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Examination of Pre-Service Primary School Teachers' Levels of Cultural Capital by CHAID Analysis

Sınıf Öğretmeni Adaylarının Kültürel Sermaye Düzeylerinin CHAID Analizi ile İncelenmesi

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ABSTRACT: The purpose of the study is to determine the cultural capital levels of pre-service primary school teachers; to examine the variables affecting their cultural capital levels and the level of influence of these variables. The study group of research, in which relational research model was used, consists of 449 pre-service primary school teachers. Cultural Capital Scale were used as data collection tools and CHAID analysis was used for data analysis. According to the results obtained, it was determined that the cultural capital competencies of the pre-service primary school teachers were at "high" level; the most important variable predicting the cultural capital competency levels was "the place where life was spent until university education"; the most important variable predicting the cultural capital competency levels of the pre-service primary school teachers who spent their life in the province and district until university education was "the number of siblings"; the most important variable predicting the cultural capital levels of the pre-service primary school teachers who had no siblings, 1, 2, 3 and 4 siblings was "mother's education level".

Keywords: CHAID analysis, cultural capital, habitus.

ÖZ: Araştırmanın amacı sınıf öğretmeni adaylarının kültürel sermaye düzeylerini belirlemek; kültürel sermaye düzeylerini etkileyen değişkenleri ve bu değişkenlerin etki düzeylerini incelemektir. İlişkisel araştırma modelinin kullanıldığı araştırmanın çalışma grubunu 449 sınıf öğretmeni adayı oluşturmaktadır. Veri toplama aracı olarak Kültürel Sermaye Ölçeği, verilerin analizinde ise CHAID analizi kullanılmıştır. Elde edilen sonuçlara göre sınıf öğretmeni adaylarının kültürel sermaye yeterliklerinin "yüksek" düzeyde olduğu; kültürel sermaye yeterlilik düzeylerini yordayan en önemli değişkenin "üniversite eğitimine kadar yaşamın geçtiği yer" olduğu tespit edilmiştir. Ayrıca üniversite eğitimine kadar yaşamlarını il ve ilçede geçiren sınıf öğretmeni adaylarının kültürel sermaye yeterlik düzeylerini yordayan en önemli değişkenin "kardeş sayısı" olduğu; hiç kardeşi olmayan, 1,2,3 ve 4 kardeşi olan sınıf öğretmeni adaylarının kültürel sermaye düzeylerini yordayan en önemli değişken ise "anne eğitim düzeyi" olduğu belirlenmiştir.

Anahtar kelimeler: CHAID analizi, kültürel sermaye, habitus.

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The concept of cultural capital, which is formed by cultural commodities and accumulations, creates a sociocultural sphere of influence and can be an important determinant that positions the individual within the social structure on the one hand, and a feeder of social hierarchy on the other. The concept of cultural capital, which is defined as the stock of cultural values embodied in an entity (Throsby, 1999), is defined as high cultural signals (attitudes, preferences, formal knowledge, behaviors, goods and credentials) of high status (Lamont & Lareau, 1988). Cultural capital, which is explained as the "competence" in the attitudes, habits and actions of a society's culture, which is considered as "high status" (Katsillis & Rubinson, 1990), generally underlines the importance of socialization in high-level activities such as interest in art, classical music and literature, theater and museum (De Graaf, De Graaf & Kraaykamp, 2000). In the study conducted by Kim and Kim (2009), cultural capital was defined as eight types of art or cultural experiences including literary events, paintings/exhibitions, classical music concerts or opera, drama, dance performances, movies, other music concerts or entertainment. Cultural capital is highly valued as the experience and knowledge associated with fields such as art, design, theater and music (Strickfaden & Heylighen, 2010). According to Bourdieu (2011), cultural capital can be acquired in varying proportions depending on society, time and social class, without any deliberate teaching and therefore without being aware of it.

According to Bourdieu (2011), cultural capital exists in three forms: In the embodied state, in the form of long-term dispositions of the mind and body (cognitive and aesthetic predispositions); in the objectified state, in the form of cultural products (pictures, paintings, books, dictionaries, tools, collections, machines, etc.) that are formed by the realization of theories or their critiques, problematics, etc.; and finally, in the institutionalized state, in the form of academic qualifications (school diplomas, titles, awards), which endow the cultural capital it is supposed to guarantee with wholly original characteristics. Institutionalized capital is in a way the expression of embodied capital in the form of academic credentials (Throsby, 1999). Based on Bourdieu's observation, it can be said that cultural capital can occur without any deliberate teaching and can be acquired at varying rates depending on society, time and social class (Bourdieu, 2011). Moreover, cultural capital also includes untaught knowledge (McDonough & Abrica, 2021, p.10).

In its broadest sense, “cultural capital” draws attention to the cultural characteristics of the ruling class that are “rewarded” in areas such as education (Davies and Rizk, 2018; Katsillis and Rubinson, 1990). (Davies & Rizk, 2018; Katsillis & Rubinson, 1990). Cultural capital is a phenomenon that can be transformed into social, cultural and material resources, which can be used as valuable attitudes, values and beliefs, and expresses generational superiority (McDonough & Nuñez, 2007). In other words, the concept of cultural capital emphasizes the functionality of cultural differences in terms of class and schools as a social institution in rewarding cultures in different ways (Smrekar, 1996). Moreover, the cultural capital that is valued in mainstream institutions is the set of values belonging to the dominant class (Purcell, 2007). According to McDonough (1997), cultural capital is characterized as knowledge that is valued by "elites" but not offered in schools. This paves the way for educational stratification as it brings with it cultural competencies that are valued by elites - the dominant classes-. Educational stratification itself and its long-term outcomes also feed,

sustain and reinforce social and economic stratification. Cultural capital is important not only for educational purposes but also because it enhances the understanding of the process of maintaining social stratification and reproducing social hierarchies (Katsillis & Rubinson, 1990; Lamont & Lareau, 1988). For instance, according to Anheier, Gerhards and Romo (1995), the dominance of cultural capital tends to lead to highly disparate and hierarchical social structures. In this respect, “cultural capital”, which is one of the most multi-component and controversial concepts, needs to be dealt with comprehensively. In this study, firstly Bourdieu and the cultural capital, then concept of habitus, finally the variables affecting the level of cultural capital are discussed in the theoretical educational context.

Cultural Capital and Habitus According to Bourdieu

The concept of cultural capital, introduced by Bourdieu (1977) and further expanded by DiMaggio (1982), attempts to explain how social inequality is reproduced through social structures such as schools. Cultural capital, which is characterized as a "key" concept in social sciences, has been theoretically addressed in terms of the reproduction of social structure put forward by Bourdieu (Galkowski & Kotarski, 2015). With the concept of reproduction of social structure, Bourdieu focuses on the different socialization processes of people belonging to different social classes (Tramonte & Willms, 2010). The concept of cultural capital was developed with the aim of revealing the relationship between social elements and actions along with the effects of culture on the class system (Lamont & Lareau, 1988).

According to Bourdieu, cultural capital includes familiarity with the dominant culture and the ability to comprehend and use educated language (Sullivan, 2002). Moreover, according to Bourdieu, school culture, which is the product of the dominant culture, tends to be similar to the dominant culture in society (Blackledge, 2001). In this context, according to Bourdieu, schools are primarily responsible for confirming and reproducing the social legitimacy of the objects, symbols and habits of the dominant culture in terms of class (Smrekar, 1996). In addition, schools are seen as the main means of maintaining and reproducing the continuity of socially hierarchical structures (Kinney, 2018). In this respect, Bourdieu's concept of cultural capital assumes a key function in analyzing how social structures acquire status and the processes of domination and exclusion (Prieur & Savage, 2013). Different cultural values and resources possessed by different classes in societies can act as a locomotive in the reproduction process of social structures by bringing about different socialization and status attainment processes.

According to Bourdieu, the school benefits unequally from the cultural and social resources of society (Blackledge, 2001). Although the possession of cultural capital varies across social classes, the education system assumes that cultural capital is possessed. This reduces the likelihood of success for students from lower social classes (Sullivan, 2002). In this context, one of the views put forward by Bourdieu within the scope of educational inequalities is that students with more valuable (high) social and cultural capital are more successful than their peers compared to students with less valuable (middle/lower) social and cultural capital (Lareau & Horvat, 1999). According to Bourdieu, students belonging to the dominant class, compared to students belonging to the lower class, enter an "already" good educational system prepared for them. For

these students, there is no separation between home culture and school culture; they share a common style of speech, social interaction and aesthetics with their teachers. On the contrary, for students from working class/village backgrounds, school becomes an unfamiliar place, separated from their families and their own sociocultural life, where they will experience problems of adaptation, and this makes it difficult to achieve higher levels of educational attainment (Goldthorpe, 2007). Success is facilitated by belonging to the upper class and having the cultural capital brought by the upper class, while failure becomes inevitable for lower class students because they lack these (Sullivan, 2002). In other words, the cultural experiences at home of students who belong to the dominant class and come from a high social position are already in line with what the school wants to provide; students are familiar with these processes and this can facilitate the child's adaptation to school and transform these cultural resources into cultural capital (Blackledge, 2001). Therefore, from this perspective, those with high social and cultural capital are faced with a more continuous, comfortable and flexible transition process in their education processes, while those with medium-low social and cultural capital are faced with various interruptions and sharp transitions.

Another concept that should be focused on the reproduction of social inequality is what Bourdieu refers to as "habitus". Habitus is a concept that Bourdieu employs to refer to the deep-rooted, assimilated, permanent of experiences, opinions and beliefs about social life that a person gains through his/her immediate environment (McDonough, 1997). Habitus is an individual's disposition towards life, largely depending on his/her class position (Dumais, 2006). According to Bourdieu, the habitus that children of the dominant class acquire at home is "insured" in the school process. Schools rarely offer the chance to deeply correct or reshape other types of habitus that children from different classes may bring (Goldthorpe, 2007). In other words, the habitus formed by individuals can play a functional role in the reconstruction of social inequalities as a tendency built together with the family, social environment and schools.

Variables Affecting Cultural Capital

Bourdieu's signature concept of cultural capital (Kim & Kim, 2009; Lareau & Weininger, 2003), which has gained widespread popularity, has been highly influential in terms of reproduction theory; however, although there is no general consensus on it, there has been much theoretical and empirical research on its definitions that have changed in recent years (Davies & Rizk, 2018; Sullivan, 2002). According to Dumais and Ward (2010), quantitative research on the educational outcomes of cultural capital in different countries has operationalized cultural capital differently as participation in the metaculture rewarded by the school system and broader stratification, while qualitative research has operationalized it differently as the ability to navigate social capital. Cultural capital is an abstract form of capital. It is a capital that refers to the ability to gain status in society by using certain skills or behaviors and includes gender, ethnicity, language, religion, class, age, physical abilities. As Bourdieu (2013, p.73) points out, cultural capital includes elements of social origin such as family structure, education level and occupations of parents, characteristics of the region of residence and gender, as well as cultural codes acquired through education and professional experiences, and the manners, awareness, emulation, beliefs, visions, verbal skills,

aesthetic preferences built on all these. In this context, it is seen that many studies have been conducted on variables affecting cultural capital such as gender, socioeconomic level, family, geographical region of residence.

Mohr and DiMaggio (1995) stated that gender has more influence on having cultural capital than any other family variable. However, there has not been a consensus on this issue in the studies on the concept of cultural capital. For instance, according to Robinson and Garnier (1985), although men and women start their lives with similar class positions and cultural capital, women progress in such a way that they acquire less privileged positions than men through the process of social reproduction. Dumais (2002) stated that traditional gender stereotypes lead to a lack of cultural participation for male students, while girls are more likely to use their cultural capital to be more successful and are more likely to participate in cultural activities. According to DiMaggio (1982), male students showed a low level of interest in cultural activities compared to female students. Bourdieu (1984) stated that cultural capital is important for women as they play important roles in transmitting cultural capital to their children. Similarly, according to Silva (2005), the role of women as mothers and homemakers in the acquisition of cultural capital is very important. In the context of cultural capital, studies showing that women have higher levels of cultural competence than men (Ergüven Akbulut, 2019; Avcı, 2015; Tösten, Avcı & Şahin, 2017; Uslu, 2022); there are also various studies (Bucak, 2019; Gökalp, 2018; Purcell, 2007) that reveal that men have higher levels of cultural capital than women. However, there are also studies showing that there is no significant difference between the cultural capital levels of men and women (Alaca, 2022; Aydın, 2020; Erdoğan, 2019; Etiz & Çoğaltay, 2019; Güleç, 2019; Sullivan, 2001; Toprakçı, 2021).

In particular, the determination and continuity of families in the process of transmitting their cultural capital is likely to affect the cultural capital that individuals will acquire throughout their lives. Moreover, as Goldthorpe (2007, p.7) puts it, "families will remain an essentially conservative force for creating continuity rather than diversity in social positions across generations". Parallel to the educational level of parents, students' access to education and thus to cultural capital increases (Oral & Mcgivney, 2014) and the educational level of the family positively affects the perception of cultural capital (Galkowski & Kotarski, 2015). Kraaykamp and Van Eijck (2010) emphasized that parents' high level of cultural participation and increase in the level of education will increase the institutionalized cultural capital of individuals. The habitus that children acquire during the process they spend in the family is seen as an important factor in having different levels of cultural capital (Yanıklar, 2010). There are various studies (Ergüven Akbulut, 2019; Avcı, 2015; Bucak, 2019; Erdoğan, 2019; Gökalp, 2018; Güleç, 2019; Özcan & Erdur-Baker, 2009) that reveal that individuals' cultural capital levels show significant differences according to their mother's education level. However, when the father's education level is taken into consideration, it was observed that there were significant differences in the cultural capital competence (CCC) levels of the participants in the studies conducted by Avcı (2015), Bucak (2019) and Gökalp (2018); on the other hand, there was no significant difference in the study conducted by Ergüven Akbulut (2019). In this context, Sheng (2012) states that the transfer of cultural capital is gender-based and that mothers have a different and more direct relationship with cultural capital production than fathers.

There are also studies showing that the number of siblings in the family can also have an effect on cultural capital. Studies conducted by Avcı (2015), Ergüven Akbulut (2019) and Gökalp (2018) have also concluded that individuals with more siblings have lower levels of cultural capital. In this context, it has been stated that the more material and spiritual opportunities families provide to their few children have a positive effect on their cultural capital adequacy level (Güleç, 2019). In addition, the study conducted by Özgan and Karataşoğlu (2016) has shown that the cultural capital accumulation of teachers with a high family education level and socioeconomic level is positively affected. In addition, it has been concluded that the cultural capital of teachers with many siblings, living in underdeveloped geographical regions and being the first child of the family is negatively affected due to the characteristics of the family environment in which they are raised. On the other hand, there are also studies showing that the level of cultural capital does not create a significant difference according to the number of siblings (Aydın, 2020; Güleç, 2019; Kaplan & Çerçi, 2021). According to Kaplan and Çerçi (2021), considering that cultural capital is produced through education, it can be evaluated that this production through education reduces the impact of demographic characteristics that affect cultural capital.

In the studies conducted by taking socioeconomic level into consideration within the scope of cultural capital, a positive relationship was generally found between socioeconomic level and cultural capital, and it was determined that the higher the socioeconomic status, the higher the level of cultural capital (Andersen & Jaeger, 2015; Bourdieu, 1986; Gökalp, 2018; Katsillis & Rubinson, 1990; Koytak, 2012; Lamont & Lareau, 1988; Underwood, 2011). For example, Byun, Schofer, and Kim (2012) found that the high socioeconomic level of families had a positive effect on the objectified cultural capital of the family. Similarly, they stated that the socioeconomic level and high cultural capital of families positively affect both the cultural capital and academic achievement of children. According to Katsillis and Rubinson (1990), it was stated that the socioeconomic level of the family is determinant in the cultural capital of the student. On the other hand, there are also studies (Avcı, 2015; Aydın, 2020; Toprakçı, 2021) showing that there is no significant difference between the socioeconomic level of the family and cultural capital variables.

Cultural capital is a multidimensional concept that is evaluated within the scope of many different variables such as gender, parental education level, income, and socioeconomic environment. Cultural capital, which serves many analytical purposes and is a multifaceted concept (Kraaykamp & Van Eijck, 2010), has been the subject of numerous studies and has been at the center of the analysis of different researchers (Davies & Rizk, 2018; Lareau & Weininger, 2003). In this research, it was purposed to evaluate the CCC levels of pre-service teachers in terms of various variables. It is possible that the cultural capital of teachers (as people who students spend more time with other than their families) may affect the cultural processes of students (Ergüven Akbulut, 2019). Especially teachers who play a key role in raising students with high cultural capital and constructing cultural identity (Özgan & Karataşoğlu, 2016), the habitus that students will acquire during the time they spend with their teachers in their early school life may affect the formation of their cultural capital. Cultural capital, which is envisaged to be gained in schools, can only be achieved through teachers who have reached a certain level of cultural competence (Tösten, Avcı & Şahin, 2017).

However, little is known about teachers' own cultural capital and their appreciation of it in other individuals (Kingston, 2001). However, in terms of qualified teacher training processes, determining cultural capital levels and studies on increasing this level are also important in terms of the quality of the education system (Kaplan & Çerçi, 2021). It is also important in terms of the reflection of the cultural capital of pre-service teachers on classroom practices in the future, the possible sphere of influence it can create, and the determinants of what is "rewarded" in the classroom. Moreover, teachers' CCC are an important predictor of their professional performance (Elçiçek & Avcı, 2022). It was purposed to define the CCC levels of pre-service primary school teachers and to examine the variables affecting their CCC levels:

What is the level of CCC possessed by pre-service primary school teachers?

What are the variables predicting the CCC levels of pre-service primary school teachers?

What is the order of importance of the variables predicting pre-service primary school teachers' CCC levels?

Method

This research is a descriptive study using the relational research model. In relational research designs, researchers define and measure the relationship between two or more variables or groups of scores (Creswell, 2012). In relational research, the relationships between two or more variables are examined without any intervention to the variables (Fraenkel, Wallen & Hyun, 2012). The purpose of this study is to reveal CCC levels of pre-service teachers and to examine the variables that significantly affect these CCC levels and the impact level of these variables by using CHAID analysis, one of the decision tree algorithms. In other words, in this research, it is purposed to determine which of the independent variables (gender, the number of people in the family with a higher education, family income level, number of siblings, region of residence until university education begins) that are thought to have an effect on the CCC levels of pre-service primary school teachers and how these variables have an order of importance. In this direction, the relational research model was utilized in the study

Participants

The research group of this research consists of pre-service primary school teachers at three state universities. The participants are studying in the primary school teaching departments of three state universities located in the Central Anatolia region (1) and the Mediterranean region (2) of Turkey. While determining the study group, convenience sampling was used. The sample in question is a group of individuals who are (conveniently) available for the study (Fraenkel, Wallen & Hyun, 2012, p.99). Since CHAID analysis uses multidirectional partitions, it requires large sample sizes to work effectively, as groups responding with small sample sizes may be too small for reliable analysis (Antipov & Pokryshevskaya, 2010, p.111). Personal information of the 449 pre-service classroom teachers is as shown in Table 1:

Table 1

Personal Information of the Participants

Variable	Category	f	%
Gender	Female	283	63.0
	Male	164	36.7
Father's education level	Illiterate	19	4.2
	Primary School	199	44.3
	Middle school	59	13.1
	High School	83	18.5
	Higher Education	89	19.8
Mother's education level	Illiterate	218	48.6
	Primary School	99	22.0
	Middle school	45	10.0
	High School	57	12.7
	Higher Education	30	6.7
Number of siblings	No siblings	13	2.9
	1	87	19.4
	2	95	21.2
	3	111	24.7
	4	62	13.8
	5 and more	81	18.0
Region of residence until university education begins	Village-town	86	19.2
	District	142	31.6
	City	221	49.2
Family income status	10000 TL and less	107	23.8
	10001 TL-15000 TL	171	38.1
	15001 TL -20000 TL	80	17.8
	Over 20,001 TL	91	20.3
The number of people in the family with a higher education	1	145	32.3
	2	87	19.4
	3	52	11.6
	4	24	5.3
	5 and more	27	6.0
	0	114	25.4

As seen in Table 1, 63% (n=283) of the participants were female and 36.7% (n=164) were male. In terms of parental education level, illiteracy rate was 4.2% (n=19), primary school graduates 44.3% (n=199), middle school graduates 13.1% (n=59), high school graduates 18.5% (n=83), higher education graduates 19.8% (n=89). In terms of mother's education level, 48% (n=218) of the mothers were illiterate, 22.0% (n=99) were primary school graduates, 10.0% (n=45) were middle school graduates, 12.7% (n=57) were high school graduates, and 6.7% (n=30) were higher education graduates. Among the participating pre-service primary school teachers, the percentage of those without siblings was 2.9% (n=13), 19.4% (n=87) had one sibling, 21.2% (n=21.2%) had two siblings, 24.7% (n=111) had three siblings, 13.8% (n=62) had four siblings, and 18.0% (n=81) had five or more siblings. Of the participant pre-service primary school teachers, 19.2% (n=86) spent their lives in the village/town, 31.6% (n=142) in the district, and 49.2% (n=221) in the city until university. In terms of family income, 23.8% (n=107) had an income of 10,000 TL or less, 38.1% (n=171) had an

income of 10001 TL-15000 TL, 17.8% (n=80) had an income of 15001 TL -20000 TL, and 20.3% (n=91) had an income of over 20,001 TL. Finally, 32.3% (n=145), 19.4% (n=87), 11.6% (n=52), 5.3% (n=24), 5.3% (n=24), and 6.0% (n=27) of the respondents had higher education. 25.4% (n=114) of the participants had no family members with higher education.

Data Collection Tools

Information about this data collection tools is given below:

In the personal information form prepared by the researchers, 12 questions related to the independent variables (gender, income, region of residence until university education begins, parents' education level, number of siblings, number of people in the family with higher education) that are thought to affect cultural capital were included. Within the scope of the research, the use of both the Personal Information Form and the Cultural Capital Scale was approved by the decision of the Mersin University Social and Human Sciences Ethics Committee (07.02.2023-473), and the necessary permission for the use of the scale was obtained from the relevant researcher.

There are 30 items in total in the "Cultural Capital Scale" developed by Avcı and Yaşar (2014) and prepared in five-point Likert type. The scale consists of four sub-dimensions: intellectual knowledge (13 items), participation (7 items), cultural awareness (5 items) and cultural potential (5 items); the lowest score is 30 and the highest score is 150. The scale is graded as "Strongly disagree, disagree, undecided, agree, and strongly agree". The Cronbach Alpha consistency coefficient of the scale, which does not contain negative items, was found to be .92 in the intellectual knowledge dimension, .87 in the participation dimension, .78 in the cultural awareness dimension, .85 in the cultural potential dimension and .94 in the whole scale. Within the scope of this research, the validity and reliability study of the scale was conducted again on the data obtained from 449 participants. In this context, Cronbach Alpha consistency coefficient was calculated as .87 in the "intellectual knowledge" dimension, .87 in the "participation" dimension, .80 in the "cultural awareness" dimension, .87 in the "cultural potential" dimension and .94 in the whole scale. The fit indices obtained as a result of confirmatory factor analysis conducted by Avcı and Yaşar (2014) were $\chi^2/sd=2.59$, RMSEA= 0.079, SRMR= 0.065, GFI= 0.79, AGFI= 0.75, CFI= 0.96, IFI= 0.97, NFI= 0.94. In addition, different studies (Arastaman & Özdemir, 2019; Aydın & İflazoğlu Saban, 2021; Çankaya & Tan, 2019; Dolek, 2021; Etiz & Çoğaltay, 2021) revealed that the scale in question is valid and reliable. In this study, these values were found as $\chi^2/sd=3,685$, RMSEA= 0.077, GFI= 0.80, AGFI= 0.77, CFI= 0.83, IFI= 0.83, NFI= 0.78. In addition, "I conduct objective research on cultural issues", "I can evaluate and predict current cultural values and events based on historical knowledge", "I believe that cultural diversity is socially enriching" are sample items related to the scale.

Data Analysis

The variables predicting the cultural capital levels of pre-service teachers and the order of importance of these variables were analyzed by CHAID analysis. With CHAID analysis, which is a type of decision tree technique (Antipov & Pokryshevskaya, 2010), the data are divided into comprehensive subsets that best describe the dependent

variable and are also mutually exclusive (Kass, 1980). In other words, by considering a stepwise procedure, predictors are compared and the best one is selected. Then, the data are subdivided according to the selected predictor. Each of these subgroups is reanalyzed independently to create more subdivisions. CHAID partitions the data into mutually exclusive, comprehensive subsets that best describe the dependent variable (van Diepen & Franses, 2006).

CHAID analysis facilitates the identification of meaningful groups in terms of predictor variables by creating a tree diagram of the most important predictor variables related to the dependent variable and eliminates unnecessary predictors (Baron & Phillips, 1994). The main reason for employing CHAID analysis in this research is the various advantages of the analysis. With CHAID analysis, categorical and continuous data can be included in the model at the same time and the relationship between dependent and independent variables can be examined in more detail (Üngören & Doğan, 2010). In addition, through CHAID analysis, the order of importance of the predictor variables that have an effect on the dependent variable can be easily revealed visually and the classification process can be easily realized by using visuals (Aksu & Güzeller, 2016). In addition, by utilizing CHAID analysis, homogeneous nodes can be created within the data set with a heterogeneous structure and the resulting findings can reflect the reality in a more unbiased and qualified way (Kayri & Boysan, 2007).

Ethical Procedures

Within the scope of the research, the use of both the Personal Information Form and the Cultural Capital Scale was approved by the decision of the Mersin University Social and Human Sciences Ethics Committee (07.02.2023-473), and the necessary permission.

Results

Descriptive data on the CCC level of teachers are as shown in Table 2:

Table 2

Descriptive Statistics on the CCC Levels of Pre-Service Primary School Teachers

Sub-dimensions	N	$\bar{x}$	*S*	Level
Intellectual knowledge	449	3.91	0.52	High level
Participation	449	3.61	0.74	High level
Cultural awareness	499	3.98	0.65	High level
Cultural potential	499	3.98	0.63	High level
Total	499	3.86	0.52	High level

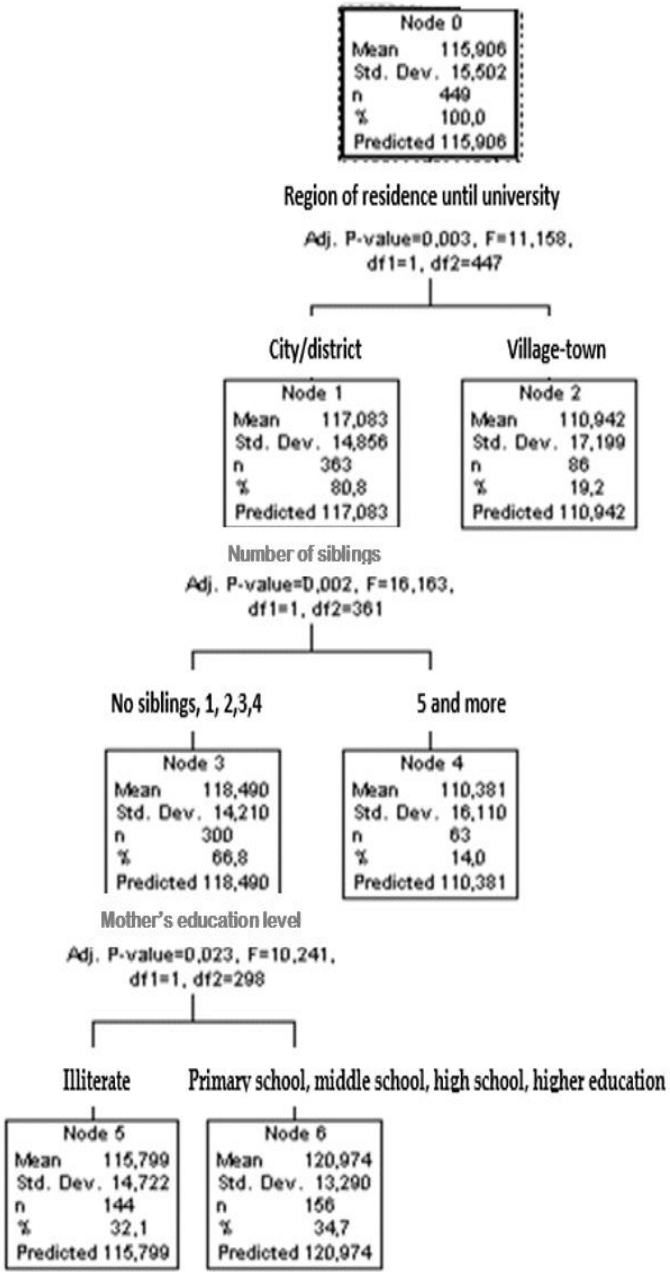
As seen in Table 2, it was determined that the pre-service primary school teachers obtained $\bar{x}$=50.83 points in the intellectual knowledge sub-dimension, $\bar{x}$=25.27 points in the participation sub-dimension, $\bar{x}$=19.91 points in the cultural awareness sub-dimension, and $\bar{x}$=19.90 points in the cultural potential sub-dimension regarding their CCC levels. The average score they obtained from the entire CCC scale was determined

as $\bar{x}$=115.906. As stated by Avcı and Yaşar (2014), in the evaluation of the CCC scale, the score range of 1.00-1.80 was evaluated as "insufficient", 1.81-2.60 as "low level", 2.61-3.40 as "medium level", 3.41-4.20 as "high level" and 3.41-4.20 as "very high level". Accordingly, it can be stated that the mean scores obtained from the sub-dimensions and the whole scale are at a high level.

In the CHAID analysis conducted to determine the variables predicting the CCC levels of pre-service primary school teachers, the total scores obtained from the CCC scale were taken as the dependent variable, and gender, parental education level, the number of people in the family with higher education, family income level, number of siblings, and the place where life was spent until university education were taken as independent variables. In this context, the findings obtained as a result of CHAID analysis are presented in Figure 1.

Figure 1

Decision Tree Model for CCC Level



As can be seen in Figure 1, the most important variable predicting the CCC levels of pre-service primary school teachers was "region of residence until university education begins ". In this context, it was determined that the CCC level of pre-service primary school teachers showed a significant difference according to the place where they lived until university education (F(2, 447)=11.158, p=0.003). Pre-service teachers who spent their lives in city and districts were gathered in one node, while pre-service classroom teachers who spent their lives in villages-towns were gathered in another node. It is seen that the CCC levels of pre-service teachers who lived in city/districts until university education ($\bar{x}$=117.083) are higher than those of pre-service classroom teachers who lived in villages-towns ($\bar{x}$=110.942).

The most important variable predicting the CCC levels of pre-service teachers who spent their lives in city/districts until their university education was the "number of siblings". In this context, CCC levels of pre-service teachers differ significantly according to the number of siblings (F (2, 361) =16.163, p=0.002). According to the CHAID analysis findings, those with 5 or more siblings were grouped in one node, while those with no siblings, 1, 2, 3 and 4 siblings were grouped in another node. Having 5 or more siblings, pre-service primary school teachers' CCC levels ($\bar{x}$=110.381) were found to be lower than those who had no siblings, 1, 2, 3 and 4 siblings ($\bar{x}$=118.490).

The most important variable predicting the CCC levels of pre-service primary school teachers with no siblings, 1, 2, 3 and 4 siblings was "mother's education level". In this context, it can be stated that the CCC levels of pre-service primary school teachers differ significantly according to the level of mother education (F(2, 298) =10.241, p=0,023). The pre-service primary school teachers whose mothers were illiterate were gathered in one node, while the pre-service primary school teachers whose mothers were graduates of primary school, middle school, high school and higher education were gathered in another node. It is seen that the CCC levels of pre-service primary school teachers whose mothers are illiterate ($\bar{x}$=115.799) are lower than those of pre-service primary school teachers whose mothers are primary school, middle school, high school and higher education graduates ($\bar{x}$=120.974).

Discussion and Conclusion

As important as economic and social capital, individuals have "cultural capital" that develops from childhood and affects their ability to progress in life in various ways. Cultural capital is the most abstract form of capital. It does not refer directly to material wealth, but to the ability to gain status in society by using certain skills or behaviors. It describes personal characteristics and activities that influence one's career prospects, identification with a particular social class, and ability to establish and maintain social relationships. It is also characterized as a kind of intellectual cultural knowledge. Cultural capital is as vital to the well-being, strength and quality of societies as it is to the lives of children and young people. This is because cultural capital is a form of capital that empowers individuals and societies (Dalziel, 2019). It not only helps children and young people's academic achievement and educational performance (Breinholt & Jæger, 2020; Jæger, 2011; Jæger & Møllegaard, 2017; Sullivan, 2001; Wang & Wu, 2023), gain status and raise their status (Andersen & Jaeger, 2015; Bourdieu, 1986), know who they are, relate to the world around them, and increase their

self-worth; it also significantly improves and expands their social lives. In this respect, it is important to build cultural capital and there are many ways to do this (school trips, club activities, courses, programs, events, environmental conditions, increasing the cultural capital of the family, etc.). Moreover, cultural capital is a multidimensional concept that is evaluated within the scope of many different variables such as gender (Dumais, 2002; Mohr & DiMaggio; 1995; Robinson & Garnier, 1985), parental education level (Bojczyk, et al., 2015; Jin, Ma, & Jiao, 2022), family background (Bourideu, 1986; Willekens & Lievens, 2014), income (Wang & Wu, 2023), socioeconomic status (Yang, Fan, & Chen, 2022).

One of the findings of the research is that the most important variable predicting the CCC levels of pre-service primary school teachers is related to "region of residence until university education begins". The CCC level of pre-service teachers who spent their lives in city/districts was found to be higher than those who spent their lives in villages-towns. This result shows that people who live in richer and more opportunity-filled settlements are more likely to accumulate cultural capital. There is no doubt that cities are a storehouse of resources. They create wealth and a vehicle for human interaction. They meet people's needs with high levels of efficiency; if they fail to do so, they generate the necessary changes to transform themselves. In this respect, cities have always been the epicenter of freedom, culture, political and institutional innovation (Rausell-Köster, et al., 2022). As a matter of fact, cities today are lived and consumed as sources of cultural capital (Savage, et al., 2018). Cities' infrastructure and livability, contexts for developing skills and generating innovation, social and financial networks and technical support, intensive resource accumulation, accumulated wealth stock, and accumulated and historical capital gains over time shape cultural experiences (Rausell-Köster, et al., 2022). As McAdams (2007) points out, cities are the focal points where the human and material resources of civilizations are concentrated. Cities have been centers of culture and creativity for more than three thousand years. Cities affect the cultural capital composition of individuals more and more positively than rural areas. Therefore, in our study, the high level of CCC levels of pre-service primary school teachers who spent their lives in cities until their university education provides clear evidence in terms of exploring and understanding the connection between "cultural capital and place of residence".

On the other hand, one of the remarkable results we reached in the study is that "number of siblings" is the most important variable predicting the CCC level of pre-service teachers who spent their lives in provinces/districts until their university education. Having 5 or more siblings, pre-service primary school teachers' CCC levels were found to be lower than those with no siblings, 1, 2, 3 and 4 siblings. In other words, as the number of siblings increased, the level of CCC decreased. This is because the resources that families allocate to education are diluted with the increase in the number of children (Blake, 1981). The more children a family has, the less resources each child can obtain on average (Chen, Huang & Huang, 2023). This is because the number of siblings is one of the important variables in the allocation of a family's educational resources.

One of the other important results of our research is that the most important variable predicting the CCC levels of pre-service teachers who have no siblings, 1, 2, 3, 4 siblings is related to the "mother's education level". The CCC levels of pre-service

primary school teachers whose mothers were illiterate were found to be lower than those whose mothers were graduates of primary school, secondary school, high school and higher education. Children's access to educational elements is also affected due to the background of families and the differences in access to social, economic and cultural resources (Fan, 2014). Parents' cultural capital positively affects their children's educational outcomes and is an effective tool that secures their future social class position (Dumais, 2013). Indeed, Bourdieu (2011) underlines that parents with higher levels of education tend to have children with higher levels of education. Parents' education influences their children's education, views on education, attitudes towards learning and academic goals. More educated parents often create a good cultural environment for their children. Cultural capital is a symbolic resource that can be transferred between generations or acquired/developed through families and education (Ding & Wu, 2023). In this context, parents' educational capital is expected to be a predictor of cultural capital. However, in this study, only the mother's educational status was found to be determinant. This result reveals that both parents do not have equal influence on this issue and the mother emerges as the determining factor.Finally, it can be stated that the education level of the mother is an important factor that determines the cultural capital, and therefore mother education should be supported more in countries like Turkey, which are primarily responsible for the education and cultural construction of the child.

Economic capital has always had a defining effect on cultural capital. Developing cultural capital requires an investment of time. Bourdieu (1983; cited in: Dalziel, Saunders & Saunders, 2018) explains that the main reason why children growing up in families with more economic resources come to school with higher levels of cultural capital is that wealthier families have more time available. Research has shown that the social and cultural capital of the family has significant positive relationships with the cultural capital of the individual. Mothers have a different and more direct effect on the formation of cultural capital than fathers (Sheng, 2012). The literature associates better child outcomes with two main indicators of socioeconomic status, higher maternal education and higher family wealth (Karaoğlan et.al., 2023). Our results show that the mother's level of education is an important factor determining cultural capital. Moreover, this situation is also related to the concept of habitus formed in the family. More than cultural capital, habitus also provides a conceptual space for expressing differences and diversity among members of the same cultural community (Reay, 1998). Similar to cultural capital, habitus is composed of attitudes and values transmitted within the household, and in this respect, the dominant habitus includes the attitudes and values of the dominant class (Sullivan, 2002).Since habitus as a disposition moves towards offering various privileges for privileged students while offering only a limited set of opportunities for non-privileged children, there is a reproduction of inequalities (Dumais, 2006). The habitus created within the household from the family, especially the “mother”, can support this production by playing a role in the transfer of cultural capital.

This result also points - indirectly - to the influence, contribution and importance of "school", "teacher" and "curriculum" in building cultural capital. It is the responsibility of schools to provide, transfer and sustain the social and cultural knowledge that can help students make progress. Schools can - and should - provide

children and young people with cultural capital as well as diplomas and futures. Teachers and curricula are critical components for schools to fulfill these responsibilities. Because only a good and high quality curriculum can build cultural capital. Therefore, focusing on improving the quality and diversity of school curricula is important for cultural capital formation. Moreover, only a qualified teacher can touch the whole curriculum by giving context and reference points to topics that allow students to build schema. In order to minimize the negative differences between the levels of cultural capital that classroom teacher candidates will have due to various demographic characteristics (number of siblings, mother's education level, etc.); the transformative power of higher education can be utilized by taking into account that the level of cultural capital can also be reproduced through education. In this context, teacher training approaches that prioritize the intellectual knowledge, participation, cultural awareness and cultural potential of cultural capital can be prioritized. In addition, considering that the sample group of this study includes classroom teacher candidates studying at three state universities located in the Mediterranean and Central Anatolia regions of Turkey, studies can also be conducted to reveal how variables that are thought to affect cultural capital affect the cultural capital levels of teacher candidates studying in different regions.

Statement of Responsibility

The introduction and method sections of the article were written by the first author. Additionally, the first author performed the analysis of the data. The second author collected the data and wrote the discussion and findings sections. Formal edits of the article were made collaboratively by both authors.

Conflicts of Interest

There is no conflict of interest in the research.

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