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Investigation of Disciplined Mind Features of Primary School 4th Grade Students in Terms of Various Variables

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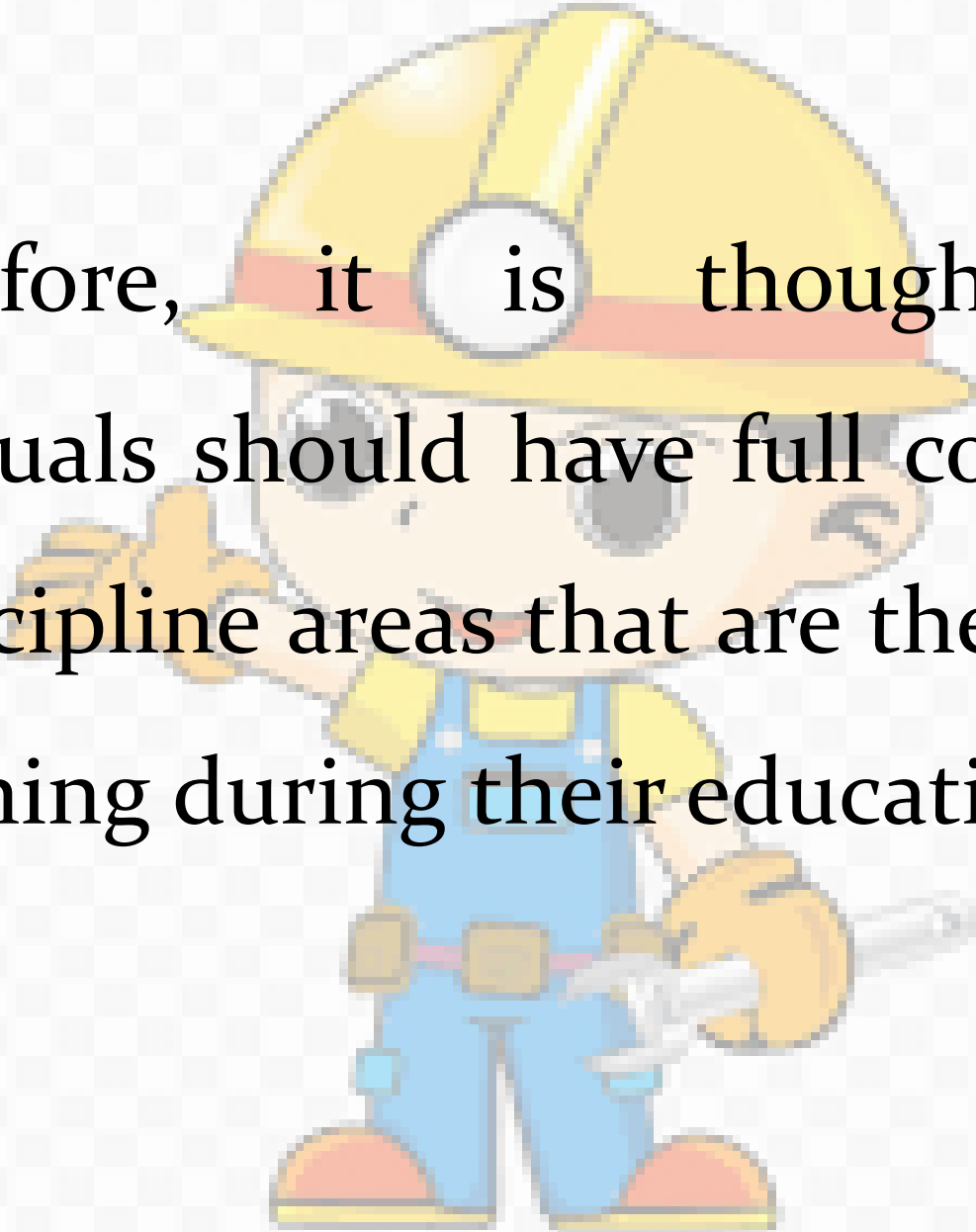





Today, learning is very important, just like in the past.

The expectation of our age from individuals is that they are specialized in their work and have the ability to innovate [15].

Therefore, it is thought that individuals should have full control of the discipline areas that are the subject of learning during their education.

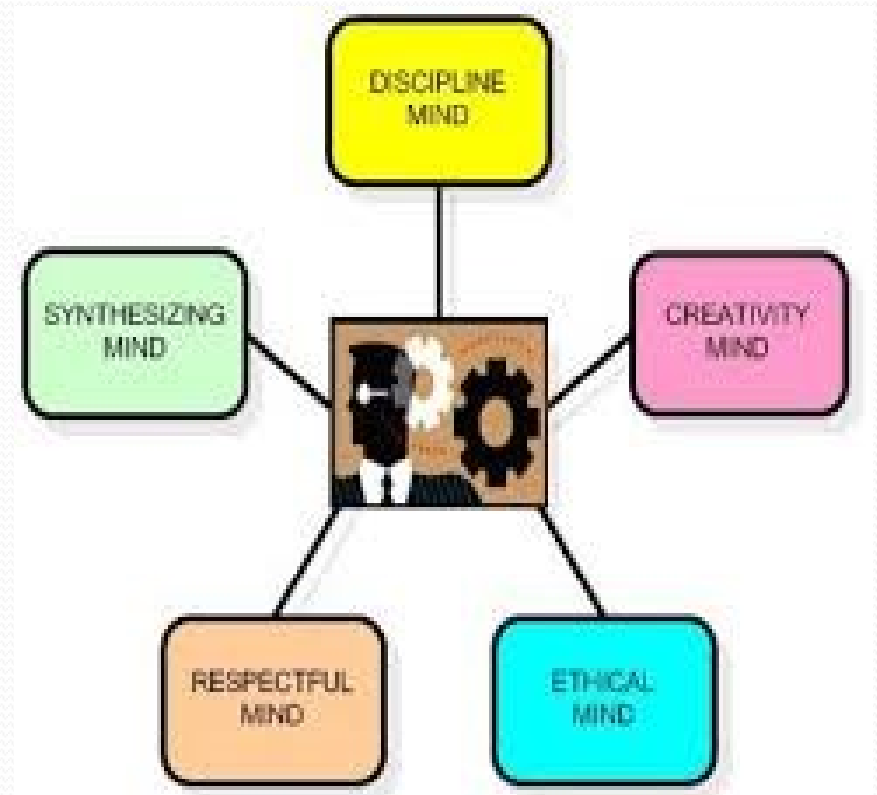


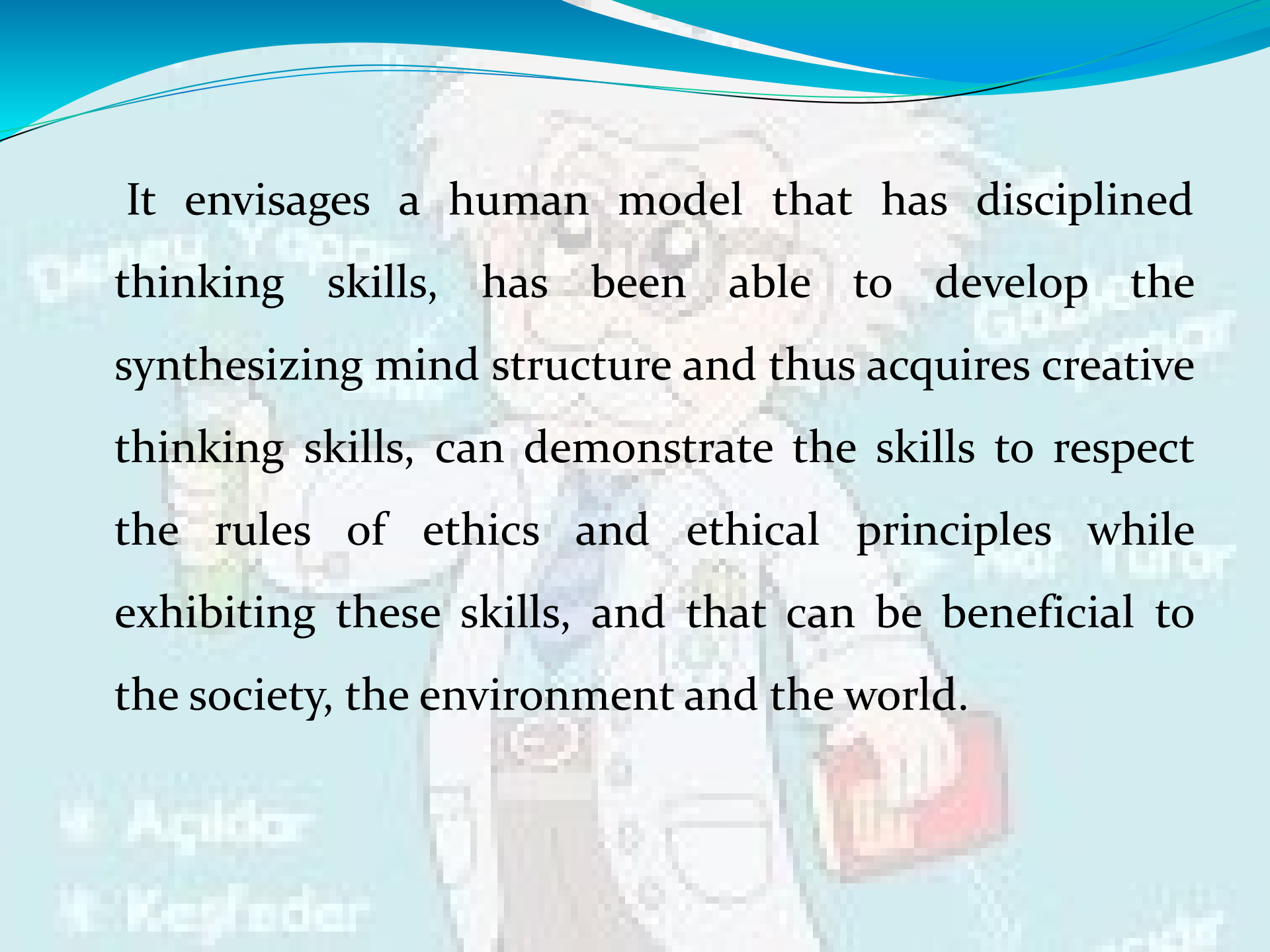


According to Howard Gardner [9], individuals will be expected to develop some types of mind in the future.

These mind types are:

- * Disciplined mind
- * Synthesizing mind
- * Creative mind
- * Respectful mind
- * Ethical mind





It envisages a human model that has disciplined thinking skills, has been able to develop the synthesizing mind structure and thus acquires creative thinking skills, can demonstrate the skills to respect the rules of ethics and ethical principles while exhibiting these skills, and that can be beneficial to the society, the environment and the world.

One of the main goals in the disciplined mind is that individuals are mastered in at least one discipline.

In one discipline, the process of qualification can take up to ten years [9].



It is stated that children have scientific thinking skills such as observing the facts, recording data, and determining the effects of independent variables on dependent variables around the age of 11 ^[12].



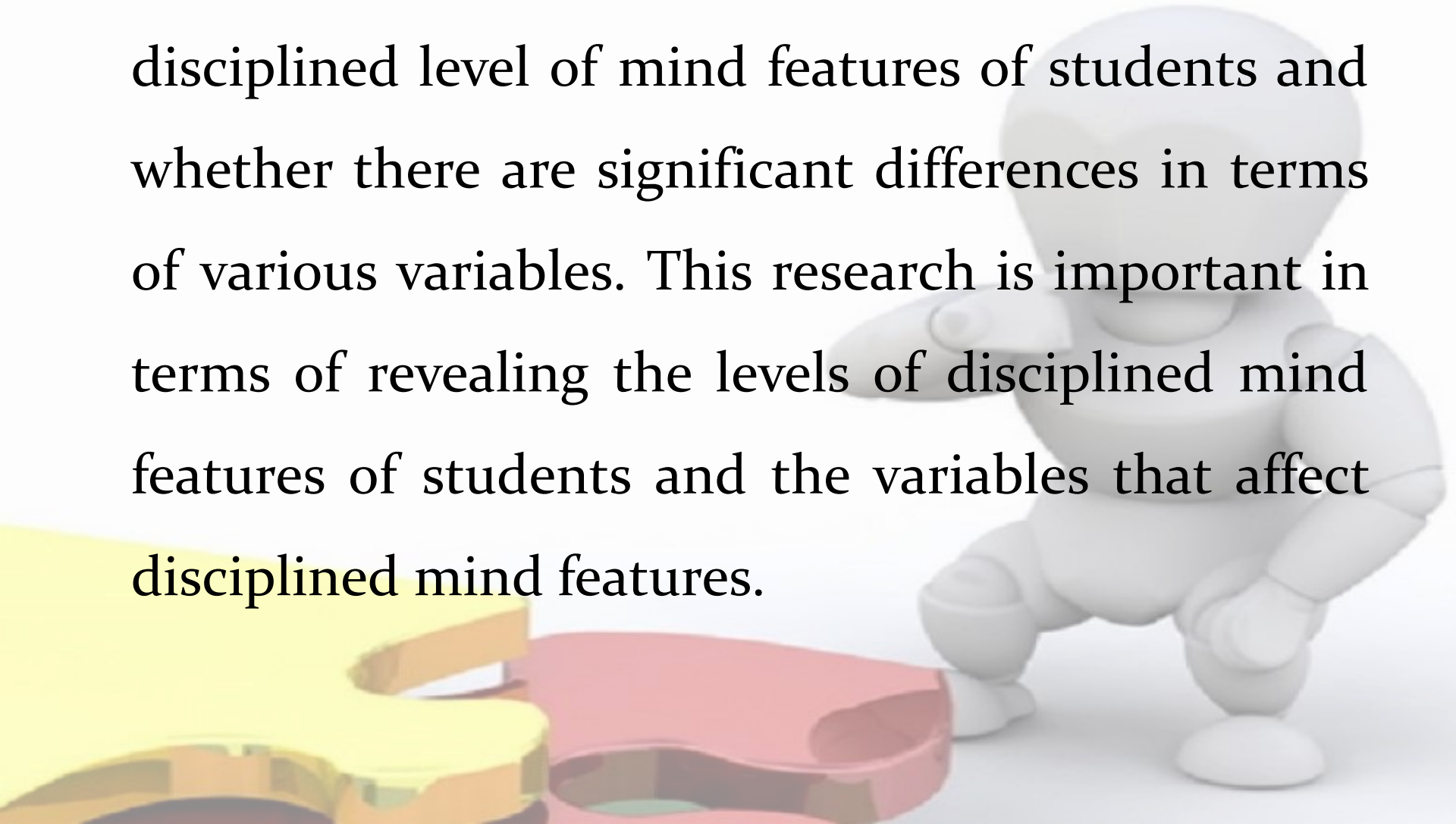


Considering that the process of competence in a discipline can last up to ten years, the importance of developing the disciplined mind from **primary school** becomes evident.



4th grade students in Turkey ranges
from 10-11 years old.


The aim of this study is to examine the disciplined level of mind features of students and whether there are significant differences in terms of various variables. This research is important in terms of revealing the levels of disciplined mind features of students and the variables that affect disciplined mind features.




Method

In this research, survey research model, which is one of the quantitative research methods, was used.






The population of the study is 4th grade primary school students studying in both public and private schools in the 2018-2019 academic year in the Central District of Afyonkarahisar Province. The sample of the research consists of 537 students, 271 men and 266 women.






Data Collection Tools

In this research, the personal information form aimed at obtaining students' information about the variables to be examined and the Disciplined Mind Scale (DMS) developed by the researchers were used as data collection tools.

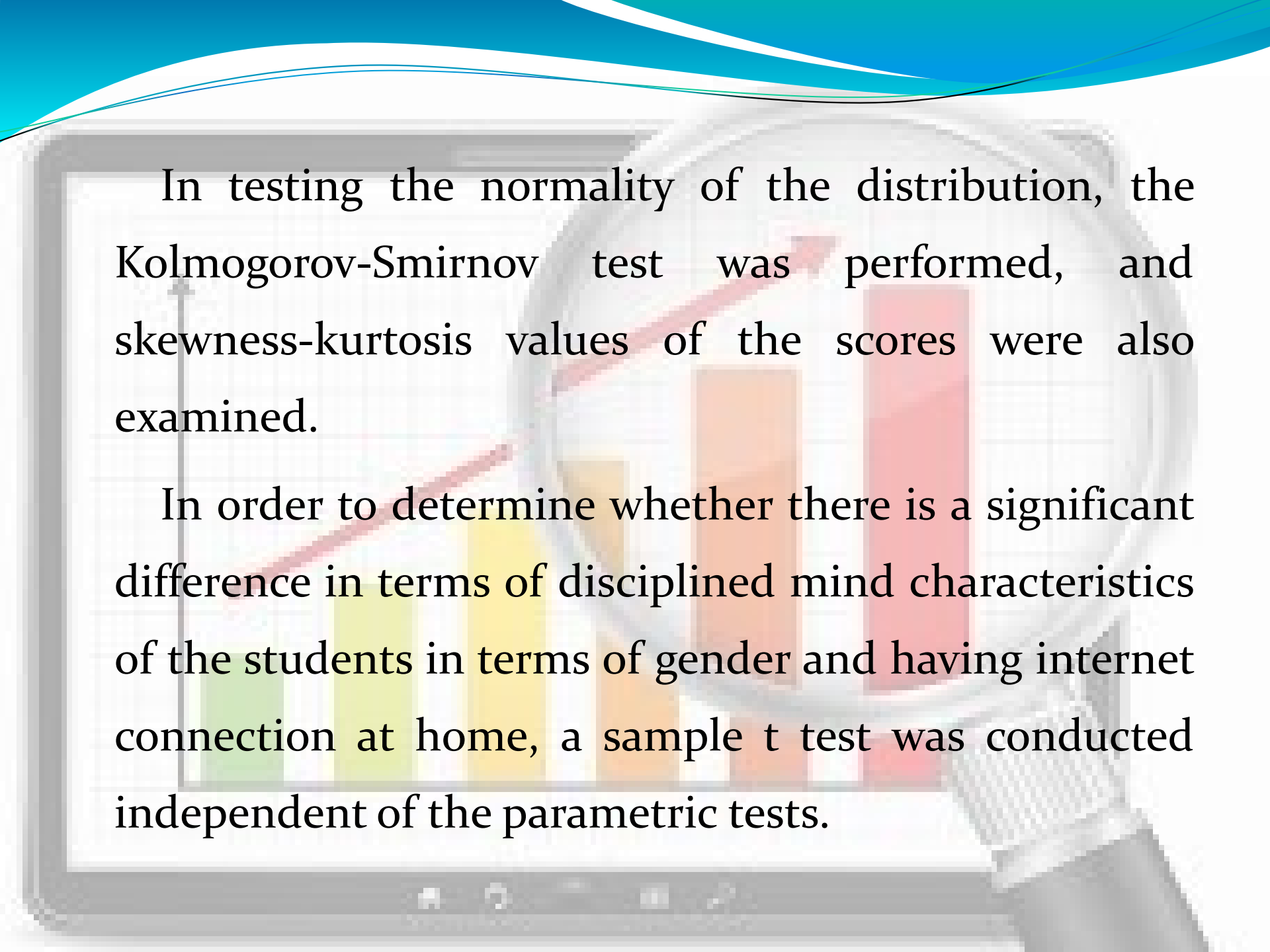


Disciplined Mind Scale (DMS) is a 5-point Likert-type scale consisting of 27 expressions and 5 sub-dimensions. Questions include “5 Always”, “4 Often”, “3 Sometimes”, “2 Rarely”, “1 Never” and the options are scored from positive to negative.

There are 27 expressions in the scale, 20 positive and 7 negative. "Structure validity" was used as the method of determining validity in testing the validity of DMS.




The reliability of the scale was calculated by calculating the Cronbach Alpha coefficient (.826) and internal consistency reliability was obtained. It can be said that the Cronbach's Alpha reliability coefficient of DMS is .826, since this value is between .60 and .90, it is quite reliable [3].




In testing the normality of the distribution, the Kolmogorov-Smirnov test was performed, and skewness-kurtosis values of the scores were also examined.

In order to determine whether there is a significant difference in terms of disciplined mind characteristics of the students in terms of gender and having internet connection at home, a sample t test was conducted independent of the parametric tests.




One-way analysis of variance (Anova) was applied to determine whether there is a significant difference in terms of mother's education level, father's education level, subscription to a scientific journal, or follow-up status, mother's job and father's job variables.



In cases where there is a significant difference as a result of one-way Anova analysis, LSD (least significant difference) test was used to determine the source of the difference between the groups.

LSD test, which can be used when there is no equality in the sample number; It is preferred because it gives more meaningful results compared to other tests that are conducted to determine the source of the difference.



In order to determine the score ranges of the answers given by the students, the items included in the disciplined mind scale (DMS);

4.21-5.00 “Always”,

3.41-4.20 “Often”,

2.61-3.40 “Sometimes”,

1.81-2.60 “Rarely”,


1.00-1.80 were interpreted based on the “Never” intervals.

Results

As a result of the analysis of the data obtained from the research, it was determined that the DMS levels of the 4th grade students in primary school were “Often” ($X = 4.0598$).

Disciplined Mind Features (DMS) Levels of Students

	N	X	SS
Thinking Like a Scientist	537	4.1093	.71803
Interdisciplinary Connection	537	3.6103	1.01236
Motivation to Live with Discipline	537	4.5464	.54194
In-depth Learning	537	3.7597	.83362
Connecting with Daily Life	537	4.6828	.57683
TOTAL	537	4.0598	.51454




There was no significant difference in terms of DMS levels of the students in terms of “*having internet connection at home, subscribing to a scientific journal, mother’s education level*” variables.

As a result of the t test, a significant difference was found in favor of female students ($X = 4.15$, $S = .46$) in terms of gender and DMS levels of the students.

	Gender	N	X	S	Sd	t	p
DMS	Female	266	4.1574	.46204	523.839	4.433	.000
	Male	271	3.9641	.54541			

($p < .05$)



According to the results of one-way analysis of variance, a significant difference was determined in terms of the DMS levels of the students and the variables of **father's education level, mother's job and father's job**. LSD test was applied in order to determine between which groups the source of the significant difference was detected.

According to the data obtained from the LSD test, the educational status of the students whose father's education level is at master's / doctorate level ($X = 4.34$, $S = .39$) and the education level of the father are literate ($X = 3.93$, $S = .47$), primary school graduate ($X = 3.89$, $S = .52$), secondary school and equivalent graduates ($X = 3.88$, $S = .50$), high school and equivalent graduates ($X = 4.10$, $S = .48$) and college / faculty graduates ($X = 4.10$, $S = .53$) Among the DMS scores of the students; It was determined that there is a statistically significant difference in favor of students whose father's education level is **master's / doctorate level**.

The education level of the fathers of the students whose father's education level is high school / faculty graduate ($X = 4.10$, $S = .53$) and the high school and equivalent graduate ($X = 4.10$, $S = .48$), the father's education level is primary school graduate ($X = 3.89$, $S = .52$) and among students who are secondary school and equivalent graduates ($X = 3.88$, $S = .50$); It was determined that there was a statistically significant difference in favor of students whose father's education level was graduated from college / faculty.


According to the data obtained from the LSD test, the occupational status of the students whose mother's job status is "public worker" ($X = 4.17$, $S = .52$) and the occupational status of the mother and the mother whose job status is "not working" ($X = 4.02$, $S = .48$) Among students with "self-employment" ($X = 3.81$, $S = .70$); A statistically significant difference was found in favor of students whose **mothers' job was public employees.**

In addition, among the students whose mother's occupational status is "trades" ($X = 4.17$, $S = .47$), students whose mother's occupational status is "self-employed" ($X = 3.81$, $S = .70$); A statistically significant difference was found in favor of students whose **mothers' status was "trades"**.


According to the data obtained from the LSD test, students whose fathers' occupational status was "public employees" ($X = 4.15$, $S = .49$) and students whose fathers' occupational status was "private sector employees / workers" ($X = 3.97$, $S = .51$) Among the DMS scores; A statistically significant difference was found in favor of students whose **father's job was "public employee"**.

Discussion and Conclusion


Individuals who want to succeed in the world of the future will be expected to develop in five types of mind areas [9]. Three of these mind types, called five mind types, consist of cognitive mind types, and the remaining two are relational mind types [14].



According to Gardner, who believes that current formal education prepares students for the possible worlds of the future, but primarily for the past world [7], education for five minds is challenging in all contexts. Developing a disciplined mind requires constant effort over a long period of time. In a context in which test scores guide more and more educational decisions, it is questionable whether training is possible for five minds [6]. **The disciplined mind begins only during adolescence and continues for the rest of a person's life [13].**




In this study, it was investigated whether primary school 4th grade students differ in terms of disciplined mind features and various variables. When the literature is analyzed, no study related to disciplined mind has been found at primary school level. For this reason, in the discussion of the findings, studies that are similar to the relevant variables are mentioned.




In the study conducted by Can Aran [4], it was determined that there is a statistically significant difference in favor of female students in terms of gender variable on the level of disciplined mind features of seventh grade students in Science course. The research stated is between female students and male students in terms of gender variable of disciplined mind features of 4th grade students; It supports the result of finding a statistically significant difference in favor of female students.


It was determined that disciplined mind features of 4th grade students did not create a statistically significant difference according to the mother's education level variable. In the study conducted by Can Aran [4], it was found that there was a statistically significant difference in favor of mothers who graduated from university in terms of the educational status variable of the mother in terms of the disciplined mind qualities of seventh grade students in Science course. This finding differs from the study by Can Aran [4].



It has been determined that disciplined mind features of 4th grade students create a statistically significant difference according to the father's education level variable. In the study conducted by Can Aran [4], it was concluded that there was no significant difference in the level of having a disciplined mind in terms of science and technology lesson of the seventh grade students in terms of father's educational status. This finding differs from the study by Can Aran [4].



It has been determined that disciplined mind features of 4th grade students do not make a statistically significant difference according to whether they subscribe to a scientific journal or follow-up variable.



Taking into consideration that the measures and practices that teachers can take may be effective in increasing students' Disciplined Mind Feature levels, it may be recommended to organize informative seminars and in-service trainings on teachers about ways to develop disciplined mind and disciplined mind.

danke 謝謝

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tesekkür ederim

спасибо

thank you

gracias

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