale research study intended to explore the influence of higher education experiences on English Language Teacher Education students' learning outcomes. In their research study, Sahinkarakas, Inozu, and Yumru (2010) investigated the relationship between learning outcomes and their antecedent experiences in the higher education context. The present study, however, focuses on one single area of learning experience, student-faculty contact. Within the framework of this study, student-faculty contact was defined as non-classroom face-to-face interactions with faculty members, reflecting various forms of contact between the two parts such as discussion of assignments with an instructor, exchange of ideas on academic performance, discussion about subject matter outside the classroom, conversation regarding career plans, friendly chat, or accompaniment with the instructor in a social work or academic occasion. Thus, any faculty interest in either teaching or students' personal development is considered as faculty contact within the scope of the study.

Educators at all levels believe that frequent and meaningful interactions between students and their teachers are important to learning and personal development (Kuh & Hu, 2001). But the virtues of student-faculty contact are highly extolled in higher education context. Especially in teacher education programs, the benefits of faculty contact are invaluable as teacher education is a multi-faceted and multi-disciplinary activity (Kelly, Grenfell, Allan, Kriza, & McEvoy, 2004). The scope of learning outcomes of

teacher education programs includes theoretical knowledge, practical skills and strategies, and social competences. Throughout the programs, students are often required to make connections between theory and practice. Reflective thinking and the teaching component of teacher education programs incorporated into the curriculum also asks for students to be thinkers, researchers, problem solvers, and decision makers in the process of being teachers. Within this scope, student-faculty interactions are expected to contribute positively to the academic, professional, and personal development of students enrolled in teacher education departments. Following this line of thought, this study investigates the learning outcomes that senior students, who were enrolled at the English Language Teacher Education Department, associated with faculty contact. The ultimate purpose was to discover the nature of the learning outcomes which were attributed to faculty contact as perceived by the participant students. Two research questions guided the current study:

- 1. What is the relationship of student-faculty contact to student self-reported learning gains?
- 2. What is the nature of the learning outcomes which are attributed to faculty contact, as reported by students?

### **Guiding Framework**

frameworks were considered conducting the study. The first was the "European Profile for Language Teacher Education" (Kelly et al., 2004), a frame of reference which proposes key elements to be included in a teacher education program to equip language teachers with necessary professional competencies. The purpose of the profile is to provide a common frame of reference in the education of foreign language teachers. The profile specifies items relating to knowledge and understanding, what trainee language teachers should know and understand about teaching and learning languages as a result of their initial and inservice teacher education; strategies and skills, what trainee teachers should know how to do in teaching and learning situations; and the values that trainee language teachers should be taught to promote in and through their language teaching (Kelly et al., 2004). Although the framework was designed as a resource for European institutional policy makers in the field of teacher education, the content of the profile is a guide for language teacher trainers by identifying the scope of learning outcomes of teacher education. Student learning outcomes, as stated by Frye (1999), encompass a wide range of student attributes and abilities, both cognitive and affective, which are a measure of how their college experiences have supported their development as individuals. According to the

researcher, cognitive outcomes include demonstrable acquisition of specific knowledge and skills in a major, more specifically, what students know that they didn't know before, and what they do that they couldn't do before. Affective outcomes, on the other hand, relates to how the college experience impacts students' values, goals, attitudes, self-concepts, world views, and behaviors; how it develops their many potentials; and how it enhances their value to themselves, their families, and their communities. In line with Frye (1999) then, it can be said that the scope of learning outcomes for language teacher education includes theoretical knowledge, practical skills and strategies, personal development, and social competences.

The second framework used to guide the study was "Turkish Higher Education National Qualifications Framework" (Higher Education Institution, 2009). It was developed by Higher Education Council to revise and restructure university education in Turkey. This framework explicitly identifies the learning outcomes of higher education under two broad categories: personal-vocational knowledge-skills and competencies. The Knowledge and Skills category contains items related to theoretical and practical issues. whereas the Personal and Vocational Competencies category includes items such as independent learning skills, learning to learn, management, leadership skills, social competence, communication skills, ethical issues, and professional development skills.

When the items included in both of the frameworks discussed above compared, it can be concluded that the content in these two frameworks are almost identical to each other in their description of the learning outcomes. Thus, the items included in the list of the learning outcomes used for the data collection purpose in this present study is a synthesis of these two frameworks, namely, the "European Profile for Language Teacher Education" and the "Turkish Higher Education National Qualifications Framework," and they can be grouped under three categories as suggested by the profile: knowledge and understanding, strategies and skills, and thirdly values.

### Context of the Study

The study was conducted at one of the leading universities of Turkey. The university, besides various other programs, offers a conventional on-campus ELT (English Language Teaching) program in the Faculty of Education, English Language Teacher Education Department. The curriculum of the program includes various courses in the following areas: language skills, communication skills, approaches and techniques in language teaching, the teaching of English to young learners, literature, language acquisition, materials design, use of technology in language teaching,

introduction to linguistics, language assessment, translation, educational sciences, and some elective courses. The methodology courses such as teaching English to young learners, teaching language skills, or language teaching materials development and adaptation are both theoretical and practical in nature. That is, in such courses, students are given opportunity for applications of theory during class time.

Also the department where the data of the study was collected was among the top ten in the field of language teacher education. There are approximately 30 lecturers working at the department. The majority hold doctoral degrees in English Language Teaching, Each lecturer in the department has a workload of 10 to 15 hours of teaching per week. In addition to classroom teaching, each lecturer also has to schedule four hours of advising sessions for specific group of students (25 in average) to whom she or he is assigned as adviser by the head of the department. But impromptu office visits by students are also welcomed by advisors or any faculty member. The social atmosphere at the department can be described as quite supportive and intimate, allowing students, who are trainee teachers, to feel free in communicating with faculty members outside the classroom. Students also take courses from the Department of Educational Sciences throughout their education in the department. Since both English Language Teacher Education and Educational Sciences Departments are the divisions of the Faculty of Education, the situation regarding faculty-student contact is very much similar in each.

### Participants and Data Collection

Data were drawn from a study of senior students (116 in total) enrolled at the English Language Teacher Education Department of Cukurova University, Adana, Turkey. Their ages range between 20 and 22. As the language teacher education program where the study was conducted has a preparatory year, the majority of the students have been attending this university for four and a half years at the time of the study. In all 116 students participated in the larger scale research study (Sahinkarakas, Inozu, & Yumru, 2010), 61 students reported faculty contact as an item of learning experience contributing to their gains in the program. So students who viewed faculty contact as a learning experience were included in the present study.

Following the discussion of the purpose of the study with those 61 participant students in their regular course hours, they were administered a questionnaire comprised of 43 expected learning outcomes which were developed from the two sources: "European Profile for Language Teacher Education" and "Turkish Higher Education National Qualifications Framework." The students were asked to check the items which they

believe they have learned from their non-classroom contact with faculty members. In order to avoid any misunderstanding that might occur in students' minds, they were given a clear oral description of what was meant by out-of-class faculty contact before the administration of the questionnaire. That is, it was explained to them that student-faculty contact meant non-classroom face-to-face interactions with faculty members, and they were also given some examples such as discussing assignments with an instructor in her/his office, exchanging ideas on academic performance during breaks, discussing subject matter outside the classroom, talking about career plans, having a friendly chat, or accompanying the instructor in a social work or academic occasion.

### **Data Analysis**

First, descriptive statistics were computed for the variables of learning outcomes. Then, the items which were ticked by the equal number of students were grouped together in order to see whether there was any consistency among the responses in terms of the type of learning outcome that each item belongs to as suggested by the European Profile for Language Teacher Education: Knowledge and Understanding, Strategies, and Skills and Values. Then, for a more detailed analysis of the data, the learning outcomes included in each main category were reclassified under subcategories according to the taxonomy of learning outcomes developed by Kuh (1995). The taxonomy lists five domains of outcomes: interpersonal competence, reflecting individual's self-confidence, competence, autonomy and self-awareness; practical competence, which is related to vocational competence; cognitive complexity, relating to application of knowledge and reflective judgement; knowledge and academic skills, including subject matter competence; and finally, humanitarianism, which covers altruism and aesthetics. Under these broad categories of outcome domains, the taxonomy also identifies specific outcomes. Six of these outcomes (see Table 1 on the next page), which were matching with the scope of this study, were used in data analysis. The purpose of this second stage of analysis was to reveal the nature of the relation between student-faculty contact and the learning outcomes more specifically. The table below illustrates the categories of the learning outcomes according to the three frames: European Profile for Language Teacher Education, Turkish Higher Education National Qualifications Framework and Kuh's "Taxonomy of Outcome Domains."

As mentioned before, the learning outcomes identified in the "European Profile for Language Teacher Education" and "Turkish Higher Education National Qualifications Framework" are almost

identical considering their content. Both include subject-matter related knowledge, professional skills, and social competence. Kuh's (1995) taxonomy of learning outcomes covers all, and it also provides a more detailed description of these outcomes allowing us to analyze the relation between out-of-class faculty-student contacts and learning gains in dept.

### Results

The descriptive analysis of the data revealed that students perceive some learning gains, such as development in linguistic competence or theoretical knowledge about the field of study, as an outcome of faculty contact. While many positive relationships are seen between student-faculty contact and student self-reported gains, it is equally significant to find that the contact with faculty members contributes to gains in certain domains of learning outcomes. In this part, we first summarize the general findings concerning the pattern of relations between faculty contact and the three domains of learning outcomes. Then the results reached in these three outcome domains are dealt with separately.

### **General Findings**

The results suggest that student-faculty contact influence student learning. However, the benefit of faculty contact is not equal for all types of learning outcomes. The numbers show that the gains in knowledge and understanding category are the largest as compared to gains in the other two categories of learning outcomes. As it can be seen from Table 2 (see p. 297), while 17.08% of students (in average) related their learning in the category of knowledge and understanding to faculty contact, a decrease was observed for the category of strategies and skills. The average percentage of students attributing their gains in this category of learning outcomes to faculty contact was only 12.42. Following the learning outcomes in knowledge and understanding category, the second largest contribution of faculty contact was to the category of values. Approximately 16% of students linked gains in personal growth to faculty contact. Table 2 summarizes students' self-reported learning outcomes attributed to faculty contact and the percentage of students choosing each item.

When the learning outcomes which were perceived by at least 20% of students as related to the contact with faculty members were grouped together, it was seen that the majority of the items in this group belonged to the category of "Knowledge and Understanding." The most frequently chosen outcomes were "following the innovation in my field of study" (32.78%, n=20) and "developing my linguistic competence" (32.78%,

Table 1
Learning Outcomes

European Profile for Language Teacher Education		Turkish Higher Education National Qualifications			Kuh's Taxonomy of Outcome Domains	
1.	Knowledge and Understanding	1.	Knowledge and Skills	1.	Knowledge and Subject- Matter Competence	
2.	Strategies and Skills	2.	Personal and Vocational Competence	2.	Cognitive Skills and Intellectual Growth	
3.	Values		_	3.	Practical Competence	
				4.	Autonomy and Self-directedness	
				5.	Vocational Competence	
				6.	Values	

n=20), with "theoretical knowledge about my field of study" (22.95%, n=14) the third, followed by "language teaching methodologies" (21.31%, n=13), "critical and enquiring approach to teaching and learning" (21.31%, n=13), "applying information and communication technology (ICT) for pedagogical use in the classroom" (21.31%, n=13), "reflective practice and self-evaluation" (19.67%, n=12), "importance of teaching and learning about foreign languages and cultures" (19.67%, n=12), and 'growth in exercising rights, possibilities, and privileges as a citizen' (19.67%, n=12). Out of nine learning outcomes mentioned here, the first six items represent Knowledge and Understanding, the seventh Strategies and Skills, and the last two Values (Table 2). Thus, it can be inferred that student-faculty contact is more associated with gains in the area of knowledge and subject matter competence. Yet, interaction with faculty members is not seen as a source of vocational growth and practical competence by the participant students.

## Results Concerning the Outcome Domain of Knowledge and Understanding

As mentioned previously, the first category, Knowledge and Understanding, refers to what trainee language teachers know and understand about teaching and learning language resulting from their education. We examined this category under two sub-categories in accordance with Kuh's (1995) taxonomy of learning outcomes. The first one, Knowledge and Subject-Matter Competence, refers to academic and course-related learning and the content mastery of the participants. The second sub-category under Knowledge and Understanding, Cognitive Skills and Intellectual Growth, refers to the ability to synthesize information and experiences, to see connections between thinking and experiences, and to express reflective thought (see appendix for the list of questionnaire items in each subcategory).

The numbers in Table 2 suggest that the students who participated in this study associated faculty contact the most with gains in knowledge and understanding category. But the findings also revealed that not all of the items in this category were thought by the students as linked to faculty contact. The majority of learning attributed to student-faculty outcomes contact concerned the knowledge and subject-matter competence: developing my linguistic competence (32.78%), following innovations in the field of study (32.78%), theoretical knowledge about the field of study (22.95%), and knowledge of language teaching (21.31%). On the other hand, the percentage of students reporting faculty contact as related to cognitive skills and intellectual growth was pretty small. In descending order, the learning outcomes mentioned by students were scientifically analyzing concepts and ideas in the field of study (9.38%), evaluating and interpreting scientific data in the field of study (9.38), and critically analyzing the knowledge and skills learned (6.55) (Table 2). Thus, the results showed that the students viewed faculty members as the main agents in creation and negotiation of knowledge. However, studentfaculty contact was not found to be beneficial in developing critical and inquiring approaches to what was learned.

# Results Concerning the Outcome Domain of Strategies and Skills

Strategies and Skills, which is related to items about knowing how to carry out what has been learned, was the second category and examined in three subcategories. The first sub-category, Practical Competence, means application of knowledge, relating theory to practice, and using skills learned in the classroom. Autonomy and Self-Directedness, which corresponds to developing self-awareness, taking responsibility of one's own learning, and movement from dependent to independent thinking was the second sub-category examined. The third sub-category was

Table 2

The Percentage of Students and the Items of Learning Outcomes Attributed to Student-Faculty Contact

The Perc	entage of Students and the Items of Learning Outcomes Attributed to Student-Faculty Cont	act
Categories of		
learning	Items	%
outcomes		
Knowledge	5. Following the innovation in my field of study (ELP, CEFR, CLIL, task-based language learning,	32. 78
and	etc.)	22.70
Understanding	7. Developing my linguistic competence	32.78
	<ol> <li>Theoretical knowledge about my field of study</li> <li>Knowledge of language teaching</li> </ol>	22.95
		21.31
	<ul><li>6. Critical and inquiring approach to teaching and learning</li><li>9. Apply information and communication technology (ICT) for pedagogical use in the classroom</li></ul>	21.31
		21.31
	12. Critical evaluation of curriculum in terms of aims, objectives and outcomes	18.03
	<ul><li>11. How to record learners' progress</li><li>2. Knowledge of classroom techniques and activities</li></ul>	14.75
	38. Planning and managing professional development activities	12.11
	13. Theory of program evaluation	12.11
	34. Scientifically analyzing concepts and ideas in my field of study	12.11
	35. Evaluating and interpreting scientific data in my field of study	9.38
	10. Applying information and communication technology (ICT) for personal planning, organization	9.38
	and resource discovery	9.38
	39. Critically analyzing the knowledge and skills learned	6.55
	TOTAL (mean)	17.08
Strategies and	18. Reflective practice and self-evaluation	19.67
Skills	16. Methods of learning to learn	16.39
	33. Self-awareness	16.39
	15. How to adapt teaching approaches to the educational context and individual needs of learners	14.75
	17. How to do critical evaluation, development and practical application of teaching materials and	14.75
	resources	
	21. Practical application of curricula and syllabuses	14.75
	36. Identifying, analysing, and proposing solutions to the problems in my field of study	14.75
	37. Getting the responsibility of solving complex problems that might occur during practice	14.75
	40. Identifying learners' needs	14.75
	4. Practical knowledge about my field of study	12.11
	24. Ability to do action research	12.11
	25. Incorporating research into teaching	12.11
	32. Self-confidence	12.11
	8. How to apply various assessment procedures	11.47
	22. Peer observation and peer review	11.47
	26. Use of the European Language Portfolio for self-evaluation	11.47
	41. Reflecting ideas and proposals in a written and spoken form	11.47
	20. Maintaining and enhancing ongoing personal language competence	9.38
	14. Practice of program evaluation	8.19
	23. Relationships with educational institutions in appropriate countries	4.91
	19. Independent language learning strategies	3.27
	TOTAL (mean)	12.42
Values	29. Understanding importance of teaching and learning about foreign languages and cultures	19.67
	43. Growth in exercising rights, possibilities, and privileges as a citizen	19.67
	<ol> <li>Growth in team-working, collaboration and networking, inside and outside the immediate school context</li> </ol>	18.03
	31. Understanding the importance of life-long learning	18.03
	28. Knowledge of the diversity of languages and cultures	16.39
	27. Knowledge of the social and cultural values	12.11
	42. Developing ethical standards and values on gathering, interpreting, publicizing, and applying data	6.55
	TOTAL (mean)	15.77
	101AL (illeall)	15.11

*Vocational Competence*, and it means acquiring attitudes, behaviors, and skills related to post-college employment and reflective practice.

The results of the study showed that the relation between student-faculty contact and learning gains in this category of outcomes was not very positive. Except for the learning outcome of reflective practice and selfevaluation (19.67%), out of 61, the number of students who associated their gains in strategies and skills to faculty contact was either ten or below. That is, only 10% of the students (on average) linked faculty contact to the gains in areas such as developing independent language learning strategies (3.27%), maintaining and enhancing ongoing personal language competence (9.38%), applying various assessment procedures (11.47%), incorporating research into teaching (12.11%), getting the responsibility of solving complex problems that might occur during practice (14.75), and adapting teaching approaches to the educational context and individual needs of learners (14.75) (Table 2).

### **Results Concerning the Outcome Domain of Values**

It has been stated before that the learning outcomes in this category contains items relating to the social and cultural values that language teaching should encourage and promote. Approximately 16% of the students reported that they attributed their gains in acquisition of social and cultural values to their contact with faculty members (Table 2). A high proportion of students associated their contacts with faculty members with gains, especially in understanding importance of teaching and learning about foreign languages and cultures (19.67%) and growth in exercising rights, possibilities, and privileges as a citizen (19.67%) (Table 2).

conclude, much has been published documenting that out-of-class contact with faculty members is associated with increases in students' learning from college experiences, and the findings of this study provided more evidence for this relation between out-of-class faculty-student contacts and learning gains. However, the results of the present study further revealed the nature of this relation, and they showed us what the students gain from contact with faculty members outside the boundaries of the formal learning context, namely the classroom. In a nutshell, the results indicated that out-of-class face-to-face interaction with faculty members contributes mostly to students' content knowledge in the field of study. In that sense, it can be inferred that contact with faculty members out of the classroom was seen by the participant students as a continuum of in-class teaching where information about subject matter was conveyed through lectures. On the other hand, when it comes to

application of knowledge, intellectual growth, and acquisition of attitudes, behaviors, and skills related to post-college employment, the contribution of non-classroom faculty contact was relatively low.

### Discussion

In our era, the education of foreign language teachers does not just include the transmission of core linguistic, pedagogical, and methodological skills required for trainee teachers in their future professional practices. It also relies heavily on the idea of developing autonomous language teachers who are capable of directing and improving themselves not only in their active teaching work but also in their life-long professional development activities in order to be effective in their practices. Current models of teacher training, such as constructivist teaching or the reflective teaching model, view teachers as researchers as much as knowledge providers. That is, teachers are expected to take responsibility for assessing teaching and learning environment, identifying problems, proposing solutions, and making appropriate decisions for creating better learning environments. Certainly, incorporating research into teaching requires teachers to make their own action plans rather than following a mechanical cook book recipe, by asking critical questions such as, "How can I enhance learning?," "What can I do to improve my teaching?," "What decisions should I make?," and "On what basis should I make these decisions?."

The reflective nature of teaching is represented well in the conceptual framework of Colton and Sparks-Langer (1993). They mention five categories of knowledge: knowledge of self as teacher, knowledge of content, knowledge of teaching and learning, knowledge of students, and knowledge of school and societal contexts. These knowledge bases are viewed as essential for what prospective teachers should know and be able to do. According to the framework, there is also a "doing (practice)" dimension to teaching which involves the tasks of planning, implementing, and evaluating. There is also an interaction between "doing" and "knowing." In terms of its content, the framework shares the same underlying principles with the two guiding frameworks of this present study. The common thought behind these frameworks is that teachers are expected to be reflective practitioners. That is, a teacher in our period is supposed to be a "knowing" person and "knowing how" person at the same time. We suggest interactions with faculty members are helpful in setting a context to help students make meaningful connections between theories ("knowing") and practice ("doing"). Nevertheless, the findings of this study revealed that the students who participated in this study viewed faculty

members as a source of theory. In other words, the students associated their non-classroom interactions with teachers primarily with gains in subject matter competence (knowledge). Yet the relationship between gains in cognitive skills and intellectual growth and faculty contact was not strong as reported by the students. Development of practical competence, like relating theory to practice, and vocational competence, like incorporating research into teaching, were not attributed to faculty contact either.

There is no need for discussing the validity of the argument that pre-service teachers' understanding of subject matter affects the quality of their teaching subsequent to their formal training. However, as Shulman (1987) proposes in his theory of teacher knowledge, for successful teaching, despite a teacher's deep understanding of a subject area, s/he must also be able to foster understanding of subject or concepts for students. This requires acquisition of pedagogical content knowledge including practical application of curricula. Students who are trainee teachers develop a critical understanding and application of knowledge and skills learned in the classroom, and faculty members could provide further assistance and guidance outside the classroom hours by initiating and organizing additional out-of-class activities. We believe that extending teaching beyond the classroom through outof-class activities, in integration with the curriculum, offers invaluable opportunities for students to scientifically analyze, synthesize, and apply the practical knowledge about the field of study.

We think that the findings of this study identify a need for more frequent contact between teachers and students, namely trainee student teachers. According to Kuh and Hu (2001), the more contact between students and faculty members both inside and outside the classroom, the greater the student development is. But, as Pascarella & Terenzini (1991) put it, it is both the frequency and nature of student-faculty interaction combined that have the greatest impact, such as when interactions have an intellectual or substantive focus, e.g., career plans, as contrasted with an exclusively social exchange. Therefore, we suggest that it might be helpful for trainee student teachers to become involved with their teachers in academic events such as professional development seminars and workshops or projects. These kinds of occasions, we believe, provide students with quality educational experiences which contribute to students' practical and vocational competence. The results reached in some studies provide support for our belief. For example, Nagda, Gregerman, Jonides, von Hippel, and Lerner (1998) found out positive contribution of research partnership to students' learning. Their study showed that the integration of students into research projects in which faculty members acted as expert guides helped students

in developing their own cognitive and intellectual skills. In a similar study, Umbach and Wawrzynski (2005) explored the relationship between faculty practices and student engagement. Their findings suggested that students reported higher levels of engagement and learning at institutions where faculty members valued enriching educational experiences. The researchers found that students on campuses where faculty members emphasized co-curricular activities reported greater gains in personal/social development, general education, and practical competencies. There is no doubt that such activities involving student-faculty cooperation would also be helpful in transmission of values from modelling teachers to students.

To sum up, a synthesis of the results of relevant studies indicates that significant associations exist between student-faculty contacts and learning outcomes and that non-classroom interactions with faculty members can maximize learning by enriching educational experiences, which result in different types of outcomes. In accordance with these studies, the results of this present study also revealed the important role that non-classroom faculty contact plays in training of teacher candidates. The study contributed to current literature by describing the nature of learning outcomes that were attributed to contact with faculty members out of the classroom. By doing so, the study at same time identified the areas of learning gains where faculty contact was not found to be satisfactorily efficient by the participant students.

### Limitations

Several limitations of our study must be acknowledged when interpreting the results of the study. First, the data of the study was drawn from a single institution. That is, all the participants were from the same department, and thus, the findings were valid only for the educational context of the institution where the study was carried out. For this reason, generalizing the results of the study and transferring the findings to other ELT programs in other universities might not be relevant.

Next, it must be considered that the size of the population researched was limited to 61 students. Given the focus of the study, we could only involve students who view out-of-class faculty contact influential in their learning outcomes in our study. Therefore, out of 116 senior students who had participated in a previously conducted study on learning experiences and outcomes, 61 (53% of all the participants) students who had reported faculty contact as a source of learning gains were involved in this present study. Yet, the participants of the original survey research cover the whole group of seniors enrolled in the program at the time of the study.

Finally, our results about the relationship between out-of-class faculty-student contact and learning outcomes derive mainly from students' self-reported data. However, using objective self reports or asking people directly for information relating to a personal issue is extremely prevalent in most areas of the social sciences (Schwarz, 1999). In our case, as the purpose of the study was to reveal how seniors perceive out-of-class faculty interaction regarding their own learning outcomes, we preferred to rely on the information which came straight from them. Paulhus and Vazire (2007) argue that "no one else has access to more information" than oneself, and that this information is rich with introspective details of which others might not be aware (p. 227).

### Conclusion

Studies examining educational settings and practices have focused largely on behaviors inside the formal classroom. However, as Lamport (1993) argues, relatively little research has focused on out of class communication, e.g., impromptu office visits, scheduled advising sessions, chance meetings, etc. Yet, Lamport (1993) adds, what has been conducted consistently supports the importance of this kind of faculty-student interaction. This study is an attempt to identify the perceived outcomes of such contact between students and faculty members. The results of the study have important implications for language teacher education programs. First, the findings of the study pointed out that faculty members in language teacher education programs need to deeply understand the positive and negative linkages between teacher interaction and students' learning gains. And, also they need to realize the important role that non-classroom student-faculty contact plays in learning outcomes. This study provides insights into higher education experiences of a group of teacher trainees. The results of the study could be used as a baseline and a guide in enrichment of learning environments to improve preservice teacher preparation programs. The second implication of the study is that the curriculum of language teacher education programs needs to be reconsidered to include courses requiring a wide range of out-of-class (on or off campus) compulsory work for a better professional preparation of prospective language teachers. As Freeman and Johnson (1998) argue, language teaching cannot be understood apart from the sociocultural environments in which it takes place and the processes of establishing and navigating social values in which it is embedded. Another important implication of the study relates to the argument that if we are, as language teacher educators, aiming to train pre-service teachers who are equipped with strategies and skills required to evaluate and

interpret the content knowledge for applying and adapting what they have learned to the educational contexts they would find themselves in when they start working, we should also invest in students' cognitive and intellectual growth throughout the teacher education programs. Structured and purposeful out-of-class faculty contact might contribute to students in this respect. For instance, organizing an undergraduate seminar or forum where trainee students find opportunities to scientifically analyze concepts and ideas in the field and critically discuss their scholarly activities under the mentorship of their faculty members would prove useful.

This study highlights the importance of studentfaculty contact in student learning in language teacher education context. Yet, it is equally important to know about which student-faculty contacts are linked with what learning outcomes. So a further study might be conducted to reveal the web of relations between interactions and outcomes. More specifically, the context created by faculty members and its relationship to student self-reported gains can be examined closely in order to find out specific practices that improve the quality of student learning. Positive and negative linkages between faculty-student interaction and outcomes would be a vital area to investigate more deeply through qualitative research, such as learner diaries and reflection logs. Although this study is limited in its scope, we hope that it still sheds light on the vital role that faculty members play in educating foreign language teachers.

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### Appendix

A list of main and subcategories of each learning outcome domains and the questionnaire items included in each category is given below:

### I. Knowledge and Understanding

- A. Knowledge and Subject-Matter Competence: (a) classroom techniques and activities, (b) language teaching methodologies, (c) applying information and communication technology (ICT) for pedagogical use in the classroom, (d) theoretical knowledge about the field of study, (e) applying information and communication technology (ICT) for personal planning, organization and resource discovery, (f) recording learners' progress, and (g) developing linguistic competence.
- B. Cognitive Skills and Intellectual Growth: (a) critically analysing the knowledge and skills learned, (b) scientifically analysing concepts and ideas in the field of study, and (c) evaluating and interpreting scientific data in the field of study.

### II. Strategies and Skills

- A. Practical Competence: (a) how to adapt teaching approaches to the educational context and individual needs of learners, (b) practical knowledge about the field of study, (c) how to apply various assessment procedures, and (d) practical application of curricula and syllabuses.
- B. Autonomy and Self-Directedness: (a) self awareness, (b) self confidence, (c) methods of learning to learn, (d) reflecting ideas and proposals in a written and spoken form, (e) reflective practice and self-evaluation, (e) independent language learning activities, (f) getting the responsibility of solving complex problems that might occur during practice, and (g) maintaining and enhancing ongoing personal language competence.
- C. Vocational Competence: (a) peer observation and peer review, (b) ability to do action research, (c) incorporating research into teaching, and (d) identifying, analysing and proposing solutions to the problems in the field of study.

### III. Values

- (a) understanding importance of teaching and learning about foreign languages and cultures,
- (b) growth in team-working, collaboration and networking, inside and outside the immediate school context.
- (c) gaining knowledge of the diversity of languages and cultures,
- (d) gaining knowledge of the social and cultural values,
- (e) growth in exercising rights, possibilities, and privileges as a citizen,
- (f) developing ethical standards and values on gathering, interpreting, publicizing and applying data.
- (g) understanding the importance of life-long learning.