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# The role of school principal in raising of employee motivation

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#### **Abstract**

This paper speaks of principle, description of one's job and all activities one performs in school, especially in motivating of employees in school. The aim of this research comes out of necessity to determine the role of school management and the way of motivation improvement among employees.

This research is conducted under the survey method of theoretical analysis pedagogical choose mentation analysis method and interviewing and scaling with questionnaire for principals, teachers, and professional associates in primary schools. This research included 7 primary schools in Bosnia Podrinje County (BPC) Gorazde, in Federation of Bosnia and Herzegovina. The research included 55 responded 10 principals, 10 professional associates and 35 teachers. The results show how estimated principles generally use motivation factors more in ones work. There are differences in frequency of usage of certain motivation factors in principles work regarding gender, degree of education and length of service in school. School management as well as other subjects in educational process have positive attitude in concept of usage of motivation factors in work process in school.

**Key words:** school, mandate functions, principle, motivation, teacher, motivators, professional associate.

#### 1. Introduction

Nowadays, education is on the margins of social events and it is very difficult to maintain the continuity of good work and fulfilment of all obligations for the majority of school employees. Each school depends on approach to the particular task and how enthusiastically the task is done.

Teachers are among ones whose approach to their obligations is done with a lot of love and dedication, and the main driving force of all jobs is internal motivation. Nowadays a big problem is the lack of certain mechanisms that would help to motivate employees to be even more satisfied. Constant cooperation with parents of students, as well as with the local communities is necessary in order to achieve the set goals of educational and upbringing work.

The principal of a certain school is an important role in respect of which the progress also depends. The transformation of management into leadership began in the 1990s. About 20 years ago, people talked and wrote about management in education, in recent years they talked about management and leadership in education, and today more and more about leadership - leadership in education. In order to successfully fulfil managerial role in the school in a wide range of operational tasks, appropriate competencies are of enormous importance for principal.

Starting from the basic hypothesis that work and job characteristics are the main sources of motivation for work, it is necessary to act in such a way that the work is acted upon, ie that the work performed by employees implies responsibility, to be as creative as possible and encourages individual development and self-affirmation (Varga, 2011, 5).

When motivating their employees to work, principals should keep in mind that people's characters are different and that not all employees will be motivated by the same means. Thus, some are finding motivation for work in the income, others in the progress of their students, others in praises and alike. It depends on principals how much they would be able to understand need and wishes of employees, determine their personalities and apply the means of motivation for which is decided that would work for an individual employee.

The importance of good leadership at the school level and the impact of leader's behaviour of school principals is clearly and faithfully demonstrated in various research and literature.

So far it is understood that school principals are aware that without proper investment and selection of staff there are no good results. Just as the well-known rule in working with students is that they will achieve good learning outcomes if they are prepared and motivated to work, so the same rule applies to teacher motivation. In order to be more motivated to work, principals should encourage their teachers to come up with new ideas and introduce innovations into the teaching process.

Further on, school principals cannot use incomes as a motivation tool, since the salaries are determined by the budget and other regulations. Even thought, it is indisputable that salaries with which people meet important needs in difficult social times gain in importance in the motivation to work, the fact remains that money is not the motivating tool that encourages people to often voluntarily decide to accept certain tasks beyond their obligations.

Motivation is everything that moves an employee to achieve a goal and reflects that activity. The motivation and motive in particular are in its essence primarily a hypothetical factor and therefore it is very difficult to quantify. Thus, the very syntagma of motivation and motive is one of the central questions of psychology (Beck, 2003, 24-31). The motive is understood as an internal construction that arises as a result of the interaction of psychological and physiological processes.

School managers therefore must meet the needs of the employees if they want to motivate them to be more productive. The greatest success of employees is in meeting their needs, which culminate in providing better service, and as such leads to the long-term strategic goals of the institution (George and Jones, 1999, 91). It is obvious that motivation is influenced by a number of factors, but they all act through the employee and influence perception, values and needs through him.

#### 2. Meaning of motivation

The word motivation is derived from the Latin verb to move. Today it is considered as the energy that activates us and directs our action towards goals (Vizek-Vidović et al., 2003). Further on, in psychology, motivation is most often defined as a state in which we are internally stimulated by cer-

tain needs, desires etc, at achieving a goal (Petz, 1992). Thus, a person which is highly motivated for achieving something and in reaching the set goal nothing can distract certain focus. Many authors have tried to define the concept of motivation (Everard and Morris, 1990; Treven, 1998, Certo, 2003) as achieving results and similar.

Motivation is an important factor in the business environment and provides an increased willingness of employees to successfully response to the tasks. Employees who are motivated for work are usually enthusiastic, excited and open for new opportunities. Motivation depends on a number of internal and external factors, which is why the level of motivation is different in different business environments.

#### 3. Employees motivation

The set aim of this research stems from the need to determine the role of management in school and how to improve employee motivation.

Starting from the problem and the set goal of the research and the problem defined in this way: "School management, as well as other subjects of the educational process have a positive attitude regarding the use of motivators in schoolwork".

Thus, the aims of this research are set as:

- To determine the differences in the use of internal and external motivators in the area of BPC Gorazde by the school principal
- Differences in the application of internal and external motivators in the work of principals in the area of BPC Gorazde from the point of view of primary school teachers,
- Examine the attitudes of professional associates on the use of certain motivators by school principals in the area of BPC Gorazde

This research was conducted in the BPK Gorazde in Bosnia and Herzegovina, using the survey method and method of analysis of pedagogical documentation and using the technique of interviewing with the use of questionnaires for principals, teachers and professional associates in primary schools.

For this research, we selected seven primary schools from the area of the BPK of Gorazde.

55 (fifty-five) respondents participated in the research: ten principals, ten professional associates and thirty-five teachers.

#### 4. Results and discussion

Data collection was performed on the basis of questionnaires, which contained 27 questions. Further on, data were processed and gain results of the application of motivators by the school

principals in the work of employees in the BPK of Gorazde.

10 (ten) principals of primary schools from the area of the BPK of Gorazde participated in the research, among which 2 (two) have a university degree, 4 (four) have a university degree and 4 (four) have a master's degree. The structure by gender is as follows: 4 (four) are principals and 6 (six) are principals of primary schools.

Table 1. Attitudes of school principals towards motivational factors

Claims (attitude towards associates)	Never		Very rarely			Occasionally	8	Oiten	Always	
	f	%	f	%	f	%	f	%	f	%
1. In every situation performs in primarily as a human being									10	100
2. Understands personal problems of employees									10	100
3. Has a good relationship with the students									10	100
4. Correctly treats associates							2	20	8	80
5. Collaborative attitude towards employees							1	10	9	90
6. Provides support to employees in every situation							1	10	9	90
7. Has an understanding for Problems related with work									10	100
8. Praises the employees at his school for a well-done job through a bulletin board					1	10	2	20	7	70
9. Provides support to employees in cooperation with parents					2	20	2	20	6	60
10. Treats employees politely									10	100
11. Does not condemn, but gives the possibility of eventual mistakes to be corrected					3	30	1	10	6	60
12. Tries to make the better working conditions for employees							1	10	9	90
13. Has a democratic style leadership							2	20	8	80
14. Try to get as involved as possible in teaching process							2	20	8	80
15. Has a positive attitude towards various types of learning					1	10	2	20	7	70
16. Collaborates with cultural and other institutions							1	10	9	90
17. Never use work "a must"	10	100								
18. Take proper care of the associate areal schools									10	100
19. Invests in equipping the library									10	100
20. Supports seminars attendance							2	20	8	80
21. Publicly praises employees for the results achieved (at school meetings)									10	100
22. Support usage of teaching devices							1	10	9	90
23. Seeks for work and order, but also act alike									10	100
24. Fighting for better financial support by the authorities incharged									10	100
25. Gives a free day as a kind of reward							2	20	8	80
26. Provides salary supplement, as a reward	2	20	5	50	3	30				
27. Organizes joint gatherings of employees					2	20	2	20	6	60

Table 2. Teachers' attitudes towards the school principal's motivational factors

Claims (attitude towards associates)	Never		Very rarely		Occasionally		Often		Always	
	f	%	f	%	f	%	f	%	f	%
1. In every situation performs in primarily as a human being					1	2,8	7	20,0	27	77,2
2. Understands personal problems of employees					1	2,8	10	28,6	24	68,6
3. Has a good relationship with the students							5	14,3	30	85,7
4. Correctly treats associates							8	22,9	27	77,1
5. Collaborative attitude towards employees							8	22,9	27	77,1
6. Provides support to employees in every situation					1	2,8	8	22,9	26	74,3
7. Has an understanding for Problems related with work					1	2,8	6	17,2	28	80,0
8. Praises the employees at his school for a well-done job through a bulletin board	5	14,3	2	5,7	8	22,9	7	20,0	13	37,1
9. Provides support to employees in cooperation with parents			1	2,8	4	11,4	4	11,4	26	74,3
10. Treats employees politely					1	2,8	5	14,3	29	82,9
11. Does not condemn, but gives the possibility of eventual mistakes to be corrected					5	14,3	6	17,2	24	68,5
12. Tries to make the better working conditions for employees							7	20,0	28	80,0
13. Has a democratic style leadership							9	25,7	26	74,3
14. Try to get as involved as possible in teaching process					2	5,7	11	31,4	22	62,9
15. Has a positive attitude towards various types of learning							7	20,0	28	80,0
16. Collaborates with cultural and other institutions					1	2,8	3	8,6	31	88,6
17. Never use work "a must"	15	42,9	16	45,7	4	11,4				
18. Take proper care of the associate areal schools					1	2,8	6	17,2	28	80,0
19. Invests in equipping the library					3	8,6	7	20,0	25	71,4
20. Supports seminars attendance					4	11,4	5	14,3	26	74,3
21. Publicly praises employees for the results achieved (at school meetings)							8	22,9	27	77,1
22. Support usage of teaching devices					2	5,7	4	11,4	29	82,9
23. Seeks for work and order, but also act alike							6	17,1	29	82,9
24. Fighting for better financial support by the authorities incharged							4	11,4	31	88,6
25. Gives a free day as a kind of reward			4	11,4	6	17,2	7	20,0	18	51,4
26. Provides salary supplement, as a reward	10	28,6	11	31,4	9	25,7	5	14,3		- ', '
27. Organizes joint gatherings of employees	1	2,8			3	8,6	8	22,9	23	65,7

35 (thirty-five) primary school teachers from the area of the BPK of Gorazde participated in the research, out of which 8 (eight) have a university degree, 25 (twenty-five) have a university degree and 2 (two) have a master's degree. The structure by gender is as follows: 23 (twenty-three) are female teachers and 12 (twelve) are primary school teachers.

Table 3. Attitudes of professional associates to the school principal's motivational factors

Claims (attitude towards associates)	Never		Very rarely		Occasionally		Often		Always	
	f	%	f	%	f	%	f	%	f	%
1. In every situation performs in primarily as a human									10	100
being										100
2. Understands personal problems of employees							1	10	9	90
3. Has a good relationship with the students									10	100
4. Correctly treats associates									10	100
5. Collaborative attitude towards employees							1	10	9	90
6. Provides support to employees in every situation							1	10	9	90
7. Has an understanding for problems related with work							1	10	9	90
8. Praises the employees at his school for a well-done job through a bulletin board	1	10					2	20	7	70
9. Provides support to employees in cooperation with										
parents							2	20	8	80
10. Treats employees politely									10	100
11. Does not condemn, but gives the possibility of eventual mistakes to be corrected									10	100
12. Tries to make the better working conditions for employees									10	100
13. Has a democratic style leadership							1	10	9	90
14. Try to get as involved as possible in teaching							_			
process							1	10	9	90
15. Has a positive attitude towards various types of learning							1	10	9	90
16. Collaborates with cultural and other institutions							1	10	9	90
17. Never use work "a must"	5	50	5	50						
18. Take proper care of the associate areal schools							3	30	7	70
19. Invests in equipping the library					1	10			9	90
20. Supports seminars attendance							2	20	8	80
21. Publicly praises employees for the results achieved										
(at school meetings)							1	10	9	90
22. Support usage of teaching devices							1	10	9	90
23. Seeks for work and order, but also act alike									10	100
24. Fighting for better financial support by the authori-									10	100
ties incharged									10	100
25. Gives a free day as a kind of reward							2	20	8	80
26. Provides salary supplement, as a reward	2	20			4	40			4	40
27. Organizes joint gatherings of employees					2	20	2	20	6	60

10 (ten) professional associates of primary schools from the area of the BPK of Gorazde participated in the research. Out of that number of professional associates: 9 (nine) have a university degree

and 1 (one) has a Master's degree. The structure by gender is as follows: 7 (seven) are associates and 3 (three) are primary school associates.

#### 5. Conclusion

Based on the research of the attitudes of school principals regarding the motivation of their employees, it can be concluded that there is no difference in the use of internal and external motivation factor in relation to the gender of the principals. Each of the directors uses approximately the same motivation factor for their employees, in order to achieve success in their work and achieve the satisfaction of all employees.

Further on, the attitudes of principals regarding the application of motivation factors for successful work in school, the following can be concluded:

- 90% use internal factors for motivation as a kind of incentive for successful work
- External motivation factors are used by 80% as a form of reward

In accordance with the above, it can be stated that approximately the same use of external and internal motivation factor depends on the attitude of the school principal.

Based on the research of teachers' attitudes towards motivation provided by school principals, it can be concluded that there is no big difference in the use of internal and external motivation factors in relation to the attitudes of principals. The difference appears in several questions, which refer to the appreciate on the bulletin board, use of word a must, a day off as a reward and a raise as a reward. In these attitudes, teachers are somewhat divided and do not have a completely positive attitude for these claims. The question is whether principals are subjective, or teachers are too objective. Each of the principals use approximately the same motivation factor for their employees, in order to achieve success in their work and achieve the satisfaction of all employees.

Based on the views expressed by professional associates, it can be concluded that the attitudes regarding motivation factors, of professional associates and school principals are approximately similar. This can be seen from many claims that completely coincide with the claims of school principals.

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## The Genius Loci of Urban Settlements in the Ottoman Period of Bosnia and Herzegovina

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#### **Abstract**

Urban settlements in Bosnia and Herzegovina started to emerge in their current form in the Ottoman period, which stretched from the fifteenth to the nineteenth century in Bosnia. In this period, new settlements in Bosnia and Herzegovina were developed according to principles that had already been widely applied in the Ottoman Empire, especially in the region of Central Anatolia. New social values were formed alongside processes of urbanization—these were the most significant changes that drove the development of Bosnia and Herzegovina from the Middle Ages onward. Such realities are conveyed in the unique genius loci of the settlements examined here. The aim of this paper is to define the essential spatial attributes of those settlements in Bosnia and Herzegovina that developed during the Ottoman period and their contribution to their "spirit of a place". To achieve this goal, a range of spatial qualities have been extracted and examined. The discussion highlights how these spatial qualities contributed to the endurance of places with similar conceptual bases, keeping their distinctive spirit and authenticity.

**Keywords:** the spirit of a place, Ottoman culture in B&H, historic settlements, the built environment.

#### 1. Introduction

Over the course of the history of the world, significant changes have been caused by the development of science, technology, and civilization, all of which have contributed to successive improvements in the built environment and living conditions. Inevitably, such changes to build and natural environments have informed the development of particular social standards, interactions, relations, and behaviors, which have all shaped people's lifestyles and traditions. These processes have at-

tached a specific range of values to each particular place, today recognized as its *genius loci* or the "spirit of a place". This phenomenon is among the most significant attributes in the value of these places and confirms their authenticity.

In Bosnia and Herzegovina, during Ottoman period (1463-1878), urbanization took place based on principles rooted in Central Anatolia, a core region of the Ottoman Empire. These created urban settings, in essence, followed the idea of a division between private (residential) and public space (market/bazaar, čaršija, as a center of trade and administration).

The argument is often made that each component of the urban setting encompasses a number of structures that follow similar principles (on a smaller scale) of the division between public and private zones. Fundamentally, this division was based on the principles of Islam, being a new and widely accepted religion spread across Bosnia by the Ottomans, along with new cultural forms and amenities.

The other values recognized in this spatial arrangement are the result of specific environmental conditions and inhabitants' relationship with nature. These values can be found at both the urban and architectural levels. They appear in the principles used to create variations of open and closed spaces, such as gardens with water and other natural elements, which can provide a pleasant microclimate. The final principle shaping urban settlement was based on the sophisticated logic of the interconnection of elements in space according to function and usage. This type of relation was also echoed in social life, customs, and habits.

This paper will evaluate the process of urban development in Bosnia and Herzegovina during the Ottoman period by defining all the relevant elements of significance in shaping its spaces.

In addition to spatial and functional organization, SOCIAL arrangements, ETHICAL ap-

proaches, and RELIGIOUS influences all inform and dominate these spaces. Their common influence has created a range of spatial qualities that have been transmitted into the spirit of various places. It is clear that each of these influences can be found in all the key urban elements of settlements and their particular micro locations. Therefore, spatial qualities can be examined according to their particular spatial arrangement or urban organization, or else the focus can be placed on particular urban areas or architectural elements.

### 2. The development of urban settlement principles during the Ottoman period

Bosnia and Herzegovina were the western-most Ottoman *Eyalet* or Principality. After several attempts, in 1463 the Ottoman army under Fatih Sultan Mehmet II conquered the territory of modern-day Bosnia and Herzegovina (Bašagić-Redžepašić, 1900, pp. 15-19). With the arrival of the Ottomans, urbanization and the expansion of settlements was rapidly realized according to new demands and relationships and relying on new urban codes and laws. This period saw the development of a new basis for the urban settings of Bosnia and Herzegovina.



Figure 1. Ottoman province (Eyalet) Bosnia around 1606 (Šehić, Tepić, 2002, p. 59).

At the beginning of this process of urbanization, it was important that new settlements could serve as administrative centres, as well as accommodate military facilities. The arrangement of space was defined according to a number of social spheres—social, religious, functional, and ethical.

#### Functional elements of the settlements

The typical ottoman city/town had two different areas or spheres of life:

- A. "Čaršija" \_Urban core \_commercial zone
- B. "Mahala" \_ Residential zone (Grabrijan, 1957, pp. 8, 38), (Figure 2).

The commercial centre (čaršija) acted as the urban core and was where various public facilities were located, including: mosques, *hammami* (public baths), public schools, craft and trade centres, marketplaces, public kitchens, *han* and *karavansaray* (two kinds of inn/hostelry), and public fountains etc. The č*aršija* was a place of craft and trade, as well as an administrative and religious centre, and included all the important facilities necessary to sustain an urban settlement.

Various public buildings were set in the čaršija. These were usually dominating structures built in an oriental architectural style and had an important role in the expansion of Ottoman culture, while also being associated with Islam—the new religion of Bosnia. Public buildings were also important elements in the process of creating the urban silhouette and aesthetic character of a place. The mosque was the primary indicator of an Ottoman urban settlement, being a central place for social meetings and the most monumental public building.

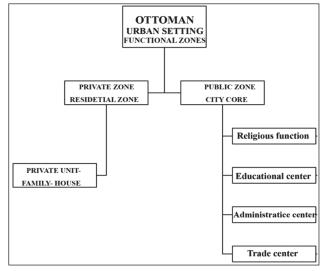


Figure 2. Ottoman Urban settings, graphical representation of urban zones and focal functions

#### Social arrangement

The waqf was the most important institution for the development of urban settlements. The purpose of a waqf (a charitable foundation) was to serve the needs of the people and provide social assistance, acting as a kind of social security system (Ertem, Vakıflar dergisi, 2011, p. 26).

During the Ottoman period, new residential areas in Bosnia and Herzegovina were built according to the new state system, standards, and ethics. The characteristic "neighbourhood" was one of the basic principles that influenced the formation of residential culture. Its philosophy was both social and humanistic. Neighbourhoods represented one of the best social systems in the Ottoman Empire for satisfying the needs of inhabitants at the local level. They usually contained public faucets or wells for clean drinking water, bakeries, a mosque, mekteb (primary religious school), groceries, and the neighbourhood cemetery (mezarlik). There was no strict class border within a neighbourhood between the wealthy and the poorer inhabitants who were usually under the patronage of a wealthy family from the neighbourhood (Pašić, 1991, pp. 73, 81).

#### Ethical approach

A new sense of privacy suddenly gained importance with the arrival of a new culture (inspired by eastern religious rules and laws). The natural conditions and ambience were also relevant to the creation of built spaces, free of schematic planning systems. Neighbourhoods (*originally: mahalle*) were typical areas for residence and the private family house was the basic unit. In traditional cities, housing was built on slopes, which maximized light in each dwelling unit, and provided good views and the maintenance of close visual ties with the natural surroundings (**Kudumovic**, **2018**, **p. 272**) (**Figure 3**).

Cohesion between the built and natural environments was founded on the prioritisation of basic human needs in building practises, constituting an ethical approach to urban development.

This new life philosophy brought a dose of humanity into the building process and the construction of a dwelling saw the application of unwritten laws that respected human beings and the environment. The approach to building was ethical and on

a human scale, except in the case of important religious buildings, which were constructed for God and some public buildings that sought to display the power of the Ottoman Empire.

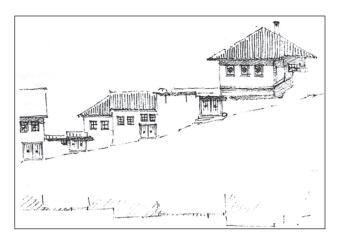


Figure 3. The appearance of a typical sloping residential Sarajevo neighbourhood (Hrasnica, 2003, p. 68).

#### Religious influence

In the very early stages of Ottoman rule of present-day Bosnia and Herzegovina, almost all the major monotheistic religions coexisted—for example, the majority of Bogomils generally tolerated Islam. Bosnia and Herzegovina became a melting pot of differences and influences. It was the meeting place of Ottoman culture and Bosnian mediaeval tradition and an area influenced by both Mediterranean and Central European culture. In a short time, a particular Bosnian-Oriental style developed (Simsek, p. 469), while also displaying markings that referenced the local area (Hadžijahić, Traljić, Šukić, 1997, pp. 35-65).

The organisation of the cities/towns was deeply influenced by the Islamic principles of living. These principles attached great respect to nature, water, cleanliness, and good relations between people based on religious beliefs. Endowments (of waqf) included different facilities serving religious, educational, cultural, and economic purposes. They were often of considerable architectural value and were made for the benefit of Muslims, as well as for members of other religious communities.

### 3. "The spirit of a place" in settlements that developed during the Ottoman period in Bosnia and Herzegovina

Defined as "the prevailing character or atmosphere of a place" (Oxford Online Dictionary), the concept of the *genius loci* has its origins in ancient Roman culture. In Roman mythology<sup>1</sup>, it referred to spirits thought to inhabit particular places and protect them. In the twentieth century, the concept of the *genius loci* came into focus to refer to a location's characteristic atmosphere or the "spirit of a place" (Vogler and Vittori, 2006, p. 2).

Norberg-Schulz (1980), in in his book *Genius Loci: Towards a Phenomenology of Architecture*, explained the relationship between *genius loci* and architecture. He promoted traditional forms in towns and buildings in order to better understand places and their meaning (Jive' n and Larkham, 2003, Vol. 8, No. 1, pp. 67-81). For Norberg-Schulz, all spatial segments determine a place including: 1. Image, 2. Space, 3. Character, and fourth attribute 4. Genius loci (Norberg-Schulz, 1980, pp. 6-73). Several important factors contribute to defining the spirit of a place. They go beyond physical attributes and include social interactions, habits, and tradition.

Furthermore, people develop relationships with their surroundings and these determine possible directions, paths, points of centralization, and actions in space. In the history of the built environment, natural conditions have always been key to choosing a dwelling place since the time of the oldest civilisation. Throughout the history of urbanization, the first requirement in choosing a location for settlement was always whether the natural conditions could provide for a reasonable quality of life, depending on the purpose of the settlement.

In discussing the qualities of a space and knowing the importance of water for the development of civilization, as well as the meaning of these elements in different cultures and traditions, it is not surprising to see a focus on the use of water in Ot-

toman architecture, especially in Bosnia, a country abundant in water resources. As such, it is reasonable to focus on the role of natural resources and conditions in places designated for urbanization.

Water is a natural element that has great significance as a basic element of life and has commonly been the most important factor in shaping human habitats. It was a key segment in the formation of the Ottoman city, not just from an architectural, functional, and aesthetic, but also from a social, religious, cleanliness, recreational, and psychological point of view. The Ottomans took great pleasure in seeing running water and hearing its sound. They built public fountains, drinking fountains, and water structures wherever it was possible, even in private houses (Aru, 1949, p. 32).

During the Ottoman period, drinking fountains and faucets also acted as meeting points where socialization occurred. The use of water in residential architecture was associated with the landscape to form pleasing conditions and pleasant places to live in (especially during the hot, dry summer days). In houses in the southern part of the country, Herzegovina, the way water was made to flow through open channels in private gardens offers a good example of how it was valued as an important design element

Extraordinary examples can be found in the housing complexes of Rizvanbegović on river Bregava in Stolac and Velagićevina on the river Buna, both located in Herzegovina. They can be assessed as having very high ecological standardseven today, they fulfil all the standards of sustainable architectural design and also of lifestyle quality (Figure 4). These examples express a harmonious composition of natural environmental conditions with "man-made" architecture, united in the creation of a distinctive spirit of a place.

Another kind of influence that is significant in determining the spirit of a place comes from several intangible elements. Such intangible factors may be associated with a place's historical background, particular purpose, or anything related to customs and habits etc. Likewise, the Ottoman lifestyle did not just focus on the social arrangement, but also included a focus on spiritual and religious aspects of life.

<sup>1</sup> Genius loci is a Roman concept: according to an ancient belief, every 'independent' being has his own genius, his guardian spirit. This spirit gives life to places and people, bringing them from the cradle to the grave, determining their character or essence (Petzet, 16th General Assembly of ICOMOS, Scientific Symposium, Quebec, 2008, p. 2)



Figure 4. Velagićevina residential complex, built in the Ottoman period in Blagaj (Source: Dževad Hadžihasanović, 2009)



Figure 5. Residental house in Begovina, Stolac

Finally, we can conclude that the spirit of a certain place is like a special 'substance' that differentiates places. The character of a built place relies on the interdependent relationship of many tangible and intangible factors (the surroundings, material, colours, lights, sounds, proportions, and many other pieces form the final composition) (Sabanovic, 2020, p. 40).

However, the spirit of a place is not something valued by everyone in the same way. People often connect their dwelling or habitat with a sense of identity or belonging to a place. As such, the same place will not be valued in the same way by inhabitants and by visitors. Inhabitants are those who identify themselves with a place or originate from that place. Each person experiences a place in a different way, but the prevailing characteristics make its character or special spirit dominate its expression and can be marked through human experience.

Inhabitants feel attached to a place, while the interest of visitors may be limited to its aesthetic attributes, or they have an interest in experiencing

local culture, but are often limited to following the recommendations of tourism marketing. Therefore, the appearance of a place in synthesis with feelings reflected towards an observer help construct its character or atmosphere (Yu-Chu, Chen, 2014, pp. 43, 47).

3.1. Qualities of the built environment from the Ottoman period in Bosnia and Herzegovina

Built environments dating from the Ottoman period in Bosnia and Herzegovina reveal a set of components that have, in their interaction, produced the special character of these places. These can be distinguished as tangible and intangible qualities of space, as shown in Table 1. These are recognized as present at both the urban and architectural levels.

Traditional built environments commonly respect natural conditions, engage local crafts, use domestic materials, respect human nature, and express the traditional lifestyle of a certain period. Physical appearance is important in the development of recognizable silhouettes of settlements. They can include slopes with traditional houses descending towards a river and urban centres arranged as a composition of domes and hipped roofs intersected with greenery. In such a place, the central mosque was emphasized above any other structure. The usage of local materials was important in depicting the local tradition embedded in those spaces. Urban spaces were created to fulfil functional needs while taking into consideration sustainability and connections to resourcesclean water, fertile land, roads, and rivers etc.

In Ottoman culture, there was also a notable correlation between indoor and outdoor spaces and a necessity of achieving unity with natural surroundings. Consequently, they shaped the spatial aspects of dwellings, which consequently affected urban forms (Numan, Pulhan, 2005, p. 161).

The most heavily accentuated qualities included the ethical principles of building, respecting nature, and respecting the human scale and basic human needs. These also included maintaining good relations with one's neighbours, the right to a view, and an appreciation of privacy. Morals (ethics) are not just evident in the relationship between

Table 1. Spatial qualities of the built environment from the Ottoman period in Bosnia and Herzegovina

01		URBAN LE	VEL	ARCHITECTURA	L LEVEL
_	ities and cteristics	Public zone čaršija	Residential zone mahala	Public buildings	Houses as dwelling units
TANGIBLE		Centres with commercial, religious, educational, social, and administrative functions and a strategic position.		Contribute to the emergence of recognizable silhouettes and urban morphology (e.g. domed buildings such as mosques, hammams, madrasas etc.).	Distinguished private/closed and private/open space in the housing compound arrangement.
TANG	Environmental	Spontaneous open public space design (e.g. commercial streets); natural elements (e.g. rivers, greenery etc.) are interwoven into urban tissues of centers.	Bounded by nature; human scale; pri- vacy.	Public buildings compounds integrate positive relations of open and closed spaces with the presence of natural elements that contribute to the overall building design.	Pleasant micro climate; importance of cleanliness; ecology and com- fort.
GIBLE	Sensory	Social interaction.	Sense of belonging to the community.	Social benefits.	Sense of privacy.
INTANGIBLE	Symbolic	Respect of religious laws and social justice; coexistence of different reli- gious communities.	Unity and harmony.	Power.	Safety.

people and nature, but also between people. It can be concluded that spatial and social boundaries influence the design of built environments (as an example, the phenomenon of privacy in oriental architecture should also be mentioned). On a large scale, this was reflected in the division into public (administrative and commercial centre) and private (neighbourhood) spaces. At a smaller scale, private houses were also divided into private and public spaces. Therefore, the spatial organization of a house, depending on its function, was designed to be open or enclosed. Thus, traditional houses were open to nature and the environment. The way houses communicated with their natural surroundings of gardens and courtyards was a product of spontaneous design. Elements, such as greenery, gardens, and water, were a part of house design. On the other hand, from the outside houses were isolated islands and thus hidden from outside observers or visitors. The administrative and trading centre (čaršija) of an urban place provides an example of a place open to all users and public and social activities. In such an environment, we

can encounter the public *hammam* (public baths) as a small enclosure, a mystical world in the middle of the crowded čaršija where everything happened. Similarly, most public buildings were built according to the logic of creating the built environment to fulfil similar principles. Their physical appearance in combination with local traditions and lifestyle, contributed to the formation of the particular spirit of a place.

#### 4. Conclusion

The Ottoman period was a very productive time in the urban development of Bosnia and Herzegovina. Urban development was based on principles that distinguished private and public spaces at different levels. Different aspects of an urban space, such as social arrangement, religious influence, the functional elements of settlement, and ethical approaches to nature and humans were all significant in creating a unique spirit of a place. Recognising spatial qualities in each urban element and its interconnection can help us to under-

stand the range of values embedded in the urban and social fabric—its structure made up of both tangible and intangible elements.

The Ottoman urban fabric in Bosnia is still, in its essence, present today in the historic centres of many settlements, even though the historical periods after the Ottomans saw new social and political attitudes that reshaped the urban settings and many structures lost importance. The new atmosphere was accompanied with forgotten traditions and values, including those specific to residential areas. For example, the essence of distinguishing private and public areas has been forgotten and with rapid globalisation and other influences of modern times, the disappearance of traditional and spiritual values at the global scale has intensified, leading to a subsequent loss of authenticity.

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# Open school and EMILIN's model of work in teaching methodology

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#### **Abstract**

EMILIN model-electronic model for innovative-logical research of teaching process, represents innovation which student and teacher can use together through physical contact and live word of teacher, but with assistance of information technologies. School now days are considered organisers, directors and coordinators of all programs related to general development of young people and social environment in which they act and will be more considered as such in future. Therefore, schools, will be less considered as teaching institutions and more considered as organisers of teaching and various social, cultural and teaching actions and programs in environment with larger number of participants from its environment: parents, companies, associations, organisations and order interested subjects. In order to achieve such social intention of school it is necessary to connect, cooperate and act along with social environment.

**Aim:** The aim of this paper is to examine the level of satisfaction and usage of it and new emodel of innovative-logical research of teaching.

**Methods:** This research is conducted in primary schools in Bosnia and Herzegovina (Federation, Republic Srpska and district Brcko) during 2018/2019. This research included 797 respondents (539 students and 259 teachers) in 12 primary schools.

**Results:** Nearly half of respondents evaluated as good or excellent the question about usage of computers and new EMILIN model in teaching and teachers of primary schools have shown approval of its application, but with statistically significant difference in this evaluation.

**Conclusion:** EMILIN model facilitates learning, and teachers and students are satisfied with new ways of work with help of this model and IT.

**Key words:** Open school, inovations, Emilin model, teaching process learning.

#### 1. Introduction

The modern school enables the adaptation of learning process to each student individually in accordance with his abilities, desires and motivation. Among other things, it also involves usage of gadgets such as tablets, mobile phones, smart boards, and thus while being networked students are able to acquire new knowledge. They are able to work and cooperate in different ways and especially important to be mentioned is encouraged and achieved interaction. (Glasser, 1994)

The school should be the initiator of mutual pedagogical performance. In that sense, it becomes the centeral environment in which through operating various pedagogical activities, students are gathered and their complete upbringing is enabled. In this way, i is possible to achive compehesive opening and bonding with the environment in which it operates and therefore the symbolic name of "open school" is given.

An open school cannot be satisfied with teaching alone. The present time demands a contentrich school, which does not mean overloaded students by content. The school should have a good measure of compulsory material and meet the individual interests of students, as well as the needs of the environment. Is also involve a good balance of all forms and types of teaching (eg. regular, elective, optional, extended, etc.). Free activities in extracurricular activities should always be added to the obligatory teaching contents. This requires open access and free choice of content and methods of work. Extracurricular activities always provide an opportunity to create a lively school environment, ie a school adapted to the needs of life. They always create divers' activities from multiple fields where greater freedom and independence of students is expected, as well as cooperation between the environment and the family (Puževski, 2002).

In final, the teachers are those who should be involved all these activities, which create an open school. In particularly, teacher engagement must be focused primarily on planning and implementing pedagogical ideas and pedagogical practice. In that way, the school becomes a real place of social upbringing and education of young people. The quality of teaching would certainly be improved by this way of working. Learning would be reduced to what is possible and what is useful, which is in fact our main goal (Aleksić, 2018).

There is no doubt that the electronic model of innovative-logical study of teaching or shorter EMILIN-model is a proposal to improve the teaching process with the help of information technology and certainly represents a new way of working in teaching methodology. This model is designed as a virtual classroom and virtual organization equipped with current electronic and computer devices. All these devices are connected into a single system that has its own software to manage it. In that classroom, the teacher realizes the curricula and contents through specially prepared virtual lessons. Classes are organized and implemented in such a way as to achieve the overall interaction of teachers and students, and also between students and students. Learning new content, practicing what has been learned and checking is done also using a electronic devices (laptop, tablet).

Further on, EMILIN-model implies also a distinctive look and equipment of the classroom, as well as the arrangement of tables and devices within it. One such classroom should include the following: computers, tablets, small storage server, smart board, projector, smartphones, digital cameras, video cameras, microphones, mini television and radio studio for recording and editing shows, photocopiers, scanners, printers, TV sets, speakers, headphones, custom school furniture, etc. Teachers must be professionally trained to determine certain parts of the teaching content that can be converted and realized in the form of virtual lessons (creation of their own films, radio shows, picture galleries, etc.) (Aleksić, Kudumović, 2016).

Teachers are required to be able to use and work with computers and computer programs of different types, as well as video cameras and to create videos, take photos etc. Teachers must be specially prepared for this way of working. Also, they are expected to be ready for daily improvement and upgrading of their competencies according to the lesson which they will deliver, because each lesson requires special attention individually and therefore particular way of performing. One of the good solutions for the introduction of information technology in teaching is the creation of special applications for each subject. In these applications, special tools are created that monitor the needs of the teaching content of a particular subject.

Applications would be different from already designed and used computer programs in the teaching process and would be adapted to the characteristics of teaching content and different systems for its learning. As an example, we can cite the creation of an application for learning the mother tongue called PROJEZ (application created for learning the curriculum of the mother tongue). This application includes the following tools, such as literary processing tools, grammar processing tools, expression culture processing tools, and special tools that can link that content to some other content from the internet and other files. In the group of tools for processing literature, there are those which helps to find faster and easier unknown words in the texts, characters, characteristics of the characters and some other possibilities. Tools for processing grammar lessons include underlining certain types of words (nouns, adjectives, verbs), then sorting those types of words, etc.

The work plan and schedule of classes according to this model is somewhat different from the classical teaching. For this way of working, a block of classes of two subjects is planned in accordance with the correlative contents that are taught according to the operational plan. Thus, a block class of mother tongue and art culture is created, if similar contents are taught at the same time. The block class for work is planned due to the time spent preparing for the work of various devices, as well as their storage after finishing work, students are well motivated and their attention is greater throughout the time. Since the contents from different subjects would be used and connected, then it takes enough time to import it all into one whole (Aleksić, Kudumović, 2021)

#### 2. Methodology

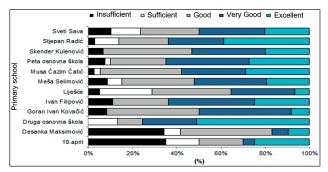
The research was conducted as applied research, using different research methods, inclduing method of theoretical analysis, descriptive method, causal method and Survey method. Various techniques (surveying, scaling, testing, interviewing) were also used in the research. The descriptive method in the research of upbringing and education is a set of scientific-research procedures that describe phenomena in upbringing and education (Aleksić, 2018). The research was conducted in primary schools of Bosnia and Herzegovina in bothe entitites (Federatia and Republic Srpska) as well as in primary schools of Brčko District, and in several schools in the Republic of Croatia. A total of 797 respondents were included.

#### 3. Results

The research covered a total of 12 primary schools. Respondents were informed in advance about the time of the survey, as well as the main goals of their participation in the research. The content of the survey was prepared in advance so that the questions used to collect the data needed to examine and describe the given phenomena were clearly specified.

To the question: "How much does the use of computers and the new EMELIN model in teaching make learning easier for you?", The answers are shown in table 1.

Out of a total of 539 students, one fifth of the respondents (21.4%) rated the use of computers in teaching as insufficient or Sufficient to facilitate learning, 30.1% of them graded with medium grade (good), while close to half of the respondents or 48.5% graded as very good or excellent (Aleksić, 2018).



Graph 1. How much does using a computer make learning easier for you?

Out of a total of 539 students, the majority of respondents (53.5%) are satisfied or very satisfied with the use of computers for learning purposes, as well as with the use of the new learning model.

EMILA's model by teachers checking knowledge through computers, 19.3% of them graded as good, while 27.3% of respondents graded as insufficient or sufficient.

It can be concluded that teachers of 12 primary schools express satisfaction with the use of the EMILIN model and IT (there is a statistically significant difference) and evaluate that satisfaction

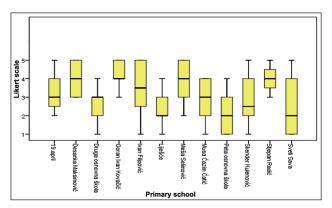
Table 1. How much does the use of computers and the new EMELIN model in teaching make learning easier for you?

Duimawy sahaal	Insufficient		Sufficient		Go	ood	Very	good	Excellent	
Primary school	N	%	N	%	N	%	N	%	N	%
19.april	7	35.0	3	15.0	4	20.0	1	5.0	5	25.0
Desanka Maksimović	28	34.1	6	7.3	34	41.5	6	7.3	8	9.8
Druga osnovna škola			6	13.3	5	11.1	11	24.4	23	51.1
Goran Ivan Kovačić	2	8.3			10	41.7	10	41.7	2	8.3
Ivan Filipović	4	11.1			9	25.0	14	38.9	9	25.0
Liješće	3	5.1	14	23.7	21	35.6	17	28.8	4	6.8
Meša Selimović	4	8.7	3	6.5	15	32.6	15	32.6	9	19.6
Musa Ćazim Ćatić	1	2.6	1	2.6	14	36.8	11	28.9	11	28.9
Peta osnovna škola	3	7.5	1	2.5	10	25.0	15	37.5	11	27.5
Skender Kulenović	1	6.7			6	40.0	5	33.3	3	20.0
Stjepan Radić	1	2.8	4	11.1	8	22.2	9	25.0	14	38.9
Sveti Sava	10	10.2	13	13.3	26	26.5	29	29.6	20	20.4

Duime our Cohool	Insufficient		Sufficient		Go	ood	Very	Good	Excellent	
Primary School	N	%	N	%	N	%	N	%	N	%
19.april	5	25.0			1	5.0	4	20.0	10	50.0
Desanka Maksimović	39	47.6	9	11.0	11	13.4	9	11.0	14	17.1
Druga osnovna škola	6	13.3	6	13.3	6	13.3	4	8.9	23	51.1
Goran Ivan Kovačić	2	8.3	1	4.2	1	4.2	10	41.7	10	41.7
Ivan Filipović	1	2.8	2	5.6	6	16.7	11	30.6	16	44.4
Liješće	5	8.5	3	5.1	22	37.3	14	23.7	15	25.4
Meša Selimović	7	15.2	1	2.2	10	21.7	16	34.8	12	26.1
Musa Ćazim Ćatić	2	5.3	4	10.5	9	23.7	12	31.6	11	28.9
Peta osnovna škola	2	5.0	2	5.0	7	17.5	17	42.5	12	30.0
Skender Kulenović	3	20.0			3	20.0	4	26.7	5	33.3
Stjepan Radić	4	11.1	3	8.3	9	25.0	13	36.1	7	19.4
Sveti Sava	17	17.3	23	23.5	19	19.4	20	20.4	19	19.4

Table 2. How satisfied are you with the use of computers for learning purposes and the EMILIN work model by your teachers?

statistically significantly differently (H = 70.956; df = 11; p <0.001), (Aleksić, 2018).



Graph 2. (EMILIN model)

#### 4. Conclusion

Teachers and students are satisfied with the new ways of working, with the help of the EMILIN model of teaching and IT. Almost half of the students graded as very good or excellent, when asked about the grade for the use of computers and the new EMI-LIN model in teaching, and primary school teachers express satisfaction with its application, there is a statistically significant difference in that grade.

Schools must think about their future and the needs of modern society and thus modernize their work organization. With the help of the EMILIN model of teaching, it is quite possible to achieve this, because it certainly represents a reform of the traditional way of working.

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## Water and Architecture Learning from past for future Floating Cities

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#### **Abstract**

Water is the most important source of life and livelihood for the continuity of life. Throughout history, in design disciplines such as city planning, architecture and interior architecture, which form the shell of life, different solutions have been produced to meet the needs of people with water. While the changing needs of life add new meanings to life with water, we witness the changing borders between sea and land. Although habitats on water seem like an alternative due to extreme climate changes, actually living with water is not a new concept. However, with the number of extreme climatic events as a result of human activities and the changing of the planet's climate, some issues and sensitivities have emerged in the evaluation of water. Not only extreme climate changes, but also increasing density, economic trends and sustainability issues have led to an increased focus on living with water. In this study, by trying to understand the positive features and possible problems of water cities that have survived from history to the present day and still continue their lives, they have been evaluated as sources that can provide input to the designs of water cities, which are seen as an alternative among the cities of the future. In this context, considering the historical processes and population densities, examples that can be considered as cities that contain public functions such as education, health and transportation have been selected. The guiding and instructive features of these examples from the past, which will provide a sustainable and healthy collective life, to the floating architectural examples of the future are discussed. As a result, by learning from the historical water villages, findings and suggestions are included to be an input for future designs. The originality of this study is the use of water villages, which have many post-use experiences of life on water in history, as a learning tool in floating architectural designs.

**Key words:** Living with Water, Floating Cities, Historical Water Villages, Climate Change