Examination of Vocational High Schools’ Effectiveness Levels in Terms of European Union Project Numbers

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Abstract The purpose of this research is, according to the teachers' opinions, to determine the level of Effective Schools in terms of the number of EU Projects (Erasmus +, eTwinning) carried out by the official Vocational and Technical Anatolian High Schools in Central district of Giresun province, in terms of manager, teacher, student, school program and education process, school culture and environment, school environment and parent dimensions. For this purpose, the "Effective School Scale" with .93 Cronbach alpha score, developed by Şişman (1996) and the Personal Information Form prepared by the researcher were used to determine the effectiveness levels of the schools. The research is a descriptive study in the general screening model. The data were collected from a total of 203 teachers working in official vocational high schools in Central district of Giresun province in the academic year 2017-2018. It has been determined that the effectiveness of schools is a linear increase with respect to the number of EU projects carried out. It has been determined that there is a strong positive relationship between the number of EU projects carried out on the schools and the effectiveness levels of the schools.

Keywords Effective School, EU Projects, Vocational High Schools, Efficacy

1. Introduction

Education is a process that human beings need to adapt to changing living conditions and to convey the level of civilization that they reach to the next generation. While other living things may be able to meet many needs with the characteristics given to them, human beings are able to meet even their smallest needs with the help of other people. It is only possible for a person to meet his own needs, but only if he is trained. This makes education necessary. The common definition of different definitions of the education word that we can define as the process of bringing change of behavior in the individual with the simplest expression [1]; it is a collection of activities aimed at modifying behavior, creating behavior [2].

Nowadays, rapid and increasing changes in social, economic, technological and political areas and rapid development in parallel with this increase has forced people and institutions to change. The most effective and basic way of keeping up with this change is undoubtedly education [3]. Through training, people become harmonious members of the contemporary world in which society is located, and they are equipped with the knowledge and skills they need [4]. The progress and development of an country, the strengthening of the economy, the attainment of the level of contemporary civilizations is directly related to the well-educated human power. In addition to this, while the technological developments and increasing inter-country power races today reduce the influence of the physical conditions accepted in the conditions of success, the importance of the brain power increases day by day. This necessitates a high quality education so that individual citizens of the country can meet these expectations of the community and achieve universal success in individual manners [5].

It is measured by the success, effectiveness and efficiency of the education systems. Despite the frequency and complexity of the social problems encountered in daily life, it is acknowledged by everyone that education is the solution to these problems and therefore schools have an important place. There is a positive relationship between the quality of life and the quality of school. The school, which is a living and playground, has an important role in human life. In the formation of a strong educational system, schools will have a strategic role. In that respect, the school administrator, teachers, students and parents for a more qualified future should be included in the priorities of the change process to be redefined and planned [6].

Educational organizations are both a cause and a consequence of change due to their social functions [7]. Parallel to the change of society, schools should also be continuously developed and the quality of the education given should be increased. Organizations established for specific purposes can sustain their existence as long as they
achieve these goals. In other words, organizations can protect their assets as long as they are effective and sufficient. Schools differ in importance from other organizations. Characteristic features of schools create administrative difficulties. A school is effective as long as it achieves its goals [8]. The main purpose of any changes in educational organizations is; to have a better, more qualified and more effective education. This inevitably leads to the emergence of an effective school concept [9]. The starting point of effective school research; some schools are more successful than others. The identification of common findings in research results on successful schools and less successful schools has shown the steps necessary to improve efficiency and success in schools [10]. Although efficacy is always present in all societies that are committed to providing education, the widespread of educational institutions and the fact that the quality is not realized at the desired level, the question of how we can gain the goals determined in some countries, especially the USA, can be said to have started the effective school movement. The answer to this problem has opened a wide area in the field of educational management [11]. There are frequent complaints that schools are becoming increasingly ineffective in terms of education and teaching, away from the expectations of the learners, the community, the parents and the business world, and the quality of education is dropping. The fact that these complaints should be tested with scientific research and that the problems should be determined correctly and suggestions for solutions should be found, will be an important step in the solution of the problems [12].

As the quality of education in a country increases, the socio-economic level increases. In this context, the importance of education is an indisputable fact. Education is also a long term investment instrument. The extent to which the education levels reach their goals is only a result of long periods. For this reason, it is important to research the extent to which schools in the Turkish education system have effective school characteristics. The main objective of any change to be made in educational organizations in Turkey, better quality and more effective training [13]

In the Ministry of National Education, there are a great number of change initiatives aimed at development and innovation at every level; from pre-school education to higher education, with objectives such as the development and dissemination of new educational programs based on innovative and research-based approaches to raising educational qualifications, the cultivation of information-oriented people, and the creation of a democratic school culture. [14]. In addition to these exchanges and innovation initiatives carried out at the national level, several international organizations and communities, such as the European Union, have cooperated in the economic and political arena, as well as in setting up and carrying out many international projects and activities to adapt education qualities to their development and to improve quality [15]. One of these activities is international education education activities such as European Union Education Programs (Erasmus +, E-Twinning etc.).

The European Union Projects have improved the relationship between the student and the teacher and the manager, the ability of the school members to work with team spirit, the interest of the students in the classes and social activities; The parents of students to increase interest in school and improve students' self-confidence has been demonstrated in many studies conducted in Turkey [16, 15, 17, 18, 19]. Also, Kassel [20] claims that On behalf of the European Commission, in the study 'Final Report on the Effects of Participatory Schools of Comenius School Partnerships'; European and international dimension of participation in projects, has improved cultural awareness and social skills of pupils and foreign language proficiency; has increased teachers' professional knowledge and skills, social skills and personal responsibilities, strengthened the school's school climate and innovated the school in terms of education and school management.

In a similar way Vabo [21], the project 'Assessment of Norwegian Leonardo da Vinci and Socrates Programs' suggests that projects contribute positively to the development of teachers, students and local government, motivate teachers, change organizations, increase the participation of parents and local governments, co-operation with local schools. In this direction, it is aimed that the projects that offer contributions will strengthen the relationship between students, teachers and administrators, the interest of the parents and the interaction of the school with the environment by increasing cooperation with local institutions; improving the self-confidence of the students, increasing the interest in the lectures, and contributing to the success of the school and the presentation of organizational products.

With the increase in people's expectation of education, the importance given to education increases with each passing year. The fulfillment of expectations and the achievement of the targeted achievement in education are due to the fact that schools are made more effective. Therefore, efforts are being made to increase the effectiveness of schools. Vocational and technical education in our country is seen as one of the most important pillars of sustainable development and studies are being carried out in this direction. It is considered very important that the vocational and technical Anatolian High Schools, which have the mission of raising the qualified work force desired by the industrial sector and preparing the students as qualified individuals, are active. When we look at the researches on the effectiveness of schools in Turkey, although it has been in recent years made for some research on the primary and secondary education institutions, there has been no study dealing with the concept of effective school in terms of the contributions of the EU Projects. Further research is needed to determine
the contribution of EU projects to our education system, which is thought to directly affect restructuring and school effectiveness in our education system. Vocational and technical education in our country is seen as one of the most important pillars of sustainable development and studies are being carried out in this direction. To raise the qualified work force desired by the industrial sector, to facilitate the employability of the young people and to prepare the students as the qualified individuals are among the basic objectives of the Vocational and Technical Anatolian High Schools.

Industrial investments mean economic and industrial growth for both businesses and countries. It is clear that developed countries will gain a great competitive advantage as a result of industrialization of their industrial production technologies. It is predicted that industrial investments will increase employment and demand for qualified labor force will increase considerably in long term. These expectations increase the expectation of countries, as well as of individuals, from vocational and technical education. It is very important to make vocational high schools effective in order to make them qualified, productive and functional, because they form the basis of qualified work force. Therefore, this study is aimed to determine the extent to which Vocational and Technical Anatolian High Schools have effective school characteristics and to determine the contribution of EU Projects to the school effectiveness and lead to the work to be done in this regard.

According to the teacher's opinion, the general purpose of this research; to determine in terms of the number of EU Projects carried out by the official Vocational and Technical Anatolian High Schools that continue education in Giresun province central district, depending on manager, teacher, student, school program and education-training process, school culture and environment, school environment and parents. In order to reach the general objective stated, the following questions were searched:

1) What are the levels of Effective Schooling in terms of the number of EU Projects carried out by Vocational and Technical Anatolian High Schools?
2) Is there a meaningful relationship between the number of EU Projects conducted by Vocational and Technical Anatolian High Schools and the level of effective schooling?

2. Method

2.1. Model of Research

The model of this research is a screening model, which is one of the quantitative methods. The screening models aim to investigate and explain the existing situation or reality as it is. The screening model is based on the observation of the whole of the present or past data on the object, the case, the event, the individual. It aims to describe the situation as it exists in the research [22]. For this reason, it is configured in the screening model. According to the opinions of the teachers working in the Vocational and Technical Anatolian High Schools affiliated to the Ministry of National Education which are in Giresun province central district, the Effective Schooling Levels were investigated according to the numbers of European Union Projects carried out by vocational high schools. In this context, a descriptive model containing a one-time measure on high school teachers was used with scale application.

2.2. Measuring Tools

According to the opinions of the teachers working in the Vocational and Technical Anatolian High Schools affiliated to the Ministry of National Education which are in Giresun province central district, two different scales were used in this study to determine the Effective Schooling Levels according to the numbers of European Union Projects carried out by vocational high schools. The first one is the "Demographic Information Form". With this form, participants' gender, age, branch, occupational seniority and the number of European Union projects carried out were determined. The second scale is the "Effective School Scale" developed by Şişman [23] to determine the effectiveness levels of schools. The scale consists of 56 items, and Şişman [23] found the Cronbach-Alfa score as .93. In this research, the validity and reliability studies of the data collection tool were also carried out. In the internal consistency test of the questionnaire, the Cronbach-Alfa coefficient was found to be .93 same as Şişman [23].

| Table 1. Cronbach Alpha Reliability Coefficients Calculated for Conflict Resolution Strategies Scale |
|---------------------------------------------------------------|
| Reliability Calculated Dimension | Cronbach's Alpha Coefficient | Cronbach's Alpha Coefficient For General Scale |
|----------------------------------|------------------------------|-----------------------------------------------|
| School Manager                   | 0,94                         |                                               |
| Teacher                          | 0,91                         |                                               |
| Student                          | 0,92                         |                                               |
| School Program and Education Process | 0,91                      |                                               |
| School Culture and Atmosphere    | 0,94                         |                                               |
| School Environment and Parents   | 0,87                         |                                               |
|                                  |                              | 0,93 Highly Reliable                         |

As a result of the reliability test conducted on the data collection tool, the following reliability level has emerged: from the sub-dimensions of effective school to effective manager dimension 0,94; 0,91 in the dimension of effective teacher; the effective student size is 0,92; effective school curriculum and education-training process 0,91; effective
school culture and environment 0.94; effective school environment and parent 0.87. The "Effective School Scale" questionnaire used in the study included six dimensions such as manager (10), teacher (10), student (8), school program and education process (10), school culture and atmosphere (10), school environment and parent. In the questionnaire form, there are total number of 56 items.

The number of items in terms of dimensions in question is arranged according to the scale of Likert type and consists of statements in the form of propositions. Against this, the participants' reactions are gathered in five categories and they are expressed in the form of "fully agree", "mostly agree", "agree moderately", "little agree", "never agree".

In the study; the necessary permissions were obtained for the application of the measuring instruments to be used and the teachers were interviewed in the study area, the purpose was explained and the scale form was requested to be filled. In the Personal Information Form section of the scale, those who respond to the scale are asked to mark the parts (X) that correspond to their personal characteristics.

### 3. Findings

In this section, the findings of the statistical analyzes of the data which obtained from teachers participating in the survey and the interpretations of the findings are given.

#### Findings and Comments on Demographic Characteristics

| Features         | f  | %  |
|------------------|----|----|
| Gender           |    |    |
| Woman            | 95 | 46.8|
| Man              | 108| 53.2|
| Total            | 203| 100 |
| Age              |    |    |
| 20–30            | 39 | 19.2|
| 31–40            | 83 | 40.9|
| 41–50            | 60 | 29.6|
| 51 and over      | 21 | 10.3|
| Total            | 203| 100 |
| Subject          |    |    |
| Vocational       | 98 | 48.3|
| Courses          | 105| 51.7|
| Lessons          |    |    |
| Total            | 203| 100 |

Demographic characteristics of the teachers are shown in Table 2. Of the teachers who participated in the research, 95 (46.8%) were female and 108 (53.2%) were male. Of the teachers, 39 (19.2%) were between 20 and 30 years old, 83 (40.9%) were between 31 and 40 years old, 60 (29.6%) were between 41 and 50 years old, 21 (%10.3) were aged 51 and over. Of these, 98 (%48.3) are vocational course teachers and 105 (%51.7) are culture course teachers. When the distribution of the teachers according to occupational seniority was examined, 17 (8.4%) have 1-5 years, 37 (18.2%) have 6-10 years, 70 (34.5%) have 11-15 years, 40 (19.7%) have 16-20 years, 39 (19.2%) have 21 years and above professional seniority.

#### Descriptive Findings and Interpretations on the Levels of Effective Schooling According to EU Projects Number of Executives of Occupational High Schools According to Teachers' Views

In this section, all the sub-dimensions that constitute effective school characteristics were evaluated separately according to the number of EU Projects carried out by the vocational high schools.

According to the number of EU projects carried out, findings on the effectiveness levels of schools are given in Table 3.

| Teacher, N:203 |  |  |
|----------------|---|---|
| No Project Has Been Executed | 2.38 | 0.18 |
| Has carried out 1 projects | 2.55 | 0.23 |
| Has carried out 2 projects | 2.74 | 0.18 |
| 4 and Over Projects Executed | 3.11 | 0.12 |
| Total           | 2.63 | 0.28 |

When Table 3 examined, it is seen that among the efficiency levels according to the number of the EU Projects carried out by the vocational high schools, the four and above the EU Project schools (=3.11) have the highest level of effectiveness. From the point of view of effectiveness, schools with 2 EU Projects (=2.74) are followed by schools with 1 EU Project (=2.55). It is seen that the schools that have never conducted EU Projects (=2.38) have the lowest level of effectiveness.

As a result, according to the teachers' perceptions of the characteristics of the "Number of EU projects carried out" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU projects (\(X=2.38\)) at the "Little Agree" level, for those schools that have conducted an EU Project (\(X=2.55\)) at the "Little Agree" level, for those schools that have conducted two EU projects (\(X=2.74\)) at the "Agree Moderately" level, for those schools that have conducted four and above EU projects (\(X=3.11\)) at the "Agree Moderately" level. This shows that there is a linear increase in the effectiveness of teacher relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the Manager dimension are given in Table 4.
Table 4. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the Manager dimension

| Dimension | Number Of Projects Carried Out | N  | $\bar{X}$ | Ss  | F     | p       | Significant Difference |
|-----------|--------------------------------|----|-----------|-----|-------|---------|------------------------|
| Manager   | A) No Project Has Been Executed | 29 | 2.25      | 0.18| 51.256| 0.000   | A-B-C-D                |
|           | B) 1 Project                   | 112| 2.65      | 0.41|       |         |                        |
|           | C) 2 Projects                  | 39 | 2.92      | 0.35|       |         |                        |
|           | D) 4 and over Projects         | 23 | 3.46      | 0.31|       |         |                        |

Table 5. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the Teacher dimension

| Dimension | Number Of Projects Carried Out | N  | $\bar{X}$ | Ss  | F     | p       | Significant Difference |
|-----------|--------------------------------|----|-----------|-----|-------|---------|------------------------|
| Teacher   | A) No Project Has Been Executed | 29 | 2.59      | 0.27| 39.43 | 0.000   | A-B-C-D                |
|           | B) 1 Project                   | 112| 2.86      | 0.32|       |         |                        |
|           | C) 2 Projects                  | 39 | 3.15      | 0.25|       |         |                        |
|           | D) 4 and over Projects         | 23 | 3.36      | 0.20|       |         |                        |

When table 4 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Manager dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference ($p<0.05$) in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects.

It is seen that four and above the EU project schools ($\bar{X}=3.46$) have the highest level of effectiveness. In terms of their effectiveness, schools with two EU Projects ($\bar{X}=2.92$), are followed by schools with an EU Project ($\bar{X}=2.65$). It is seen that schools that have never conducted EU Projects ($\bar{X}=2.25$) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "School Manager" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU projects ($\bar{X}=2.25$) at the "Little Agree" level, for those schools that have conducted an EU Project ($\bar{X}=2.65$) at the "Agree Moderately" level, for those schools that have conducted two EU projects ($\bar{X}=2.92$) at the "Agree Moderately" level, for those schools that have conducted four and above EU projects ($\bar{X}=3.46$) at the "Mostly Agree" level. This shows that there is a linear increase in the effectiveness of school manager relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the Teacher dimension are given in Table 5.

When table 5 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Teacher dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference ($p<0.05$) in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects.

It is seen that four and above the EU project schools ($\bar{X}=3.36$) have the highest level of effectiveness. In terms of their effectiveness, schools with two EU Projects ($\bar{X}=3.15$) are followed by schools with an EU Project ($\bar{X}=2.65$). It is seen that schools that have never conducted EU Projects ($\bar{X}=2.59$) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "Teacher" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU projects ($\bar{X}=2.59$) at the "Little Agree" level, for those schools that have conducted an EU Project ($\bar{X}=2.86$) at the "Agree Moderately" level, for those schools that have conducted two EU projects ($\bar{X}=3.15$) at the "Agree Moderately" level, for those schools that have conducted four and above EU projects ($\bar{X}=3.36$) at the "Agree Moderately" level. This shows that there is a linear increase in the effectiveness of teacher relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the Student dimension are given in Table 6.
Table 6. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the Student dimension

| Dimension          | Number Of Projects Carried Out | N   | $\bar{X}$ | Ss  | $F$  | $p$  | Significant Difference |
|--------------------|--------------------------------|-----|-----------|-----|------|-----|-----------------------|
| Student            | A) No Project Has Been Executed | 29  | 2.15      | 0.07|      | 84.73 | 0.000 | A-B-C-D               |
|                    | B) 1 Project                   | 112 | 2.24      | 0.22|      |      |           |                       |
|                    | C) 2 Projects                  | 39  | 2.56      | 0.24|      |      |           |                       |
|                    | D) 4 and over Projects         | 23  | 2.96      | 0.30|      |      |           |                       |

When table 6 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Student dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference \([p<0.05]\) in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects.

It is seen that four and above the EU project schools \(\bar{X}=2.96\) have the highest level of effectiveness. In terms of their effectiveness, schools with two EU Projects \(\bar{X}=2.56\) are followed by schools with an EU Project \(\bar{X}=2.24\). It is seen that schools that have never conducted EU projects \(\bar{X}=2.15\) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "Student" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU projects \(\bar{X}=2.15\) at the "Little Agree" level, for those schools that have conducted an EU Project \(\bar{X}=2.24\) at the "Little Agree" level, for those schools that have conducted two EU projects \(\bar{X}=2.56\) at the "Little Agree" level, for those schools that have conducted four and above EU projects \(\bar{X}=2.96\) at the "Agree Moderately" level. This shows that there is a linear increase in the effectiveness of student relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the School Program and Education Process dimension are given in Table 7.

Table 7. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the School Program and Education Process dimension

| Dimension                  | Number Of Projects Carried Out | N   | $\bar{X}$ | Ss  | $F$  | $p$  | Significant Difference |
|----------------------------|--------------------------------|-----|-----------|-----|------|-----|-----------------------|
| School Program and Education Process | A) No Project Has Been Executed | 29  | 2.48      | 0.24|      | 55.16 | 0.000 | A-B-C-D               |
|                            | B) 1 Project                   | 112 | 2.69      | 0.31|      |      |           |                       |
|                            | C) 2 Projects                  | 39  | 2.99      | 0.32|      |      |           |                       |
|                            | D) 4 and over Projects         | 23  | 3.43      | 0.22|      |      |           |                       |

When table 7 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the School Program and Education Process dimension according to the numbers of the EU Projects conducted by the vocational high schools; it is seen that there is a meaningful difference \([p<0.05]\) in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects.

It is seen that four and above the EU project schools \(\bar{X}=3.43\) have the highest level of effectiveness. In terms of their effectiveness, schools with two EU Projects \(\bar{X}=2.99\), are followed by schools with an EU Project \(\bar{X}=2.69\). It is seen that schools that have never conducted EU Projects \(\bar{X}=2.48\) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "School Program and Education Process" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU projects \(\bar{X}=2.48\) at the "Little Agree" level, for those schools that have conducted an EU Project \(\bar{X}=2.69\) at the "Agree Moderately" level, for those schools that have conducted two EU projects \(\bar{X}=2.99\) at the "Mostly Agree" level. This shows that there is a linear increase in the effectiveness of School Program and Education process relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the School Culture and Atmosphere dimension are given in Table 8.
Table 8. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the School Culture and Atmosphere dimension

| Dimension | Number Of Projects Carried Out | N   | $\bar{X}$ | $s_s$ | $F$   | $p$   | Significant Difference |
|-----------|-------------------------------|-----|----------|------|------|------|------------------------|
| School Culture and Atmosphere | A) No Project Has Been Executed | 29  | 2.36     | 0.18 | 35.41| 0.000| A-D  B-D C-D            |
|          | B) 1 Project                  | 112 | 2.43     | 0.18 |      |      |                        |
|          | C) 2 Projects                 | 39  | 2.44     | 0.17 |      |      |                        |
|          | D) 4 and over Projects        | 23  | 2.83     | 0.16 |      |      |                        |

When table 8 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the School Culture and Atmosphere dimension according to the numbers of the EU Projects conducted by the vocational high schools; it is seen that there is a meaningful difference. The "Tamhane's T2" test was applied and it was seen that there were significant differences between the effectiveness levels of the schools that have not conducted any projects (A), have conducted a project (B), have conducted two projects (C) and have conducted four and over projects (D).

It is seen that four and above the EU project schools ($\bar{X}=$2.83) have the highest level of effectiveness. In terms of their effectiveness, schools with two EU Projects ($\bar{X}=$2.44), are followed by schools with an EU Project ($\bar{X}=$2.43). It is seen that schools that have never conducted EU Projects ($\bar{X}=$2.36) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "School Culture and Atmosphere" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU Projects ($\bar{X}=$2.36) at the "Little Agree" level, for those schools that have conducted an EU Project ($\bar{X}=$2.43) at the "Little Agree" level, for those schools that have conducted two EU Projects ($\bar{X}=$2.44) at the "Little Agree" level, for those schools that have conducted four and above EU projects ($\bar{X}=$2.83) at the "Agree Moderately" level. This shows that there is a linear increase in the effectiveness of School Culture and Atmosphere relative to the number of EU Projects carried out.

According to the number of EU projects carried out, findings on the differentiation of the effectiveness levels of schools in the School Environment and Parents dimension are given in Table 9.

Table 9. According to the number of EU projects carried out, results of ANOVA on the level of effectiveness of schools in the School Environment and Parents dimension

| Dimension | Number Of Projects Carried Out | N   | $\bar{X}$ | $s_s$ | $F$   | $p$   | Significant Difference |
|-----------|-------------------------------|-----|----------|------|------|------|------------------------|
| School Environment and Parents | A) No Project Has Been Executed | 29  | 2.44     | 0.31 | 6.30 | 0.000| B-D C-D                |
|          | B) 1 Projects                 | 112 | 2.32     | 0.17 |      |      |                        |
|          | C) 2 Projects                 | 39  | 2.29     | 0.12 |      |      |                        |
|          | D) 4 and over Projects        | 23  | 2.45     | 0.17 |      |      |                        |

When table 9 is examined; according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the School Environment and Parents dimension according to the numbers of the EU Projects conducted by the vocational high schools; it is seen that there is a meaningful difference. The "Tamhane's T2" test was applied and it was seen that there were significant differences between the effectiveness levels of the schools that have not conducted any projects (A), have conducted a project (B), have conducted two projects (C) and have conducted four and over projects (D).

It is seen that four and above the EU project schools ($\bar{X}=$2.45) have the highest level of effectiveness. In terms of their effectiveness, schools that have never conducted EU Projects ($\bar{X}=$2.44) are followed by schools with an EU Project ($\bar{X}=$2.32). It is seen that schools with two EU Projects ($\bar{X}=$2.29) have the lowest level of efficacy.

As a result, according to the teachers' perceptions of the characteristics of the "School Environment and Parents" dimension of the effective school, the level of realization in the vocational high schools is; for those schools that have never conducted EU Projects ($\bar{X}=$2.44) at the "Little Agree" level, for those schools that have conducted an EU Project ($\bar{X}=$2.32) at the "Little Agree" level, for those schools that have conducted two EU Projects ($\bar{X}=$2.29) at the "Little Agree" level, for those schools that have conducted four and above EU projects ($\bar{X}=$2.45) at the "Little Agree" level. Unlike the results obtained in
other dimensions, it shows that the number of EU Projects carried out has a low effect on the effectiveness of the School Environment and Parents.

The Relationship Between the Effectiveness of Schools and the Numbers of EU Projects

Findings related to Pearson Correlation Analysis results to determine whether there is a relationship between the number of EU projects carried out by Vocational and Technical Anatolian High Schools and the levels of effectiveness are given in Table 10.

Table 10. Results of Pearson Correlation analysis on the relationship between the number of EU projects carried out and the effectiveness levels of schools

| Number of EU Projects | Effectiveness level |
|-----------------------|---------------------|
| 1                     | .701**              |

As a result of the Pearson Correlation Analysis conducted to determine whether there is a significant relationship between the number of EU projects carried out on the schools and the effectiveness levels of the schools, it was found that there was a strong correlation between them in the positive direction (r = .701, p < .01). According to this, as the number of EU projects carried out increases, it can be said that the effectiveness levels of schools have also increased.

4. Conclusions

In this study, it is seen that the schools with 4 and above EU Project have the highest level of effectiveness when based on the level of effectiveness of the vocational high schools according to the number of EU Projects carried out. In terms of their effectiveness levels, the two EU-funded schools are followed by schools with an EU Project. Schools that have never conducted EU Projects have the lowest level of effectiveness.

In the field literature, when studies on the EU Projects abroad were examined, it was found that the majority of such studies have emerged from the national reports and the committee's work together [24]. In his study of the effects of the Leonardo da Vinci and Socrates programs between 2000-2006, 'Norway Leonardo da Vinci and Socrates Program Assessment', Vabo [21] reached the conclusion that the Comenius school partnership projects have contributed a lot to the development of both teachers and students, or local government. It is seen that the measuring instrument used in the research consists of the variables of language skills, information communication skills, project management skills, different cultures, motivation, internal cooperation (support) and school management. Similarly, Kassel [20] collects data on co-operation and its sustainability, Europeanization, skills, language learning motivations, and quality of education variables in a study called 'Final Report on the Effects of Comenius School Partnerships on Participatory Schools', which Comenius projects aim to contribute to improving teaching quality. And Kassel [20] has reached the conclusion that projects have improved their proficiency in foreign language skills, which has increased their professional knowledge and skills, social skills and personal responsibilities. The project called 'Community Programs II, Leonardo da Vinci and e-Learning Final Assessment', which the European Commission has accrued in 2007, has achieved a positive change in language learning and teaching, innovation and new teaching methods and the participants have developed communication skills, cultural awareness and professional competence.

When analyzed studies for Turkey in the EU project, it is seen that the studies carried out are directed towards the project process rather than the contributions of the projects, in relation to other variables, to the participant views towards the projects and the developed scales are in this context. As a matter of fact, Ültay [25], who has made a study on the management of the variables in the project preparation process in EU Projects, aimed to take participant opinions on variables such as finding ideas, working program, budgeting, European added value and dissemination in the project proposal preparation process. Bahadir [17] and Acir [18], on their work making use of Comenius Projects and views of school administrators, teachers and students on projects' operative issues, have developed a scale aimed at revealing problems and problems faced by participants in their projects during the project preparation process. In their work on the effects of Comenius Projects, Dilekli [16] and Tümen [26] evaluated the effects of the projects by interviewing participants rather than developing a scale to determine the effects of the projects.

Similarly, in a study of EU education and exchange programs aimed at addressing the contribution of cultural development in foreign language learning, Lembet [27] proposed a questionnaire form and asked the students about the changes they have experienced in the cultural items mentioned in the question in the country and they are asked to respond in the form of "positive" - "negative".

In Turkey, the European Union projects draw more attention every year, the number of projects being prepared is increasing day by day and this interest and participation also increase the importance of the projects. As a matter of fact, the Erasmus + Program, which we carried out during the period we were in, was met with great interest by the education and youth groups. Turkey's National Agency, which implements programs offered across the European project received the highest application in terms of the number of applicants has been involved in top among 33 countries. Therefore, it is
important to determine the level of contributions provided by these projects to schools that prepare the project and participate actively in the projects.

In addition, according to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Manager dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects. Schools with four or more EU Projects seem to have the highest level of effectiveness. Schools that have never conducted EU Projects have the lowest level of effectiveness.

According to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Teacher dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects. Schools with four or more EU Projects seem to have the highest level of effectiveness. Schools that have never conducted EU Projects have the lowest level of effectiveness.

According to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the Student dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects. Schools with four or more EU Projects seem to have the highest level of effectiveness. Schools that have never conducted EU Projects have the lowest level of effectiveness.

According to the results of the ANOVA conducted to determine whether the levels of effectiveness differ significantly in the School program and education process dimension according to the numbers of the EU Projects conducted by the vocational high schools; it was seen that there was a meaningful difference in the effectiveness levels of the schools that did not carry out any projects, carried out a project, carried out two projects, carried out four and above projects. Schools with four or more EU Projects seem to have the highest level of effectiveness. Schools that have never conducted EU Projects have the lowest level of effectiveness.

According to the teachers’ perceptions of the characteristics of the "School Culture and Environment" dimension of the effective school, the level of realization in the vocational high schools; at the level of "Low Participation" for schools that have never conducted EU projects, at the level of "Low Participation" for schools that have carried out an EU Project, at the "Low Participation" level for schools that have been carried out two EU projects, at the level of "I Participate in the Middle Development" for schools that have been carried out four and above EU project. This shows that there is a linear increase in the effectiveness of School Culture and Environment relative to the number of EU Projects carried out.

In the School Environment and Parent dimension, it is seen that the schools with four and above EU Projects have the highest level of effectiveness. In terms of effectiveness levels the schools that have never conducted EU Projects are followed by schools that have an EU Project. Schools with two EU projects have the lowest level of effectiveness. When we look at the characteristics of the effective school "School Environment and Parent" by teacher perceptions, it shows that, compared with the results obtained in other dimensions, the number of EU Projects carried out has a low effect on the efficiency of the School Environment and Parents.

The research results obtained in the dimensions of Manager, Teacher, Student, School Program and Education Curriculum and School Culture and Environment support the results of the research done by Dilekli [16], Aydoğan and Şahin [15], Bahadır [17], Acir [18], Erdoğan [19], Kassel [20] and Vabo [21]. It was seen that the EU Projects, which were conducted differently from other studies in the School Environment and Parent dimension, had less effect on school effectiveness.

It has been found that there is a strong correlation between the number of EU projects carried out on schools and the effectiveness levels of schools on the positive side. It can be said that as the number of EU projects carried out increases, the effectiveness levels of schools will also increase.

5. Suggestions

In this section, the proposed recommendations for practitioners and researchers are given in the direction of the results obtained in the research.

Based on the findings obtained as a result of the research, some suggestions for practitioners are given below:

1. To increase the effectiveness levels, schools should be encouraged to implement EU Projects.
2. Ensure that teachers and students who are actively involved in the EU Projects share experiences gained during the project with teachers and students in other schools.
3. Seminars should be given to education managers about the benefits of the EU Projects on the School Program and the process of education and
training, the School Culture and Environment, the School Environment and the Parent Dimensions.

4. Teachers, students and parents should be informed by the National Agency or by experts in the project offices in the context of institutional contributions of the EU Projects.

5. In-service training should be given to managers and teachers who work in schools in preparation and execution of the EU Project.

6. EU project preparation teams should be established in schools.

7. Students should be encouraged to take a more active role in the EU Projects.

8. School stakeholders, especially parents should be actively involved in the EU Project process.

Based on the findings of the research, some suggestions for researchers are given below:

1. School leaders should know firstly that conflict exists for every organization, that conflicts are a natural condition, and that in schools which are educational organizations, like other organizations, they should know that there may be occasional conflicts.

2. School leaders should know that conflicts can be effectively managed rather than avoiding conflict in conflict situations, ignoring conflict, shelving an existing conflict situation, providing temporary solutions, and so on. The conflict should be handled in cooperation with teachers, with strategies that will not harm the school in the direction of its goals and objectives, and should not ignore the teachers in this respect.

3. School managers should approach conflict in a more constructive and developing manner instead of managing conflicts in their own interests by using their power and authority in case of a conflict.

4. Because the school is an institution of education and training, and because it is an institution that has responsibilities for community and environment; school administrators should prefer an approach that is appropriate to the school's goals which can best fulfill its duties and responsibilities instead of a liberal approach to school-related duties.

5. School managers should develop standards for schools together with their teachers, as well as establish a common mission and vision.

6. School administrators should have the necessary and sufficient communication skills to create an effective and efficient solution when faced with conflict situations.

7. School leaders should prevent conflicts before the organization reaches the level of harm.

8. In-service education should be given to school managers on conflict resolution and awareness must be provided about conflicts should not only be a harmful situation, they should be effectively and efficiently managed in a timely manner, their damages can be eliminated, conflicts arise from various causes, etc.

9. School administrators must anticipate the reasons for initiating the conflict at school and must resolve the necessary arrangements for these factors without conflict and end the conflict before it begins.

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