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An analysis of the motivating factors underlying the hidden curriculum components through the lens of the Iranian students of architecture: A qualitative study

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HIGHLIGHTS

- Reflecting the students' view about the motivating factors of the hidden curriculum.
- Cognition of the motivating factors of Knowledge, Vision, Preparation, and Observation.
- Explaining the role of each motivating factor in the formation of the hidden curriculum.
- Explaining the factual stream of the hidden curriculum of the Faculty of Architecture.

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ABSTRACT

The hidden curriculum refers to implicit values and norms that learners experience through the culture of educational institutions. The present work is aimed at scrutinizing the hidden curriculum in architectural education and analyzing its motivating factors. Accordingly, the qualitative content analysis method was adopted in order to assess the lived experience of twenty-one undergraduate architecture students in Iran- Ilam. According to the findings, the four motivating factors of 'knowledge', 'vision', 'preparation', and 'observation, play a pivotal role in the formation of this curriculum. The framework of this study can be potentially extended to other disciplines, as grist for further work.

1. Introduction

The knowledge and experiences that the learners acquire through the education process is not confined to the official educational curriculum; other intervening factors are known to play a greater, more abiding, and more influential role in the formation of cumulative experiences, transfer of thoughts, attitudes, values, as well as the behaviors and actions of the learners (Gaufberg, Batalden, Sands, & Bell, 2010; Giroux, 1981; Hassan & Bijandi, 2009; Margolis & Romero, 2001; Saylor, Alexander, & Lewis, 1981; Wren, 1999). Such experiences are not part of a predetermined curriculum, but collectively constitute what is known as the hidden curriculum, which, in turn, is capable of exerting many positive and negative effects on the learners.

The term 'hidden curriculum' was first coined by Philip Wesley Jackson (1968) in his seminal work, 'Life in the Classrooms.' He could identify the visceral characteristics of social interactions of a class by observing and studying general courses. He found out that there were some behavioral/social values, expectations, and anticipations to be learned as well as rewarded that have a tangible impact in the class despite not finding mention in the official curriculum (Jackson, 1968, pp. 10–11).

From a macro-scale perspective, the hidden curriculum could be examined from two angles: critical and uncritical. The critical stance posits that the ruling educational system intentionally transmits the values and norms (through the hidden curriculum) to

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the learners in a manner that is both implicit and intangible. The uncritical stance, on the other hand, postulates that these values and norms are transmitted unintentionally by its contributing agents. Proponents of this viewpoint suggest that the hidden curriculum primarily comprises of those elements of the learning environment that are no longer visible due to their ubiquity. Put differently, people tend to take them for granted and live with them (Gair & Mullins, 2001). To illustrate, the existence of hierarchy and discrimination in the relationship between teacher and student can be identified, which is ordinary for both entities.

Although this curriculum is present across educational levels from school to the university, the research conducted to explore its aspects and dimensions in the universities assumes great significance. Due to the involvement of design studio as the core element of the educational system of architecture (Fallman, 2007; Koch et al., 2002; Vyas, Veer, & Nijholt, 2012), which is known to have an influential and constructive culture (Swayer, 2017; Vyas et al., 2013; Vowles, 2012; Hafeli, Stokrocki, & Zimmerman, 2005), and considering the fact that the hidden curriculum of design studio is a consequence of this culture, the hidden curriculum becomes influential in the realm of architectural discipline.

Categorized under titles such as social, cognitive, physical, and administrative environments, these elements are considered to underpin the formation of the hidden curriculum across educational institutions. In the past, many researchers have pointed out the influential role of these four types of environments. In the social environment, the focus is put on the role of social relations and interactions as critical factors creating the hidden curriculum (Dreeben, 1968; Gordon, 1983; Townsend, 1995; Vallance, 1974). Within the cognitive environment, textbooks, teaching and assessment methods, etc. are considered to be effective tools for conveying the critical components of hidden curriculum to students (Apple, 2003; Cornbleth, 1984; Gordon, 1983; Silver et al., 1981; Vallance, 1974; Vandenbroeck & Peeters, 2008). Meanwhile, in the physical environment, the role of the architectural space specifically focuses on the formation of this curriculum (Vallance, 1974; Graetz, 2006; Gordon, 1983; Getzels, 1974; Cornbleth, 1984). Similarly, the influence of policies, rules and regulations governing the educational institute on the formation of the hidden curriculum is evaluated in the administrative environment (Vallance, 1974; Silver et al., 1981).

Analysis of the hidden curriculum in the field of architecture necessitates the recognition of the subtle contours of teaching and learning process in this field. The process of architectural education is mainly concerned with the practical activities undertaken by the students in the design studio, the educational hub of the facility. The design studio takes center stage in architectural education. In fact, students and their instructors spend most of their time on intensive learning and exchanging experiences/practical knowledge in the design studio. In the viewpoint of Ward (1990), the current approach of the studio to architectural education can only be compared to a medical internship in terms of its complexity, intensity, and levels of engagement.

In architecture schools, a significant amount of time and activities are allocated to the design studio courses. These vital courses demand a great deal of time and effort on the part of instructors and students alike. Equally, the design studio educational courses are offered in coordination with other courses and pedagogical tasks (Koch et al., 2002, p. 2).

In order to obtain a better understanding of the hidden curriculum in the field of architecture, it is paramount to further analyze the culture embedded in the design studio. Recognizable through the study of prevailing norms in the design studio, this culture affects students' attitude and influences positive or negative behavioral patterns. To that end, a number of scholars such as Dutton (1991) have regarded the consequence of this culture as the hidden curriculum of design studio education (ibid., p. 4).

Given a broad and somewhat heterogeneous contemporary field of education, the issue of education other than its context, and discipline encompasses motivating factors and underlying foundations that are supported and guided explicitly or implicitly. Due to the problematic nature of the hidden curriculum, whose dimensions and aspects are not always apparent to the student, the teacher and the educational system, recognizing its motivating factors with a view to contributing toward problem-solving and effective planning in educational fields is paramount.

Indeed, certain elements of the hidden curriculum oftentimes lead to harmful effects and outcomes that the identification and investigation of its motivating factors help in clarifying the process of education and predicting its concomitant consequences. As a matter of fact, this issue can be studied beyond the architecture discipline and across all fields of contemporary education.

Although several studies have been conducted to explore the different components of the hidden curriculum in various fields of study, quite a few of them have narrowed their attention to the motivating factors underlying the hidden curriculum in terms of the learners' frame of reference. However these factors are part of the conspicuous curriculum; equally, their performance has facilitated the transfer of values and norms to the students. According to the students' perspective, they are the most influential factors in the formation and prevalence of the components of the faculty's hidden curriculum.

With regard to the foregoing discussion, the present study is aimed at exploring the outstanding factors that motivate the hidden curriculum in architectural education from the students' perspectives and analyzing the manner in which formed norms expand and find their way through the culture of educational institutions. In particular, this study adopts an uncritical approach to the description and illustration of the status quo of the prevailing culture of relating to the architecture faculty and aims to get a deep insight into the rules governing the actual formation process of the hidden curriculum. In this context, the hidden curriculum defined as the knowledge stipulated in the curriculum implementation framework that is experienced by the learners through their exposure to the prevailing culture of the educational system.

In light of these raised issues, the following main questions were formulated:

1. What are the main factors motivating positive and negative components of the hidden curriculum of architectural education from the viewpoint of those experiencing it, i.e. the learners?
2. Bearing in mind the role that these motivating factors play in the formation and implementation of the hidden curriculum components, how can one explain the rule-governed nature of the hidden curriculum in the faculty?

2. Literature review

Examining its various prevalent components with a non-critical view and discovering/scrutinizing its motivating factors, the purpose of the present study was not merely to address the special component of the hidden curriculum within the faculty. For this reason, during the process of data analysis, a range of hidden curriculum components in the four fields of social, administrative, physical and cognitive environments was diligently identified. Elucidating the rules governing the reality flow under the formation as well as the prevalence of these components as part of the next step, we then sought to illuminate the common motivating factors of all components of the faculty's hidden curriculum. It was

necessary, in the literature review, to focus and extrapolate on this diverse range of hidden curriculum components, given that the endeavor was to identify their common motivating factors, as opposed to the special component of the hidden curriculum.

Many researchers have analyzed the concept of hidden curriculum in architectural education. Dutton was among the researchers who initially proposed this concept with reference to the study of architecture. As an architectural researcher and instructor, he pointed out some components of the hidden curriculum, the effect of which one is assessable the cognitive and social environment.

One of the hidden curriculum component mentioned by Dutton (1987, 1991, 1996), Ward (1990), Ahrentzen and Anthony (1993), Stevens (1995, 1998) and Keddy (2001), among others, is that of 'hierarchy' which refers to the lack of equal relations between instructor and the students. Dutton (1991) opines that the unequal relationship between the genders, races, and social classes permeates into the classroom as well. Analogously, Stevens (1998), posits that power hierarchy intrinsically empowers some students of prosperous and cultured families, thereby facilitating the emergence of some sort of a social class system in architectural education (Stevens, 1998, p. 110).

'Competition' is one of the components of the hidden curriculum which, at times, adversely affects all the educational systems worldwide, and can be experienced in the design studio as well. Defining this component, Dutton assesses and criticizes the undesirable ramifications of this presence in the studio, including secrecy, noticeable deterioration of scientific cooperation, and distortion of friendly interactions among students. However, the presence of this component as a conventional norm in the hidden curriculum of the design studio has been admitted in studies conducted by researchers such as Ward (1990) and Koch et al. (2002). Ward (1990), asserts that although the intention to compete is advantageous in terms of motivating the students to perform to the best of their ability, it does the pave the way for many instances of secrecy, a sense of possession of new ideas and turning them into commodities, which is regarded as an impediment to dialogue and actual learning (p. 12). Other scholars believe that the culture of the design studio impels students to engage in negative competitions, thereby causing them to feel reluctant about sharing their ideas with peers and evading teamwork and cooperation (Anthony, 1991; Boling, schwier, Gray, Smith, & Campbell, 2016; Glasser, 2000; Shih, Hu, & Chen, 2006).

One of the most important components of the hidden curriculum of architectural education is 'paper architecture', which refers to the design studio tendency to remain in the territory of fantasy or unviable projects. Notably, the unrealistic contents of the studio projects are attributed to the architect's narcissism and ignorance of implementation of realities (Ward, 1990, p. 13). In this regard, Ward (1987) asserts that paper architecture attaches far too much importance to the mental imagery and does not end in reality (Ward, 1987, p. 158). Drawing on his experience as an architecture instructor, Ward (1990) states that constricting students to paper architecture and turning a blind eye to the realities in architectural design evinces a misplaced sense of self-confidence and narcissism on the part of students (Ward, 1990, p. 13). Correspondingly, the studies by Dutton (1987), Schon (1987), Ward (1987, 1990), Webster (2008), Kaminer (2011), Tzonis (2014), Bashir (2014), as well as the lived experiences of the authors as students and instructors of architecture, clearly indicate that such a tendency afflicts most design studios and is a function of sheer attention to the mentalities and architectural design detached from the profession's external realities.[1]

Yet another tendency extant in the architecture faculty is denoted by the concealment of knowledge and the lack of giving a clear account of it within the educational domain. Argyris and Schon (1992) proclaim that the interactions based on the design studio hierarchy viscerally impede the process of learning and building relationships. This procedure caused the design studio to become a place for instructor-centered activities where learners are constantly looking to fulfill the instructor's expectations. In turn, this causes confusion and chaos in the architectural education process (Argyris & Schon, 1992). Deciphering the instructor's expectations becomes a matter of competition among students in the design studio. However, the instructor, through concealing his expectations, achieves some kind of superiority over the students. This bears resemblance to a 'Mastery_Mystery' game in the design studio space that lacks clarity and gives rise to a contest through secrecy (Salama, 2005 &, 2016; Dutton, 1991).

Another aspect of the hidden curriculum that is referred to in the existing body of research is that the dominant culture of this studio favors and appraises students handing over projects that are of a more appealing appearance. In this regard, Koch et al. (2002) stated that the work of students who fail to deliver appealing projects is marginalized and tends to get devalued over time (p. 11). Put differently, the point ignored by many architecture instructors is that they pay too far too much attention to the visual component of the project and end up undermining the design process entailed in the formation of the architectural work.

Meanwhile, another key component afflicting all design studios is the widespread but erroneous notion among architecture faculties that the graduates should look for future jobs only in architectural offices (Boyer & Mitgang, 1996)). However, the truth is that the course descriptions and lesson plans delivered to the students during the semester follow the same objective. Boyer and Mitgang (1996) published a report on job opportunities for architecture graduates where they asserted that these graduates do not necessarily need to obtain licensed professionals. This seems to be even more important today given that many architecture graduates are engaged in professions other than the traditional architecture office (Boyer & Mitgang, 1996, p. 77).

A key component referred to by researchers such as Ahrentzen and Anthony (1993),Groat and Ahrentzen (1997), and Keddy (2001), is the inherent gender inequality in the social interactions among students themselves and between students and the instructors. These researchers have assessed the architectural education in faculties to be inclined towards male students and have therefore stressed upon the need to make necessary changes in the educational content so as to make it equally favorable for female students. The traditional method of architectural education is to the detriment of female students working in a team along with their male counterparts since their views and efforts are often undermined or totally ignored (Ahrentzen & Anthony, 1993; Ahrentzen & Groat, 1997). In fact, Ahrentzen and Groat (1997) posit that an increasing number of architecture instructors are females whose viewpoints towards architecture differ from those of male instructors; however, the males 'attitude continues to prevail in the architectural education environment. Accordingly, they affirm that the females' views deserve ample attention in light of their potential effectiveness.

Other researchers such as Anthony (2001) and Koch et al. (2002) mention another important component of the hidden curriculum of the faculty of architecture. They maintain that the atmosphere of

[1] - However, step-by-step instruction and gradual learning ranged from restricted scope to broad scope projects in the real world is a well-accepted strategy in education, but the fact remains that in some educational systems, including our educational system due to its structural problems - as expressed in previous comments, as well as students in their interviews pointed – successful students rarely experienced the real world projects at their educational final courses and even at higher levels (masters and doctorate).

the faculty is detached from the real world environment and that the opportunities for interacting with the world outside the faculty are rather limited. In fact, the majority of students of architecture feel alienated from the atmosphere outside the school of architecture (Koch et al., 2002, p. 9). The students' preoccupation with the intensive tasks of the design studio has drastically reduced their contact with students in other fields of study. Diminishing the role of the outside world, the design studio plays a vital role in shaping the social life of students (Anthony, 2001:12). The prevalence of this component makes students of architecture feel a sense of belonging to a different society, causing them to form especial ideas, thoughts, behaviors, as well as external presentations.

What ensues is a recapitulation of the review of the related literature:

1. In wake of the nexus between the components of the hidden curriculum and the social, economic and political characteristics of countries, some of these components may not exist in the architectural faculties of other countries. Put differently, the nature of these components contradicts some of the components discussed in this paper thus far.
2. This study discusses a hidden curriculum with a non-critical perspective.
3. With regard to the importance of interactions within the design studio environment, the research line of the above-mentioned studies entails the exploration of the components of the hidden curriculum of the design studio, primarily in social and cognitive environments.
4. Although there are both positive and negative facets of the hidden curriculum, most of these studies fall short of paying attention to its constructive aspects and have primarily focused on its negative connotations. These studies have primarily focused on designating the hidden curriculum components and proposing solutions to improve it, depending on the specifications of each of the components. However, very few steps, if any, has been taken to explore the factors motivating the positive and negative components of the hidden curriculum of architectural education and analyze how the formed norms spread through the culture of educational institutes.

3. The situation of this study in Iranian architectural education system

In Iran, the modern architectural education began with the establishment of Tehran's fine arts faculty in 1939. The country's founders of architectural education were French archaeologists and those who had graduated from the French national superior school of fine arts. Notably, the education system was premised on the French teaching style. The genesis of the now prevailing order in Iran was in the International method of teaching architecture. The new system of architectural education meanwhile offers specific education at bachelor's, master's, and doctorate levels.

The current paper, extracted from the PhD thesis in the domain of architectural education, is premised on the requirement for Iran's architectural education system and congruent with some national documents such as the Comprehensive Scientific Map of Iran and the Student Rights Charter of Iran. Accordingly, these documents have been designed and developed in accordance with the sociocultural requirements of Iran in order to decolonize the global structure of education and develop indigenous culture capabilities within the fields of art, science, and technology.

4. Research setting and time span

The time span of the present study was April–August 2017. The setting of the study was the faculty of architecture of the Ilam State-run University situated in the western city of Ilam (Ilam province), Iran. As of now, there are more than 6800 students study in 95 different fields at associate's, bachelor's, master's, and doctorate levels (more information is available on the Ilam University website: https://www.ilam.ac.ir).

5. Institutional, regional and cultural subjectivity of this study

The culture of Iranian architecture faculties is largely influenced by its political and economic system. The ideological issues of the ruling Islamic system, such as the observance of privacy in the interactions between girls and boys and the strict adherence to Islamic ethics issues - particularly after the Islamic Revolution of 1979 - are underpinned by the universities management system. This has led to strict controls on the relationship between girls and boys and ideological bias in the faculty education, which were identified as components of the hidden curriculum in this study. Besides, the predicament of economic problems and international sanctions has made it impossible to find a linkage between internal and overseas faculties whilst lowering the standard of international scientific exchanges.

The faculty of Architecture at Ilam University is a part of the field of technology and engineering. For this reason, student education is associated with a more technical and operational nature. Nevertheless, due to administrative and economic bottlenecks, the impossibility of linking the university with the local business community and the acute paucity of applied projects - not only at this university but also across most of the universities that are not located in Tehran – renders education inapplicable to students. Ilam University, the largest university in the province of Ilam, is in a better condition for educational facilities as compared to other states and nongovernmental educational institutions within this province.

6. Research method

This is a qualitative study that leverages the method of qualitative content analysis. In order to investigate the motivating factors underlying the hidden curriculum components of architectural education with an emphasis on its social contours, the researchers made use of analysis, interpretation, and deduction. Here, the endeavor is to get a deep insight into the data with a view to identify the underlying layers of education (Wren, 1999). Thus, in academic parlance, this study approaches this issue through qualitative research methodology in order to analyze the complex, covered, and unofficial dimensions of the hidden curriculum.

Defining the unit of analysis, the recording unit is a particular part of the content determined by being in a certain class, such as words or symbols, subject etc. (Glaser & Strauss, 2009.). In this study, the recording unit was represented by the ideas regarding the purpose of the study: the identification of the components of the hidden curriculum and its related motivating factors. Being larger than the recording unit, the context unit denotes a context for recording unit and defines the domain of textual information for the purpose of elucidating the recording unit. Neither of them needs to be independent; the Context units may overlap and contain many recording units (Stemler, 2001). In this study, the context unit was signified by interview transcriptions.

6.1. Perform interviews

To ensure the preparation of the main interviews, the researcher conducted three pilot interviews with the students. In this study, the researchers conducted semi-structured interviews by adopting the general interview guide approach (Gall, Gall, & Borg, 2007) and included two central questions that shaped the structure of interviews:

1. What is your acquisition (positive or negative) after four years of lived experience at the Faculty of Architecture?
2. Can you describe the influential factors on faculty culture?

The discussions between the researcher and the interviewer provided a platform to access the students' living experience since they were conducted in an intimate and informal environment in the semi-open space of the college. Interviews were transcribed on the very same day or the next day and subsequently sent by email to the interviewee. Thereafter, after incorporating the necessary feedback and confirmation by the interviewee, the transcripts entered the executive process of investigation. The interviews with the next interviewees that had been introduced by the previous ones, continued until data saturation was achieved.

6.2. Sampling method

The participants included 21 undergraduate students of architecture in the Ilam state-run university that were made selected and made available to the researchers through the non-linear snowball sampling method. Since the purpose of this qualitative research is to acquire a deep and incisive understanding of the particular phenomenon examined, the targeted selection interview for gaining profound knowledge or information assumes priority. In qualitative research, sampling often focuses on small numbers with an objective of conducting an accurate and deep study of samples (Miles & Huberman, 1994, Patton, 2002). In these studies, samples are purposefully (and not randomly) derived so as to achieve richer data about a particular phenomenon under investigation (Ezzy, 2002; Mays & Pope, 1995). For this reason, the snowball sampling method was applied. Table 1 depicts some of the demographic characteristics of these students.

The rationale behind choosing undergraduate students was that unlike graduate students, they spent more time in the university and dormitory communicating with their peers, instructors, and the administrative staff. Therefore, it can be inferred that their lived experiences in the academic context were more continuous and richer in terms of diversity than those of their graduate counterparts. Additionally, Ilam state-run university was primarily selected due to its proximity to the researcher. Having previously taught at this university, the researcher was well acquainted with its environment, thereby availing better access to the data and enabling a more accurate studying of them.

6.3. Methodological rigor

With a view to affirming methodological rigor, the Lincoln and Guba's (1985) four criteria for the trustworthiness of qualitative research (credibility, transferability, dependability, and confirmability) were adopted. Credibility was maintained through diligent member check i.e., after conducting each interview and transcribing it; the transcript was then e-mailed to the interviewee along with the immediate understanding of the researcher in order to ensure the accuracy of the transcript as well as the meaning of the words and experiences expressed by the interviewee by gathering their feedback.

Meanwhile, transferability was enhanced through non-linear snowball sampling. The first interviewee was deliberately chosen for being more knowledgeable about the research topic than others. Thereafter, other participants were contacted through the first interviewee and on the basis of their level of knowledge. Taking the data from pilot interviews into due consideration, decisions were made on the best possible interview setting and also on ways of devising the interview guide. To ensure the dependability of the interviews, consensual adequacy was used. To this end, an additional three architecture students of the faculty were interviewed to test the data saturation after reaching data saturation on the thirteenth to fifteenth interviews. Results confirmed the accuracy of those of the data saturation test.

Finally, confirmability was maintained by keeping a reflective journal. This was essentially a written record of the researcher's tentative and personal reflections during the course of interviews or even days after transcribing them and was subject to change after the comparison with the transcripts of other interviews. This was done in order to become aware of and avoid researcher bias during the analysis process. According to Lincoln and Guba (1985), the audit trail helps enhance both dependability and confirmability by getting one or more research assistants to control the accuracy of the researcher's analysis.

Regardless of how much mastery a researcher gains over content analysis, they are required to consult a number of assistants so as to ensure that the reliability of the results of the analysis is acceptable (Elo et al., 2014). Accordingly, two research assistants coded the one-fourth of the interview transcripts separately. The results were indicative of an agreement of 0.83 among the coders. Finally, all the research stages, the accuracy of the coding process, as well as the inspection of the research content were approved by the supervisor (department of architecture) and advisor (department of educational sciences) of the study.

7. Findings

The findings of the study showed that there were twenty-two significant components of the hidden curriculum in the faulty of architecture; sixteen components of them were positive, whereas the rest of them were negative. Further analysis of the interviews revealed four main factors indicating that both negative and

Table 1
Demographic characteristics of the study participants from the faculty of architecture of Ilam University.

Type of the Interview	Filed of Study	Level of Education	Educational Status	Gender		Place of Residence		All study Participants
				Male	Female	Family	Dormitory	
Pilot	Architecture	B.A	Senior	2	1	2	1	3
Main	Architecture	B.A	Senior	8	7	5	10	15
Data Saturation Test	Architecture	B.A	Senior	1	2	3	0	3

positive components have these four overlapping significant motivating factors, which has led to the prevalence of these components. Divided based on negativity/positivity, these factors outlined are as follows:

- The shared factors causing the prevalence of the hidden curriculum's negative components:

1 Incognizance and lack of awareness of the effects and consequences of an action

In a large part of their interviews, the interviewees mentioned that one of the reasons for the prevalence of negative components of the hidden curriculum is attributed to the ignorance of the individual or pernicious social consequences of those components. In fact, they argued that if one were aware of the consequences of his/her negative behavior in the university, he/she would not commit it.

2 Opportunism and a tendency towards fleeting interests

According to the interviewees, mere awareness or knowledge is not enough to perform an ethical operation because of certain unethical behaviors caused by the lack of awareness of its negative ramifications, but due to the abdication of any responsibility to the others and, opportunism. In fact, beyond recognition, there is a need for sightedness, the absence of which, in the view of interviewees, plays an important role in the prevalence of negative components of the hidden curriculum.

3 The absence of preparation for a normative action

In addition to the two mentioned factors, the interviewees also referred to the absence of preparation for ethical behavior as the other important factor shaping and exacerbating the tendency of unethical behavior in the faculty culture. In fact, when people are compelled to face a lot of challenges during the course of their ethical work, they prefer to get unethical.

4 Lack of supervision or ineffective observation

Finally, the interviewees mentioned the lack of proper observation by interactors (students, instructors or staff) in the implementation of affairs as motivating factors in the generation and prevalence of unethical behavior within the faculty. In fact, in instances where the faculty's unethical behavior was observed, it was found that there was no ineffective observation.

- The shared factors causing the prevalence of the positive components of the hidden curriculum:

(1) Understanding or awareness of the effects or consequences of an action

When describing the motivating factors of the positive components of the hidden curriculum, the interviewees said that the awareness of positive effects as one of the more important factors in the generation and prevalence of that component. Undoubtedly, it was not possible to carry out that component without acknowledging its effects.

(2) Foresight and responsibility in action and behavior

The interviewees, in addition to expressing the first factor as mentioned above, regarded the necessity of thinking and responsibility as important factors in forming/developing the positive components. Put differently, in order to perform normative deeds, it is oftentimes necessary to pass through transient individual interests and retain the focus on long-term and public benefits.

(3) Preparation for a normative action

The interviewees described the preparation for positive components of the hidden curriculum, as a ground for their generation and prevalence at the faculty. Without adequate preparation, it is possible that the ubiquity and efficacy of hidden curriculum components, between the interactors, does not fructify.

(4) Efficient observation on actions

One of the other effective factors that the interviewees mentioned during their interviews as a reason for the development of positive components was the inclusion of adequate public or institutional observation on those components. In other words, the interviewees pointed out that a combination of effective organizational observation on one hand, and the sensitivity of the faculty's interactions in the field of the necessity of performing those components, on the other hand, were among the issues that played a pivotal role in the prevalence of the components.

After contemplating on the essence of the fourfold factors creating and amplifying the positive and negative components of the hidden curriculum throughout the faculty, four themes were identified. All these themes indicated the breed and effect range of the four-fold factors. These factors include 1. Knowledge, 2. Vision, 3. Preparation, and 4. Observation.

In this regard, the theme of knowledge refers to the role of awareness and cognition of the faculty interactors (student, faculty, and staff) in and the generation and prevalence of hidden curriculum components. To start with, the theme of insight expresses the vital role of foresight and responsiveness of the faculty interactors to the consequences of creation and expansion of hidden curriculum components. Next, the theme of preparation refers to the important role of providing necessary preliminaries in generating hidden curriculum components, whereas the concept of observation illuminates the significance of public and organizational observation in that process. In the absence of this observation, it is possible that the faculty interactors may be inclined to negative components and as a result, these components will spread throughout the college among most interactors. Fig. 1 illustrates the linkage between these four common themes - four motivating factors - with positive and negative components of the hidden curriculum of the faculty of architecture. These components are classified as social, cognitive, physical, and administrative contexts.

In accordance with the statements made by the interviewees with regard to the factors underlying the hidden curriculum, what transpires next is within the framework of the following four-fold factors: knowledge, vision, preparation, and observation. The content of these quotations indicates direct or indirect confirmation of the existence of these factors as underlying the formation as well as the prevalence of the faculty's hidden curriculum components. For brevity purposes, this section will only include two quotations from the students that will confirm each factor.

7.1. The knowledge factor

First and foremost, there is a level of knowledge, recognition, and understanding an individual possesses with regard to the ethical deed and their level of awareness about its consequences. In the absence of this understanding, the deed will go astray from the very outset. In fact, after every deed is recognized through the application of knowledge, its different contours are identified, after which grounds are set for it to be done right.

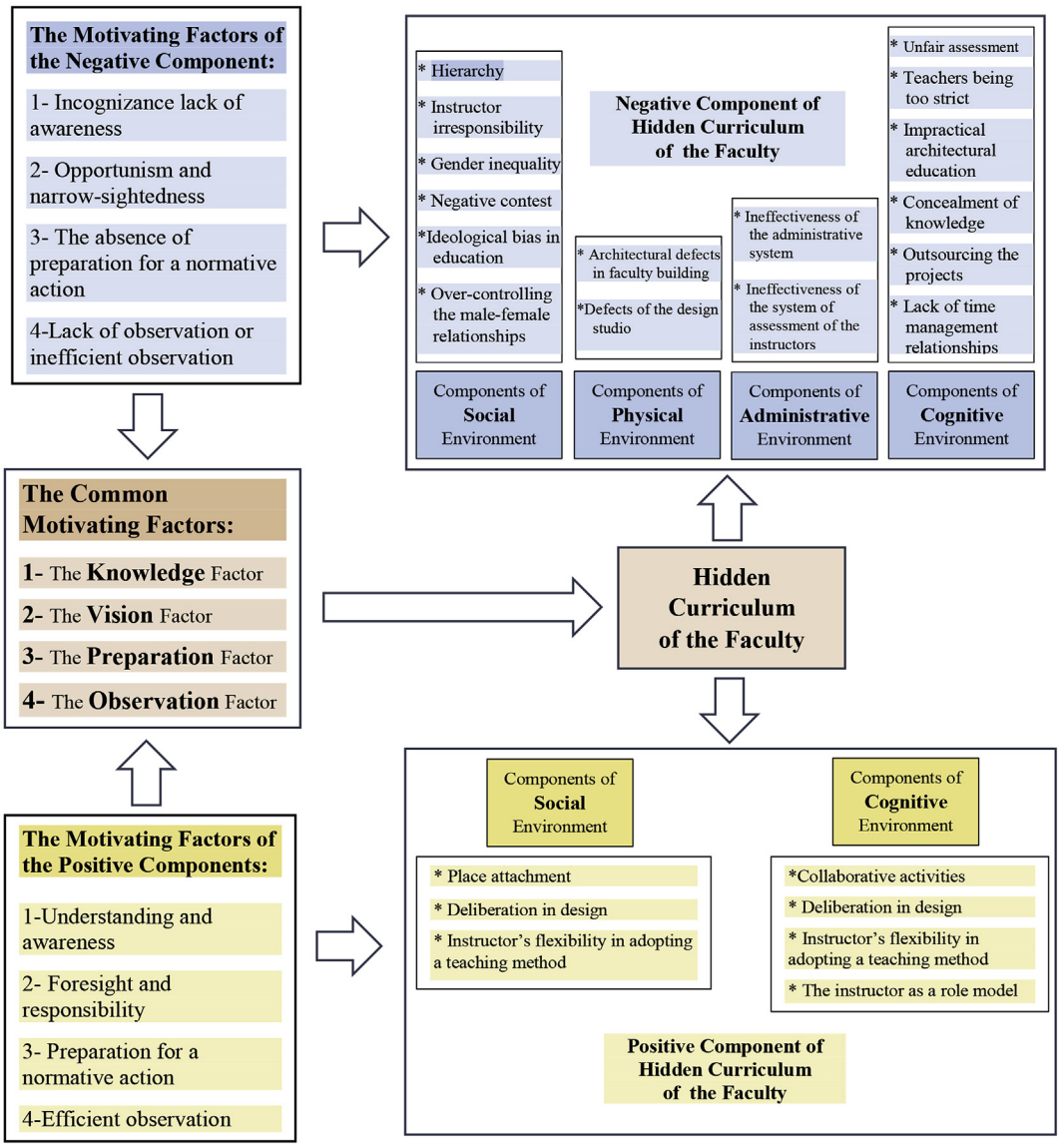

Fig. 1. The relationship between positive and negative components of the hidden curriculum of the faculty of architecture and their specific/common motivating factors.

Also, the hidden curriculum is not necessarily a set of negative values. It is important to note that the lack of knowledge or cognition of a subject can lead to the inability to achieve the particular targets of the curriculum. Race (2018) argued that the factors -such as the lack of teacher's cognition about learning incomes and researching with learners-has a negative effect on student learning and may simply lead to the inability of the teacher to properly defining the intended learning outcomes and a recognition that there will be unintended learning outcomes.

As an example, the interviewer of code 109 underscores the main factor behind the creation and expansion of the hidden curriculum of "gender inequality" by some of the instructors as "pity for girls," even though he opines that this issue can have a negative effect on their ability and self-confidence, whereas the instructors are unaware of the associated disadvantages:

'We had a master who was generally well-known as being too strict, but his strictness was just for us as boys, not girls. I myself felt that is kind of pity for them because, at any rate, girls are weaker than boys in terms of body physics, but in my opinion, this afflicts the self-confidence and self-esteem of girls, who are always backed up.'

Interviewer code 106 argues that the lack of awareness, coupled with an inadequate understanding of instructors about the findings of the prevalence of "concealment of knowledge" component in the design studio, has caused the confusion of students in the architectural design process.

'Here some teachers, do not tell you clearly what they want, you must be able to discover it … I say this seriously! Students are looking for teacher's request from the very first day of the career. it is very bad! Maybe teachers suppose that with applying this method, students learn deeper, but I think only the students are confusing.'

7.2. The vision factor

Expediency or opportunism is the second factor. At this stage, even if an individual has proper recognition and awareness of the deed along with its consequences, they may still make a mistake in the absence of a suitable vision. Vision prevents blind measures and provides compelling reasons for each and every part. Attention to details on one hand, and having a holistic view, on the other is a salient feature of vision. Against the backdrop of insight, it is possible to achieve wise and expedient results, because insight causes individual not to perform their affairs blindly.

For instance, a student might be aware of the future undesirable consequences of outsourcing the projects and still do it for inexplicable reasons, choosing to remain content by getting a grade, as a result of the lack of knowledge and imprudence. For example, the interviewee coded 111 observes:

> 'Personally, I have noticed peers who are after outsourcing their projects. Most of them don't want to go through the hardship of doing the designs by themselves. I consider this as their not being farsighted. They are only after getting a good mark. Nowadays, you know, they don't give you a job for your academic degree; rather, they give it for what you have actually learned to do and for your professional capabilities.'

Another student - code 102 - mentions the instructors' vision factor when talking about 'irresponsibility' of the instructors:

> 'In my opinion, an instructor who goofs off, isn't on time, and who teaches carelessly, knows well what s/he is doing, that it's kind of trampling students' rights. But … but s/he couldn't care less …. The only important thing to him/her is how to handle his/her other businesses and earn money.'

7.3. The preparation factor

Preparation is the third component. It refers to the existence or lack of different requirements, including social, economic, and physical, among others, for the fulfillment of hidden curriculum components. To that end, the educational system must pave the way for them through the preparation of social, organizational, and technical infrastructures. There are times when someone possesses the requisite knowledge and vision to distinguish his own interests and those of the society, but he is unable to fulfill a normative deed or ethical behavior due to its inherent hardship or lack of proper conditions to do so. They may even take an educationally unethical or socially unacceptable measure. Here, like before, a documented illustration is brought from the transcript of one of the students' interviews. According to the interviewee of code 102, the absence of a common ground for the teacher and the student to engage in social interaction is the primary factor in the generation and prevalence of the "hierarchy" component in the faculty:

> 'I clearly do not understand the cause of this arrogance and humiliating look from the instructors to the student. Maybe the breakdown of the social relations between the teacher and the students or the age interval. There's no common understanding. That relationship could be much friendlier … the instructor told one of the guys in the "architectural presentation" course: "You do not have the talent of this discipline! Go away, go on to change your discipline." It's not good at all. '

Meanwhile, the interviewee coded 101 also highlights the importance of adequate physical teaching environment of the instructors in the creation and prevalence of 'informal student-instructor relationship' as a covert component:

> 'I think the informal student-instructor relationships are useful for both students and instructors. There are issues that students find hard to talk about in the class. It will serve students' development and success in their personal and educational lives if the instructor has an office where students can meet them at specific times.'

7.4. The observation factor

Finally, the observation or supervision factor denotes the last link of the hierarchy of factors motivating the hidden curriculum components. If someone is led to committing negative hidden curriculum components owing to the lack of one of the previously mentioned factors (knowledge, vision, or preparation), the observation system must proactively control of the situation and prevent its incidence or prevalence throughout the faculty. On one hand, public observation serves as a deterrent for the negative components and an encouraging factor for the positive components due to its pervasive ability to bring about university transparency for social responsibility. On the other hand, the organizational observation factor is deemed as the most influential one in delimitating and expanding either positive or negative components. It is unfortunate that the absence of observation or the weakness of associated supervising mechanisms has resulted in the prevalence of many negative components or contributed to the lack of positive components in the faculty at the cultural level. In the interviews, students candidly expounded the shortcomings of the supervising mechanisms in the inspection and control of the covert components.

For instance, when responding to the question on the underlying reasons for adopting instructors who lack the requisite teaching skills, which, in turn, leads to the prevalence of an 'ineffective instructor assessment system' component throughout the faculty, the interviewee coded 102 asserts:

> 'We wonder whence the university officials have found them. Why they never supervise them to see how they teach. Most guys learn how to lie down on their task. They learned righteous life is not worth anything. They learned that when they were in a job position, they would force the rest. Do you know why? That's because observation is worthless here. No one is supervising the performance of these people.'

Meanwhile, the interviewee coded 115 considers poor or insufficient instructor supervision of the students as one of the underlying causes of the emergence and prevalence of 'outsourcing the projects' as a critical component of the hidden curriculum:

> 'If you ask me, the instructor needs to have more supervision on the students' activities … expert profs know who is doing his/her job and who is not. I mean if a student doesn't do correction things, or doesn't submit their assignments, and then out of the blue, brings a completed plan to the class, it is clear that it's not their own work … I kind of believe that the instructor can control students' activities through supervising and continuously correcting students' works; I wonder why it's no big deal to most profs.'

8. Discussion

With regard to the aforementioned statements of the interviews, and considering the findings of studying the interview transcripts, a relationship was identified between most of the hidden curriculum components of the faculty of architecture and the four factors of knowledge, vision, preparation, and observation. Of course, these components differ in nature and in the environment to which they belong. This, in turn, makes the relationship between these components to be at varying and non-linear levels. It could be argued that these factors do have a significant influence on the creation and prevalence of these components in some cases while playing a less visible role in other cases.

Thus, the relationship between the different components of the hidden curriculum is not considered as having the same weightage and the extent of influence of these four factors differ is predicated on their respective environments of origin. Given that the hidden curriculum - particularly its motivating factor, according to this study, - is largely influenced by its social context, a number of presented issues in this study are related to the informal behavior of the interactors (student, instructors, and staff) in the learning environment of the faculty of architecture. As a result, issues such as ethics, values, righteous behavior and deed, among others, have been explicitly stated. In fact, the authors entered the sociological and ethical subjects in order to analyze and extrapolate on the components of the hidden curriculum along with its concomitant motivating factors; nevertheless, due to reasons of brevity, it was not possible to look into these subjects in detail.

Equally, it must be affirmed that the social aspect of the hidden curriculum has a significant impact on student education (Kentli, 2009, p. 83). The hidden curriculum is an effective means of an educational instrument which stridently imparts moral and ethical values to the students that remain with them for a long time. This is the reason for the emergence of a strong linkage between the hidden curriculum and the prevailed ethical values (Alqomoul & Alroud, 2017, p. 36). Considering the fact that the faculty of architecture is the field of interaction of the interactors (students, instructors, and staff) when examining the components of the hidden curriculum and its motivating factors, the analysis was undertaken about the types of behaviors with regard to whether or not they were ethical.

8.1. The conceptual model of the study: an illustration of the regularity of the hidden curriculum of the faculty

After performing a content analysis of the themes extracted from the interview transcripts and an assessment of the underlying reasons for prevalence and the attainment of a culture of twenty-two components of the hidden curriculum throughout the faculty of architecture, it is possible to obtain a clear picture of the factors and reasons underlying the flow of reality. This is indicative of the regularity of the faculty's hidden curriculum. Fig. 2 provides a clear account of the process of attaining a cultural level of these hidden curriculum components.

As the conceptual model of the current study, this figure is the consequence of systematically studying the fourfold motivating factors of the faculty's hidden curriculum as well as the analysis of their prevalence and expansion to the level of culture throughout the faculty of architecture. More specifically, it illustrates the role of these motivating factors in the formation and prevalence of the hidden curriculum components of the faculty. The model depicts the level of knowledge, vision, preparation, and observation as a scale ranging from positive to negative in that an individual's level of knowledge and vision for a correct or ethical action is varied, also serving as two internal factors and playing a vital role in the formation of the initial component. Preparation is tantamount to the availability of external preliminaries to the formation of a component ranging from negative to positive. Observation, on the other hand, is depicted as the factor supervising the formation of the component and being the final connecting element of the set of factors within the same positive-to-negative range.

If an individual lacks the requirements of the initial stage of formation of the component, i.e., the knowledge stage, it can be inferred that they will invariably be in a situation where they are on the verge of committing a mistake.

This is where the lack of the necessary knowledge denotes its utility as an important factor of the creation and prevalence of the covert component. However, considering the type of ethical behavior or discourse, it would be unreasonable to hope for experiencing a positive component merely on the grounds of possessing the knowledge, because lack of prudence and expediency could also be one of the reasons of experiencing a negative component.

Hence, in order to experience a positive component or perform an ethical act, it is necessary to possess both vision and prudence in addition to knowledge to be able to identify their expediency. In other words, if an individual lacks vision, they will find themselves at the verge of imprudence despite possessing adequate knowledge, thereby facilitating the inclusion of a negative component in the faculty. Similarly, if an individual is of ample knowledge and vision performs an ethical action or produce a positive component but continues to lack the desirable preconditions and various economic, social, physical preparations, they are unlikely to achieve the positive component. Due to the compelling factors of the environment, they will inexorably develop the proclivity for an unethical action or a negative component, which, in turn, would lead to the experiencing of the negative component in this stage.

Meanwhile, observation is the last linkage of the set of ethical action formation or positive covert component production links. In case the ethical act or the positive covert component successfully passes through the knowledge, vision, and preparation stages during their formation, they will be externally supervised during the observation stage. If found to be effective, this supervision helps reinforce the positive component through the conduit of encouragement; however, disappointment, despair, and hopelessness will be the result in the absence of such supervision. As for the negative components triggered by a lack of knowledge, vision, or preparation, the component gets suspended in case there is effective supervision. Otherwise, the negative component will remain unimpeded throughout the university, also having external manifestations.

All the members of an organization, which in this case is the university, do not generally bother about going through all these stages. At the sight of either negative or positive actions performed by their colleagues, they start to assimilate them and reproduce the covert component, thereby accelerating the formation of a reproduction cycle or prevalence of the component throughout the organization.

8.2. Functional analysis of the conceptual model of the research

There are three points worth mentioning with regard to the formation and reproduction model of the covert components of the faculty:

Firstly, in order to perform a righteous action and experience a positive component within the university, an individual must possess, within their capabilities, some degree of the two internal factors of knowledge and vision. In other words, without some level of knowledge, foresight and awareness of different issues, it is unreasonable to expect to perform a righteous act and generate a positive component. Besides, in order for a righteous act to be

accomplished, two external factors of preparation and observation need to be present within an acceptable range. It is crystal clear that the lack of conditions facilitating the ethical act, in conjunction with the absence of effective supervision, causes the inability to experience it. Therefore, setting the wheels of positive component reproduction in motion is closely linked to the co-presence of four factors; the lack of each will end up disrupting the reproduction cycle or realization of the norms.

Secondly, as mentioned repeatedly by many of the interviewees, the absence of only one of the four-fold factors (knowledge, vision, preparation, or observation) could lead to the performance of an unethical act and the production of a negative component of the hidden curriculum. By combining these two points, it could be possible to justify the negative covert components outnumbering the positive ones - sixteen covert negative components as opposed to six positive ones. This is because all four factors must be present for the positive component to take form, while the absence of only one factor leads to a negative component (please refer to the three inputs for the negative components to the observation section vs. only one input for the positive components within the same section in Fig. 2).

The third important point is that in the case of production of the negative component, the fourth factor, i.e. observation plays a vital role in preventing the percolation of negative components. This stage acts as a bottleneck for the non-proliferation of negative messages, thus causing a negative result of each of the three preceding factors, and intensifying the pressure on it; it also increases the costs of observation for the educational system. On one hand, whilst handling the negative components and being inclined towards punishment, the observation system is expected to monitor and control the absence of knowledge, vision, and preparation. On the other hand, it is inclined towards rewarding and seldom needs external supervision when dealing with the positive components, considering the knowledge and vision of an individual and their power of self-control - as an inextricable element of vision and prudence.

Thus, it can be inferred that if the university and educational system at large does not adequately invest in the development of knowledge, vision, and preparation factors, it is going to end up paying even more on the observation stage. In the meantime, the achievements of the observation system with regard to the negative components will, at best, lead to its suspension of the negative components. However, the same results for the positive components in the worst possible scenarios will have no bearing on the formation of positive components. Furthermore, lack of observation could only attenuate the prevalence and dissemination of the positive components through deprivation of incentives.

9. Conclusion

Having achieved a relatively sound understanding of the regularities of the underlying processes and factors behind the prevalence of the hidden curriculum components of architectural education, the researchers are of the view that further research must be conducted with special emphasis on identifying the four themes of knowledge, vision, preparation, and observation within the social, cognitive, administrative, as well as physical environments in order to identify ways of performing corrective intervention - preventing the prevalence of negative components of the hidden curriculum and facilitating the production and expansion of the positive ones.

Given that this research has been conducted in the educational and cultural context of this faculty in particular, and in the social, economic, and cultural conditions of Iran in general, any trans-

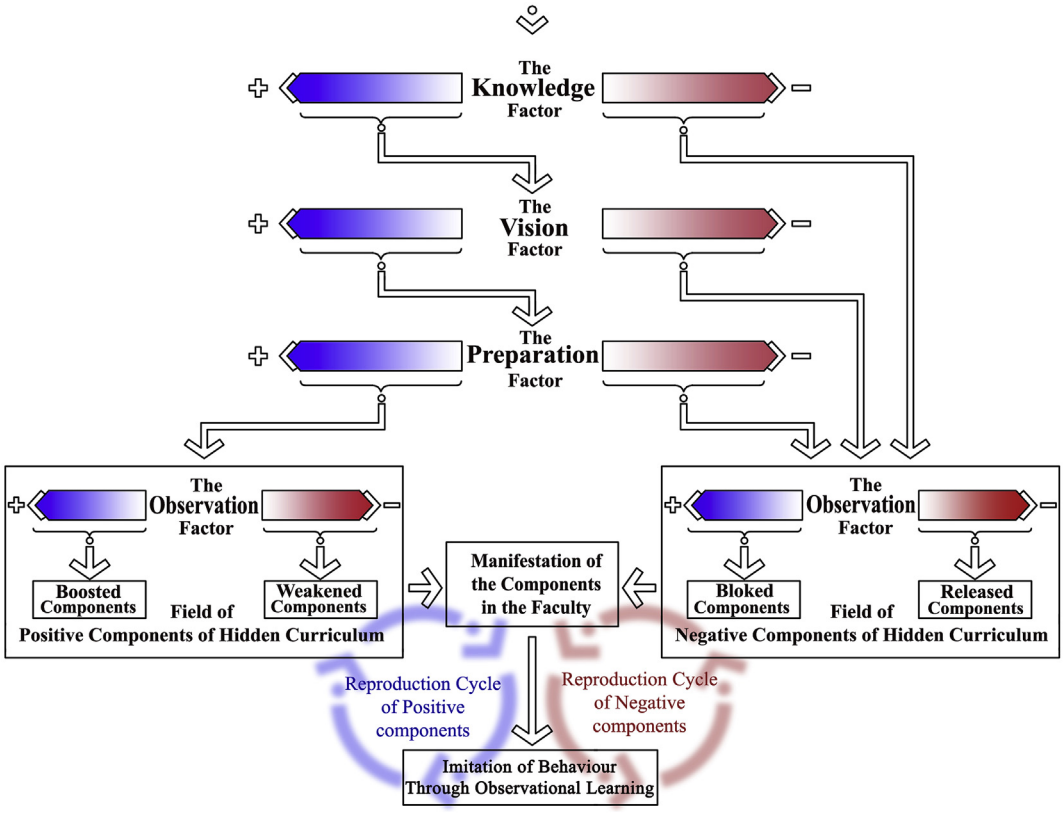

Fig. 2. The conceptual model of the study (the formation and prevalence stages of the hidden curriculum of the faculty).

regional interoperability of this study's findings necessitates a thorough domestic feasibility study and a careful consideration of the cultural, economic and political characteristics of regional condition. However, the discovered framework of this study can be tested and verified in other areas and countries as well. Therefore, the four-fold motivating factors can be evaluated by not only all students and faculty members of other faculties of architecture but also across other disciplines. The extent of their impact or factors beyond them in the formation and prevalence of components can be examined in subsequent researches.

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Appendix A. Supplementary data

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