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## **A Sentiment Analysis of the Beliefs of the Pre-Service Practicum Students**

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### **ABSTRACT**

In contemporary teacher education practice, teachers' beliefs, practices and attitudes have always been an important aspect of training continuum and important for understanding and improving educational processes. Beliefs are supposed to be linked to teachers' strategies to handle the difficulties in their professional life and to their overall psychological mood. Furthermore, they essentially construct students' learning ambiance and influence their motivation and achievement. They are also considered as means to handle the effects of professional policies – such as revisions and improvements in curricula for teachers' initial education or professional development on student learning. The purpose of this study is to investigate teaching practice from the perspective of student teachers' experiences and personal views using the sentiment and semantic analysis of the students' essays on their views on practicum. The participants of the study are forty-seven senior year ELT students of Cukurova University. The sentiment analysis tool, LIWC, used was developed by Tausczik and Pennebaker (2010) based on psychometric properties of the categories of the lexical items.

*Keywords:* Sentiment Analysis, EFL Teacher Beliefs, Pre-service ELT Students

### **Introduction**

That beliefs, attitudes and thoughts could shape actions, motivations and achievements of student teachers in practicum have always been one of the underlying issues of foreign language teacher education. As Stevick (1980) states, the success of teacher trainees, their views about classroom observation, and teaching experiences heavily depend on what she feels, what is happening in her inner world and her relationship with students in the classroom.

While professional knowledge is the main core of practice, it is teachers' beliefs and motivation that directly have influence on their practice. As also noted by Shavelson and Stern (1981), what teachers do in the classroom is determined by what they believe shaping their motivation and achievement. Similarly, Borg (2003) indicates that these student teachers tend to apply a strong long-term influence on teachers' instructional practices and influence them throughout their professional lives. In her study carried out in Turkish educational setting, Tok (2010) observes a clearly positive effect of practicum period in the senior year ELT programs stating that “when student teachers' attitudes towards students before and after the practice course were measured, it was observed that they displayed a more positive attitude towards their profession after the practice course” (p. 4143).

Considering the fact that the beliefs, thoughts and motivation of student teachers in practicum have a crucial importance in teacher training process, studies updated and equipped with the knowledge and research originating from the other disciplines of applied

language studies need to be carried out. For instance, psychometric properties of the lexical items, usually the topic of psychology and psycholinguistics, could be of an efficacious assistance in this regard. The psychometric analysis of the accounts of the teachers in practicum reflecting their views could provide us with a window to their relevant insight to notice and understand. Assuming that student teachers' wording themselves carry a genuine importance to be able to understand true feelings and beliefs of them, an analysis of such sort would provide an interdisciplinary perspective to the issue under concern, combining corpus linguistics and psycholinguistic tools.

Tausczik and Pennebaker (2010) put it simply that function and emotion words people use to provide important psychological hints about their thoughts, emotional states, intentions, and motivations, in addition; based on people's judges' ratings, positive and negative wordings and sentence styles measure their thinking styles, signs of self-reflection, and causal thinking.

### Objectives

Considering all of the above, the purpose of this study is to investigate teaching practice from the perspective of student teachers' experiences and personal views using the sentiment and semantic analysis of the students' essays on their views on practicum utilizing Wmatrix semantic analysis platform (Rayson, 2008) to identify the most salient features of their vocabulary choice and LIWC Sentiment Analysis Software (Pennebaker et al, 2015).

This study has been designed to reveal the relationships between pre-service EFL teachers' beliefs on their teaching approaches, more specifically on their approaches that focus on form and meaning, learner, and foreign language.

### Research Questions

The paper attempts to answer the following questions: What are student perceptions of

- a. The multifaceted aspects of teaching EFL?
- b. Learning English as a FL and learner concept?
- c. The duration of teaching practice?
- d. **An EFL teacher's role?**

### Methodology

The research design to be used is descriptive research. The participants of the study consist of 47 fourth year ELT Department students of Cukurova University. The participants were selected through convenient sampling strategy. The data has been collected during the first term of their practicum in 2016-17 academic year. The data has been collected through the participants' self-report essays and their related metaphors on teaching English as a FL, learner concept.

The sentiment analysis tool used was developed by Tausczik and Pennebaker (2010) based on psychometric properties of the categories of the lexical items. Firstly, students were asked to write their ideas down as essays in the frame of questions asked. There are two main questions along with four sub-questions. Secondly, these essays have been gathered and sentiment analysis has been applied. Later on, metaphors related with the concepts of *learner*, *teacher*, *learning*, *foreign language*, *English*, *teaching*, *school*, and *classroom* were analysed.

### Literature Review

Richardson (1996, p. 103) describes the concept of belief as "psychologically held understandings, premises and propositions about the world that are felt to be true." Sharing this view, many researchers have also added that EFL instructors' methodological thoughts

and practices pertaining to teaching process are formed by their subconscious beliefs (Borg, 2006; Williams & Burden, 1997). On the other hand, some others make a distinction as far as knowledge and belief concepts are concerned. Woods (1996), for example, indicates the subjectivity and implicit nature of beliefs, stating objectivity and explicit foundations of knowledge. Fenstermacher (1994), likewise, states that knowledge is factual and belief is considered in terms of personal judgments.

When we seek an answer to the question of where those subconscious beliefs stem from by reviewing the approved studies in the field, we see several propositions. For instance, while Kennedy (1991) sees those experiences as learners, Borg (2005) observes them as educational biographies as learners and knowledge arising from teacher education. The most common view in this respect is that knowledge could evolve and change by reflection and experience; the beliefs are relatively more difficult to modify. As indicated by Shavelson and Stern (1981), teachers' classroom practice is believed to be controlled by beliefs which usually function as a monitor by which instructional judgments and decisions are filtered. The beliefs reflect teachers' awareness of the professional practice and lack of it or the impact of their unchanged traditional bounds affects the teachers in adverse ways as indicated by Can et al, (2011).

The studies consider the importance of beliefs on teaching practice from similar perspectives. Borg (2001) sees beliefs as having a powerful long-term influence on teachers' instructional practices and he (2003) also states that they affect teachers throughout their professional lives. Fang (1996) also indicates that filters act as a filter through which teachers interpret new information, and strongly influence what and how they learn. Tillema (1994) describes belief as a shaping mechanism for teachers' new information since it is accepted only if it is consistent with their pre-existing beliefs. Beliefs are also seen as a reaction turning input to intake, since having been filtered through teachers' belief systems, input turns into intake, according to Pickering (2005).

Johnson (1994) summarizes three common points shared by the research on teachers' beliefs; "teachers' beliefs influence perception and judgment; teachers' beliefs play a role in how information on teaching is translated into classroom practices; and understanding teachers' beliefs is essential to improving teaching practices and teacher education programs" (p. 439). As inferred from some of the studies conducted, findings reveal that there is a clear gap between knowledge and practice. On the other hand, some state a mutual relationship between beliefs and experience in the way they influence pedagogical practice (Allen, 2002). Richardson (1996, p.104) adds that "beliefs are thought to drive actions; however, experiences and reflection on action may lead to change in and/or addition to beliefs."

Whether the opinion which teacher education courses and teaching practice actually shape or change student teachers' pre-existing conceptions are a matter of heated debate while related research results have been largely inconsistent. Many researchers have argued that student teachers' beliefs are inflexible, stable and resistant to change (Freeman 2002, Kennedy 1991). They represent an idea that, despite effects of training, the beliefs are already imposed on entry to the teaching profession; as Calderhead and Robson (1991, p.2) discuss, "school experience is a powerful socializing agent which washes out the effect of training".

## Findings

### Analysis of the Metaphors

To gain an insight on the preservice teachers' perceptions and ideas related with the concepts of *learner*, *teacher*, *learning*, *foreign language*, *English*, *teaching*, *school*, and *classroom*, they have been asked to write the metaphors coming to their minds. The word clouds of the concepts have been presented below. First one is *learner* and *learning*.

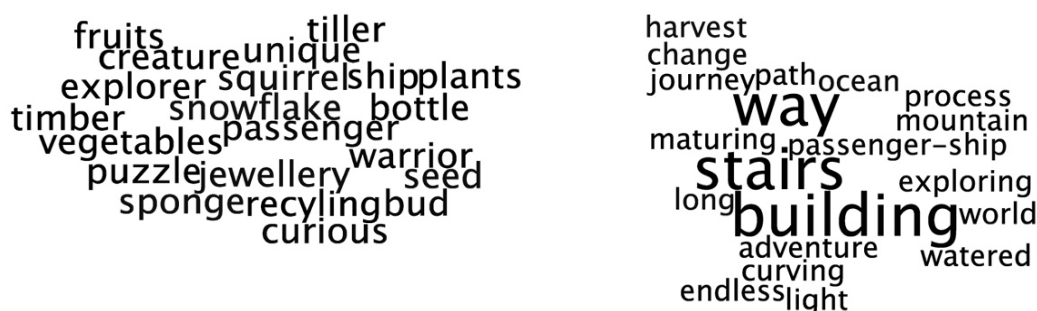


Figure 1. Metaphors related with *learner and learning*

The analysis of the metaphors on learner and learning allows noticing certain regularities. In most cases, student teachers perceive learning as a learning path and the learner as a traveler in their metaphor choices. We see that in their metaphors like *journey*, *path*, *way*, *adventure*, *exploring* for learning and *explorer*, *passenger*, *warrior* for learner. They also perceive learning as something endless, to be harvested, to be fed and watered concept supporting this with the learner metaphors *seed*, *timber*, *plant*, *vegetable*, *fruit*, and *bud*. According to them, learning is similar to being fed and watered and as vital as the physical needs to survive. They also see this something like an endless ocean to travel or a mountain to climb which might be enduring but rewarding in the end just like seeing the light in the end of a long tunnel. It is seen as a life-long process.

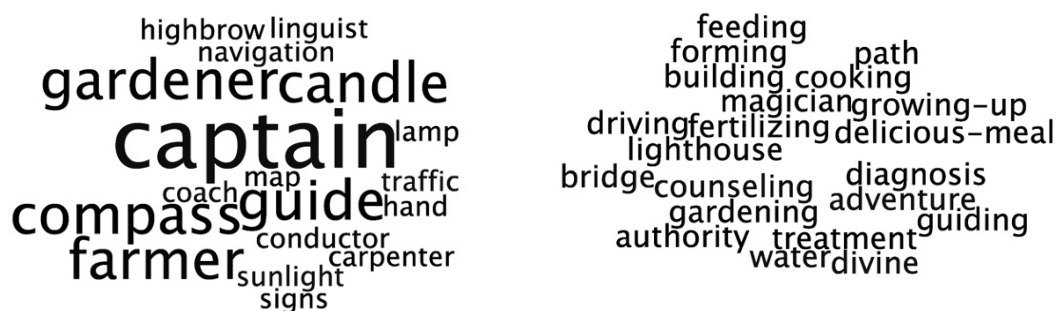


Figure 2. Metaphors related with *teacher and teaching*

As for the metaphors related with teacher and teaching, they typically see the teacher role as a dominant one as depicted in the metaphors: *gardener*, *candle*, *captain*, *guide*, *coach*, *compass*, *farmer*, *sunlight*, *carpenter*, *conductor*, *lamp*, and etc. Corresponding metaphor for teaching is also related with the ones about teacher. They perceive the teaching process as *feeding*, *forming*, *cooking*, *growing up*, *driving*, *fertilizing*, *concealing*, *gardening*, and *guiding* to match with the teacher metaphors. The teacher's traditional role has been retained although during their education process, it has always been emphasized that teacher is only a facilitator in the teaching process but not a supreme ruler or conductor. This belief stemmed from the traditional teaching systems is really hard to change.

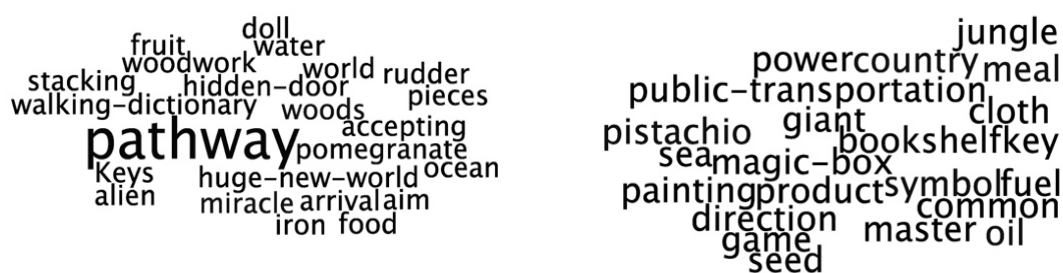


Figure 3. Metaphors related with *foreign language and English*

As for their conceptions on *foreign language* and *English* as a part of their prospective teaching career, they see foreign language as a pathway for their career as a result of their instrumental motivation and they believe that it opens a door to huge new world which is full of *miracles*, *food*, and *new opportunities*. Foreign language has also been seen as *a fruit*, *pomegranate* which reveals countless seeds when cut open, and an ocean which is endless. Surprisingly enough, some participants have taken foreign language as a dictionary metaphor which might stem from a misconception that knowing a language means knowing a lot of vocabulary. Similarly, English has also been seen as *a power*, *a transportation vehicle*, *a jungle*, *a magic box*, *direction* and *a symbol* representing it as an important and indispensable concept in their lives.

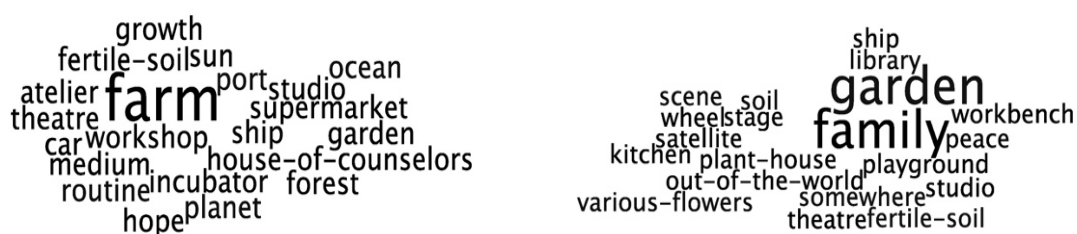


Figure 4. Metaphors related with *school and classroom*

School and classroom have been assigned similar metaphors as school being a farm, fertile soil, theatre, house of counsellors, planet, incubator, and classroom as *a ship*, *library*, *workbench*, *plant house*, *fertile soil*, *playground*, *family*, *garden*, *studio*, and *kitchen* where the real world takes place. Inferring from these metaphors, they see school and classroom as the only place where the learning takes place and the most important setting in which English learning could be realised. To them, classroom, as a part of a big whole, is the place they seed the students with all the required knowledge. This is again the traditional role of the

classroom in the education system leaving the autonomous learning process and self-paced distant learning out of teaching.

### Analysis of the Essays

Student teachers also reflected their views on the multifaceted aspects of teaching EFL, learning English as a FL and learner concept, the duration of teaching practice, and EFL teacher's role in their essays. Focusing on the role of teacher, for example, they stated that:

"Being a teacher is the most important way to create new world for next generation."

"Being an English teacher means a significant mission of my life."

"Great teachers change lives."

"An ideal teacher is a parent-like teacher. Teachers should accept the little kids in the classroom as their own kids."

"School teaching is a holy job."

"Teacher prepares students for their future and so education is their passport to their future."

"An English teacher is like the world itself."

"It is said that better than a thousand days of diligent study is one day with a great teacher."

"I think teacher is priority should be teach his/her students to be a good person for themselves and society and try to prepare them for a better life."

"A teacher is a street lamp. Teaching is also to brighten, to guide to the one who want to explore."

"Be a pupil before you become a teacher."

The teacher is perceived as omnipresent, supernatural, as a role model to be followed by Turkish student teachers. They indicate teacher's relationship to knowledge in their statements. As also expressed by their metaphors, they also imply different roles, degrees of formality and various patterns of interaction. For example: a teacher is compared to a street lamp and a guide. A language teacher is always a caring, loving person who bothers about his/her students.

Learning has also been described as a lifelong process in their essays and described as follows:

"Learning is light and we shouldn't switch off it, our light must be shining during lifetime."

As for the school, they state that:

"School is a garden, and this garden has fertile; we should know how to plant seeds."

School ambiance is seen as the place the knowledge is acquired and grown. The classroom, on the other hand, is seen a scene where the action takes place in their essays. For example:

"The classroom is like a scene that teacher and students can express themselves freely and they are the performers of this scene. Learning a foreign language is learning everything about the history, culture, literature, religion, food of this language."

Statements about learners are usually similar in the statements. They believe that learners should be responsible, prepared, and willing. For example:

“They should have self-confidence and they should believe that they will learn not only about language but also language itself.”

“Students learning English should use their mother tongue effectively. At least they should know their mother tongue to compare it with English. Also, students should be willing to learn a foreign language. And, they should be open to learn different cultures. Lastly, they should be active in the process of learning.”

“Learners of English should have a desire to learn, motivation, ability to connect the new knowledge with the existing.”

They mainly focus on the ideal qualifications of the language learners emphasizing the importance of motivation, willingness to communicate and acquire intercultural competence, and significance of mastering the comparison of L1 and L2. The last point signifies that they think that the role of mother tongue is very important in learning the target language.

In their statements regarding the learning process they state that:

“Learning only the grammar of a foreign language does not mean knowing that language.”

“Learning a language takes a lot of effort and patience, for this reason learning needs to take place in the basics of interest, willingness and a purpose to use.”

“In addition, teachers should design classroom according to English exposure. So, language acquisition occurs. Language learning always continues unconsciously.”

Student teachers indicate the importance of communicative and interactional skills in learning an L2. They state that the grammar is not the only component and there are many other skills involved in learning such as communicative and pragmatic skills reflecting their knowledge obtained during their teaching methodology classes in undergraduate studies.

### Sentiment Analysis

A sentiment analysis has been performed on student teachers' statements extracted from their essays to reveal the psychological features of the lexical items. The statement chosen from 47 essays are all related with *learner* and *learning*, *teacher* and *teaching*, *foreign language* and *English*, and *school* and *classroom*. For this purpose, Pennebaker's LIWC software (Version 2015) has been utilized. The categories chosen for analysis and the related findings have been presented in Table 1 below.

Table 1  
*Sentiment Analysis of the Statements*

Category	Affect	Posemo	Negemo	Social	Cogproc	Insight	Affiliation	Achieve	Power
foreign lan. and English	1,59	1,37	0,23	<b>11,62</b>	<b>10,48</b>	3,42	1,59	0,46	1,82
learning and learner	4,41	3,61	0,60	<b>6,81</b>	<b>20,44</b>	14,03	1,40	2,00	2,00
school and classroom	2,10	2,10	0,00	<b>8,41</b>	<b>6,61</b>	2,40	3,00	0,90	3,30
teacher and teaching	<b>6,19</b>	5,18	1,00	<b>8,44</b>	<b>12,29</b>	4,01	1,76	2,51	<b>13,55</b>

\* The figures are in percentages  
 Posemo = Positive Emotions  
 Negemo = Negative Emotions

\* Total number of words: 250  
 Cogproc = Cognitive Process

The small corpus compiled from the statements (extracted from student essays) related with the categories has 2500 words. The figures indicate the percentages of each sentiment reflected in the corresponding categories.

When the results are considered, we see that student teachers perceive foreign *language and English* as highly social and cognitive concepts as also reflected in their metaphors and essays in general. The similar results are also observed in *learning process* and *learner* concepts. It is interesting to observe that they see these concepts highly cognitive processes rather than a social process. Although they state that language is a social and communicative act in their essays and metaphors, they use more of cognitive process words to describe these processes reflecting their beliefs in this respect. Similarly, *school and the classroom* concepts are described using social and cognitive words. The social side has been emphasized more in this regard.

The most striking results belong to the description of teacher category. When we look at the sentiments reflected about the teacher, we see that they relate this concept to *power* in a significant manner (13.55%). This indicates that teacher's traditional role as a dominant figure in the classroom is a general belief. They usually observe teacher having the dominant role leading the teacher-centered traditional classroom teaching rather than a learner-centered one. The teacher is also seen as the source of knowledge as reflected in the use of cognitive process words in the statements (12.29%). The teacher, according to this analysis, has the social (6.19%) and affective (8.44%) features but in lesser degrees.

### Discussion

Cotterall (1995) and Dole and Sinatra (1994) state that, beliefs about language learning can affect the way people learn newly received information. They claimed that if the new information does not match with learners' pre-existing beliefs, the new information may not be learnt. The findings from the present study reveal some empirical evidence of how the concepts and ideas like *teacher, learner, learning process, classroom setting* taught in teacher education programs are perceived by pre-service teachers. Also, the study reveals how influential learning experience as language learners is to beliefs about language learning. Many English teachers in Turkey are still very conservative about traditional teacher and learner roles. The experiences that the pre-service teachers had from their classes when they were the learners usually influence their beliefs about how English should be learned and taught and may not support the reception of the new ideas about communicative approaches



that are promoted in the teacher education programs.

Findings about their beliefs about language learning yield important insights about the relationship between student teachers' previous experience as language learners and their beliefs about language learning. However, findings in this particular study reveal that student teachers' beliefs are inflexible, stable and resistant to change, confirming some of the previous studies such as Freeman (2002) and Kennedy (1991). It is rather interesting to see that, despite effects of training, the beliefs are already imposed on entry to the teaching profession; as Calderhead and Robson (1991, p.2) discuss, "school experience is a powerful socializing agent which washes out the effect of training".

### Limitations

This study is based on the data obtained from the ELT Department of Faculty of Education, Cukurova University, Turkey. The participants are the senior year prospective teachers of English as a foreign language. As could also be inferred from this limitation, the results cannot be generalized to all pre-service ELT teachers. There, of course, are differences stemming from cultural, educational, national, and individual variations which might lead different findings.

### Recommendation

The study could be replicated with a group of participants from diverse cultural and educational backgrounds from different countries. The results might be generalized than in a more reliable manner.

### Conclusion

This study implies that there is a clear gap between knowledge and practice. The ideal teacher training program is supposed to provide a mutual relationship between beliefs and experience in the way they influence pedagogical practice. Richardson (1996, p.104) states that "beliefs are thought to drive actions; however, experiences and reflection on action may lead to change in and/or addition to beliefs."

We can say that there are many theoretical perspectives concerning the effect of beliefs on practice but the missing part in the literature is empirical evidence. For this reason, in order to understand how teachers' beliefs and actions mutually affect one another, there is a need for more empirical evidence rather than theoretical perspectives. Such data to carry out a study should come from two main sources, namely, observation of teachers' practice and teachers' verbalization or narration of their experience.

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