

Understanding the School Culture: a Case Study of the Connection between the School Physical Environment and Its Faculty's Practices

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ABSTRACT. School culture, similar to organizational culture, is composed of a series of shared norms, rules, values and beliefs. Physical environment of a school, as a tangible representation of the school culture, can influence students', faculties', and other personnel's ideology and behavior. This study explores the school culture of an Electrical Engineering school in a private university in United States of America. It aims to reveal the influences of school's physical environment on faculty's practice. Findings of this study are faculty's pride and loyalty often connects with the history of the school building, and physical proximity fosters close collegial relationships and more collaboration among faculty members, and a homogeneous school culture.

KEYWORDS: School culture, Faculty practice, Homogeneity

1. Introduction

Culture has a profound influence on the development of people's ideology and behavior. "Norms, roles, rules, customs, understandings and expectations" of interactions in relationships are primarily defined and transmitted by culture [1]. School as an organization has its unique structure, composition and cultural characteristics. School culture, similar to the definition of culture, is composed of a series of shared norms, rules, values and beliefs which can guide the activities of the school personnel and students [2]. According to Schein [3], school culture can be divided into three levels: the physical environment level, the regulations level and the underlying assumptions level.

However, school culture is neither concrete nor stationary. Interactions between teachers and students or among the teaching staff can rebuild or reshape its school culture [4]. School culture can guide and influence school personnel's behaviors and ideas, but at the same time the actions and beliefs of the school personnel can also have a direct effect on the development of school culture. For example, the school leader and his way of leadership and administration can shape the culture of his school [5].

The physical environment of a school is the concrete reflection of the school culture. Physical facilities offer necessary conditions in facilitating the faculty's teaching and students' learning process [6]. Alimi, Ehinola and Alabirevealed in their research that the school physical environment is "the space interpretation and physical expression of the school curriculum" [7]. It can be inferred that the school physical environment has some connection to the teaching activities within the school setting.

Many studies have looked into the relationship between physical environment and the human activities. Godin has studied the effects of physical environment on people's choices of physical activities [8]. Bandura in her book, "Social Foundations of Thought and Action", indicates the impact and interaction between physical environment and people's social cognition [9]. Based on previous studies, some scholars began to study the relationship between school physical environment and the teaching and learning activities within school. Cynthia and Megan indicate that a good and qualified physical environment has a strong and positive relationship with student's achievement and teacher's teaching practice [10]. Another researcher Lyons further confirms that there is an explicit relationship between the physical characteristics of school buildings and educational outcomes [11]. Since the school physical environment exerts some influences on the development of both the teaching and learning process, a school with supportive physical environment can encourage students' learning and also the faculty's teaching practice.

However, many relevant studies are focused on either the influences of the school environment on the development of students, which displays the society's concern about the interaction between social environment and students' development [9, 10, 11]. The teaching staffs, who are also exposed to the same environment as the students, receive

relatively less attention than the students in terms of the environmental impact [6]. Therefore, this study aims to explore the interrelationships between the school physical environment and the teaching faculty in higher education, which leads to the overarching research question: In what ways does the school physical environment influence the faculty's beliefs and practices?

2. Literature Review

2.1 School Culture

School culture consists of a series of shared assumptions and beliefs which can guide the activities of school personnel and students[2]. Some researchers may refer the school culture to another term "school climate", because they see the "organizational climate," "organizational culture" and "organizational atmosphere" as interchangeable terms [12, 13]. But a great many still believe that there are distinctive differences between the school culture and the school climate[14, 15, 16, 17, 18].

One way to distinguish the school culture from the school climate is that culture is a phenomenon which roots so deeply that it cannot be studied simply by computing data, whereas the climate focuses on the common dimensions of all school settings such as its structure, responsibility, reward, risk, warmth, and support [19]. Since this paper intended to study the deepness and uniqueness of one particular school's culture, it is more reasonable to employ the term "school culture" in this study. Regards to the characteristics of culture, a qualitative research method is more suitable than the quantitative method for understanding its influences on faculty's beliefs and practices.

2.2 Theoretical Framework

School culture, as one kind of organizational culture, is composed of three levels [3]. The first level is the visible part of the school culture--the physical environment[Fig. 1]. It includes the buildings, the properties, the businesses or the members' behaviors of that particular organization[3, 20]. The second level includes the value-oriented standards, norms and regulations. They are often employed by school members to judge what is right or wrong and what kind of behavior is desirable or not. Therefore, they become the norms for school member's behavior [3, 20]. The third level is the most abstract one. It contains the very basic underlying assumptions and denotes the essence of culture [3].

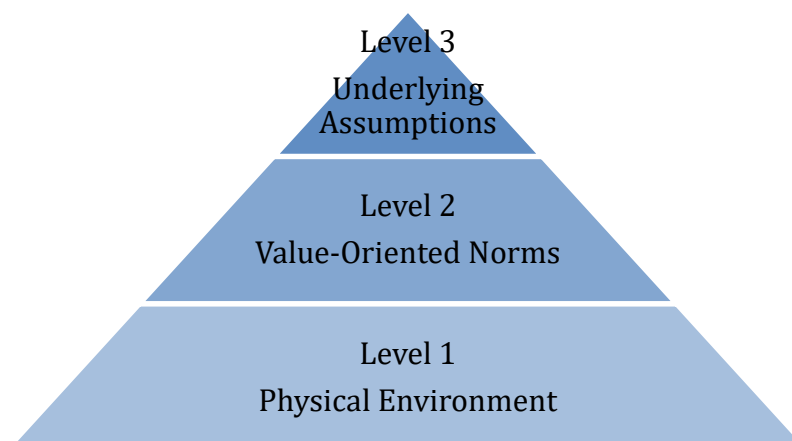


Fig.1 :Three Levels of School Culture by Schein

Level 1 and level 2 of school culture are more easily to be perceived and practiced by school faculty, staff and students. But level 3 is composed of the assumptions and beliefs that are generally taken for granted, which members are not conscious about [3, 20]. The school members tend to use these underlying assumptions to interpret their work and their work environment. For instance, if the professors of one college all agree on the assumption that teaching is more important than doing research, then they probably interpret their essence of work or their school culture in a similar way.

The strength of Schein's school culture model is that it clearly displays the sequential importance from the most concrete and basic part of school culture to the most abstract and advanced part. Also Schein's model displays the school culture from the most outside school environment to the deepest core values of the school. However, school culture does not have independent and clear-cut layers. Actually, the components of culture are mixing with one another and interrelate with one another. There are overlapping areas between different components, which make it hard to find boundaries

between one level and another.

The second theoretical framework of this study is the Owens and Valesky's school culture model[21]. In their school model, Owens and Valesky believe that there are interactions among the school physical environment, teacher practice and the school culture. They divide the school culture into four interrelated dimensions [Fig. 2]. Ecology refers to school facilities, technology, and other material elements within a school setting. Organization encompasses teaching and planning practices, curriculum, and other aspects of how a school operates and is organized. Culture refers to the assumptions and values, as well as to group-level patterns of thought and behavior, shared among staff. Milieu entails students' sense of motivation, social patterns within the school, and other psychosocial dynamics among students.

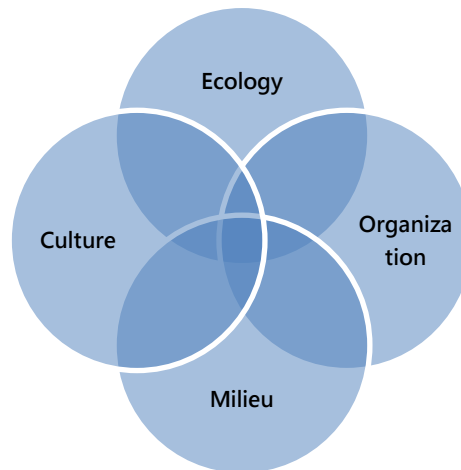


Fig.2 : Owens and Valesky's School Culture Model

This school culture model confirms that the school physical environment has some impacts on the teaching staff's beliefs and values toward their own practice and the overall school culture. Besides, the physical environment of school culture also indirectly influences teachers' job satisfaction and their overall performance [2]. Since school culture is not stationary, the faculty's conceptions of the physical environment and their behaviors within the environment also exert some influences on the development of their work environment, which is crucial to support the existing influences of faculty culture towards the school environment and the school culture.

The most valuable part of this school culture model for this case study is that it provides the connection between school physical environment (ecology) and the school faculty's practice (organization). This connection offers a theoretical basis for studying how school physical environment influences teacher's perceptions and practices and in what ways the physical environment affects the faculty culture.

Both of the Schein and Owens and Valesky theoretical models highlight the physical environment of school as one important component of the school culture, but they inadequately address and discuss about how these different parts interrelates with each other, and most importantly how the school physical environment influences faculty's practice and the school culture[3, 21].

The theoretical frame of this study is based on the two school culture theoretical models of Schein and Owens and Valesky. Though exploring the physical environment of the school, this study offers a new perspective to understand the school culture. Therefore, this study focuses on the physical environment part of school culture and its influences on the faculty practice of this school. The central research questions of this study are: In what ways do school's physical environment relate to the faculty's practice? How does the school physical environment influence the faculty's perceptions and practice? In what ways does the physical environment and the faculty practice contribute to the overall school culture?

3. Methodology

3.1 Case Selection

Electronical Engineering school belongs to a private university in central part of California, USA. Students of the Electronical Engineering school come from different places of the United States of America and also different countries all over the world. This engineering school is one of the oldest schools in its university with its engineering instruction

beginning in 1924.

Electrical Engineering school was selected as the case of this study because first, this school possesses a long history compared with other schools in the university; second, this school is equipped with many cutting-edge technologies and labs, which makes the physical environment of this school different from other schools; third, this school is one of the top schools in the private university, and among the graduates of this school are many American well-known engineers in the field of electrical engineering.

3.2 Data Collection

The preliminary research work has collected the Electrical Engineering school vision, teaching philosophy, buildings, facilities, school faculty and its student on campus population. Based on these data and the faculty's length of employment, average performance and academic achievement, five faculty members were selected for interview. E-mails of interview invitation were sent to five faculty members. I got reply from Dr. A and Dr. B. With permission of both Dr. A and Dr. B, the first week I worked as their teaching assistant to understand their daily work. After collecting and sorting out the work data, a face-to-face interview was conducted with each of them in the second week.

Through interviews, I gained a deep understanding of the school's faculty culture, especially the faculty's conceptions and practice in the school. Then I began to observe the physical environment of the Electrical Engineering school building, the classroom, the teachers and students to better understand the school's physical environment. Besides, I also collected documents through the websites and the help of the Dean's office assistant in order to understand the school working environment and facilities in detail.

The face-to-face interviews with two faculty members of the Electrical Engineering school, and the average time of the interview is 35 minutes. Both of the interviews were transcribed out and have gone through member check. These two interviews are very helpful for my observation since they provide a window into how the school faculty members perceive the school physical environment and their own practice. Then the information of the interviews directed my observation of the school building, space usage, and faculty interactions by helping me place what I observed within the context of the respondents' experience. By accident I participated in the meeting where the Dean of the Electrical Engineering school also attended, and I again observed the Dean, his interactions with the faculty and the physical environment of the large meeting room.

The interviews' transcripts, the observation field notes and photos, along with the documents that I collected all become my valuable data for exploring and understanding the culture of Electrical Engineering school.

The qualitative data were coded and analyzed. Four major themes rose from the data.

4. Results and Analysis

4.1 Physical Environment and Working Pride

The Electrical Engineering school has several buildings on campus, and some of the school's buildings are among the oldest buildings within the campus. One of my respondents, Dr. B, mentioned that the buildings of the engineering school are among the oldest within campus. It seems to me that she couldn't help talking about the school history and the school buildings. She said, "The school of engineering is one of the oldest schools within the campus. So it's appropriate that we're still in those buildings---the historical buildings." She particularly raised her voice a little higher in order to emphasize the "historical" building that she is so proud of. The most interesting fact is that she does not even work in that "historical" building because her department is located in the new building, but the pride that she is sharing is no less than the faculty who actually works in the "historical" building. Apparently, the fact that Electrical Engineering school faculty work in the oldest buildings on campus makes Dr. B more satisfied and more confident.

Although Dr. B moved into the new building 2 years ago. She also unfolded the same proud feeling as her talking about the old ones. She particularly mentioned that the new building where she is working now is "focused on technology, and with new equipment, new phone, new resources like the new computers. Our classrooms are equipped with new teaching infrastructure". The repeated use of the word "new" is actually another way to display and emphasize the pride that she shares with this building. It is true that the new building is a technological centre which is equipped with many new technological facilities. Although Dr. A did not directly show off the equipments that this new building has, she also exhibited her pride of the new building by saying "we're very expensive. Because our facilities are very expensive. So we're definitely expensive." Dr. A also made her point clear by making a comparison between the engineering school and the human arts school. She said that "If you compare us with for example someone getting a degree in literature, all you need is to buy some books. That's all. But we want 50,000 worth of equipment for our lab".

It is true that the new engineering building possesses very expensive equipments and labs. From the floor map of the new building that I collected from the Dean’s assistant office, it is easy to see that nearly half of the rooms in this building are labs. Even the Dean of the Electrical Engineering school tried to draw attention to the expensive labs that his school has and to the roaring expenditure for maintaining those equipments when he was meeting the visiting scholars from other countries. Both the Dean and Dr. B have mentioned the fact that this new building was named after the founder of a Fortune 500 company, because the founder’s son studied in this Electrical Engineering school years ago. The Dean also mentioned that Electrical Engineering school has some connections to the rich people and the industry.

It is evident that the faculty of the engineering school does not only draw pride from their long history of the school, but also they hold a high value of their high-tech work environment. Therefore, it is safe to conclude that the faculty of the Electrical Engineering school does recognize and share the pride of their physical environment, which is a strong evidence to show the influences of physical environment on the faculty’s conceptions towards their school culture.

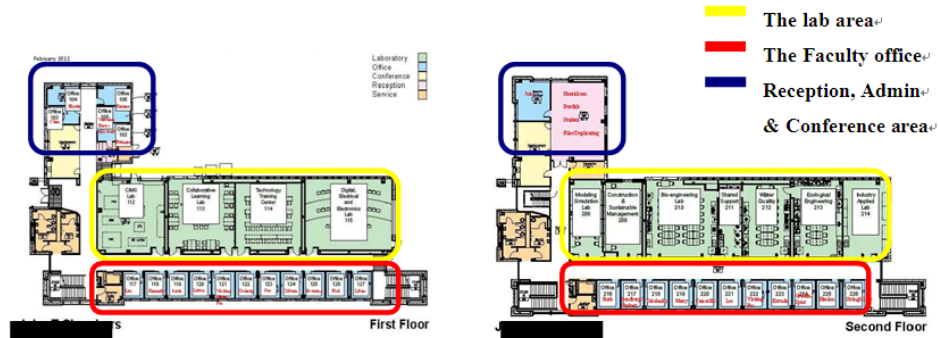


Fig.3 :Floor Map of the New Building

4.2 Building Structure and Structured Faculty Practice

The new building of the Electrical Engineering school is the one that I particular observed for several times because all my respondents are working inside this building. This building only has two floors [Fig. 3], and the structures of the two floors are the same. All rooms either fall into the east-west direction or the north-south direction. This structure of the building is like a rectangular coordinate axe. The most important teaching and working areas lie on the horizontal axis whereas the less important functions such as reception, conference and administration are arranged into the upper left corner of the vertical axis. In this way, the two different sections do not interfere with one another. Moreover, this structure also guarantees the absolute silence and space for each function. The structure of this new building is simple and clear, but it does not lose its ability of being functioning.

In addition to the simplicity of the building structure, another feature of this building is the aesthetic design. Since the building structure is simple and ordinary, the artistic design is fully displayed on the wall outside the building [Fig. 4]. When I first saw this new building, I was immediately caught by the colorful tiles just on the wall next to the main entrance. The tiles are different not only in color but also in texture. Some of them rise up from the wall whereas others sink into the wall. They all have been arranged neatly into a rectangular area. This design reminds me of the beautiful rose window in the church, which is so exquisite and graceful.

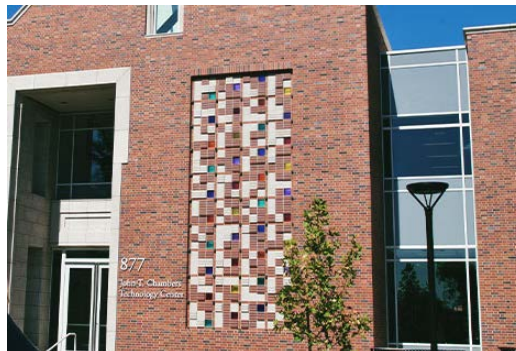


Fig.4 : Outside Wall of the New Building [23]

However, when I discussed the outside wall of the new building with Dr. B, she pointed it out that the tiles are a series of the computer coding. The way she described the design to me did not sound like a vivid story teller but a cold medical examiner. Dr. B went like this: "Some of the bricks are lower. And some are elevated, stick out. And each of them is either one or zero. So it's a code in that building. And every character in computer language...every character is eight characters long. Every letter is 8 characters long. So the ninth tile is a colored tile, because that delineates where one letter ends. So you got eight tiles of bricks and a colored glass tile. That's one letter. And then a glass tile to separate it from the next letter, so that why they are there. It seems quite like randomly placed. The color of the glass tile is random...every tile has to follow a rule." The way she described the wall gives people the feeling that it is not a piece of art, but more like a series of the combination of rules. Maybe this is due to the different ideology between science teacher and art teacher.

These two features of the building have revealed some typical ways of mind thinking by the faculty of this engineering school. First, they expect that everything should follow certain rules or laws so that it is easy for people to comprehend and to process it. This physical environment's impact has been proved by both of my respondents. Dr. A also talked about her teaching practice as "structured". She believes that "education is very structured...our culture is very structured. Our work environment is very structured and very focused." Dr. A is a relatively young faculty in Electrical Engineering school, but she has admitted the fact that she adopts the structured way of teaching not long after she joined the school. She believed that her teaching must be structured otherwise the students will feel uncomfortable and lost in class. This structured way of teaching has been practiced for a long time in this school because the new faculty soon surrenders to the traditional way of teaching and the students have already get used to this structured way of teaching. Dr. A admitted that she once tried to introduce new ways of teaching to replace this structure way, but it was not successful. The impact of the structured way of doing things is so huge that she confessed that, "And now I am more cautious about trying new things, because I think that students especially the engineering students, they don't like change. They like things to be very predictable. And they like the structure. So if you start changing things around, they will feel really uncertain about their grade, where they stand. So I try to be more cautious about introducing new things, new ways of doing things."

This structured teaching can also be seen in the arrangement of the desks and chairs in a classroom. Every desk and every chair has been placed in rows and lines, all facing to the direction of the whiteboard. It is the traditional lecturing way of classroom. Rarely can I see the desks have been arranged into small discussion groups that are scattered everywhere in the classroom. Although working in a new building and teaching in a new classroom, the faculty still prefers the old ways of teaching and the new classroom is still in the old layout. The faculty of this school is still affected by the structured way of thinking, and they employ this structure way into their teaching practice.

Dr. B revealed her preference towards this structured way of practice by saying, "When our current dean came in, things were modernized and processes were formalized where we actually have to do that, because it was more of a...less documentation and clearer processes." The reason why she especially likes structured way of doing things is that the structured process of doing things is more effective and much more efficient. When the school introduces a new teacher, Dr. B believes that "it's easier for them to follow our process when there is a process rather than what it's just to patch things together or in somebody's memory".

Faculty of the Electrical Engineering school are very comfortable of thinking in a structured way, teaching in a structured way and even working in a structure way. They expect that everything is like their building--simple structure but very functional. When new visitors come to the building, they won't have the feeling of lost. Instead, they are very confident about which part of building serves as the reception function and which part as the teaching function. The faculty members also want their students confident about what they are teaching, and expect their colleagues to process business also in a simple and structured way.

4.3 Physical Proximity and Close Collegial Relationship

Before the new building which was finished just two years ago, the engineering school faculty had been working in two oldest buildings. Some of the new coming faculty even could not find a work place in those buildings, so they were scattered among the campus. Dr. A was one of them at that time. Dr. A, who has been working in the Electrical Engineering school for four years now, was relatively a new faculty member back at that time. Her office was in a different building which, according to her words, "was near no one else you know...I was in a different building than most of the faculty." It is difficult for a new teacher to have a chance to know somebody in her school, let alone the culture of Electrical Engineering school.

Now she has been arranged to work in the new building with her colleagues around her [Fig. 3]. All teachers' offices are lined in a row just opposite to the labs. Dr. A feels that this physical proximity is very important for her to know and develop collegial relationships with her colleagues. She said, "It's very helpful to have people physically together. I think the important thing is everyone sticks together you know." She believes that physical proximity can give the faculty members plenty of chances to know each other and to work with each other. "If you actually seeing your colleagues in the hall, that was very helpful. For example the guy next to...both of the faculty next to me are in my department. So we see

each other all the time. We know what's going on with each other and classes. I think the close proximity is very important. "

Dr. B mentioned this same idea about the office arrangement and she also agreed that this physical closeness could encourage the development of her relationship with colleagues. She said, "Physical proximity...that's actually very important. Physical environment would keep people in close proximity." And Dr. B concluded her relationship with colleagues as "a very collegial relationships...a very positive relationship."

It is true that the faculty of Electrical Engineering school has very positive relationships between each other, which can be supported in three aspects from both Dr. B and Dr. A's words.

First, it is the collaboration among faculty members in their daily work. Dr. A openly talked about how much assistance and help that she had received from her colleagues. For example sometimes she comes across some difficulties about dealing with students since she is a relatively young and inexperienced teacher. Whenever she has such a problem, she would directly go to an experienced faculty for seeking solutions. She believes that this Electrical Engineering school "has a lot of faculty who have a lot of experience. So I have a problem, you know, like all my students failed the exam... am I a bad teacher? What went wrong? I can talk to them. So we have a lot of resources and very experienced people." In her own teaching practice, because of the proximity of her office to her colleagues, she often discusses about the students and the curriculum schedule with her colleagues. She said, "Yesterday I ask one of my students, you know, 'when is your fluency exam?' because I know who was teaching it---my colleague." Dr. A told me that she often works her syllabus with her colleagues in order to give students a reasonable course schedule and reasonable amount of homework. "You know we are trying not to have our test on the same day. and we know, for example, they have to do a senior project. And we kind of know the students by the time get to that point. There's just a lot of discussion among us."

She concluded the working environment as "definitely very collaborative here". Dr. B also confirmed the collaborative work with her colleagues, and she showed her full respect towards her colleagues' work by saying, "We respect one another. And we value the diversity within the department. And we value our colleagues that each of us bring different strength at the table... it's a great environment. It's a wonderful environment to work with them."

Second, it is that faculty members tend to do academic research together. They do not limit their collaboration only to their work or their teaching practice but also extend it to their academic research. Dr. A talked about the research that every faculty member must do in this school. She told me the strange phenomenon that "some faculty collaborates exclusively with people off campus. It's even you know some people are collaborating with people from other countries. But I like to collaborate with someone who's down the hallway." Although she confessed that the number of the research she collaboratively work with her colleagues is not too many, she still firmly believes that it is "helpful if you're doing scholarship to have some colleagues on campus".

The third aspect is the collective activities among the faculty members. Both Dr. B and Dr. A think that department meetings are one important way for them to build up good relationships with their colleagues, just limiting it to a reasonable frequency. Besides, they talked about the various group activities that faculty members could hang out together after work. For example, Dr. B said, "we have the department picnic once a year. Very often we'll see one another's kids. And everybody knows everybody's kids". She also talked about that "our department every year we have a gathering of barbecue at one of the faculty members' house for all the graduating students and the entire faculty from civil engineering. And we bring the kids. We have games we play like barbecue games, backyard games."

Dr. B believes that the annual department picnic and the barbecue gathering are good chances for faculty members to know each other off work. Some of the faculty members can even become close personal friends. Besides these formal activities arranged by the Electrical Engineering school, there are a lot of informal events for the faculty members to have fun from time to time. For example, the students of Electrical Engineering school often invite the faculty members to play volley ball as students against teachers. Often some faculty members can organize small gatherings and invite other faculty members to join. Dr. A was very excited about the following week's winery event that was organized by one faculty member when I was interviewing her.

It is very obvious that physical proximity allows faculty members more opportunities to work with each other, do research with each other and even have fun with each other. The working environment has a positive influence on the development of collegial relationship.

4.4 Smaller School Size, Less Bureaucratic Style and More Homogenous Culture

The Electrical Engineering school is not a large school within the campus. According to the document data, there are 58 people in total, among which 8 are the administration personnel. The Electrical Engineering school has 7 departments, and the average faculty number is 7. It is easy to see the school is relatively small in size. Dr. B and Dr. A happen to serve in the same department, and the faculty number in their department is 8, so relatively speaking it is a large department within the Electrical Engineering school.

During the interviews with Dr. B and Dr. A, both of them emphasized on the small size of the school, especially Dr. B who has been working in the Electrical Engineering school for 13.5 years. She is a very experienced teacher. Before she came to work in the Electrical Engineering school, she had been working for another University which she described in this way, the previous "university whose system was a big large bureaucracy".

Admittedly, the previous university is indeed much bigger one than the present university that Dr. B currently works for. The number of students in previous university is as many as 28 times bigger than the number of students in present university. Dr. B compared the work environment of these two universities. She does not like the bureaucratic style of the previous university. She recalled the situation there and described that whenever she actually wants to do something, "it seems like there're forms for everything. You had to follow... there like you have to get five random different people's signatures on just one form to do something". However, working in a smaller school, she does not feel so big bureaucracy around her. She described the present work environment with great appreciation, "So thankfully I don't think we're quite there. But at least with clarifying, if students want to do a competition or something, we have clarified some of the processes. But try to keep them simple."

Both Dr. B and Dr. A think highly of their engineering school in terms of the less bureaucratic environment, and both of them regard this part of the school culture as the unique or distinctive feature which separates them from other schools. Dr. A directly addressed this school culture. "I think it is unique, is that we don't have a lot of bureaucracy. So there's a lot of which I don't think it's the same for the university. But you know... we don't have a lot of people telling you need to do this... you need to do that blah blah blah. So there's a lot of freedom to focus on the things that are supposed to be focused on."

A small school usually has a small number of faculty and other staff, so the communication is much direct and more effective. Since there are only a few people in this school, all the procedures and unnecessary formalities can be simplified and reduced, just like Dr. B described, "Being a smaller school, I can just call up somebody if I have a question about admissions. I don't need to send formal requests. I know who works at admissions. So I can just walk over there and asked them a question, or invite them to coffee and sit down to talk to them if I have a concern about something. Having a smaller school lends itself to more collaborative work." It is true that the small size of Electrical Engineering school allows a less bureaucratic working style but promotes a closer and more collaborative working relation among the faculty members.

In addition to the less bureaucratic style, being a small school also enables the chance of reaching a homogenous school culture, i.e. the entire faculty and working staff share the same values, norms and beliefs towards their school and their work. It takes more time and efforts for a big school to have all the members to believe in the same values. But in Electrical Engineering school, Dr. B is fully aware of the importance of a homogenous culture. She thinks that the school "environment that values diversity and respects each individual. I think it's also important for everybody to share or understand the value, the mission. So they're all heading in the same direction."

Besides the four major themes, the faculty of Electrical Engineering school share many other teaching philosophy. For example, both of them talked about how close they are related to their students. Both of them emphasized the fact that their school leader and their colleagues have been very supportive to their personal professional development. Both of them agree that their responsibilities can be divided into the responsibility to the students, the responsibility to the Electrical Engineering school, and the responsibility to the society. The reason that the faculty share so many similar ideology is the homogeneity of the school culture.

Homogeneity of organizational culture refers to the extent to which basic assumptions, beliefs, norms, values, and cultural artifacts are shared by organizational members [20, 22]. Since the Electrical Engineering school has a small number of faculties and the faculty members frequently communicate and work with each other, it is easily for faculty members to share the same work values and beliefs. These values and beliefs are the underlying assumptions that even the faculty themselves do not realize the fact that they interpret their teaching and their work environment in a similar way. These underlying assumptions forms the highest level of Schein's school culture model [Fig. 1] and correspond to the culture element of the Owen and Valesky's culture model [Fig. 2]. The homogeneity of school culture also reveals how physical environment and faculty's practice contribute to the overall school culture. But to think in a different way, this homogeneity of school culture could also due to the limitation of this study.

5. Conclusion

The school culture is composed of the physical environment, faculty organization, students, working beliefs and so on, many of which are worth further studying. The part of school culture this study focused on is mainly about the overlapping area between the physical environment and the faculty practice. There are also many ways to interpret the school culture, this study adopts the perspective of the school faculty and its physical environment to understand the school culture.

Four important themes rose from analyzing the data. The first one is that Electrical Engineering school faculty share

the pride of their school building they are working in everyday, not only because of the long history of their school building, but also because of the advanced technology, the alumni's donation and the expensive labs that the new building has. The second finding is that the structure of the building has influenced on the faculty's conceptions and their teaching practice. They prefer structured teaching, structured procedure of work and even structured culture of their school. Everything is expected to follow the certain rules and everything should be simple and functional. The third theme is that physical proximity fosters close collegial relationships and more collaboration among faculty members. Since the faculty offices are close to one another, the faculty members have more chances to communicate with each other, work with each other and even doing research with each other. Moreover, it is much easier for faculty members to arrange activities together. Thus, this physical closeness has exerted a positive effect on the development of collegial relationship and the collaboration between colleagues. The last one is that the small size of school allows a less bureaucratic work environment and a highly homogeneous culture. Because of the small number of faculty members and administration staff, the communication is more effective and the faculty is more likely to share the same values and beliefs, which ultimately become part of the faculty's underlying values. In this way, the Electrical Engineering school can reach a highly homogenous school culture.

However, there are many limitations to this study. The respondents are from the same department of the Electrical Engineering school, which is inadequate for understanding the school culture. Also longer time and frequent observations will give more accurate descriptions about how physical environment influences faculty members and how faculty members interact with the work environment. Future research could explore the representations of a homogenous school culture and how it influences the faculty ideology and behavior.

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