

## Competencies of principals in ensuring sustainable education: Teachers' views

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### ABSTRACT

This study aimed to reveal the opinions of teachers about the competencies of school administrators in order to ensure the sustainability of education in schools. It was a pneumology study designed with qualitative research method. The study group consists of fifteen teachers from schools located in five different educational zones across the center of Sivas, a city in Central Turkey. Study data were analyzed with content analysis to determine the factors that provide educational sustainability in schools. According to the results; solidarity and structured work characteristics among school administrators to fulfill the objectives of the school affect the adequacy of education in a positive way; while institutionalism and limiting of the capacity have an opposite effect. In relation to capacity building for taking the school culture to future, school administrators have a high opinion of opening up to the neighborhood besides school culture supply and demand. Lastly, for carrying the school into the future, teachers expect school leaders to exhibit behaviors with emphasis on specific themes as ethics, motivation, and awareness.

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## 1. INTRODUCTION

Sustainability first emerged in 1982 in the World Charter for Nature, which was accepted by the International Union for the Conservation of Nature (IUCN). Sustainability is based on environmental biology and is thought to be the ability to transfer the functions and cyclical mobility of the ecological systems to the future [1]. Although the main point of origin of sustainability is ecology, conclusions can be drawn about the sustainability of other areas. Örcü [2] states that sustainability goes well beyond environmental concerns and includes also social and economic conditions. Besides its social and cultural aspects, sustainability interacts and intertwines with all relevant areas (social, environmental and economic) [3, 4].

In social terms, sustainability can be described as meeting the needs of today's human generation without jeopardizing the ability of future generations to meet their needs [5]. Education can be discussed under the title of social sustainability since it is a social phenomenon. The reasons for education are a social phenomenon can be listed as following [6]; i). It is only possible through education to socialize and introduce the child to society (social sustainability); ii). The national culture, which constitutes the national identity, can be indoctrinated to the new generation and transferred to the people public only through education system; iii) economic and technological development is only possible through education (economic sustainability); iv) Selection and training of students according to their abilities is again possible through education (economic sustainability); v). Creation of democratic and human relations is again possible through education (social sustainability); vi). These spiritual values and disciplines necessary for the peace and security of the society can be provided by education system only (social sustainability). So, they could be argued to contribute to sustainability of education.

Educational sustainability is a transformative paradigm that nourishes learning and integrates behavioural and cognitive perspectives that allow adapting in order to develop a social-ecological system with flexibility to face the threats of the future full of ambiguity and surprises [7]. The main problem with the education system is that it lacks a structure and operation to meet new requirements [8]. Sustainability in education is the clarity of the policy, objectives, content, method, and process of education as well as its ability to meet expectations of the coming generation.

In order to ensure social sustainability, support could be extended to close relationships, faith-based social networks (belief communities and voluntary organizations), positive thinking habits and engaging activities [9]. These factors, which are also supportive for ensuring sustainability in education as a social phenomenon, can be valuable. Foster [10] argues that sustainability in education can be achieved by acting together as individuals learning in the modern age and by providing education capable of imparting sufficient knowledge, sensitivity, emotional diversity, and spiritual unity to the individual. We can conclude that the concept of co-operation, which is suggested by Foster to ensure sustainability in education, is parallel to the concept of close relationships that supports social sustainability. As another factor which supports social sustainability as well as sustainability of education, the concept of belief-based social networks can be said to unite with concepts of sensitivity and emotional diversity. One example of this factor in the sustainability of education could be the multidimensionality of the classrooms as they include people with different ethnic, cultural, and religious etc. backgrounds. It can also be said that the habits of positive thinking, one of Myers' [9] supporting factors of social sustainability, and the concept of spiritual integration, which will contribute to sustainability in education, are close to each other at certain points.

The concept of sustainability in education is discussed by another researcher [7]. He introduced the change the culture and paradigm of education, and stated that it embraces the principles of sustainability and being reasonable, healthy and durable: *sustainability*: ensuring continuation of people, public and environment; *being reasonable (reasonableness)*: integrative work, justice, respect and inclusion not to be contrary to ethical principles; *being healthy*: living system, nourishing and showing healthy relationships; *being durable*: to ensure adequacy in practice in order to continue doing something. The coexistence of these four principles can be interpreted as a sign of sustainability in education.

Several methods have been put forward in order to provide sustainability, and the literature provides a multitude of studies on the intermediary (key) role of education to this end [11-14]. These studies discuss education as a kind of tool (as a training program to create a sustainable environment) to achieve sustainability. Considering education as a social phenomenon, the concept of sustainability in education can be examined separately.

Some researchers discuss this concept within the framework of training for a sustainable environment, causing misunderstanding [15]. The question to be addressed for sustainability in education is: What training and learning experiences should be taken as basis for the changing world characteristics? Many experts argue that we need to radically change our ways of thinking in a more holistic, systematic, and unifying way [16-19]. In this matter, Walker and Salt [20] concisely base sustainability in education on thinking flexibly. Homer-Dixon [21] explains it in connection with thinking forward. Resnick and Hall [22] indicate that sustainable education can be achieved in learning organizations. Fagan [23] in his study on the scenario of sustainable education, points out that flexible thinking as an element which recently refers to dynamism and activism plays a role in sustainable education. As a key to coping with ambiguity and uncertainty in some way, key elements of sustainability in education are social learning and flexibility [24] learning to learn, transformational learning, continuous understanding/exploration; overcoming obstacles, and necessary creativity [7].

The fact that education has a system that can suffice to today's people and adapt itself at the level to suffice to future generations indicates the existence of sustainability in education. In order to ensure sustainable development, although education is known to be important and various learning methods are identified [25], however ensuring sustainability of education is complicated and quite slow to change the perspective of education in educational organizations [26, 27].

Sustainable education institutions should serve with social justice and environmental management model [28]. It can be stated that there is a relationship between the management and sustainability of educational institutions. Although studies on raising awareness of the students or teachers through training and courses to ensure sustainable development have been sufficiently covered in the literature [29-33] studies on how sustained the education in schools are, or about school administration competencies in this respect are very limited, and it is important to examine the competencies of school principals in ensuring sustainability.

Educators have important roles and competencies in providing sustainable education. The role of the teachers is to facilitate learning and enable learning rather than transferring knowledge to students according to [34] and [25]. In addition, manager roles and competencies require complex and high-level skills to ensure sustainability. Kopp and Martunizzi [35], stated the management competencies required for sustainability managers according the year of researches about the topic as shown in Table 1.

Table 1. Sustainability competencies for sustainability managers

Topic	2009	2011	2012
Advanced comprehension of sustainable development	Handling of complexity	Balance between local and global perspectives	Diversity, respect for diverging perspectives
Comprehension of effects, risks and opportunities	Integrative approach	Innovation and creativity	Emotional intelligence and self-perception
Vision, power of persuasion, organisation of transformation Systematic/holistic thinking	Understanding of interdisciplinary connections Long-term perspectives	Handling of insecurities, ambiguities and dilemmas Support in decisionmaking through dialogue and intuition	Perception of "shadow issues" Learning and development

Based on the qualifications in the Table 1, taking into account the authority of the school administrators in the Turkish Education System, the competencies of school administrators in providing sustainable education can be stated as follows. School principals should be able to demonstrate focusing on long-term perspectives for achieving school objectives, and persuading teachers and other stakeholders to achieve sustainable development. To carry the school into the future and to improve the quality of education, school administrators should be open to innovation and creative and should be able to decide with their own intuition by giving importance to the views of stakeholders. By providing school administrator with systematic and holistic thinking (to be able to realize that the events that appear to be separate and independent from each other affect the whole system by understanding the relationship among them) and learning in a team with teachers, principals and stakeholders, school principals should be able to create a learning organization. School administrators should be able to identify the factors and opportunities by considering the diversity and different perspectives according to dilemmas and uncertainties of the school climate and culture. Therefore, this study aims to determine the competencies of school principals to ensure sustainable education.

## 2. RESEARCH METHOD

In this study, qualitative research methods were used to identify the factors that contribute to the sustainability of schools in education and to deeply understand and analyze what these factors contribute to schools in what aspects. The study was designed as a phenomenologic study since it is based on individuals' experiences and help interpret and reveal experiences [36]. The study group consisted of a total of 15 teachers who teach in schools located in five different educational regions in Sivas province centre. The demographic data of participants who comment on the factors that affect the sustainability of schools in education are given in Table 2.

Table2. Demographic data of participant teachers

Name	Gender	School	Field
T1	Male	High School	Mathematics
T2	Female	High School	Turkish Lang. & Literature
T3	Female	High School	German
T4	Male	Secondary Shool	Turkish Language
T5	Male	Secondary Shool	Physical Education
T6	Male	Secondary Shool	English
T7	Female	Secondary Shool	Mathematics
T8	Female	Primary School	Classroom Teacher
T9	Female	Primary School	Classroom Teacher
T10	Male	High School	Religious Cult. & Moral Knowledge
T11	Male	High School	Chemistry
T12	Female	High School	Mathematics
T13	Male	High School	Turkish Lang. & Literature
T14	Female	Primary School	Classroom Teacher
T15	Male	Primary School	Classroom Teacher

Eight of the participants were males and seven were females. Seven teachers work in high schools, four in secondary schools and the other four in primary schools. Two of the participants teach Turkish language and literature, three teach mathematics, one German language, one chemistry, one Turkish language, one physical education, one teaches English language, and four are classroom teachers. Teachers were named as T1, T2... T15 according to the order of interview.

### **2.1. Data collection tool and data collection**

In order to collect information about the factors that affect the sustainability of education in schools, a semi-structured interview form was developed. For the questions in the interview form, literature review was carried out first to prepare a pool of questions. Ten questions were prepared to serve the purpose and scope of the research. For finalizing the interview questions, two faculty members specialized in educational administration from the Department of Educational Sciences were asked for their opinion, to reach consensus on the questions directly related to the research purpose. As a result, six questions were included in the interview form.

Next, a pilot study was carried out with three teachers who were not in the study group in order to find out whether the questions were clear enough. Robson [37] states that the value of research questions is equivalent to being a well-organized question, determining the boundaries of the research, guiding the research, and helping to achieve results. In this regard, since the literature on sustainability in education provides a limited resource of theoretical and practical samples, the questions were prepared so as to reveal more experiences than feelings and thoughts. Also attention was paid to make prepare questions which are not guiding the respondents, are understandable and supported with probes. The questions in the draft interview form were examined by experts and arranged until a consensus was reached. As a result, four questions were included in the form.

### **2.2. Validity and reliability**

Procedures for ensuring validity and reliability conditions in qualitative research include describing and interpreting the data and describing the situation, free from errors [38]. During interviews in this study, first of all, the participants were informed about the purpose and content of the study in order to minimize probable mistakes. Voice recordings were made during the interview with the participants' permission. Once the voice recordings were confirmed by the participants, the data were converted into written documents. As a second step, as an interpretation criterion, attention was paid to convey the participants' expressions without adding any comments.

Finally, the following points are taken into account while explaining the relevant situation: the factors that cause the researcher to act unfairly were eliminated by checking whether the transcriptions seemed compliant with the voice recordings. In addition, each stage of the research process (preparation of questions, identification of the questions in the interview form, demographic data of the participants, data collection process and analysis of the data) were reported clearly and openly. Raw data are kept in order to determine their compliance with future research to be carried out in this area.

### **2.3. Data analysis**

The data obtained from the participants were analyzed with content analysis to find out the factors that provide educational sustainability in schools. Content analysis is composed of three stages as forming the codes, categorizing the codes based on similarities, and finally data abstraction [39]. In this study, the data were analyzed in a way to first identify subcategories, followed by general categories, and finally to elicit the themes. The data analyzed in this were also supported with direct citations.

## **3. RESULTS AND DISCUSSION**

To achieve findings of the study, the data collected from the participants were categorized and the main themes were reached. The results regarding the factors that provide sustainability in education are presented, respectively.

### **3.1. Teacher views regarding principals' effects on accomplishing objectives to ensuring adequacy of education at the school**

In response first question (In the scope of adequacy of education, how do you assess the behaviours of your school administrator to fulfil the objectives of the school?); the main categories, subcategories and themes derived from content analysis are given in Figure 1.

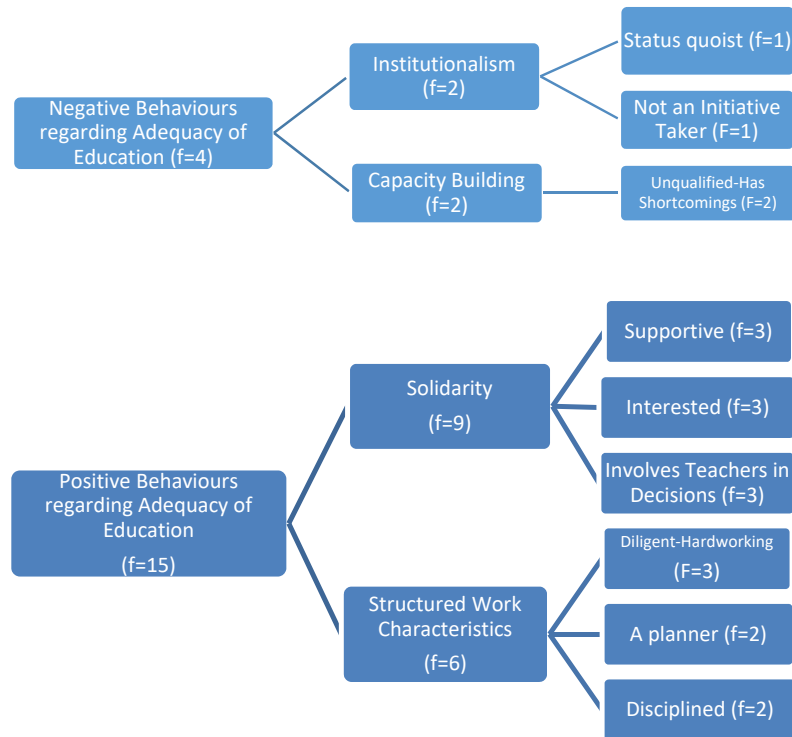


Figure 1. School administrators' behaviours to fulfil the school objectives

According to the results, school administrators' positive behaviours' to fulfil the school objectives, which is an aspect of adequacy of education, were often reported by teachers ( $f = 15$ ), while negative behaviours were reported only by few ( $f = 4$ ). On this topic, the teachers expressed the opinion that solidarity and structured work characteristics of the principals are positively reflected in achievement of the school objectives, which serves to the adequacy of education. The idea of positive behaviours was divided into two main categories, solidarity and structured work characteristics. The former had three subcategories. The teachers noted that school managers support them and their educational works targeting at students (T1, 10); they show interest (T1, 3, 6) and they involve teachers in executing any action or making decisions at meetings (T1, 8, 12). Under the category of structured work characteristics, it was reported that principals work diligently (T7, 10, 11), they are well-disciplined (T8, T4) and they plan ahead (T1, 14).

On the other hand, two categories were reported as institutionalism and capacity building categories related to the negative behaviours of school administrators before realizing school goals in terms of adequacy of education. In relation with the former category; two subcategories were reached that their principals just care about maintaining the current situation, status quo, (T9) and they do not take risks-not taking initiatives (T13). As for capacity building; there is a subcategory which indicates that school administrators are not fully qualified to fulfil their goals and they have shortcomings (T9, 15). On the contrary, school administrators' failure to build capacity for educational needs and institutionalist behaviours are thought to have negative effects on fulfilment of school goals. Positive behaviours include diligence-hard work, participation in decisions, being supportive and disciplined, and being good planners. Capacity building can be associated with improving the professional qualifications of school administrators.

In relation with school's educational qualification (the idea of sustainability of education), principals' behaviours such as solidarity and structured work characteristics *in achieving goals* are regarded as positive actions by teachers. Castrogiovanni [40] states that the abundance of resources is effective in the realization of the goals, which makes surviving of the school relatively easier. This might be because school administrators are regular, apt to plan ahead, and disciplined in using resources to achieve school goals.

Another positive behaviour of school administrators to realize school purposes was found to be participation in decisions. Research emphasizes that participation in decisions plays a facilitating role in

achieving school goals [41, 42]. Also Copland [43] points out that participation in decisions is an effective factor for school development to have a sustainable capacity. It can be said that participation in decision making can affect sustainability in education. Apart from that, teacher opinions suggest that school administrators are zealous, hardworking, and supportive in achieving school goals (demonstrating efficacy for school administrators). In a study by Gorton and McIntyre [44] among the characteristics of effective school administrators were reported as diligence, commitment and being involved with students. Also Argon [45] found out teacher opinions that supportive school administrators are hard working. In the study conducted by Brown and Wynn [46], it was found out that school administrators *seek for teachers who can adapt to the school conditions, support them and ensure their loyalty* in order to increase those teachers' willingness to continue working in the school. It could be suggested that school administrators' behaviours such as *making an effort to fulfil their school purpose, working hard and supporting teachers* are likely to have a positive effect on sustainability of school. School administrators were also found to be influential by means of affection and respect-oriented behaviours in fulfilling school goals. In professionalization of teachers, which is an effective feature in realization of school objectives [47]. It was concluded that school administrators' respect for teachers is also effective achieving the goals [48, 49]. In relation with adequacy of education, the factors that adversely affect the sustainability of education were reported as the lack of professional administrator, rejection to take initiative, and being status quoist in fulfilling school goals. On the other hand, school leaders' performing more authority beyond taking initiative could lead to obstacles such as intervention by top managers, restrictions imposed by legal texts, and uncertain legal texts [50] which in turn may hinder the school's education adequacy and thus bring educational sustainability to a halt.

### 3.2. Teacher views regarding principals' effects transferring the school culture to next generations

For the question "In the scope of building the school's educational capacity, what does your school manager do to carry the school's cultural value to future?" the subcategories, categories and themes determined through content analysis are given in Figure 2.

Theme of School Culture Supply (Social Activities Category)	Theme of School Culture Demand (Intra-institutional relation category)	Theme of Opening to neighbours (Commun. relation Category)
<ul style="list-style-type: none"> <li>• Dining Events (f=6)</li> <li>• Social assist.(f=5)</li> <li>• Visits (f=2)</li> </ul>	<ul style="list-style-type: none"> <li>• Commun. with teachers (f=3)</li> <li>• Regular meetings(f=3)</li> </ul>	<ul style="list-style-type: none"> <li>• Social media use(f=3)</li> <li>• Seminars(f=3)</li> </ul>

Figure 2. Activities undertaken by school administrators to carry the school culture (values) into future

According to the teachers' views, the activities that the school administrators carry out to take the school culture into future as a part of building the school capacity are combined under the themes of school culture supply, school culture demand, and openness to the neighbourhood.

There are social activities (f = 13) under the theme of school culture supply, intra-institutional relations (f = 6) under school culture demand, and community relations (f = 6) under the theme of openness to the neighbourhood. As subcategories of social activities; the teachers reported that meals are organized for saying goodbye to some teachers or welcome newcomers (Ö1, Ö8) and on special occasions (T1, 2, 8, 12, 14, and 15). Also other subcategories were found under the same theme: as a part of social assistance; money funds (T2), clubs (T4), associations (T12) and material and moral support is extended to the persons in need (T4, 10, 15).

As another theme, school culture demand was seen to branch out into two categories. Under intra-institutional relationships, the teachers as subcategories that school managers frequently hold interviews on important issues (Ö3) and they are in constant communication with the teachers (T11, 12). As for regular meetings; it was found out that evaluations are made on school achievement and student behaviours (T3, 8).

The last theme, openness to the neighbourhood, consists of the category called community relations. According to the teacher views, three different subcategories were found. Principals share school events on the social media (T2, 11, 12), graduates of the school who are now professionals give seminars in the same school from time to time (T3, 4).

With regard to creating the school's educational capacity (the idea of sustainability of education); *the activities of school administrators to bring the school culture (value) to future* were collected under the themes of school culture supply, school culture demand and openness to the neighbourhood. It was found out that intra-institutional relations which strengthen communication with teachers as well as involvement of school stakeholders in social activities are employed in preserving the school culture. It was seen that in connection with school-environment relations, school culture is transferred by giving seminars and using the social media. Encouraging school culture and emphasizing relations with the surrounding community have been seen in the research results that play an important role for the sustainability of education. According to Çelik [51] parents protect the school culture at the extent they know about it. In this regard, school administrators can benefit from environment-community relations to develop school cultures. In his study, Özdemir [52] found out that for enhancing the school culture, teachers expect school principals to hold traditional ceremonies and cultural and sporting events (the supply of school culture). I think that teachers' expectations such as traditional ceremonies and cultural and sporting events may be possible through organization of social events and maintaining strong internal and environmental relations by school administrators. In the study conducted by Aslan, Özer and Bakır [53] it was revealed that the values shared in schools for transferring the school culture are often carried through intra-organizational communication or organizational socialization (school culture demand). The closeness of intra-organizational communication and intra-organizational communication can be explained by the fact organizational stakeholders own the ability to keep communication channels open. It was understood that social activities, one of the channels of organizational socialization that allow school stakeholders to relate and facilitate their adaptation to their schools, is also as an effective factor in protection of the school culture. Lunenburg and Ornstein [42] states that maintenance of school cultures could be possible with celebrations and building good relationships for school stakeholders to integrate into common values. It can be said that schools with negative school cultures may be insufficient in conveying the culture they have. Bilir, Ay and Gürbüz [54] found out that teachers' negative views on school cultures were rooted in a strict control of school cultures. In maintaining school culture, social activities (dining organizations, co-operation and visits) and intra-institutional relations (continuity of teacher-manager communication) can be possible with voluntary and comfortable participation of stakeholders. It is observed that the findings related to transferring the school culture (values) into future in the research overlap with the research results in the literature. In other words, it may be plausible to propose that school culture cannot afford strict control for transfer of school culture to future. I could argue that perceptions regarding school culture and school administrators' behaviours in this respect may be influential in the context of educational capacity and sustainability of education.

### 3.3. Teachers views regarding their expectations from principals to carry the school into future

Teachers' answers for the question "What behaviours do you expect from your principal to carry your school to future?" were analyzed yielding the following subcategories, categories and themes in Figure 3.

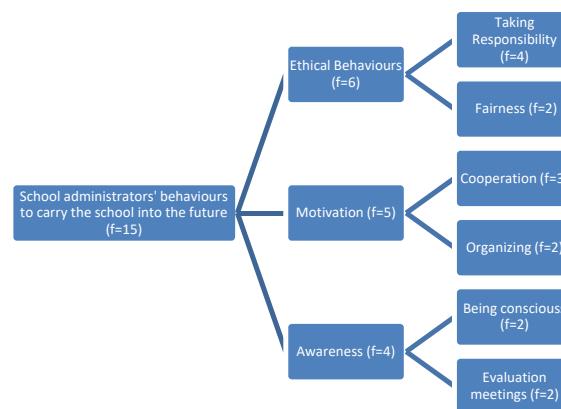


Figure 3. School administrators' behaviours to carry the school into future

The behaviours expected from school administrators for transferring the school culture into future are gathered under the themes of ethical behaviours, motivation and awareness. The first theme consists of subcategories of taking responsibility (T1, 9, 11, 14) and fairness of behaviours (T8, 15). Under the next

theme, tendency to cooperate (T3, 5, 6) and organizing (T7, 13) were found. Lastly, awareness is seen to have two subcategories as holding meetings in order to evaluate the physical, social and academic aspects of the school (T8, 12).

Another dimension of sustainability in education is *transferring the school culture*. *School administrators' responsibility for bringing the school into future were found to consist of ethical behaviours, motivation and awareness*. Firstly, teachers emphasized that school administrators should take responsibility for ethical behaviours to this end. Walden [55] points out that the characteristics of future schools are not fully known; still, desired characteristics always include architectural features and equipment of schools. He also predicts that the search of quality for schools will continue and that schools will work to ensure participation of stakeholders and the community as well as sociological and psychological conditions. Since school administrators are responsible for arranging the school landscape, it is not surprising at all that they are expected to work to this end. Fairness of school administrators as ethical behaviours were found as positive factors in future transfer of the school. According to Interstate School Leaders Licensure Consortium (ISSCL) [56] standards, a school leader must exhibit fair and consistent behaviours, which seems to be in parallel with our study findings. Balyer [57] states that meeting of teachers' expectations for fair behaviours from school administrators [58] is effective in managing school change by school leaders. In the scope of sustainability of education, management of change can allow future transfer of schools. Thus, it is an expected behaviour that school administrators act in a fair way as a part of their competencies in for sustainable education. Motivation by school administrators plays a role in for bringing the school into future. This finding seems to coincide with Kocabaş and Karaköse [59], who say that motivation is a driving force used by managers to keep employees constantly moving in the direction of individual and organizational goals, and that school principals must be trained in motivation [60]. As another result of our study, awareness of school administrators about school education in order to move the school to the future is among the competencies supposed to be assumed by school administrators in sustainability of education. As understood from reports from dysfunctional schools, the lack of awareness of school administrators' regarding the expectations is influential on the status of the school [61]. In addition, it was seen that conscious school administrators make a difference in school success [62]. As also supported by the literature, it can be argued that positive reflection of school administrators' awareness regarding (consciousness) about the school education on the education activities of the school can also show itself in improved sustainability of the education.

### 3.4. Teacher views regarding principals' effects on making a learning school for the purpose of ensuring sustainable education at school

In response to the query whether theirs is a learning school or not, only two teachers have a positive response. As a result of analysis of those teachers' opinions; the subcategories, categories and themes are given in Figure 4.

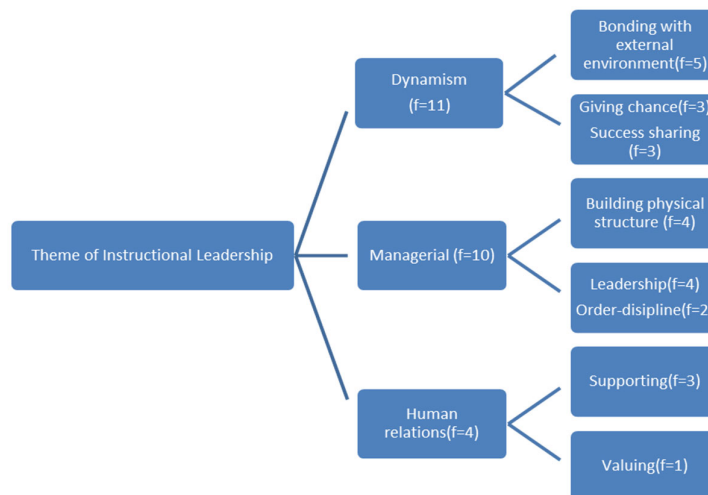


Figure 4. School administrators' effect on making schools learning organizations



From the teachers' views, the main theme of instructional leadership was obtained regarding responsibilities of school administrators for creating learning schools. It was divided into three categories as dynamism ( $f = 10$ ), administrative ( $f = 10$ ) and human relations (3). The first category led to the subcategories as providing opportunities and chances (T1, 8, 10, 12, 15), making connection with neighbouring groups of artisans and charities that contribute to the school (T1, 4, 12) and sharing their successes (T5, 6, 14). Under the second category, the subcategories of meeting the physical needs of the school (T1, 4, 11, 14), being a leader in implementing the decisions and innovations (T1, 5, 12, 15) and ensuring order and discipline (T3, 14) were reached. Lastly, human relations were supplemented with subcategories that school administrators support teachers (T11, 13) and value teachers (T2).

In this study, the competencies of principals in creating learning schools were discussed for sustainable education. It was found out that school administrators' competencies in this regard are combined under the theme of instructional leadership. The study also demonstrates that educators especially school administrators, who provide support for making learning schools, for making learning schools have a role to play and assume leadership to this end. Instructional leadership competencies were determined to be related with *dynamism, managerial and human relations* according to the teachers. Providing equality of opportunities and chances in the category of dynamism is considered as an effective factor in making sustainable education in the school. Hoy and Miskel [41] state that teaching and learning processes should be supported continuously for being a learning school. It can be associated with the finding of dynamism. Also, DuFour [63] indicates the importance of professional development to ensure continuity of learning organizations and emphasized the need for financial means open to teachers. The responsibility of managers to offer equal opportunities and chances to teachers also includes provision of financial opportunities. Departing from that, it can be said that school administrators' responsibility for providing equal opportunities and chances plays an important role in turning their school into a learning organization. Considering learning organization as a sub-dimension to make education sustainable, it can be acknowledged that provision of equality of opportunities and chances by school managers will bring positive results for sustainability in education. From dynamism point of view, it was seen that school administrators have a role to play in establishing external environmental ties in order to become a learning organization. Fullan [64] stresses that teachers and school administrators should continuously increase their knowledge and capacities in the learning organization. Information exchange within the framework of continuous information and capacity building may be possible by creating external environmental links. Hence, school administrators' establishing external environmental ties can play an important role in increasing the knowledge and capacity of schools to become learning organizations. Also present study revealed that school administrators have a role in creating external environmental ties to ensure learning organizations as one of the characteristics of sustainable education. In relation with dynamism, it was seen that school administrators also have role of success sharing for creating a learning organization. Korkmaz [65] concluded that open communication, sharing of thoughts and transfer of knowledge have strong influence in characteristics embodied in learning organizations. According to our study findings, it can be stated that school administrators' role of success sharing is effective in being an organization that learns due to the fact that it is some kind of thought or knowledge transfer. Success sharing can also be interpreted as a sign of professional development. Silins, Mulford and Zarins [66] classified one of the dimensions of learning organizations as professional development. Therefore, success sharing by teachers and school administrators for professional development can create a synergy among colleagues. Sharing of achievements in sustainability of education can also bring about the continuity of achievements; thus, the steps taken to become a school where there is constant development can mediate a step towards sustainability in education.

Present study demonstrates that school administrators' competencies for becoming learning organizations are under the roof of managerial affairs including establishing the physical structure, leadership and order-discipline. Establishing the physical structure, leadership and order-discipline are among the school administrator's qualifications. The qualification in these areas also has been found to be effective in the school being a learning organization. Banoğlu and Peker [67] noted that school administrators who had received managerial training had a more positive perception in taking the school as a learning organization than those who had not received the training. It can be said that school administrators' proficiency in educational administration (having mastery of managerial skills) may be effective in turning schools into learning organizations.

Another competency explored in this study is that school administrators have a competency of human relations in creating a learning organization. The school's management/design team is the catalyst for transforming the school into a learning organization and improving it [68]. Sullivan and Harper [69] believe that the leaders who have a broad perspective, are capable of leading a learning organization, and who can take the human dimension to the center of the organization will be needed by organizations in the future. Furthermore, it is noted in the literature that school administrators who have attended team work have a more positive perception of their school as a learning organization in comparison to those who have not attended

[67]. This finding seems to be similar to our result that attachment of importance by school administrators on human relations has a constructive effect on turning schools into learning organizations. Today's school manager's motivation to learn and lifelong learning [70] may indicate that there may be learning associations. The activities in which school administrators play a role in making learning organizations can be listed as providing dynamism, mastery of managerial skills, and a human-oriented management approach.

#### 4. CONCLUSION

Ensuring sustainability in education involves keeping of a school itself alive, meeting the needs of students and parents with the services it provides, and educating students to adapt to the conditions of life in the future. The multidimensional nature of sustainability outputs in education implies that there is more than one factor that affects sustainability in education. In order to disclose the factors affecting sustainability in education, teachers' views were obtained regarding; i) the school administrators' behaviours to fulfil their school objectives; ii) their activities to bring school cultures (values) to future; iii) the responsibilities of the school administrator in carrying the school to future; iv) the effects of school administrators on schools being learning organizations. The results of the study were analyzed in reference to theoretical and other findings in the literature.

Based on the results of the research on the competencies of school administrators in sustainability of education, the following suggestions can be recommended.

In order to improve principals for taking initiative in fulfilling school goals, they could be given managerial education (thesis/non-thesis master degree) with cooperation of university and Ministry of National Education (MoNE).

In support of school cultures, it is advised that school administrators organize periodic meetings with teachers and parents (at least once a month) more often.

Moreover, in-service training should be offered to school leaders with particular emphasis on ethical behaviours, which are regarded as school administrators' responsibilities in transferring the school into future. Apart from that, overall situation of the school should be periodically analyzed with the help of strategy development specialists from Ministry of National Education (MoNE) and school development team members to increase their motivation and awareness about the education offered at that school. Also they need to have information about the general profile of the school so that they can undertake corrective and development work for incomplete or compelling situations.

Lastly, in line with the purpose of creating bonds with the external environment, school managers should support artistic, sportive or scientific activities in workshops, streets or other public areas (shopping malls).

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