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Determination of Teacher Characteristics That Support Constructivist Learning Environments

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Abstract

Problem Statement: Exploring the variables that affect teachers' teaching approaches in learning environments is crucial to determining their response to new trends. Their teaching and learning characteristics set the success level of the new reforms. In addition, monitoring the usage of constructivist pedagogies and giving feedback about them are other crucial aims of this research.

Purpose of the Study: The purpose of this study was to identify the characteristics of primary school teachers that helped them prepare constructivist learning environments.

Method: The data were collected through the Constructivist Learning Environment Questionnaire (CLEQ) and a modified version of Draw a Classroom Teacher Test Checklist (DACTT-C), which is a modified version of the Draw a Science Teacher Test Checklist (DASTT-C). The sample of the study was 115 primary school teachers from schools in Afyon, Turkey. Convenience sampling was used as a sampling strategy.

Findings: The results of the study showed that the gender of primary school teachers was not a factor in determining the constructivist characteristics of the primary school, and less experienced primary school teachers were more willing to use constructivist principles in their primary school. The primary school teachers' drawings were analyzed qualitatively. There were 15 missing drawings in the survey, so researchers scored and evaluated only 100 drawings. Only eight primary school teachers' drawings (8%) reflected a student-centered teaching style; 56% had both student and teacher-centered characteristics; and 36% were teacher-centered. Two of the eight student-centered drawings belonged to males and four of the eight drawings belonged to teachers with 0 to 5

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years of experience. Three of the eight student-centered drawings belonged to teachers with a master's degree and five belonged to teachers with a bachelor degree.

Conclusion and Recommendations: Primary school teachers who had graduate degrees were more open to using constructivist characteristics in teaching and learning. Females and less experienced primary school teachers had a higher tendency to draw student-centered instructional characteristics. Turkish teachers are mostly in a transition process from teacher-centered instruction to student-centered instruction. The Ministry of National Education should promote collaboration between senior and novice teachers. Primary school teachers should be supported with pre-service and in-service training programs during the transition process of teacher-centered teaching to a student-centered teaching style. For further research, primary school teachers' perceptions about constructivist learning environments should be observed in the primary school environment.

Keywords: constructivist learning environments, primary school teachers, teacher characteristics, draw a classroom teacher test checklist, primary school drawings.

Introduction

There are many ongoing educational reform practices in several countries around the world. These educational reforms are generally driven by constructivist principles, which mainly focus on student-centered, contextual, holistic, and meaningful learning (Elmas, Ozturk, Irmak & Cobern, 2014; Kim, Fisher & Fraser, 1999). The reflection of these pedagogical reforms into the primary school has different names based on the level of teacher guidance presented within the pedagogy (Kirschner, Sweller, & Clark, 2006). These recent pedagogical reforms are called discovery learning, problem-based learning, inquiry learning, contextual learning, and so on (Pecore, 2013; Alfieri, Brooks, Aldrich, & Tenenbaum, 2011; Schmidt, Rotgans, & Yew, 2011; Elmas & Eryilmaz, 2015). The key stakeholders in this transition process are teachers. If teachers are willing to change according to the proposed new educational principles, the reforms will have a greater chance of being successful. However, most reform ideas and practices are determined in a top-down manner and do not create enough opportunities for effective training and teacher support (Elmas et al., 2014). Even if teachers want to change according to newly proposed educational principles, they have prior beliefs about the nature of knowledge, teaching, and learning that reduce the incorporation of new instructional practices (Pecore, 2013; Simmons, Emory, Carter, Coker, Finnegan, Crockett & Labuda, 1999). Because of these beliefs, teachers need extensive in-service teacher training that covers the new reform ideas and pedagogies.

In addition to these beliefs, there are other variables that shape teachers' constructivist characteristics during primary school instruction. The most common variables include teacher gender, teachers' graduate education, and years of

experience (Caliskan, 2015; Sahin, 2013; Turan & Erden, 2010; Koc, 2013; Uredi, 2013). These variables can have a significant impact on the characteristics of the teaching pedagogy used by a teacher.

Constructivist learning environments have seven main characteristics (Knuth & Cunningham, 1993; Honebein, 1996). These seven main characteristics include: experience with knowledge; appreciation of multiple perspectives; using realistic contexts; student voice and ownership; social interaction; multiple modes of representation; and self-awareness in learning. All of these dimensions have a critical role in constructivist learning. Constructivist learning environments empower meaningful learning, critical thinking skills, and social abilities (Bhattacharjee, 2015; Karaduman & Gultekin, 2007; Kwan & Wong, 2015; Kibui, 2012; Sultan, Woods & Koo, 2011; Wu & Tsai, 2005). Exploring the variables that affect teachers' teaching approaches in learning environments is crucial to determining their response to new trends. Their teaching and learning characteristics set the success level of the new reforms. In addition, monitoring the usage of constructivist pedagogies and giving feedback about them are other crucial aims of this research. Based on the teachers' crucial role in accepting or rejecting constructivist principles, this study investigated the primary school teachers' ideas about constructivist learning environments with a survey and a drawing.

Research Problem

What are the prominent characteristics of primary school teachers who are more likely to use constructivist learning environments?

How do primary school teachers imagine themselves according to their instructional style in the primary school?

Method

Research Design

This was primarily a quantitative study exploring the characteristics of primary school teachers who were more willing to use constructivist learning environments in Turkey. Surveys were supported by qualitative findings via drawings to create a better picture of primary school teachers' ideas about constructivist learning environments.

Research Sample

The sample of the study included 115 primary school teachers from elementary schools in Afyon city center, Turkey. Convenience sampling was used (Fraenkel & Wallen, 2000). All participants voluntarily participated in this study. The demographic characteristics of participants are shown in Table 1.

Table 1.

Demographic Characteristics of Participants

Variables		N	%
Gender	Female	59	51
	Male	56	49
	Total	115	100
Seniority	0-5 years	17	15
	6-10 years	18	16
	11-15 years	21	18
	16-20 years	25	22
	21 or more years	34	29
	Total	115	100
Educational level	Fulfillment of Bachelor Science (FBS)	18	16
	Bachelor of Science (BS)	85	74
	Graduate (G)	12	10
	Total	115	100

Research Instruments and Procedures

The Constructivist Learning Environment Questionnaire (CLEQ) and Draw Yourself as a Classroom Teacher Test Checklist (DACTT-C) were used as data collection tools. Researchers went to schools with these surveys and collected data directly from the source.

Constructivist learning environment questionnaire (CLEQ)

The CLEQ was originally developed by Tenenbaum, Naidu, Jegede, and Austin (2001) and adapted to Turkish by Fer and Cirik (2006). The questionnaire has a five point Likert scale: never (1), seldom (2), sometimes (3), often (4), and always (5).

The CLEQ has seven sub-themes:

(1) Arguments, discussions, debates (ADD),

(2) Conceptual conflicts and dilemmas (CCD),

(3) Sharing ideas with others (SIO),

(4) Materials and resources targeted toward solutions (MRTS),

(5) Motivation towards reflections and concept investigation (MRCI),

(6) Meeting learners' needs (MLN), and

(7) Making meaning, real-life examples (MMRE).

Cronbach's Alpha (α) values of the CLEQ sub-themes in different studies are shown in Table 2.

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Table 2.

Cronbach's Alpha (a) Calues of CLEQ in Different Studies

Questionnaire	7 sub-themes	Cronbach's Alpha values calculated by Tenenbaum et al. (2001)	Cronbach's Alpha values calculated by Fer and Cirik (2006)	Cronbach's Alpha values calculated by Current study
CLEQ	ADD	0.82	0.90	0.74
	CCD	0.83	0.94	0.79
	SIO	0.79	0.90	0.75
	MRTS	0.72	0.90	0.76
	MRCI	0.87	0.89	0.72
	MLN	0.77	0.89	0.73
	MMRE	0.77	0.90	0.75
	Total	0.86	0.91	0.84

As shown in Table 2, Fer and Cirik (2006) found Cronbach's Alpha (α) value of CLEQ to be .91. Additionally, researchers noted that the internal consistency of the seven sub-themes of the scale ranged from .89 to .94. In the current study, the Cronbach's Alpha value of the CLEQ was found to be .84. Furthermore, the internal consistency of the seven sub-themes of the scale ranged from .72 to .79.

Draw yourself as a classroom teacher test checklist (DACTT-C)

DACTT-C is the modified version of Draw a Science Teacher Test Checklist (DASTT-C), which was originally derived from Draw-A-Scientist-Test (DAST) used to explore the perceptions and images that students held about scientists (Chambers, 1983). Finson, Beaver, and Cramond (1995) revised the DAST to Draw-A-Scientist-Test Checklist (DAST-C) for ease of assessment. Then DASTT-C was modified and used by many researchers to explore the ideas about instruction held by students, pre-service teachers, and teachers (Elmas, Demirdogen, & Geban, 2011; Thomas & Pedersen, 1998; Thomas, Pedersen, & Finson, 2001; Finson, 2002; Thomas & Pedersen, 2001; Thomas, Pedersen & Finson, 2001; Yilmaz, Turkmen, Pederson & Huyuguzel-Cavas, 2007).

DACTT-C consisted of two pages. On the first page, primary school teachers were asked to provide demographic information. The second page instructed them to "Draw a picture of yourself as a primary school teacher at work", write a brief narrative describing the drawings, and specifically answer the questions:

"What is the teacher doing?"

"What are the students doing?"

The narrative portion supported the right interpretation for the drawings.

Data Analyses

The CLEQ was analyzed with Multivariate Analyses of Variance (MANOVA) to determine the relationships between the dimensions of the questionnaire. Prior to the MANOVA analysis, normality tests were conducted and the distribution of all

variables was found to be normal. Evaluations of drawings were made qualitatively according to DACTT-C.

Results

Primary school teachers' opinions about constructivist learning environments were explored with regard to the teachers' gender, seniority, and educational level. According to the MANOVA results, the mean scores of all dimensions are shown in Table 3. The mean scores in the ADD, SIO, MRTS, MRCI, MLN, and MMRE sub-themes of primary school teachers are at the range of "often", but the mean score in the CCD sub-theme of primary school teachers is at the range of "seldom".

Table 3.

Mean Scores of All Dimensions that Primary School Teachers Obtained from CLEQ

Questionnaire	7 sub-themes	N	Max. Score	Mean	Categories
CLEQ	ADD	115	25	19.46	Often
	CCD	115	15	7.27	Seldom
	SIO	115	20	15.82	Often
	MRTS	115	15	12.38	Often
	MRCI	115	30	23.25	Often
	MLN	115	25	19.19	Often
	MMRE	115	20	16.51	Often

The results of the one-way MANOVA test analyzing the difference between the CLEQ scores of primary school teachers according to their gender are presented in Table 4. As shown here, there is no significant difference between CLEQ scores (all seven sub-themes) of primary school teachers according to their gender [Wilks's Lambda (λ)=0.960, F(7, 107)=0.637, p=0.724, η2=0.040].

Table 4.

The Results of One-way MANOVA Test through Differences between CLEQ Scores of Primary School Teachers according to Their Gender

Effect	Wilks's Lambda	F	Hypothesis df	Error df	P	Partial Eta Squared
Gender	0.960	0.637	7	107	0.724	0.040

The results of the one-way MANOVA analysis for seven sub-theme scores in the CLEQ of primary school teachers according to their gender are presented in Table 5. As shown here, there is no significant difference between the seven sub-themes scores in the CLEQ of primary school teachers according to their gender. According to these results, gender had no effect on the constructivist nature of the primary school.

Table 5.

A One-way MANOVA Analysis for 7 Sub-Themes Scores in CLEQ of Primary School Teachers according to Their Gender

7 sub-themes	Gender	N	Mean	SD	F	P	Effect size
ADD	Female	59	19.13	3.15	.933	.336	.008
	Male	56	19.69	3.06			
CCD	Female	59	7.05	2.92	.688	.409	.006
	Male	56	7.51	3.11			
SIO	Female	59	15.72	2.61	.464	.497	.004
	Male	56	16.05	2.48			
MRTS	Female	59	12.23	1.79	.625	.431	.005
	Male	56	12.50	1.76			
MRCI	Female	59	23.10	3.58	.108	.744	.001
	Male	56	23.33	4.17			
MLN	Female	59	19.01	3.42	.273	.603	.002
	Male	56	19.35	3.55			
MMRE	Female	59	16.59	2.34	.193	.661	.002
	Male	56	16.39	2.53			
Total	Female	59	112.86	13.70	.513	.475	.005
	Male	56	114.85	16.09			

*p<0.05

The results of the one-way MANOVA test examining differences between the CLEQ scores of primary school teachers according to their seniority are presented in Table 6. As shown here, there is a significant difference between the CLEQ scores of primary school teachers according to their seniority [Wilks Lambda (ʌ)=0.647, F(28, 376)=1.725, p=0.014, η2=0.103].

Table 6.

The Results of One-way MANOVA Test Examining the differences between CLEQ Scores of Primary School Teachers according to Their Seniority

Effect	Wilks's Lambda	F	Hypothesis df	Error df	P	Partial Eta Squared
Seniority	0.647	1.725	28.000	376.400	0.014*	0.103

*p<0.05

A one-way MANOVA analysis for the seven sub-theme scores in the CLEQ of primary school teachers according to their seniority is presented in Table 7. In terms of seniority, significant differences in SIO scores were in favor of 0-5 year-teachers compared to 21 or more years, and significant differences in MRTS scores were in favor of 0-5 year-teachers compared to 21 or more years. In terms of seniority, significant differences in MMRE scores were in favor of 0-5 year-teachers compared to 21 or more years, and in favor of 6-10 year-teachers compared to 21 or more years.

Table 7.

A One-way MANOVA Analysis for 7 Sub-Themes Scores in CLEQ of Primary School Teachers according to Their Seniority

7 sub-themes	Seniority (years)	N	Mean	SD	F	P	Partial eta squared	Difference
ADD	0-5	17	20.94	3.23	1.531	0.198	0.053	-
	6-10	18	19.55	2.77				
	11-15	21	19.42	3.58				
	16-20	25	19.20	2.34				
	21+	34	18.70	3.29				
CCD	0-5	17	7.76	3.25	0.682	0.606	0.024	-
	6-10	18	7.72	2.82				
	11-15	21	7.76	3.26				
	16-20	25	6.96	2.87				
	21+	34	6.73	2.97				
SIO	0-5	17	17.47	1.84	4.001	0.005*	0.127	(0-5) -(21+)
	6-10	18	16.61	2.30				
	11-15	21	15.33	2.79				
	16-20	25	16.12	2.08				
	21+	34	14.88	2.70				
MRTS	0-5	17	13.11	1.76	2.939	0.024*	0.097	(0-5) -(21+)
	6-10	18	13.00	1.64				
	11-15	21	11.76	1.86				
	16-20	25	12.60	1.22				
	21+	34	11.85	1.94				
MRCI	0-5	17	25.41	4.03	1.829	0.128	0.062	-
	6-10	18	23.50	3.88				
	11-15	21	22.57	4.05				
	16-20	25	22.80	3.14				
	21 +	34	22.67	3.95				
MLN	0-5	17	20.76	3.80	2.187	0.075	0.074	-
	6-10	18	18.94	4.03				
	11-15	21	20.23	3.25				
	16-20	25	18.56	2.31				
	21+	34	18.32	3.61				
MMRE	0-5	17	17.41	2.15	2.553	0.043*	0.085	(0-5) -(21+) (6-10)-(21+)
	6-10	18	17.55	2.12				
	11-15	21	16.23	2.79				
	16-20	25	16.40	1.77				
	21+	34	15.70	2.66				
Total	0-5	17	122.88	15.57	2.933	0.024*	0.096	(0-5)-(21+)
	6-10	18	116.88	14.44				
	11-15	21	113.33	15.91				
	16-20	25	112.64	9.45				
	21+	34	108.88	15.74				

*p<0.05

The results of the one-way MANOVA test determined differences between the CLEQ scores of primary school teachers according to their educational level. As shown in Table 8, there is a significant difference between CLEQ scores of primary

school teachers according to their educational level [Wilks Lambda (ʌ)=0.796, F(14, 212)=1.829, p=0.036, η2=0.108].

Table 8.

The Results of One-way MANOVA Test through Difference between CLEQ Scores of Primary School Teachers according to Their Educational Level.

Effect	Wilks's Lambda	F	Hypothesis df	Error df	P	Partial Eta Squared
Educational level	0.796	1.829	14.000	212.000	0.036*	0.108

*p<0.05

A one-way MANOVA analysis for seven sub-themes scores in the CLEQ of primary school teachers according to their educational level is presented in Table 9.

Table 9.

A One-Way MANOVA Analysis for 7 Sub-Themes Scores in CLEQ of Primary School Teachers According to Their Educational Level

7 sub-themes	Education level	n	Mean	SD	F	P	Effect size	Differen.
ADD	FBS	18	18.27	2.78	3.225	0.043*	0.054	G-FBS
	BS	85	19.40	3.07				
	G	12	21.16	3.24				
CCD	FBS	18	7.16	2.79	0.299	0.742	0.005	-
	BS	85	7.21	3.06				
	G	12	7.91	3.11				
SIO	FBS	18	14.50	2.93	6.428	0.002*	0.103	BS-FBS
	BS	85	15.91	2.37				G-FBS
	G	12	17.75	2.00				G-BS
MRTS	FBS	18	11.94	1.66	3.126	0.048*	0.053	G-FBS
	BS	85	12.29	1.77				G-BS
	G	12	13.50	1.67				
MRCI	FBS	18	21.38	4.07	8.892	0.000*	0.137	G-FBS
	BS	85	23.07	3.59				G-BS
	G	12	27.00	3.07				
MLN	FBS	18	17.38	3.88	7.283	0.001*	0.115	G-FBS
	BS	85	19.15	3.17				G-BS
	G	12	22.08	3.28				
MMRE	FBS	18	15.16	2.64	5.401	0.006*	0.088	G-FBS
	BS	85	16.56	2.28				G-BS
	G	12	18.00	2.33				
Total	FBS	18	105.83	15.83	8.622	0.000*	0.133	BS-FBS
	BS	85	113.61	13.82				G-FBS
	G	12	127.41	11.97				G-BS

*p<0.05

In terms of educational level, ADD scores were significantly higher for those who had attended graduate school than those who had fulfilled their Bachelor of Science. The SIO scores were significantly higher for those who had attended graduate school than for those with a Bachelor of Science of fulfillment of Bachelor of Science, just as those with a Bachelor of Science scored significantly higher than those with a

fulfillment of Bachelor of Science educational level. The MRTS, MRCI, MLN, and MMRE scores were significantly higher for those who had attended graduate school than for those with a Bachelor of Science or fulfillment of Bachelor of Science educational level.

The study had a total of 115 participants, but only 100 of them drew themselves as a primary school teacher. Drawings were analyzed qualitatively. The results of the DACTT-C of primary school teachers according to instructional style are presented in Table 10.

Table 10.

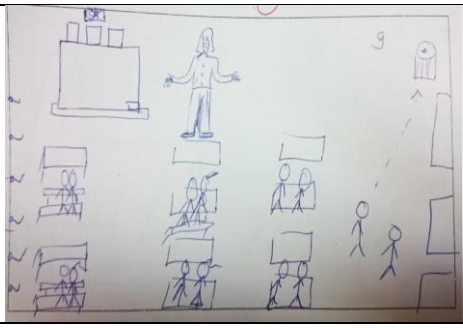
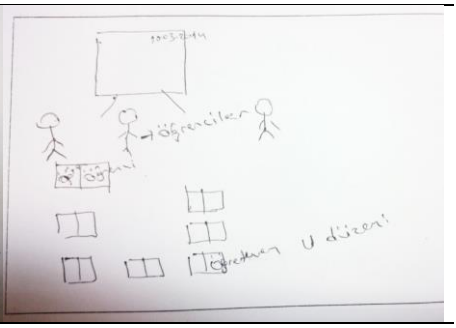
The Results of DACTT-C of Primary School Teachers

	Primary School Teachers	
Instructional style	Frequency	Percent (%)
Student-centered	8	8
Both (teacher and student)	56	56
Teacher-centered	36	36
Total	100	100

According to Table 10, only eight teachers showed characteristics of student-centered teaching, which is one of the requirements of the constructivist approach. Interpreting "student-centered" and "both" style drawings results together accounted for 64% of the drawings. This shows that there is a tendency in teachers to be more student-centered, but also that there is a resistant group composed of 36% of all teachers, which favors teacher-centered education. Samples of both student- and teacher-centered drawings of primary school teachers are presented in Table 11.

Table 11.

Samples of Student Centered and Teacher Centered Drawings

Teacher centered drawing	Student centered drawing
	

Eight teachers drew student-centered drawings and two of them were male and six were female. All of them had a bachelor degree (B.S.), but their seniority varied (0-5: four teachers; 16-20: three teachers; 21+: one teacher).

Discussion and Conclusion

There is a trend for teachers to use more constructivist principles and learning environments in primary school. Nevertheless, there is a resistant group of teachers who are more likely to use what they experienced in own educational background (Elmas et al., 2014). This group of teachers has some similar characteristics.

Similar to other studies, the current study showed that teacher gender is not a factor in determining the constructivist characteristics of the primary school teacher (Fidan & Duman, 2014; Turan & Erden, 2010; Aygoren & Saracaloglu, 2015; Aybek & Aglagul, 2011). Uredi (2014) collected data with the same survey from 504 primary school teachers in Mersin, Turkey and gender was not a significant factor in that research. Ozenc and Dogan (2007) surveyed 281 primary school teachers in Istanbul, Turkey, about their competency in constructivist learning and they also found no difference in gender. Teachers received similar educational experiences in pre-service and in-service training, and because of this, they had similar responses to the questionnaire without showing a gender effect. However, another study found male teachers to be more constructivists in some dimensions of CLES (Koc, 2013), though this study could not explain why males were more constructivist.

In the literature, there are a variety of results regarding the seniority of teachers and constructivist learning environments. Cetin, Kaya, and Geban (2014) reported that experienced teachers had a more limited understanding of constructivism. Furthermore, relatively inexperienced teachers had the most compatible view about constructivism, similar to the results in the present study. However Ozenc and Dogan (2012) found that primary school teachers who had 21 or more years of professional experience considered themselves to be more competent in the constructivist approach than their colleagues with fewer years of experience. Similar results were reported that linked seniority to increased constructivism (Aygoren & Saracaloglu, 2015; Unal & Akpinar, 2006; Turan & Erden, 2010; Ozenc & Dogan, 2007; Uredi, 2014) but social desirability might be a factor in these results. The reason that senior teachers are more constructivists can be related to their workplace. In Turkey, senior teachers are mostly in schools near the city center while novice teachers are typically placed in rural areas. In addition to these results, two studies reported that seniority is not a significant factor for determining the constructivist characteristics of the instruction (Fidan & Duman, 2014; Koc, 2013).

Three of the eight student-centered drawings belonged to teachers with a master's degree and five of the eight drawings belonged to teachers with a bachelor degree. Teachers who had a graduate degree were more open to using constructivist characteristics in teaching and learning. Ozenc and Dogan (2012) found that primary school teachers undertaking graduate studies perceived themselves as more competent in using the constructivist approach than other teachers. Graduate courses probably empower teachers to be more constructivist in their instruction. In addition, working with faculty and performing research in the field gives them more confidence and sufficiency later in primary school.

According to the results of the drawings, primary school teachers are starting to adopt constructivist principles (64% student-centered and both). It is interesting to note that only eight (8%) primary school teachers fully reflect the constructivist

principles in their instruction. The more senior the teacher, the less student-centered the drawing, according to our limited results (in four out of eight drawings, the teacher had 0-5 years experience). A similar study performed with 66 pre-service chemistry teachers found that 37.9% of drawings were student-centered and 39.4% reflected both student-centered and teacher-centered approaches, accounting for almost 80% of pre-service chemistry teachers. In addition to these results, female pre-service chemistry teachers were more willing to use student-centered approaches than male pre-service chemistry teachers. In this study, only two out of eight teachers were male primary school teachers and produced a student-centered drawing. Unal and Akpinar (2006) observed 19 teachers in their classes and reported that almost 20% of science teachers were in a transitional period, while the other 80% of science teachers presented teacher-centered instruction. Turkish teachers are mostly in a transition process from teacher-centered instruction to student-centered instruction.

Based on these results, the Ministry of National Education should promote collaboration between senior and novice teachers. Primary school teachers should be supported with pre-service and in-service training programs during the transition process of teacher-centered teaching to a student-centered teaching style. For further research, primary school teachers' perceptions about constructivist learning environments should be observed in the primary school environment. The research can also be repeated by involving student opinions about constructivist learning environments.

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Yapılandırmacı Öğrenme Ortamlarını Destekleyen Öğretmen Özelliklerinin Belirlenmesi

Atıf:

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Özet

Problem durumu: Dünyada birçok ülkede devam eden eğitim reformu uygulamalarının olduğu görülmektedir. Yeni eğitim reformların geliştirilmesi eğitimin kalitesini artırmak adına son derece önemlidir. Geliştirilen her bir eğitim reformu ise, eğitim-öğretim ortamında önemli bir görev üstlenen öğretmenleri yakından ilgilendirmektedir. Özellikle yeni gelişmeleri yakından takip edebilen ve sınıflarında uygulayabilen öğretmenlere ihtiyaç vardır. Bu nedenle, öğretmenlerin öğrenme çevrelerindeki öğretim yaklaşımlarını etkileyen değişkenlerin araştırılması, yeni eğilimlere yönelik tepkilerini belirlemek açısından son derece önemlidir. Öğretmenlerin öğrenme ve öğretme özellikleri, yeni reformların başarılı olmasında etkilidir. Yapılandırmacı öğrenme son yıllarda en çok vurgulanan yaklaşımlardan biridir. Yapılandırmacı öğrenmenin etkili olabilmesi için sınıf ortamlarının yapılandırmacı ortamı destekleyecek biçimde düzenlenmiş olması gerekmektedir. Bu bağlamda öğretmenlerin yapılandırmacı öğrenme ortamlarını hangi düzeyde sınıflarına yansıttıklarının belirlenmesi önem taşımaktadır. Yapılandırmacı öğrenme ortamlarının yedi temel özelliğinden söz edilebilir. Bu yedi özellik: bilgiyi kullanarak deneyim kazanma, çoklu bakış açısına sahip olma, gerçekçi içerikler kullanma, özgür biçimde kendini ifade etme, farklı biçimlerde kendini ifade etme, sosyal etkileşim ve öğrenme biçiminin fakında olma şeklindedir. Yapılandırmacı öğrenmede tüm bu özellikler önemli rol oynamaktadır. Yapılandırmacı öğrenme ortamları anlamlı öğrenmeyi, eleştirel düşünme becerilerini ve sosyal becerileri kazanmayı desteklemektedir. Öğrenme ortamlarında öğretmenlerin ne tür yaklaşımları önemsediklerinin belirlenmesi yeni yaklaşımlara ilişkin alacakları sorumluluklara ilişkin profillerinin belirlenmesi açısından önemlidir. Öğretmenlerin öğrenme ve öğretme özellikleri yeni reformlardaki başarı düzeylerinin belirleyicisidir. Bunun yanı sıra yapılandırmacı öğrenme ortamlarını hangi düzeyde kullandıklarının belirlenmesi öğretmenler açısından da dönüt sağlanması bakımından önemlidir. Öğretmenlerin yapılandırmacılık ilkelerini kabul ya da reddetme durumlarına dayalı olarak sınıf öğretmenlerinin yapılandırmacı öğrenme ortamlarına ilişkin görüşlerinin nitel ve nicel veri toplama yöntemlerinden yararlanılarak belirlenmesi bu araştırmanın temelini oluşturmaktadır. Buradan hareketle çalışmada öğretmenlerin yapılandırmacı pedagoji kullanımlarının belirlenmesi ve öğretmenlere yapılandırmacı öğrenme ve öğretme ortamları hakkında geri dönütler verilmesi amaçlanmıştır.

Araştırmanın Amacı: Bu çalışmanın amacı, sınıf öğretmenlerinin yapılandırmacı öğrenme ortamı uygulamalarına yönelik özelliklerini belirlemektir.

Araştırmanın Yöntemi: Çalışmadaki veriler, "Yapılandırmacı Öğrenme Çevresi Ölçeği (Constructivist Learning Environment Questionnaire-CLEQ) ve "Sınıf Öğretmeni Çizim Testi (Draw a Primary school Teacher Test Checklist-DACTT-C)" yoluyla toplanmıştır. "Sınıf Öğretmeni Çizim Testi (Draw a Primary school Teacher Test Checklist-DACTT-C)" ise, "Fen Öğretmeni Çizim Testinin (Draw a Science Teacher Test Checklist-DASTT-C) sınıf öğretmenlerine uyarlanmış biçimidir. Bu çalışma sınıf öğretmenlerinin yapılandırmacı öğrenme ortamlarını kullanmadaki isteklerini belirlemek amacıyla gerçekleştirilmiş nicel ağırlıklı bir çalışma olup elde edilen bulgular sınıf öğretmenlerinin kendi sınıflarında kullandıkları öğrenme ortamlarını resmettikleri çizimlerden elde edilen nitel verilerle desteklenmiştir. Çalışma örneklemi, Afyon ili şehir merkezinde görev yapan 115 sınıf öğretmeni oluşturmaktadır. Çalışmada uygun örnekleme yöntemi kullanılmıştır. Araştırmadan elde edilen nicel verilerin analizinde kullanılan ölçeğin boyutları arasındaki ilişkilerin belirlenmesi amacıyla çok değişkenli varyans analizi (MANOVA) kullanılmıştır. Çok değişkenli varyans analizi (MANOVA) yapılmadan önce verilerin dağılımının normal dağılıma uygun olup olmadığının belirlenmesi amacıyla normallik testleri gerçekleştirilmiş olup verilerin normal dağılıma sahip olduğu belirlenmiştir.

Araştırmanın Bulguları: Çalışma sonuçları, sınıf öğretmenlerin cinsiyetlerinin yapılandırmacı sınıf özelliklerini belirlemede önemli bir faktör olmadığını göstermiştir. Ayrıca çalışma sonuçlarına göre daha az kıdeme sahip öğretmenlerin sınıflarında yapılandırmacı ilkeleri kullanmaya daha istekli oldukları belirlenmiştir. Bu sonuçlara ek olarak sınıf öğretmenlerinin yapılandırmacı öğrenme ortamına yönelik çizimler yapmaları istenmiş ve çizimler nitel olarak analiz edilmiştir. Öğretmenlerin yapılandırmacı öğrenme ortamına yönelik 15 adet çizimi ise, eksik ya da boş bırakılmasından dolayı değerlendirilmemiştir. Sonuç olarak, sadece 100 çizim değerlendirmeye alınmıştır. Öğretmen çizimlerinden sadece % 8'inin öğrenci merkezli öğretime yönelik olduğu görülmüştür. Öğretmen çizimlerinin % 56'sının ise hem öğretmen hem de öğrenci merkezli öğretime yönelik olduğu belirlenmiştir. Ayrıca öğretmen çizimlerinin % 36'sının öğretmen merkezli öğretime yönelik özellikleri yansıttığı sonucuna ulaşılmıştır. Öğrenci merkezli çizimler cinsiyet açısından ele alındığında çizimlerin ikisinin erkek öğretmelere altısının ise kadın öğretmenlere ait olduğu saptanmıştır. Ayrıca öğrenci merkezli çizimlerden üçünün yüksek lisans mezunu öğretmenlere ait olduğu beşinin ise 4 yıllık üniversite mezunu öğretmenlere ait olduğu sonucuna ulaşılmıştır. Lisans tamamlama düzeyindeki sınıf öğretmenlerinin ise sınıf ortamına ilişkin olarak çizimlerinin öğretmen merkezli olduğu belirlenmiştir.

Araştırmanın Sonuçları ve Önerileri: Yüksek lisans mezunları ve lisans mezunu öğretmenlerin, ön-lisans mezunu öğretmenlere göre öğrenme ve öğretme ortamında yapılandırmacı özellik göstermeye daha eğilimli oldukları görülmüştür. Ayrıca kadın ve daha az kıdem sahip sınıf öğretmenlerin öğrenci merkezli öğretim özelliği gösterme eğilimlerinin daha yüksek olduğu görülmüştür. Türkiye'de görev yapmakta olan sınıf öğretmenlerinin çoğunun, öğretmen merkezli öğretimden öğrenci merkezli öğretime geçiş aşamasında oldukları sonucuna ulaşılmıştır. Türkiye'de yapılandırmacı öğrenme yaklaşımına dayalı öğretim programlarının 2004 yılından bu yana uygulanmasına karşın elde edilen bu sonuç yapılandırmacı öğrenme ortamına geçişin yavaş olduğunun bir göstergesi olarak yorumlanabilir.

Türk milli eğitimi özellikle kıdemli öğretmenlerle daha az kıdeme sahip öğretmenler arasında işbirliğini artırmalıdır. Ayrıca, özellikle kıdemli öğretmenlere yapılandırmacı öğrenme ortamının uygulanması konusunda hizmet içi eğitim olanağı sağlanması önerilebilir. Öğretmenlerin yapılandırmacı öğrenme ortamına katkı sağlayacak lisansüstü eğitim almalarına olanak sağlanabilir. Bu konuyla ilgili gelecekte yapılacak çalışmalar ise, öğretmenlerin bizzat sınıf ortamında yapılandırmacı öğrenme ortamını uygulamalarını gözleyecek şekilde tasarlanabilir. Böylece tasarlanacak çalışma, daha derinlemesine gerçekleştirilmiş olacaktır.

Anahtar Sözcükler: yapılandırmacı öğrenme ortamı, sınıf öğretmenleri, öğretmen karakteristikleri, sınıf öğretmeni çizim testi, sınıf çizimleri.