An Analysis on Proactive-Reactive Personality Profiles in Student-teacher Relationship through the Metaphorical Thinking Approach

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This study analyzed the proactive and reactive personality traits in teachers and students. These traits were interpreted with the help of the ideas and images revealed through metaphors. With the help of these metaphors, the certain imaginative categories and statements of student teachers about the teacher, the student and teacher-student relationship were associated with both reactive and proactive personality models. The sampling of the study involved 330 Biology, Physics and Chemistry track students at Hacettepe University, Faculty of Education. As the metaphors of student teachers were examined in terms of the teacher-student relationship, "teacher is proactive and student is reactive" was found to be the common dominant view.

Keywords: Metaphors, Reactive And Proactive Personality Models, Teacher-Student Relationship

INTRODUCTION

The productivity and efficiency of educational institutions in reaching their aims are strongly related to the performances of teachers and students. With the developments in educational technologies, teaching is subject to a rapid change. Similarly, teacher and student profiles attain different functionalities within the vision foreseen by this change. However, the educational researchers at universities (Alber & Nelson, 2002; Babkie & Provost, 2004; Hastie, 1992; Mc Bee, 2004; Shamai & Kfir, 2002; Shkeidi, 1998) stated that not only teachers remained inadequate in getting informed about

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the technology and the research on its applications in teaching, but also the results of the studies were not reflected on teaching in classrooms. Moreover, educational researchers at universities tend to accuse teachers of their resistance to change, skeptic attitudes and lack of abilities to make use of the research findings.

It is important for the teachers to have visions and take responsibilities of some missions within this vision regardless from the view supported. In order these missions to be reflected on the students, the educational institutions should train teachers with this awareness. These institutions are expected to train student teachers as active planners, appliers and consumers of educational research and display a performance that enables them to develop proactive personalities instead of the reactive.

There are personality profiles and models within the psychiatric pattern, which are classified according to personality traits. This personality patterns change from the ways of thinking to behavioral codes. The term,

reactive personality, is used for personalities that are directed by external factors. These are personalities that are prone to panic, fragile and lack the sense of security. They are passive. They get depressed most of the time. They give excessive importance to the opinions of others. Their personal limitedness is insignificant. They act according to others' foresights. They experience blockings and obstacles in social roles. They con not take risks. They have distant, timid and reserved personality grounds. Individuals with this type of personality patterns continuously experience difficulties and stress in achieving their goals (Şahin, 2006).

Proactive is a personality trait that implies motivation and action and defines individuals, who act in order to create a change in their environments. Proactive and reactive individuals are common in both teacher and student populations. Looking at the changing educational environment of today, it can be seen that teachers should adopt the proactive behavior model as mentioned above and pay attention to developing the proactive personality in their students (Schwarzer, 1999).

Making use of management processes in the classroom, turning the classroom into a reliable environment, creating the sense of responsibility in the students would reveal a teacher with proactive personality traits and his/her leadership characteristics. In order all these actions to be made, teachers, who embrace the proactive behavior models should have such personal qualifications as tolerance, patience, open mindedness, flexibility, compassionate, understanding and wit as well as professionalism, motivation, geniality and good communication in order to encourage and support students towards success (Erden, 1998; Demirel, 1999).

A teacher's having proactive personality traits is important but not enough for success. In order the teaching-learning process to be effective there should be an interaction between teachers and students; that is, students should also possess proactive personality traits. This interaction could occur not through control based on power but through a personality, the possessor of which is accepted as the leader, takes the responsibility of preparing and organizing environments to facilitate students' learning. The essence of proactive personality model involves such an understanding that takes responsibilities, organizes and foresees the future. Within the proactive behavior model, the proactive personality of a teacher could be described according to the personal competence level, individual entrepreneurial characteristic, ability to use the control mechanism, transferring scientific knowledge effectively. Identifying development areas in teaching profession, tackling the difficulties, improving conditions could be listed under the title of teacher behaviors for teachers, who embrace the proactive behavior model (Greenglass, 2001).

Students, who possess reactive personalities, are guided by external factors. As they have passive personality structures, they experience obstacles and blockings in the classroom environment. They have insecure attitudes towards taking risks. The behaviors of the teachers with proactive behavior models reflect their own decisions, whereas students with reactive behavior models determine their behaviors according to the conditions of their school, classroom and the educational paradigm of today.

Teachers, who possess proactive personalities, are individuals who have the initiatives of their own lives, whereas teachers with reactive personalities have left the

initiative to the educational conditions of the day. Emotions come after the works of teachers with proactive personality traits, however, teachers, who possess reactive personality traits, place their emotions in the foreground. Teachers with proactive personalities adopt their internal powers to the external environments. Reactive teachers tend to avoid taking responsibilities and tailor their internal aspects according to the conditions of the external environment. When students and teachers, who possess the proactive behavior model, encounter a difficulty in the classroom, they;

evaluate the options,
select different approaches,
control their feelings,
make effective presentations,
show appropriate reactions; and they tend to take the initiatives expressing "I choose, I prefer, I will".

When students and teachers with reactive behavior models encounter difficulties in the classroom, they react with anger, rage, hopelessness, impossibility, anxiety, insecurity and express this with insignificant ways such as "I should do that, I cannot do that, If only I could do that".

This study analyzed the proactive and reactive personality traits in terms of teachers and students. These traits were interpreted with the help of the ideas and images revealed through the metaphors. Metaphor, as a concept, is a powerful mental tool that an individual could make use of in understanding or explaining a highly abstract, complex or conceptual phenomenon.

According to the lately developed perspective named as the mental metaphor theory (Lakoff and Johnson, 1980), since our conceptual system is quite metaphorical, then our ways of thinking, phenomena we experience and anything we do everyday are metaphorical as well. As the mental metaphor theory indicates, metaphors shape individuals' ideas about the world and reality. So, metaphors enable individuals to compare the abstract or complex phenomena to the more concrete or experienced ones and develop an understanding for unknown phenomena.

By providing the establishment of a relationship between two unlike ideas or phenomenon, metaphors enable the mind to move from an understanding to another and see a certain phenomenon as another one. If an image in an individual's mind is worth 1000 words, it is suggested that a metaphor is worth 1000 images. An ordinary picture represents a static image, whereas a metaphor creates a mental frame in order to think about a phenomenon (Shuell, 1990). Shortly, metaphors display the power of understanding and explaining the ways of thinking in individuals effectively. In other words, metaphor is a way of thinking and seeing (Morgan, 1998).

Metaphors allow educators to explain things by comparing two things, emphasizing the similarities between two things or replacing one thing with another. In order to create a metaphorical relationship, at least three basic elements are required (Forceville, 2002). These are; the topic of the metaphor, the resource of the metaphor and the properties that could be attributed from the resource to the topic of the metaphor. Therefore, the resource of the metaphor serves as a filter within the creation process of the metaphor in understanding and explaining the topic of the metaphor form a different perspective (Saban, 2004).

Table 1. The metaphorical images created by student teachers for their perceptions of teacher, student and student-teacher relationship

	Teacher		Student	
Proactive Traits	* Soil * Director * Artist * Sea * Light bulb	* Light * Guide * Cook * Sun * Model	* Atomic nucleus * Air controller * Blacksmith * Accelerator	* Compass * Pier * Gardener * Gas
Reactive Traits	* Beggar * Note * Porter * Juggler * Grasshopper		* Raw material * Dump * A dark room * Photocopier * Play dough	* Dough * Hungry person * Mirror * Sheep
Other Traits	* Parents * Relatives * Book * Scale * Sea	* Friend * Family * Carbon * Tree * Rose	* Ant * Child * Electron * Computer * Sapling	* Kid * Flower * Worker * Hard disc * Notebook

The Purpose of the Study

In this study, it was aimed to reveal the views and images of student teachers regarding the proactive and reactive behavior model from the teacher-student perspective through the metaphors.

Population and Sampling

The population of the study consisted of student teachers of science, who would be teaching at secondary education institutions in their future careers. The universe of the study consisted of student teachers of secondary level science and the sampling involved 330 Biology, Physics and Chemistry Program students studying at Hacettepe University, Faculty of Education, Department of Secondary Math and Science for two years. Among the participants, 60.6% were female and 39.4% were male student teachers. In terms of student teachers per track, equal number of students from each grade level was included in the study.

Table 2. The metaphor statements of student teachers describing proactive and reactive personality traits for students and teachers

Proactive Teacher Metaphors
Sun: Teacher should illuminate his/her environment; student should be enlightened just like the world. There should be a new world wherever the sun rises.
Artist: (S/he) Paints people. Uses completely free colors. The quality of an artist could be seen from the painting s/he paints or the paints s/he uses.
Director: If s/he determines his/her mission well then s/he contributes to his/her students' getting good positions.
Soil: The more the soil is rich the more productive the student grows up. Some soil has humus and some has clay. The more the teacher enriches him/herself, the better the student makes use of this enrichment.
Sea: (S/he) bears millions of different beauties inside. His/her taking care of or guiding the students is like how the sea hosts thousands of species. (S/he) sets up his/her own balance. Just like the sea holds many ships, a teacher carries the students to further steps.
Guide: (S/he) guides with recipes more than teaching the life. What makes the teacher sacred is his/her ability to give directions.

Reactive Student Metaphors
Raw material: takes a shape according to how s/he is brought up.
Dough: waits for the master hands that will shape him/her. Just like how a cook shapes and adds flavor to dough and it becomes better, students wait for the teachers to shape them. The more beautiful they are kneaded and cooked, the better tastes they spread around.
Mirror: A student reflects whatever his/her teacher teaches.
Play dough: A student remains the same as the way s/he is shaped. It is in the hands of a teacher, who is the one playing with the dough, to shape him/her, make it beautiful in all aspects.
Sheep: Student is a sheep. S/he acts in all the scenarios written.

Proactive Teacher - Reactive Student Metaphors
Brick-cement: A student remains the same unless someone helps him/her. But s/he can rise like a statue with the help of a manager or assistant.
Magnet-Iron: No matter how strong the iron is, it cannot avoid its attachment to a magnet.
Car-Gas: Cars move with the reactions of drivers. If the driver does not start the engine, the car cannot go. They warn when their gas is over but they cannot refill themselves. Just like how it is in teacher-student relationship. A student can not address his/her requirements without the teacher. S/he expects someone to guide her/him from outside. When his/her accelerator is pushed, s/he reaches an incredible speed.
Thread- Needle: The thread passes through the needle's hole gently,   Many beautiful works are made spontaneously,   Sometimes it breaks, the needle or the thread gets broken,   The metal of the needle or the ties of the thread you should strengthen;   For a beautiful life...

METHOD

In the study, it was aimed to determine the metaphors considered by student teachers of biology, physics and chemistry for the teacher concept, student concept and the student-teacher relationship. With the help of these metaphors, the certain imaginative categories and statements of student teachers about the teacher, the student and teacher-student relationship were associated with both reactive and proactive personality models.

In order to uncover the perceptions of participating student teachers about teacher, student and teacher-student relationship concepts, they were handed out papers with "Teacher is like ……, because…..", "Student is like……, because…..", "If the teacher is like ……, then the student is like, because….." written on them. There were three close-ended questions on the papers in order to obtain information on their program types, genders and grade levels. Student teachers were given 40 minutes to develop their own metaphorical images. The basic data resource of the study is the papers involving student teachers' own intellectual writings in their own handwriting. In the study, by looking at whether the student teachers expressed a certain metaphor significantly in their writings, the metaphors created by student teachers from three programs were identified. All metaphors identified were examined and analyzed according to their similarities with and differences from other metaphors. The papers with weak-structured metaphorical images were eliminated in order to avoid conflicts or irrelevance.

Metaphors were grouped under three basic categories, which were "Proactive, Reactive and Other Traits" in order to build metaphorical images that are thought to best represent student and teacher personality traits. The metaphor group named as "Other Traits" was created in order to define other traits than those of the proactive and reactive personalities. Both reactive and proactive behavior models are generally defined as personality traits with active conducts. Metaphors listed under imaginative categories were tested by expert views for the approval of whether the metaphors they involve represented these categories or not. This is how the data analysis process and the comments of the study were validated.

Some of the metaphorical images created by student teachers for their perceptions of teacher, student and student-teacher relationship are displayed on Table 1.

Apart from these, there are many different traits for both teacher and students behaviors. They could be revealed and evaluated with certain methods. Table 2 displays a part of the intellectual writings where student teachers described their metaphors in their own handwritings.

FINDINGS

The study indicated the metaphorical images reflecting the ideas and views of student teachers from the first and last years of the three programs during 2 years considering the gender variable as well. After the metaphors were defined and the 3 categories formed by these metaphors were created, the number of student representing each category (f) and its percentage (%) were calculated. The Pearson-chi-square test was applied in order to test whether these categories changed according to students' program types, genders and grade levels. The results were analyzed then.

Metaphors Representing Personality Traits For Student Concept

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According to Table 3, 68.2% of 330 student teachers associate the student concept with reactive behavior model and defines student as passive, whereas, 31.5% created metaphors that depicted the other student characteristics. This does not show that 31.8% of the population has adopted the proactive behavior model. After all, as this evaluation was made over the metaphors that are thought to belong to reactive behavior model. The other metaphors were evaluated within the "other traits" group. Therefore, 68.2% student teachers' attributing reactive personality traits to student concept does not necessarily mean that the remaining 31.5% attributes student concept to proactive personality trait. The same situation applies to the tables on the valuation of metaphors that examine the reactive behavior model and proactive behavior model. As a result, the student profile for the student teachers is found to have mostly the reactive personality traits.

Moreover, another important value displayed on Table 3 is that 68.5% of the 200 female student teachers and 67.7% of the 130 male student teachers favored metaphors that implied reactive student traits. In other words, in terms of the gender variable, student teachers' perceiving student concept as reactive could dominantly be observed in a high percentage for both male and female participants. This could mean that for the most of both male and female student teachers, students adopt the reactive behavior model.

The frequencies and percentages of metaphors presenting the personality traits of participating student teachers from three program types for the student concept are displayed in Table 4.

As Table 4 displays, 63.6% of the student teachers of biology, 69.4% of the student teachers of chemistry and 71.6% of the student teachers of physics used metaphors that describe the reactive student traits. In other words, considering the program type variable, student teachers' perceiving student concept as reactive is on the foreground with high percentages for all three program types. Hence, the evaluation made according to the program types similarly concluded that for most of the student teachers studying at biology, physics and chemistry tracks, students are reactive.

The frequencies and percentages of metaphors presenting personality traits of first and final year student teachers' from three program types for the student concept are displayed on Table 5.

The data presented in Table 5 reveals that 67.8% of student teachers studying at their first year in all three programs and the 68.7% of the student teachers at their final years used metaphors that described reactive student characteristics. These results indicate that no matter if they are first or final year students, majority of the student teachers perceived students as passive and adopting reactive behavior model.

Table 3. The frequencies and percentages of metaphors that represent the personality traits of student teachers for student concept

Metaphor Group	Female		Male		Total	
	f	%	f	%	f	%
Reactive	137	68.5	88	67.7	225	68.2
Other Traits	63	31.5	42	32.3	105	31.8

Table 4. The frequencies and percentages of metaphors presenting student teachers' perceptions of personality traits for student concept depending on the program types

Metaphor Group	Biology		Chemistry		Physics		Total	
	f	%	f	%	f	%	f	%
Reactive	70	63.6	77	69.4	78	71.6	225	68.2
Other Traits	35	36.4	34	30.6	31	28.4	105	31.8

Table 5. The frequencies and percentages of metaphors presenting personality traits of student teachers' for the student concept depending on the grade levels

Metaphor Group	Year 1		Year 5		Total	
	f	%	f	%	f	%
Reactive	122	67.8	103	68.7	225	68.2
Other traits	58	32.2	47	31.3	105	31.8

Table 6. The frequencies and percentages of the metaphors used by student teachers representing personality traits for the teacher concept

Metaphor Group	Female		Male		Total	
	f	%	f	%	f	%
Proactive	130	65	79	60.8	209	63.3
Other Traits	70	35	51	39.2	121	36.7

Metaphors Representing Personality Traits for Teacher Concept

The frequencies and percentages of the metaphors used by 330 participant student teachers representing personality traits for the teacher concept are displayed inTable6.

According to Table 6, 63.3% of the student teachers used metaphors that described the proactive teacher characteristics, whereas the remaining 36.7% used metaphors representing other teacher characteristics. In other words, majority of the student teachers, who participated in the study, perceived the teacher concept as the person that adopts proactive behavior model.

Another point of interest about Table 6 was that 65% of 200 female student teachers and 60% of 130 male student teachers used metaphors indicating proactive teacher behaviors. Considering the gender variable, perception of the teacher concept by student teachers as having proactive traits was dominantly observed for both genders with high percentages. This result indicates that for the majority of the student teachers both male and female, teacher is a person who embraces proactive behavior model.

The frequencies and percentages of metaphors presenting the personality traits of participating student teachers from three program types for the teacher concept are shown in Table 7.

As Table 7 displays, 59.6% of the student teachers of biology, 61.8% of the student teachers of chemistry and 66% of the student teachers of physics used metaphors for the teacher concept describing proactive teacher characteristics. Looking at the program type variable, it was observed that the majority of the student teachers evaluated the teacher as being proactive.

The frequencies and percentages of metaphors presenting personality traits of first and final year student teachers' from three program types for the teacher concept are displayed on Table 8.

According to Table 8, the 52.2% of the first year students from all three tracks and 75.3% of the students at their final years used metaphors indicating proactive teacher traits. Moreover, the images that the first and final year students created for the personality traits regarding the teacher concept were significantly different from each other (Pearson chi-square = 18.629 (df = 10); p = 0.000 < 0.05).

Metaphors Representing Personality Traits in terms of Teacher-Student Relationship

The frequencies and percentages of the metaphors used by 330 participating student teachers indicating personality traits in terms of the teacher-student relationship are displayed on Table 9.

Table 7. The frequencies and percentages of metaphors presenting student teachers' perceptions of personality traits for teacher concept depending on the program types

Metaphor Group	Biology		Chemistry		Physics		Total	
	f	%	f	%	f	%	f	%
Proactive	68	59.6	68	61.8	70	66	206	62.4
Other traits	46	40.4	42	38.2	36	34	124	37.6

Table 8. The frequencies and percentages of metaphors presenting personality traits of student teachers' for the teacher concept depending on the grade levels

Metaphor Group	Year 1		Year 5		Total		p
	f	%	f	%	f	%	
Proactive	96	52.2	110	75.3	206	62.4	0.000
Other Traits	88	47.8	36	24.7	124	37.6	

Table 9. The frequencies and percentages of the metaphors used by student teachers indicating personality traits in terms of the teacher-student relationship

		Student			
		Reactive		Other Traits	
		f	%	f	%
Teacher	**Proactive**	146	44.2	62	18.8
	Other Traits	78	23.6	44	13.3

According to Table 9, 44.2% of the student teachers used metaphors describing proactive teacher characteristics to express the teacher image in their minds, whereas, they preferred to use metaphors depicting reactive student characteristics for the concept of student. In other words, in terms of teacher-student relationship, majority of the student teachers evaluated teachers as being proactive and students as being reactive.

CONCLUSION

In this study, it was aimed to reveal the views and images of student teachers related to proactive and reactive behavior models from the teacher-student perspective through the metaphors. Gillis and Johnson (2002) mentioned that metaphors helped our perception of self that we would like to have but we couldn't have, we have had and avoid to have, and may have. No matter if we are aware or not aware and no matter we accept or do not accept them as mental models, metaphors will continue to be a part of our lives (Saban, Koçbeker and Saban, 2006). We used metaphors in this study as a research tool serving to reveal, understand and explain the perceptions of student teachers about student teacher personality traits. The data obtained were analyzed using both qualitative and quantitative techniques. The metaphors used by student teachers for students were evaluated in terms of the gender variable and no significant difference was found between the evaluations of female and male student teachers. Students were described as reactive by student teachers from both gender groups. The perception of student as reactive does not differ according to the program types of grade levels of the student teachers. In other words, according to the student teachers, a student is a person, who has embraced the reactive personality trait.

Looking at the metaphors used by student teachers for the concept of teacher, it was observed that most of the metaphors were related to proactive behavior model and did not differ according to the gender or program type variables. However, in terms of the grade level variable, a significant difference was observed. Moreover, as the metaphors of student teachers were examined in terms of the teacher-student relationship, "teacher is proactive and student is reactive" was found to be the common dominant view. As a result, student teachers in their metaphors for teachers, favored metaphors that represented proactive personality traits, whereas they used metaphors related to reactive personality traits for the students.

DISCUSSION

Proactive teachers should educate students in such a way to possess proactive personality traits. Hence, proactive personality traits are very important in terms of the required individual profile of today. Proactive individuals display good performances in not only educational environments but also all types of environments by participating in different activities, carrying out successful changes and going beyond expectations. They exhibit active behaviors within their internal dynamics. However, teachers and students, who adopt reactive behavior model, are quite common today (Schwarzer, 1999).

Proactive individuals are aware that they are responsible for their own lives as human beings and their behaviors are results of not the conditions but their own decisions. Considering the contributions of the proactive personality to an individual's life, it is suggested that increasing the number of teachers with proactive personality traits would result in training students with proactive personality traits. The proactive teachers and students, who possess the ability to act according to the values and principles instead of emotions, would result in a better future. Proactive students and teachers have a strong belief that they are responsible for their own development processes. Teachers and students with proactive personality traits have visions. Trying to achieve certain goals makes their life meaningful. They believe in the continuous development and accordingly, they spend great efforts. They have perceived a mission for themselves. Individuals with science-centered proactive perspectives are believed to bring a new dimension to education and teaching.

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