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The Learning Styles Used by State and Private Elementary School Students' in English Course-Adana Province Example in Turkey

SEVIM ÇİLOĞULLARI¹, MAHMUT OĞUZ KUTLU², PINAR AKMAN³, CEYLAN YILMAZ⁴ ¹Department of Education Sciences, Çukurova University, Adana, Turkey

²Department of Education Sciences, Çukurova University, Adana, Turkey

³Department of Education Sciences, Çukurova University, Adana, Turkey

⁴Department of Education Sciences, Çukurova University, Adana, Turkey

Corresponding Author's: pinar_akman01@hotmail.com

ABSTRACT

The aim of this research is to analyze the learning styles used by the students of elementary state and private schools. This research is a research of a descriptive survey model. The research group is located in Adana province, Turkey, and was selected according to an "convenience sampling method". There were a total of 354 students mixed of the state and private elementary stage school. In this research, "learning styles scale", developed by Gökdağ (2004) was used as a data collection tool. Also Kolb's Learning Styles III 'with 12 semi-structured questions adapted to Turkish by Evin Gencel (2007) was used. According to the results of the analysis; there is a significant difference to be found with the 5th and 8th grade students from the state elementary stage school in part of visual learning style, auditory learning style, concrete experience, abstract conceptualization, active experimentation, reflective observation. According to the school types there is a significant difference to be found of 5th grade students in part of kinesthetic learning style, concrete experience, abstract conceptualization, active experimentation and reflective observation. Whereas for the 8th grade students there is just a significant difference to be found for concrete experience.

Key Word: Learning Styles, State Elementary School, Private Elementary School, English Teaching

INTRODUCTION

Humans, as living beings endowed with an inborn learning ability, continue to learn almost every day throughout their lives either with or without awareness of this ability. In fact, this ability is the most important feature distinguishing them from other living things. The term learning is widely defined as "producing a relatively permanent change in behavior" (Lefrançois, 2000). In this definition, permanence of learning is a significant feature, implicating that conditions such as exhaustion, sleep deprivation, sickness, and drug use are not covered by this definition since they do not occur as a result of interaction and are not permanent conditions. Additionally, reflexes and instinctive behavior are also not considered as learning activities due to the same reasons (Erden & Altun, 2008).

The act of learning often takes place via our sense organs and through three main approaches: visual (by seeing), auditory (by hearing), and kinesthetic (by feeling or touching) (Frender, 2004). In a similar way to the individual variation in cerebral lateralization, individuals usually are more dominant in one of these three basic approaches.

It is very difficult and complex to solve human beings and understand their behavior. In educational processes, first, the common points are used and then programs are established accordingly. Subsequently, adjustments are made to suit each individual by taking into account their individual differences (Kuzgun & Deryakulu, 2009).

After the second half of the 20th century, educational and psychological understanding put forward the idea that all individuals are different and these differences should be taken into account in schools. Today, the issue of individualization of education is becoming more and more important. All individuals have different needs and different responses to stimuli coming from outside. One of the most important differences individuals have is their learning styles. All individuals can have a unique learning style. When the relevant literature is examined, it is seen that the concept of learning styles was first introduced by R. Dunn in 1960, and that various definitions were made and many learning style models were developed in the following process (Özhan, 2012).

While developing their own definitions, and models, instructional scientists working on learning styles focus on different dimensions of learning and, accordingly, different points. This situation has led to the emergence of different definitions of learning styles. The concept of learning style in its simplest form; It is defined as "all preferences of the learner in the learning process" (Erden & Altun, 2008).

Learning styles provide important facilities for both students and teachers in the learning and teaching process. For this reason, teachers should be able to get to know students better, analyze under which conditions and methods, when and how they can learn. As a result of this analysis and general evaluations, when learning styles are determined, it is seen that the student's motivation increases and learns better thanks to a teaching process that is compatible with the student's own learning style. As a result, the compatibility of teaching activities with students' learning styles increases academic success. For this reason, it has been determined that knowing learning styles and designing learning and teaching activities for the individual is effective even for students with learning difficulties (Sarıkaya, 2017).

Learning Styles Models: To date, numerous researches have been conducted in the realm of learning styles and multiple learning style models have been developed. According to Dunn (1990) who has conducted numerous researches on learning styles, learning styles are "refer to the unique way through which each learner receives, processes and retains information". Dunn's learning style model consists of five basic stimulants:

Environmental stimulants: Sound, light, temperature, and furniture/seating arrangements

Emotional stimulants: Strength and preference of motivation, patience and sense of responsibility of a student

Sociological stimulants: student preferences pertaining to working alone, in pairs, or in peer groups

Psychical stimulants: Perceptual strengths (visual, auditory or kinesthetic), level of energy during the day, alimentary need and mobility during learning

Psychological stimulants: Dominance of brain hemispheres, processing of information (holistic/analytical style), holistic versus reflective preferences

McCarthy (1980), on the other hand, defined learning style as "the preference of individuals in using their perception and processing skills" (Mutlu, 2008). McCarthy's model is highly similar to Kolb's model in terms of their features and involves four types of learners (Honey, 2006):

Innovative learners: They pay attention to personal values, and social interaction, and relationships are important for them. They respect authority.

Analytic learners: They base their judgments on facts and are primarily interested in acquiring new and accurate facts. They may choose to change authority's orders.

Common sense learners: They are practical and frank; they evaluate objects in terms of their practicality and usefulness. They work independently of authority.

Dynamic learners: They are complacent, challenging, adventurous, and try to solve events by focusing on and synthesizing all possibilities. They may tend to ignore authority.

Gregorc, however, suggested that learning styles consist of distinctive and observable behaviors that provide clues about indeterminate individual abilities (Ekici, 2003). The author regarded learning styles as a cycle and emphasized that some individuals may have more than one of these styles (1984). Gregorc's model consists of four types of learners:

Concrete sequential learners: They are structuralist and want to learn by living.

Abstract sequential learners: They are sensible, and logic and concepts are important for them.

Concrete random leaners: They use intuition, and are talented in solving problems.

Abstract random learners: They prefer meaningful learning, and they learn holistically and prefer unstructured learning experience.

In the model developed by Kolb and Kolb (1985), learning and problem solving are interconnected and argue that four steps take place. We call these four steps a learning abilities. These four preferred steps make up the four learning styles. It is institutionalized that the individual learns best with the learning theory.

This model classifies students according to their preferences. First, concrete experiences or abstract conceptualization; Secondly, it consists of active life or reflective observation. These 4 student types are as follows:

Concrete / Reflective: They like to question, respond well and quickly to questions that depend on their experiences, interests and future plans. It should be an instructive motivator and someone who creates drivers for action.

Abstract / Reflective: These types of students answer questions that are organized and within the framework of logic. The tutorial should be like an expert.

Abstract / Active: Individuals belonging to this classification like to work effectively. At the same time, he prefers to learn in an environment that allows mistakes through trial and error in the learning process. It should be like a didactic trainer and provide guiding exercises and feedback to the learner.

Concrete / Effective: These kinds of students are 'lf... What happens...?' Type students. They like to adapt learning materials to new and real situations. As a teacher, one should stay away from the student's path and be allowed to discover for themselves.

Purpose of this Research: The present research aimed to investigate the learning styles used by state and private Elementary school students in the English course. To this end, the following research questions were asked:

- 1. Is there a difference between state and private elementary schools with regard to grade 5 and grade 8 students' learning styles?
- 2. Is there a difference between grade 5 and 8 students' learning styles at both schools?
- 3. Is there a difference between state and private elementary school students' learning styles?
- 4. Is there a relationship between the learning styles of 5th and 8th grade students researching in state schools?
- 5. Is there a relationship between the learning styles of 5th and 8th grade students researching in private schools?
- 6. Is there a relationship between learning styles of all students according to school types?

METHODS

Research Design: This research is a descriptive, relational survey model. In this model, data are collected to test hypotheses regarding the research problem or to find answers to predefined questions (Karasar, 2006).

Universe and Sample: The universe of the research encompassed all the grade 5 and 8 students enrolled in the private and state elementary schools in Adana province. Within this universe, a total of 354 students who were enrolled in Private TED Adana College (n=214) and Şehit Ebubekir Durmuş Elementary School (n=140) during the academic year 2017-2018 were sampled using stratified and convenience sampling (Fraenkel & Wallen, 1993).

214 (60.5%) of the students were enrolled in a state school and the remaining 140 (39.5%) were enrolled in a private school. Moreover, 177 (50%) of them were enrolled in grade 5 and 177 (50%) in grade 8.

Data Collection Tools: Data were collected using the Learning Styles Scale (LSS) developed by Gökdağ (2004) and the Kolb Learning Style Inventory-Version 3 (KLSI3) adapted to Turkish by Evin Gencel (2007). In LSS, learning styles were labeled as "assimilation", "sortation", "changing", and "implanting". Each item consisted of four options, each scored between 1-4, thus amounting to a total score of 12-48 points. After calculating the score of each item, the scores were combined for each of the four

dimensions including Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation.

Data Collection Analysis: Both LSS and KLSI3 were administered to all the 354 students and then the results were transferred to the computer environment and were analyzed using statistical software. All data were analyzed at 95% Confidence Interval (CI). As noted in the literature, a kurtosis and skewness value between -3 and +3 indicates a normal distribution (Groeneveld and Meeden, 1988; Moors, 1986; DeCarlo, 1997). Accordingly, the scores obtained from both scales were accepted normal and thus

were analyzed using parametric tests. Scores were compared between the two school types using Independent Samples t-test. Correlations between the scores and the school type and educational levels were determined using Pearson's Correlation Coefficient. Learning styles were compared between the two school types and the two educational levels using Chi-square test.

RESULT

Table 1 presents the comparison of grade 5 and 8 students in both schools with regard to their scores.

Table 1.	Comparison of	grade 5 and 8	students in both	schools with regard	to their scores
		•			

		State s	chool				Private	school			
Learning style	Educ. level	Ν	Mean	SD	t	р	Ν	Mean	SD	t	р
Visual Learning Style	Grade 5	94	32.99	6.78	-3.966	.000*	83	33.95	7.98	-1.557	.122
	Grade 8	120	36.48	6.05			57	36.11	8.13		
Kinesthetic Learning	Grade 5	94	26.60	4.49	1.432	.154	83	24.90	5.54	-0.664	.508
Style	Grade 8	120	25.63	5.17			57	25.51	4.93		
Auditory Learning Style	Grade 5	94	13.80	3.20	2.006	.046*	83	12.88	3.28	0.090	.928
	Grade 8	120	12.88	3.39			57	12.82	3.89		
Concrete Experience	Grade 5	94	21.03	12.52	-2.901	.004*	83	24.96	7.99	1.877	.063
	Grade 8	120	25.01	7.35			57	22.30	8.62		
Abstract	Grade 5	94	23.21	13.51	-4.102	.000*	83	29.37	9.37	-0.319	.750
Conceptualization	Grade 8	120	29.33	8.12			57	29.93	11.17		
Active Experience	Grade 5	94	25.62	14.37	-3.833	.000*	83	30.01	9.82	0.194	.846
	Grade 8	120	31.74	8.85			57	29.67	11.04		
Reflective Observation	Grade 5	94	21.76	12.97	-3.923	.000*	83	26.48	8.73	-0.321	.748
	Grade 8	120	27.37	7.79			57	26.98	9.51		

*p<0.05

SD: Standard Deviation

As seen in Table 1, a significant difference was found between grade 5 and 8 students in the state school with regard to Auditory Learning Style, Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation scores (p<0.05). In contrast, no significant difference was found between grade 5 and 8 students in the private school with regard to Auditory Learning Style, Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation scores (p<0.05).

Table 2 presents the comparison of the two schools with regard to the scores obtained by grade 5 and 8 students.

		Grade	e 5				Grade	8			
Learning style	School type	N	Mean	SD	t	р	Ν	Mean	SD	t	р
Visual Learning Style	State	94	32.99	6.78	868	.387	120	36.48	6.05	.339	.735
	Private	83	33.95	7.98			57	36.11	8.13		
Kinesthetic Learning Style	State	94	26.60	4.49	2.243	.026*	120	25.63	5.17	.152	.879
	Private	83	24.90	5.54			57	25.51	4.93		
Auditory Learning Style	State	94	13.80	3.20	1.881	.062	120	12.88	3.39	.103	.918
	Private	83	12.88	3.28			57	12.82	3.89		
Concrete Experience	State	94	21.03	12.52	-2.454	.015*	120	25.01	7.35	2.166	.032*
	Private	83	24.96	7.99			57	22.30	8.62		
Abstract Conceptualization	State	94	23.21	13.51	-3.481	.001*	120	29.33	8.12	408	.683
	Private	83	29.37	9.37			57	29.93	11.17		
Active Experience	State	94	25.62	14.37	-2.344	.020*	120	31.74	8.85	1.343	.181
	Private	83	30.01	9.82			57	29.67	11.04		
Reflective Observation	State	94	21.76	12.97	-2.806	.006*	120	27.37	7.79	.285	.776
	Private	83	26.48	8.73			57	26.98	9.51		

 Table 2. Comparison of the two schools with regard to the scores obtained by grade 5 and 8 students

*p<0.05

SD: Standard Deviation

As shown in Table 2, a significant difference was found between grade 5 students in the two schools with regard to Kinesthetic Learning Style, Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation scores (p<0.05). Between grade 8 students, however, a significant difference was only found with regard to Concrete Experience scores (p<0.05).

Table 3 presents the comparison of the two schools with regard to students' learning styles:

Table 3. Comparison of the two schools with regard to students' learning styles

Learning style	School type	Ν	Mean	SD	t	р
Visual Learning Style	State	214	34.94	6.60	.147	.883
	Private	140	34.83	8.08		
Kinesthetic Learning Style	State	214	26.06	4.89	1.649	.100
	Private	140	25.15	5.29		
Auditory Learning Style	State	214	13.29	3.33	1.154	.249
	Private	140	12.86	3.53		
Concrete Experience	State	214	23.26	10.12	600	.549
	Private	140	23.88	8.33		
Abstract Conceptualization	State	214	26.64	11.21	-2.524	.012*
	Private	140	29.60	10.10		
Active Experience	State	214	29.05	11.97	665	.506
	Private	140	29.87	10.30		
Reflective Observation	State	214	24.90	10.73	-1.626	.105
	Private	140	26.69	9.03		

*p<0.05

SD: Standard Deviation

As can be seen in Table 3, a significant difference was found between the two schools with regard to Abstract Conceptualization scores (p<0.05), whereby the mean score was 26.64 for the state school students and 29.60 for the private school students.

Table 4 presents the correlations between the scores of grade 5 and 8 students in the state school.

Table 4. Correlations between th	e sco	ores of grade 5t	h and 8th students	in the state sch	ool		
		Grade 5			Grade 8		
		Visual Learning Style	Kinesthetic Learning Style	Auditory Learning Style	Visual Learning Style	Kinesthetic Learning Style	Auditory Learning Style
Concrete Experience	r	.031	.126	.242*	.023	013	053
	р	.765	.228	.019	.803	.890	.563
Abstract Conceptualization	r	.082	.152	.251 [*]	024	061	.025
	р	.432	.143	.015	.792	.505	.785
Active Experience	r	.074	.118	.219*	.053	034	.045
	р	.478	.259	.034	.569	.715	.626
Reflective Observation	r	.137	.140	.236*	.118	.102	.047
	р	.188	.178	.022	.199	.268	.612

*p<0.05

As indicated in Table 4, in grade 5 students in the state school, a weak positive correlation was found between Concrete Experience and Auditory Learning Style (r=.242), between Abstract Conceptualization and Auditory Learning Style (r=.251), between Active Experience and Auditory Learning Style (r=.219), and between Reflective Observation and Auditory Learning Style (r=.236). In grade 8 students, however, no significant correlation was found among the learning styles (p>0.05). Table 5 presents the correlations between the learning styles of grade 5 and 8 students in the private school.

Table 5. Correlations between the learning styles of grade 5th and 8th students in the private school										
		Grade 5			Grade 8					
		Visual Learning Style	Kinesthetic Learning Style	Auditory Learning Style	Visual Learning Style	Kinesthetic Learning Style	Auditory Learning Style			
Concrete Experience	r	.020	.040	.015	.045	092	170			
	р	.855	.719	.895	.742	.495	.205			
Abstract Conceptualization	r	.030	.112	.138	093	028	.076			
	р	.789	.315	.215	.491	.839	.575			
Active Experience	r	059	.107	.186	076	130	.049			
	р	.594	.336	.092	.575	.335	.720			
Reflective Observation	r	.009	046	.012	.179	.196	.159			
	р	.937	.678	.912	.183	.144	.238			

*p<0.05

As shown in Table 5, no significant correlation was found among the learning styles of grade 5 and 8 students in the private school (p>0.05).

Table 6. Correlations b	etween learning styles and so	hool types					
			School ty	pe	Chi-square	р	
			State	Private	-	-	
Learning style	Implanting	N	46	13	Chi-square p Private 13 13.091 .004* 3.3% .004* .004* .004* 42 .00% .004* .004* 30.0% .004* .004* .004* 44 .00% .004* .004* 29.3% .004* .004* .004*		
		s and school types School t State N 46 % 21.5% N 71 % 33.2% N 42 % 19.6% N 55 % 25 7%	9.3%				
	Changing	N	71	42			
		%	33.2%	30.0%			
	Sortation	N	42	44			
		%	19.6%	31.4%			
	Assimilation	N	55	41			
		%	25.7%	29.3%			

Table 6 presents the correlations between learning styles and school types.

*p<0.05

As seen in Table 6, a significant correlation was found between learning styles and school types (p<0.05). It was also revealed that the Changing style (33.2%) was the most common learning style chosen by the students, followed by the sortation style (31.4%).

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In the current age, rapid changes and developments occur in almost any realm and also novel information and findings emerge at the level of both theory and practice. In order to adapt to this speed and change, it is necessary to be both well-informed and innovative in practice. In a similar fashion, the realm of teaching also encompasses rapid changes and developments. Throughout ages, various discussions, many theories and practices, different techniques and methods in the field of education have been proposed and implemented. Since it is the main function of education and training to educate and develop people both as individuals and as members of society, it is necessary to first know the changes and innovations in this field and then to adapt to them.

Researches have indicated that the primary and important point in education is to have a conscious mind in educational activities. It is extremely necessary and important for both teachers and learners to be conscious about the educational process in general and also about the activities they perform individually in this process. At this point, learning styles and learning strategies stand out as the most fundamental concepts.

Learning styles refer to individual learning characteristics while learning strategies refer to the methods used while performing the learning activity in line with these characteristics. Additionally, literature reviews indicate that there have been numerous researches investigating learning styles and that various descriptions and classifications have been developed for learning styles by educational theorists. These literature reviews also propose that learning styles vary among individuals and in order to achieve the desired and ideal learning, students should know their own learning styles and the teacher also should know his/her students' learning styles. Meaningfully, a learner who is well aware of his/her learning styles can shape his/her learning process and can identify almost half of his/her learning process by determining the techniques and methods that would be most appropriate for his/her learning styles. Based on these notions, it can be asserted that the important point is the use of appropriate learning styles and strategies which could facilitate the learning process remarkably rather than the ease or difficulty of the information to be learned (Tatar & Tatar, 2007; Demir, 2008; Yeşilyurt, 2019).

Our findings indicated that in the state school, grade 8 students used the Auditory Learning Style more frequently compared to grade 5 students, no significant difference was found with regard to the Kinesthetic Learning Style, grade 5 students used the Visual Learning Style more frequently compared to grade 8 students, and grade 8 students used the Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation more frequently compared to grade 5 students.

Nevertheless, no significant difference was found between grade 5 and 8 students enrolled in the private school with regard to the use of any learning style.

On the other hand, in the comparison of both grades between the two schools, no significant difference was found between the grade 5 students in both schools with regard to the Visual Learning Style, the grade 5 students in the state school used the Kinesthetic Learning Style more frequently than the grade 5 students in the private school, no significant difference was found with regard to the Auditory Learning Style, and the grade 5 students in the private school used the Concrete Experience, Abstract Conceptualization, Active Experience, and Reflective Observation more frequently than the grade 5 students in the state school.

As for grade 8 students, no significant difference was found between the two schools with regard to the use of the Visual Learning Style, Kinesthetic Learning Style, Auditory Learning Style, Abstract Conceptualization, Active Experience, and Reflective Observation, whereas the grade 8 students in the state school used the Concrete Experience more frequently than the grade 8 students in the private school.

Although no significant difference was found between the two schools with regard to the use of the Visual Learning Style, Kinesthetic Learning Style, Auditory Learning Style, Concrete Experience, Active Experience, and Reflective Observation, it was revealed that the private school students used the Abstract Conceptualization more frequently than the state school students.

In conclusion, the results obtained in the research can be summarized as follows:

- In the state school students, there was a significant relationship between the learning styles of the students and their educational level, and grade 5 students mostly used the Changing style while grade 8 students mostly used the Assimilation style.
- In the private school students, no significant relationship was found between students' learning styles and educational levels.
- In both schools, no significant relationship was found between grade 5 students' learning styles and school type while there was a significant relationship between grade 8 students' learning styles and school type. Moreover, grade 8 students in both schools mostly preferred the Assimilation style, and a significant relationship was found between learning styles and school type in both schools.
- Private school students mostly used the Assimilation style while the state school students mostly used the Changing style.

Recommendations for teachers and future researchers include: A teacher should know his/her students rather well so as to improve their success and self-confidence. To achieve this, the teacher should be a skillful observer. At the beginning of an academic year, all the teachers can design a "learning styles inventory" after inquiring the learning styles of each student and hang it on the wall in the classroom so as to prepare classroom materials accordingly and to improve the efficiency of the education to be delivered. Additionally, the primary and Elementary school curricula should be taken into consideration when focusing on the improvement of students' learning styles. On the other hand, further diversification of educational activities and processes will be a significant step in raising socially beneficial individuals. Moreover, preservice teachers enrolled in educational faculties/schools should be provided with necessary equipment as well as specialty training so as to become well-equipped teachers. For inservice teachers, however, essential in-service training schemes should be organized. Finally, educational settings should be designed by taking students' learning styles and individual differences.

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