



Determining The Dominant Learning Styles of Pre- Service Teachers And Examining Them According To Some Variables

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Öz

Bu çalışmada, sınıf öğretmeni adaylarının baskın öğrenme stillerinin belirlenmesi ve bu stillerin cinsiyet, sınıf düzeyi, okul öncesi eğitim alma durumu, mezun oldukları lise türü ve bölümü, anne-baba eğitim düzeyi değişkenlerinden etkilenip etkilenmediğinin incelenmesi amaçlanmıştır. Araştırmada betimsel yöntemlerinden survey yöntemi kullanılmıştır. Araştırmanın örneklemini, 2007-2008 eğitim öğretim dönemi Rize Üniversitesi Eğitim Fakültesi Sınıf Öğretmenliği programının her sınıf düzeyinde bulunan 4'er şube içerisinde rastgele seçilen 1'er şubesi oluşturmaktadır. Sözkonusu şube mevcudutlarının ortalama 40'ar kişiden oluşması sebebiyle; 1., 2., 3. ve 4. sınıflarda öğrenim gören toplam 193 öğretmen adayı ile çalışma yürütülmüştür. Adayların baskın öğrenme stilleri Kolb Öğrenme Stili Envanteri kullanılarak belirlenmiştir. Elde edilen veriler ki-kare testi ve betimsel istatistik yöntemleri kullanılarak analiz edilmiştir. Öğretmen adaylarının genel olarak baskın öğrenme stillerinin değiştiren ve yerleştiren olduğu ortaya çıkmıştır. Ayrıca öğrenme stilleri, sınıf düzeylerine göre anlamlı farklılık gösterirken; cinsiyet, okul öncesi eğitim alma durumu, mezun oldukları lise türü ve bölümü, anne-baba eğitim düzeylerine bağlı olarak anlamlı farklılık göstermediği ortaya çıkmıştır.

Anahtar Kelimeler:Öğrenme Stilleri, Öğretmen Adayı, Kolb Öğrenme Stili Envanteri, Eğitim

Abstract

Determining the dominant learning styles of pre-service teachers and exploring that if these styles affected by variables such as gender, grade, pre-school education, department graduated from high school, education levels of parents or not have been aimed in this study. Survey method among descriptive methods has been used in the study. Sample of the study is total 193, 1st, 2nd, 3rd and 4th graders of pre-service teachers at Education Department of Rize University in 2007- 2008 autumn educational term. The dominant learning style of 193 pre-service teachers in this study have been determined by using Kolb Learning Styles Inventory. Data about these styles held by using SPSS package programme, are analyzed by using descriptive statistical methods and chi-square test. Pre-service teachers are seen generally as ones who diverger and accomodator dominant learning styles. Although learning styles show significant difference according to grade levels, it is found out that they are not influenced by the variables such as gender, pre-school education, department graduated from high school and education levels of parents.

Key Words:Learning Styles, Pre-service Teacher, Kolb Learning Styles Inventory, Education

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“There are many ways to learn and teach. Everybody can learn but not in the same way. There is no only learning style suitable for all children. One should find the best way for anybody to learn and facilitate to improve in this way. Finding out the learning style of a student and making suitable arrangements enhance his/her achievement” proposed by Rita Dunn who declared Personal Learning Model Theory (Dunn,1993; c.f. Şimşek, 2007, p.V).

Every individual can learn as it is said in the mentioned theory. But, while some individuals can learn fast and easily, the others can learn more slowly and learning can cause some difficulties. Among the essential reasons of this situation, there is personal differences, which an individual had. On the other hand, teaching methods and techniques teachers used and some factors such as physical features of learning environments can be considered together with personal differences (Felder, 1996; Çaycı and Ünal, 2007). As people have different learning and processing knowledge systems, different learning styles can appear as a result of these personal differences. So, it is better to teach student in a suitable way for his/her learning style than to teach in different ways for them in a learning environment.

Learning styles have been considered as one of the variables that are studied densely on and have an influence in learning process. Dunn (1993) describes learning styles as “Any student’s using different and original ways in preparing, learning and recalling to learn the new and complex knowledge” (c.f. Boydak, 2001). There are many original learning ways; in other words, learning styles (Jarc, 1999; Peker & Aydın, 2003). One of the most widely known models in Kolb Learning Style Model based on Active Experimentation Theory. Kolb describes four learning abilities in exploring learning styles. These are; Concrete Experience (CE); which provides student for leading themselves to new experiences without any prejudice, Reflective Observation (RO); which provides students to observe and reflect experiences in many ways. Abstract Conceptualization (AC); which provides students to turn their observations in to conceptualizations in a strong and logical base and Active Experimentation (AE); which provides students to use these theories in the processes of problem solving and deciding.

In Kolb’s Learning Style Theory, four main learning styles are mentioned such as diverging, assimilating, converging and accomodating (Kolb, 1984: 77-78; Kolb, 1985; Aşkar & Akkoyunlu, 1993:39).

Diverging Learning Style

In the individuals who have diverging learning styles, concrete experience and reflective observation abilities are dominant. The most important characteristics of these individuals are having thinking ability and perceiving meaning and values. The main ability of them is to observe concrete situations in many ways and to organize the relations in a meaningful way. In this style, adaptation by the observing is emphasized rather than action. The reason to call this style as diverging is that ones who had this learning style, show much better performances in situations required constructing alternative ideas such as brain-storming.

Assimilator Learning Style

The individuals who have assimilator learning style, also have dominant abstract conceptualization and reflective observation abilities. The most important characteristic of them is to construct conceptual models. These individuals focus on social matters less, but are interested in abstract concepts and ideas much. Ideas are less judged by practical values of them. Here, it is more essential for theories to be certain and strong logically. Learning by observing and thinking is discussed.

Converging Learning Style

In the individuals who have converging learning style, basically abstract conceptualization and active experiential learning abilities are dominant. The most important characteristics of them are to solve problem, decide, practise the ideas, make logical analysis of ideas and make systematic planning. The

reason to call this style as converging is that ones who had this learning style, show much more achievement in conventional intelligent tests which require single correct answer and solution. They are more successful in problem solving and technical subjects rather than social matters. Individuals make systematic planning while solving problems and learn by making.

Accommodator Learning Style

In this kind of individuals, concrete experience and active experiential learning abilities are dominant. The most important characteristics are doing somethings, planning and being in new experiences in this style, looking for opportunity, taking risk and going into action are emphasized. These individuals rely on others for knowledge much rather than their own analytic abilities, and they are tend to solve problem in an intuitive trial and error situation. They are open-minded for learning and can adapt in to changings easily. Learning by doing and feeling is emphasized.

To determine and evaluate the learning styles of individuals are much essential for teaching learning process (Hein & Budny, 2000). When determining the learning styles of students, teaching strategies, methods and techniques and necessary materials that would be used in learning environments can be choosen easily and therefore, an education suitable for students' interests can occur (Akkoyunlu, 1995; Peker, 2003; Peker & Aydın, 2003). As what the learning styles of individuals are explored, teacher can support students' achievements by constructing suitable learning environments for primarily himself/herself and then for the students (Marshall, 1990; Babadoğan, 2000; Scales, 2000; Biggs, 2001; Güven, 2004).

The most important injustice for students who have different personal and learning features in a learning environment is to make a monotonous teaching without considering any personal differences of students and with only one method and fundamental evaluation techniques. At this point, teachers who will form students, grow qualified individuals and construct the basis of education, have the greatest mission (Çaycı & Ünal, 2007).

Considering this point, executing the study on pre-service teachers has an essential importance. Because, exploring learning styles of pre-service teachers and giving a suitable education for them will make positive effects on their learnings. However this lets pre-service teachers use this kind of education in the future by acknowledging them these kind of learning styles.

The problem of the study is to find out the dominant learning styles of pre-service teachers. Answers for these sub-problems below under this main problem have been looked for:

1. What are the dominant learning styles of pre-service teachers?
2. Do dominant learning styles of pre-service teachers show significant difference among the grades?
3. Do dominant learning styles of pre-service teachers show significant difference among the gender?
4. Do dominant learning styles of pre-service teachers show significant difference according to pre-school education?
5. Do dominant learning styles of pre-service teachers show significant difference according to departments graduated from high school?
6. Do dominant learning styles of pre-service teachers show significant difference according to education levels of parents?

Methods

Survey method among descriptive methods has been used in the study. This method; which takes place among the methods describing an existing situation, is also known as survey method. Here, the aim is to realise a behaviour examined in a group by a sample from this group (Erözkan, 2007; Simon and Burnstein, 1985;c.f. Ekiz, 2007).

Sample

The sample of the study consists of total 193, 1st, 2nd, 3rd and 4th graders of pre-service primary teachers at Education Department of Rize University in 2007- 2008 autumn educational term.

Instruments for Collecting Data and Data Analysis

In the study, Kolb Learning Style Inventory (KLSE); which was developed by Kolb and studied its feasibility in Turkey by Aşkar and Akkoyunlu (1993), is used. This inventory displays which learning style is more suitable for an individual. In this inventory, four learning styles (diverging, assimilating, converging, accomodator) are described and students are asked to put in order four learning styles which are best for themselves. What dominant learning styles students had are determined according to the scores they got from the items of this inventory. As a result of validity and realibility study done by Aşkar and Akkoyunlu (1993:42), it has been found out that realibility coefficients belong to four-dimensions of this inventory are form 0.73 and 0.83 (Cronbach alpha). The conclusion that these realibility coefficients are satisfactory and Kolb Learning Style Inventory can be applied in Turkey are drawn.

In this inventory, there are 12 items each of which consist of 4 expressions. These expressions are about active experimentation, reflective observation, concrete experience and abstract conceptualization dimensions of David A. Kolb. Teacher candidates score "4" the ones that they use the most and they score "3", "2", "1" in order. After determining the expressions of pre-service teachers according to the norms of learning style inventory, data about pre-service teachers' learning styles by using SPSS package programme have been analysed by using descriptive statistical methods and chi-square test.

Findings

Findings about each sub-problem after applying data collection instrument to sample are given below.

Findings About First Sub-problem:

According to the findings at the end of the study, here are the dominant learning styles of the students.

Table I.

Descriptive Statistical of Distribution of Pre-service Teachers' Dominant Learning Styles

Learning styles	Students (N)	%
Diverger	65	33.6
Accomodator	58	30.0
Converger	41	21.2
Assimilator	29	15.0
Total	193	100

According to Table I, 33.6% of pre-service teachers has diverging learning styles. 30% of pre-service teachers has accomodator learning styles. 21.2% of pre-service teachers follow them with converger learning style and 15 % of them has assimilator learning style.

Findings About Second Sub-Problem

Table II.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to the Grades

Learning styles	Grade 1		Grade 2		Grade 3		Grade 4	
	N	%	N	%	N	%	N	%
Diverger	22	45.8	17	35.4	9	19.1	17	34
Accomodator	7	14.5	13	27	18	38.2	20	40

Assimilator	5	10.4	9	18.7	8	17.0	7	14
Converger	14	29.1	9	18.7	12	25.5	6	12

$X^2 = 19.281$; $df = 9$; $p = 0.023$; $p < 0.05$

According to Table II, 1st grade pre-service teachers have converging learning style with 45.8% and also 2nd graders has the same one with 35.4% dominantly. 3rd graders with 38.2% and 4th graders with 40% has accomodator learning style dominantly. Dominant learning style of pre-service teachers show significant difference according to the grades ($X^2_{(9)}=19.82$; $p<0.05$). Students have accomodator learning styles significantly at 3rd and 4th grades; while they have diverging one at 1st and 2nd grades.

Findings About Third Sub-problem

Table III.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to Gender.

Gender		Diverger	Accomodator	Converger	Assimilator	Total
Female	N	28	35	22	11	96
	%	29.1	36.4	22.9	11.4	100
Male	N	37	23	19	18	97
	%	38.1	23.7	19.5	18.5	100
Total	N	65	58	41	29	193
	%	33.6	30.0	21.2	15.0	100

$X^2 = 6.45$; $df = 3$; $p = 0.091$; $p > 0.05$

According to Table III, it is clear that 96 of 193 pre-service teachers are female and 97 of them are male. Among female pre-service teachers, 36.4% of them have accomodator, 29.1% of them has diverging, 22.9% of them has converging and 11.4% of them has assimilator learning styles and among male pre-service teachers, 37% of them has diverging, 23.7 of them has accomodator, 19.5% of them converging and 18.5% of them has assimilator learning styles. The great majority of males has converging learning style; while majority of females has accomodator one. But, this difference hasn't got statistically significance. In other words, dominant learning styles of pre-service teachers don't show any difference according to gender ($X^2_{(3)}=6.45$; $p>0.05$).

Findings About Fourth Sub-problem

Table IV.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to Pre-School Education.

Pre-School Education State		Diverger	Accomodator	Converger	Assimilator	Total
Get Pre-School Education	N	6	9	6	8	29
	%	20.6	31.0	20.6	27.5	100.0
Don't Get Pre-School Education	N	59	49	35	21	164
	%	35.9	29.8	21.3	12.8	100.0
Total	N	65	58	41	29	193
	%	33.6	30.0	21.2	15.0	100.0

$X^2 = 4.77$; $df = 3$; $p = 0.189$; $p > 0.05$

According to Table IV, it has been seen that 29 pre-service teachers of whole sampling have pre-school education and 164 of them don't have. It has been perceived that 31% of 29 candidates has accomodator, 27.5% has assimilator, 20.6% has diverging and converging learning styles. 35.9% of the students didn't get pre-school education has diverging, 29.8% of them has accomodator, 21.3% of them has converging and 12.8% of them has assimilator learning styles. Majority of students who didn't get pre-school education have converging learning style; while the ones got this education have

accomodator learning style mostly. But, this difference hasn't got statistically significance. In other words, the dominant learning styles of pre-service teachers don't show any difference according to pre-school education ($X^2_{(3)}=4.77$; $p>.05$)

Findings About Fifth Sub-problem

Table V.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to the Departments Graduated From High School

Graduated From Schools		Diverger	Accomodator	Converger	Assimilator	Total
Schools Require Examination	N	19	20	12	11	62
	%	30.6	32.2	19.3	17.7	100.0
Schools don't Require Examination	N	46	38	29	18	131
	%	35.1	29	22.1	13.7	100.0
Total	N	65	58	41	29	193
	%	33.6	30.0	21.2	15.0	100.0

$X^2=1.013$; $df=3$; $p=0.798$; $p>0.05$

According to Table V, 62 of pre-service teachers at the study graduated from the schools which require entrance exam such as Anatolian High School, Anatolian Teacher High School and etc... 32.2% of those graduates has accomodator learning style dominantly. And 131 of pre-service teachers graduated from the schools which don't require any examination; such as general high school, vocational high school and etc... 35.1% of them has diverging learning style. The difference occurred between these two school types doesn't have any statistically significance ($X^2_{(3)}=1.013$; $p>.05$)

Table VI.

Chi-square Test Scores of Dominant Learning Styles of Pre-service Teachers According to the Departments Graduated From High School

Graduated From Department		Diverger	Accomodator	Converger	Assimilator	Total
Science	N	11	16	8	12	47
	%	23.4	34.0	17.0	25.5	100.0
Counter Weight	N	54	42	33	17	146
	%	36.9	28.7	22.6	11.6	100.0
Total	N	65	58	41	29	193
	%	33.6	30.0	21.2	15.0	100.0

$X^2=3.789$; $df=3$; $p=0.285$; $p>0.05$

According to Table VI, it is understood that 47 of pre-service teachers graduated from science department and 146 of them graduated from counter weight department. It has been discerned that 34% of science department graduates has accomodator, 25.5% of them has assimilator 23.4% of them has diverging, and 17% of them has converging learning styles. It has been seen that 36.9% of counter weight department graduates has diverging, 28.7% of them has accomodator, 22.6% of them has converging and 11.6% of them has assimilator learning styles. The counter weight graduates have diverging learning styles mostly; while science graduates have dominantly accomodator learning styles. But this difference doesn't have any significance statistically. In other words, dominant learning styles of pre-service teachers don't show any significant difference according to the departments they graduated from high school ($X^2_{(3)}=3.789$; $p>.05$).

Findings About Sixth Sub-problem

Table VII.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to Mother's Education Level

Mother's Education Level		Diverger	Accomodator	Converger	Assimilator	Total
Primary School Education and Lower	N	49	37	27	15	128
	%	38.2	28.9	21.0	11.7	100.0
Secondary School	N	6	7	8	6	27
	%	22.2	25.9	29.6	22.2	100.0
High School and Upper	N	10	14	6	8	38
	%	26.3	36.8	15.7	21.0	100.0
Total	N	65	58	41	29	193
	%	37.3	32.9	22.4	7.5	100.0

$\chi^2 = 9.583$; $df = 4$; $p = 0.385$; $p > 0.05$

According to Table VII, 128 of all pre-service teachers in the study have mothers with primary school education and lower. Mothers of 27 candidates have secondary school and of 38 candidates have high school and upper graduation. The dominant learning styles of students who have mothers with secondary school education are converging and of those who have mothers with high school and upper is accommodator; while of those who have mothers with primary school and lower education is diverging. But this difference doesn't have any significance statistically. In other words, dominant learning styles of pre-service teachers don't show any significant difference according to mother's education level ($\chi^2_{(4)}=9.583$; $p>.05$).

Table VIII.

Chi-square Test Scores For Differences of Dominant Learning Styles of Pre-service Teachers According to Father's Education Level

Father's Education Level		Diverger	Accomodator	Converger	Assimilator	Total
Primary School Education and Lower	N	38	26	22	16	102
	%	37.2	25.4	21.5	15.6	100.0
Secondary School	N	11	10	8	7	36
	%	30.5	27.7	22.2	19.4	100.0
High School and Upper	N	16	22	11	6	55
	%	29.0	40.0	20.0	10.9	100.0
Total	N	65	58	41	29	193
	%	33.6	30.0	21.2	15.0	100.0

$\chi^2 = 4.64$; $df = 4$; $p = 0.864$; $p > 0.05$

According to Table VIII, 102 of all pre-service teachers in the study have fathers with primary school education and lower. Fathers of 55 candidates have high school and upper education, while fathers of 36 candidates have secondary school graduation. The dominant learning styles of students who have fathers with secondary school education is diverging, and of those who have fathers with high school and upper education is accommodator; while of those who have fathers with primary school and lower education is diverging. But this difference doesn't have any significance statistically. In other words; dominant learning styles of pre-service teachers don't show any significant difference according to father's education level ($\chi^2_{(4)}=4.64$; $p>.05$).

Discussion And Result

It is exposed that dominant learning styles of pre-service teachers are diverging and accomodator generally. Considering this according to grade distribution, dominant learning styles of first and second graders is diverging, and third and fourth graders is accommodator. In students with diverging learning style, concrete experience and reflective observation abilities are dominant. Basic ability of them is to organize the relationship meaningfully by revising concrete situations. Students adapt in to environment by observing rather than acting. In students with accommodator learning

style, concrete experience and active experimentation abilities are dominant. These individuals endeavour for doing something, planning and being in new experiences. They who have a tendency towards learning by doing and feeling, lead themselves to solve problems actively. They put theoretical knowledge they got in learning process in to practise (Kolb, 1984, Kolb, 1985, Aşkar & Akkoyunlu, 1993).

Having pre-service teachers diverging learning style at 1st and 2nd grades can be related with contents of their lessons at that programme. Because, majority of lessons at 1st and 2nd grades prepare the students for practise by strenghtening the basis of theoretical knowledge. It has been supposed that the dominant learning style of 3rd and 4th graders is accomodator arises from the lessons which had practise, observation and drama. In the literature, there is a study which explores that learning styles have changed depending on grades and students prefer learning styles that require practical application of ideas as increasing the grade levels (Kaya, 2007). Although gender doesn't play on essential role on learning styles of pre-service teachers, we face the fact that females have accomodator learning style dominantly and males have diverging. This conclusion also agrees with the conclusion drawn from the study done by Kılıç and Karadeniz (2004). However, in another study done at second stage of primary school, no significant difference between learning styles and gender has found (Kaya, 2007; Kaya vd. 2009). In other studies executed about different learning styles, the result that gender hasn't got any influence on learning styles, appears (Güzel, 1994; Shaw & Marlow, 1999; Ellez & Sezgin, 2002; Fer, 2003; Jones, at al. 2003; Arslan, 2003; Kabadayı, 2004; Uzuntiryaki, at al. 2004; Arslan & Babadoğan, 2005; Karakış, 2006; Demir, 2006; Demir, 2008; Denizoğlu, 2008; Kural, 2009). Within this frame, internal processes of human being that can change depending on gender naturally reflect on each phase of learning. But this should be considered as a normal situation which doesn't require any different interferences.

Pre-school education that is subject of another sub-problem of the study comprises a process that educators have emphasized nowadays. Because this process is a period which will affect future experiences of an individual. It has been understood that minority of the students in the study has experienced this mentioned process and their learning styles haven't influenced by this variable. This result emerges from the fact that pre-service teachers were between 17 and 24 years old in the period of the study and 10-15 years ago, the environment and society didn't use to emphasize pre-school education.

Even if it has limited number, the important part of pre-service teachers- such as 50%- who had pre-school education, have accomodator learning style dominantly. Great majority of the ones without pre-school education has got diverging learning style. It has been comprehended that the students with pre-school education are more enterprising, active and courageous because of their dominant learning styles; although this situation demonstrates no significant difference. There is also a study which expresses that learning styles don't differentiate with pre-school education in the literature (Şimşek, 2007).

Another variable; which was chosen to find out whether personal information about pre-service teachers affects learning styles or not, is the department they graduated from high school. Dominant learning styles of pre-service teachers who graduated from the schools that require an entrance exam; in other words a capability level, is accomodator the style of the students graduated from other schools is diverging. The conclusion can be drawn that pre-service teachers who graduated from the schools which require entrance exam or science departments strive to learn something by experiencing concrete situations actively; on the other hand, the ones who graduated from general high schools or counter weigh department learn by observing rather than experiencing concrete situations. The necessity of demonstrating potentials of students in learning environments at those

schools may improve their active experimentation abilities. Similarly, in the study done by Güzel (1994) on university students, learning styles don't differentiate depending on school types.

One of the elements that can affect the dominant learning styles of pre-service teachers can be thought as education levels of parents. Great majority of parents has got primary school and lower education; however, it doesn't show any significant effect. Parents who have primary school and lower education have got children with dominant diverging learning styles. Nevertheless, as education levels of parents get higher, dominant learning styles of students are determined as accommodator with the same percentage to parents' education levels. This result can be commented that increasing knowledge and experiences of parents together with their increasing education levels reflect on their children a little bit. This increasing education levels of parents may reflect on their children as gaining more active, enterprising and practical experimentations. Otrar (2006) and Güzel (1994) also underline that learning styles haven't changed significantly according to education levels of parents. Suggestions below are made depending on the results of the study:

- Teachers should find out learning styles of students generally at the beginning of educational term and should choose the suitable teaching method-techniques and materials.
- A learning environment should be prepared by considering as many learning styles as possible. This can support the communication among students with different learning styles and the various kinds of education for every individual.
- Adequate education should be given to pre-service teachers about learning styles and especially education depending on learning styles. In-service education seminars should be given to teachers about this subject by National Education Ministry.
- The studies about determining learning styles at different education levels and variables which can affect learning styles. By the help of these studies, comparison should be made.

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Uzun Özet

Bu çalışmada, sınıf öğretmeni adaylarının baskın öğrenme stillerinin belirlenmesi ve bu stillerin kişisel özelliklerden etkilenip etkilenmediğinin incelenmesi amaçlanmıştır. Araştırmada betimsel yöntemlerinden survey yöntemi kullanılmıştır. Araştırmanın örneklemi, 2007-2008 eğitim öğretim dönemi Rize Üniversitesi Eğitim Fakültesi Sınıf Öğretmenliği programının her sınıf düzeyinde bulunan 4'er şube içerisinde rastgele seçilen 1'er şubesi oluşturmaktadır. Sözkonusu şube mevcudatlarının ortalama 40'ar kişiden oluşması sebebiyle; 1., 2., 3. ve 4. sınıflarda öğrenim gören toplam 193 öğretmen adayı ile çalışma yürütülmüştür. Adayların baskın öğrenme stilleri Kolb Öğrenme Stili Envanteri kullanılarak belirlenmiştir. Elde edilen veriler ki-kare testi ve betimsel istatistik yöntemleri kullanılarak analiz edilmiştir.

Sınıf öğretmenliğinde eğitim gören öğretmen adaylarının genel olarak baskın öğrenme stillerinin değiştiren ve yerleştiren olduğu ortaya çıkmıştır. Literatürdeki bir çok çalışmanın sonuçları ile örtüşmektedir. Baskın Öğrenme stillerinin sınıflara dağılımına bakıldığında birinci ve ikinci sınıf öğrencilerinin baskın öğrenme stiline sahip öğrencilerin, üçüncü ve dördüncü sınıf öğrencilerinin ise yerleştiren olduğu tespit edilmiştir. Değiştiren öğrenme stiline sahip öğrencilerde somut yaşantı ve yansıtıcı gözlem öğrenme yetenekleri baskındır. Bu bireylerin temel yeteneği, somut durumları gözden geçirerek ilişkileri anlamlı bir şekilde organize etmektir. Öğrenciler eylemden ziyade gözleyerek ortama uyum sağlar. Yerleştiren öğrenme stiline sahip öğrencilerde somut yaşantı ve aktif yaşantı öğrenme yetenekleri baskındır. Bu bireyler plân gibi bir şeyler yapma ve yeni deneyimler içinde bulunma çabasıdadırlar. Yapararak ve hissederek öğrenmeye meyilli olan bu bireyler aktif olarak problem çözmeye yönelirler. Öğrenme sürecinde aldığı teorik bilgileri uygulamaya geçirirler (Kolb, 1984, Kolb, 1985, Aşkar & Akkoyunlu, 1993).

Sınıf öğretmeni adaylarının birinci ve ikinci sınıflarda değiştiren öğrenme stiline sahip olmaları bu programda almış oldukları derslerin içeriği ile ilişkilendirilebilir. Çünkü 1. ve 2. sınıflarda alınan derslerin çoğu öğrencilerin teorik bilgi temellerini sağlamlaştırarak onları uygulamaya hazırlamaktır. Üçüncü ve dördüncü sınıflarda baskın öğrenme stiline sahip olmasının, öğretmen adaylarının almış oldukları uygulama, gözlem, drama içerikli derslerden kaynaklandığı düşünülmektedir. Literatürde, öğrenme stillerinin sınıf düzeyine bağlı olarak farklılaşığı, düzey arttıkça daha çok fikirlerin pratiğe yönelik uygulamalarını içeren öğrenme stillerini tercih ettiklerini gösteren bir çalışma mevcuttur (Kaya, 2007).

Sınıf öğretmeni adaylarının öğrenme stilleri üzerinde, cinsiyet unsuru önemli derecede farklılaşmasa da, bayanlarda baskın olarak yerleştiren, erkeklerde ise değiştiren öğrenme stili olarak karşımıza çıkmaktadır. Bu bulgu, Kılıç & Karadeniz (2004) tarafından yapılan çalışmaların sonucu ile de uyum göstermektedir. Başka çalışmalarda da cinsiyetin öğrenme stilleri üzerinde etkili olmadığı sonucuna

ulaşmıştır. Bu çerçevede insanlarda cinsiyete bağlı olarak farklılık gösteren içsel süreçlerin öğrenmenin her aşamasına yansması oldukça doğaldır. Ancak bu durumun farklı muameleler gerektirmeyecek bir normallik olarak düşünülmesi gerekmektedir.

Çalışmanın örneklemini oluşturan öğrencilerin çok azının okul öncesi eğitim aldıkları ve öğrenme stillerinin bu değişkenden etkilenmediği görülmüştür. Bu sonucun; araştırmanın uygulandığı dönemde, 17-24 yaş aralığında olan öğretmen adaylarının 10-15 yıl önce yaşadıkları çevre ve toplumda okul öncesi eğitime şu anki kadar yaygın ve önemli olmamasından kaynaklandığı düşünülebilir.

Sınavla giriş yapılan, öğrencide belli yeterlilik düzeyinin arandığı okullardan mezun olan öğretmen adaylarının baskın öğrenme stili yerleştiren olarak bulunmuştur. Sınavsız giriş yapılan okullardan mezun öğretmen adaylarında ise bu stil değiştirendir. Bu sonucun anlamlı farklılık göstermediği daha önce belirtmekle birlikte sınavla giriş yapılan okullardan ve sayısal bölümden mezun olan öğretmen adaylarının somut yaşantıların içine aktif biçimde girerek bir şeyler öğrenme çabası içinde olduğu, sınavsız girilen ve eşit ağırlık bölümlerinden mezun olanların ise somut yaşantıları yaşamaktan daha çok gözlemleyerek öğrendikleri sonucuna varılabilir. Öğrencilerin sınavla girdikleri okullarda öğrenme ortamında potansiyellerini daha çok ortaya koyma gerekliliği, aktif yaşantı yeteneklerinin gelişmesini sağlamış olabilir.

Örneklemin anne ve babalarının büyük bir çoğunluğu ilkökul ve altı düzeyinde eğitime sahiptir. İlkokul ve altında eğitim düzeyine sahip ebeveynlerin çocuklarının baskın öğrenme stilleri değiştiren olarak bulunmuştur. Bununla birlikte ebeveynlerde eğitim düzeyi arttıkça buna paralel olarak artan bir yüzde ile çocuklarının baskın öğrenme stilleri yerleştiren olarak tespit edilmiştir. Bu sonuç, ebeveynlerin eğitim düzeyi ile birlikte artan bilgi ve tecrübelerinin çocuklarına bir miktar da olsa yansıdığı şeklinde yorumlanabilir. Anne ve babaların yükselen eğitim düzeyleri çocuklarına onları daha aktif yapan, girişimci ruh ve uygulamaya dönük yaşantı tecrübesinin kazandırılması olarak yansımaktadır.

Çalışma sonucunda öğretmenlere eğitim öğretim yılının başında öğrencilere öğrenme stili envanterini uygulamaları önerilebilir. Öğrencilerin genel olarak öğrenme stilleri belirlenmeli ve bu öğrenme stillerine göre ders içerisinde kullanılacak öğretim yöntem- teknikleri ve gerekli öğretim materyallerini seçilmelidir. Ancak öğretim ortamı hazırlanırken mümkün olduğunca bütün öğrenme stilleri dikkate alınmalıdır. Bu şekilde hem farklı öğrenme stillerine sahip öğrencilerin birbirleriyle olan etkileşimleri devam edebilir hem de her birine göre ayrı bir öğretim yapılması sağlanabilir. Ayrıca öğretmenlere, öğretmen adaylarına, öğrenme stilleri ve özellikle öğrenme stillerine dayalı öğretim konusunda bilgi verilmelidir. Tüm bunlara ek olarak, benzer çalışmalar farklı öğrenim seviyelerinde ve çeşitli değişkenlere yönelik yapılarak karşılaştırma yoluna gidilebilir.