Ontology Space International Journal
ISSN: 2345-6450
OISSN: 2423-7299
Journal homepage: soij.qiau.ac.ir
Summer 2021, Vol. 10, Issue 3, No. 38, Pages: 19- 30

Diary of an Architect, a Pheno-pragmatical Tool in Education

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Received: 16 September 2020 - Accepted: 24 June 2021
Doi: 10.22094/SOIJ.2021.1909686.1371

Abstract

This research is the first part of a trio of studies to establish a pheno-pragmatic methodology for architectural education. The purpose of this study was to harness the subconscious interest of students' learning curves in a limited educational timeline. To this end, a pheno-pragmatic method was developed to evaluate the conscious experience of students during an educational semester. Nevertheless, to achieve the quality of education needed for this method, self-efficient education tools were required. Writing skills were considered as a subsequent tool for obtaining optimal results from this method. First, a total of 318 students from two theory classes and one studio class of two major universities in Isfahan were randomly selected to participate in this study. The current study sought to offer responses to the following research questions: (1) how can a written diary be employed as a pheno-pragmatic tool in architecture education? (2) can a diary establish a basic understanding of theory and practice for students? To offer the requisite response to the aforementioned research questions, quantitative data were gathered by pre-devised questionnaires to establish a fundamental conclusion for this method. According to the data gathered, about 25 percent of the students agreed with the theory and more than 57 percent accepted this method as both a theoretical and practical learning tool.

Keywords: Architecture education; Pheno-pragmatic; Theory and practice gap; Architectural writing

1. Introduction

Education of architecture has experienced a plethora of changes during the last decade, highlighted through various turning points according to Krupinska (2014), namely:

1- replacing academies with universities like Academie Royal d'Architecture (1670)
2- conjunction with technical development at the end of the 19th century
3- post-modern social consciousness (1968-)

It is highly debatable that the era constituted by the last turning point is yet to come to an end, and is hence still resuming.

Nesbitt (1996) divides architectural theory, according to the principal target of the study, into three groups, that is

1. Descriptive theory: most commonly represents a neutral position; reports the present or past states of the objects, e.g., describes new methods of design; introduces new technologies;
2. Explanatory theory: reaches a deeper level than mere description; investigates why the object has gained its current status;
3. Normative theory: moves from explanation to evaluation. Includes hypotheses or other statements about what is right and wrong, desirable or undesirable in architecture.

Educators have limited themselves to the narration of these factors to students, yet owing to various limitations such as time, and student's understanding, many of the relevant theories have been hence dismissed. According to Lofthouse (2013), practical skills in universities are mainly contained in these three main subjects, namely (1) drawing skills, (2) computer programming, and (3) modelling skills; and depending on the country and the education center, the emphasis might be placed on completely different areas and aspects. Upon these merits, four key issues are stressed more frequently in architecture, that is, the environment, politics, the economy, and technology. Educators are constantly searching for proper educational tools and methodology to achieve the most practical standardization methods for students; By doing so, a higher educational level is achieved for current and future academic requirements. The methods people use to learn are different and in general they are influenced by factors such as aptitude, prerequisite knowledge, social and intercultural stimuli, and environment, among others (Sgambi et al. 2019: 387). creativity assessment is one of the key elements in creativity enhancement because assessing person, process,

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and the product is very significant in the process. Furthermore, continuous assessment throughout the process and selecting the appropriate intervention tools and techniques are also of great importance (Kalantari et. al, 2019: 23). To achieve a proper educational goal, maintaining and obtaining enough experience is of paramount importance as an educational tool to serve as a reference to students.

Articulation has two common connotations. It is, first of all, an utterance; an act of expression. An appropriate educational aim (to borrow Dewey's formulation) would be an expression of the values of teachers and students who undertake educational activities. But articulation also means to fit or join together. In this sense, the term suggests that two things are juxtaposed, that is placed concerning one another (Gallagher, 2012: 53).

The essential skills for dialogic knowledge are listening, expressing ideas, reading other team members, asking questions, making connections with different perspectives, giving and receiving feedback, brainstorming, finding and evaluating information, synthesizing knowledge, making arguments, debating issues and presenting research, which is not just vital for professional life but are also necessary for personal life and hence active citizenship (Barrett, 2017: 125). Natural language sentences can encode propositions (among other kinds of information); itself being a focus for semantic theory (Potts, 2011: 2).

Writing is expected to enhance learning in academic settings, but it won't do magic. Contextual factors, including the intensity of the intervention, the nature of the writing tasks, and the ability of the students to make most of the writing task, greatly impact the effect of writing on the learning curve (Bangert-Drowns, Hurley, Wilkinson, 2004: 53).

2. Materials and Methods

2.1. Methodology

This study is the first part of a trilogy of studies focusing on the concept of a pheno-pragmatic educational method. In figure (1) the three basic steps of this research have been presented.

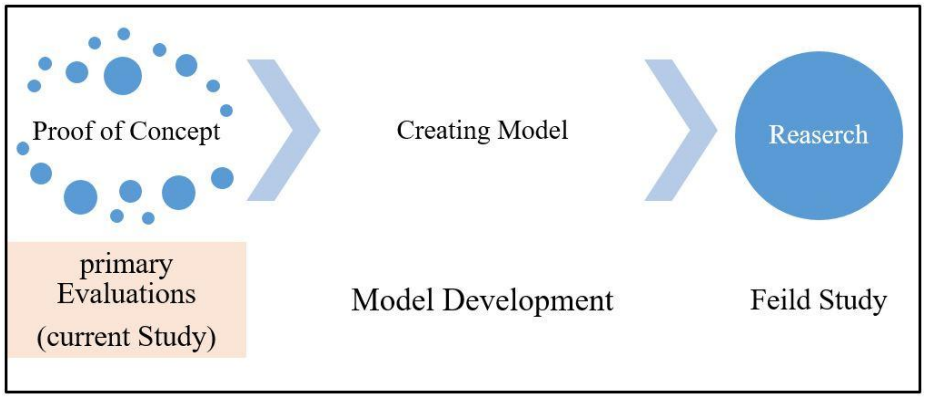


Fig. 1. the complete research process

The current study involves using writing as a tool for students to document progress during a semester. Two major universities of Isfahan, (Iran, IR) were selected based on their highest student entry and the authors' ability to access their performance. A total of 310 students were randomly selected to participate in this study, and based on their classes and location concerning the author, were divided into three subcategories, namely theoretical class of Khorasgan University (121 students); theoretical class of Najaf Abad University (177 students); and Studio design class of Najaf Abad University (20 students).

The students were asked to document their theories, practices, or live architecture experiences in a notebook, to which they were required to add at least three pages each week (Figure 2). At the end of the semester, the notebooks were gathered and the students had to fill in a questionnaire. The items consisted of the quality and quantity of the tasks so that a baseline to the following questions could be achieved:

1. How does a diary transpire as a pheno-pragmatic tool in architecture education?
2. Can a diary establish a basic understanding of theory and practice for students?

Fig. 2. the total of 318 diaries were gathered

2.2. Phenomenology and Pragmatic views on architecture education

There have been many attempts to deal with or overcome the so-called "theory-practice gap," emphasizing either

the supposed relevance of practice to research or of research to practice or going down a different path by showing research to be a form of practice. For example, action-oriented research tries to bring theoretical inquiry and practical acts together, focusing on the development of practical outcomes and hence new forms of understanding (Küpers, 2011: 101-102).

As a human-related science, phenomenology aims to be systematic, methodical, general, and critical. At the same time, phenomenology also pursues the intertwining of science with art, the imparting of a "poetic sensibility" (Ashworth, personal communication) to the scientific enterprise. In this sense, science blends with the stylistic realms of the humanities (Finlay, 2009: 14).

Phenomenology has a long-lasting ability to view the world as a significant experience. Henriksson (2012) collaborates this to hermeneutic phenomenology, stating that it teaches educators to reflect on students' experiences as well as their own experiences in the classroom. As such, an attitude based on hermeneutic phenomenological can offer a deeper understanding of our pedagogical practice. Phenomenological studies examine human experiences through the descriptions provided by the people involved. These experiences are called lived experiences. The goal of phenomenological studies is to describe the meaning that the experiences hold for each subject (Creswell, 2014:172). The use of phenomenology and phenomenography as a method in the educational research literature has risen in popularity, particularly by researchers who are interested in understanding and generating knowledge about first-person events, or the lived experiences of students in certain educational contexts (Stolz, 2020: 1077).

The phenomenological approach allows us to develop our experience of the image still further. By suspending (pre) judgments and explanations, and by focusing on a clear description of the phenomena at hand, we adopt in our encounters with analogous objects in our day-to-day lives. However, by identifying this taken-for-granted perspective we may attempt to suspend or "bracket" it (epoché) and thus open up previously unrecognized possibilities (Schyff, 2016: 7). Phenomenological pedagogy has a tradition reaching back more than a hundred years. From its very beginnings, it has developed its approaches to a theory of Building and education as experiences. Traditional theories of Building (or formation: how we form ourselves and are formed by others) and education, as they have been formulated by Humboldt, Schleiermacher, Herbart, Hegel, and Nietzsche, are redefined by a phenomenological approach in ways that are both empirical and systematic (Brinkmann, 2016).

As a bypass system, the pragmatic logical view has been accumulating the path of education since Dewey's theories on education. But these views are limited on many aspects especially in multi aspect fields such as architecture. Therefore, it is necessary to complete this cycle by adding a way-finder that goes beyond the aspects of logic and tries to understand a qualitative experience in education. As William James describes it 'Pragmatism unstiffens all our theories, limbers them up and sets each one at work. Being nothing essentially new, it harmonizes with many ancient philosophic tendencies' (James, 1922: 53).

Phenomenological writing is a 'kind that needs a sufficiently slow pace for the writer to dwell with that which addresses them. A phenomenological text speaks about the phenomenon and the theoretical, reflective and experiential qualities of the inquiry. But the text also speaks with a voice that belongs to the author; we learn to recognize the multitude of voices – the voice of the text, the personal voice of the author, and the voice of the phenomenological tradition to which the author orients him or herself (Saevi, 2013: 1 &6).

In some sense all phenomenology is oriented to practice—the practice of living. But from the perspective of our pragmatic and ethical concerns we have a special interest in phenomenology. We have questions of how to act in everyday situations and relations. This pragmatic concern I will call the "phenomenology of practice." Thus, we wish to explore how a phenomenology of practice may speak to our personal and professional lives (Manen, 2007: 11). Rombach developed a structural phenomenology. He advocated a shift from anthropology to structural anthropology and from phenomenological pedagogy to structural pedagogy. Following Heidegger's later thinking on humanism and "the human," Rombach described humankind as (a) structure and as existing within structures, with the further implication that one must give up a subject-centered and explicitly *human* science perspective as well as a sociological one (1979) (Brinkmann, Friesen, 2018: 6).

Similar to a phenomenological approach to creative practice, according to pragmatic theory, embodied creativity implies being grounded in everyday, mundane experience and connected to ourselves, others, and our environment in an ongoing relationship. Complementary to phenomenology, pragmatism can serve as a base for a theory of situated creativity, in which creativity is present in all moments of action (Küpers, 2011: 107). pragmatism is not a theoretical science learned to do philosophy and to seek truth, not a metaphysical since it never thinks of the nature behind reality, but the concept of pragmatism which tends to be at the level of practical science to help solving problems faced by humans (Firmanto et al. 2019: 115).

Overall, to simplify the possible use of phenomenology in a pragmatic way for a pedagogy state, processes presented in figure (3) were conducted. As it can be seen, the primary condition of a student's mind is uncategorized, and hence the authors have sought to acquire writing as a tool of learning for gaining a cognitive and perceptive view of their knowledge and, in doing so, an epistemological sight to every theoretical and practical phenomenon.

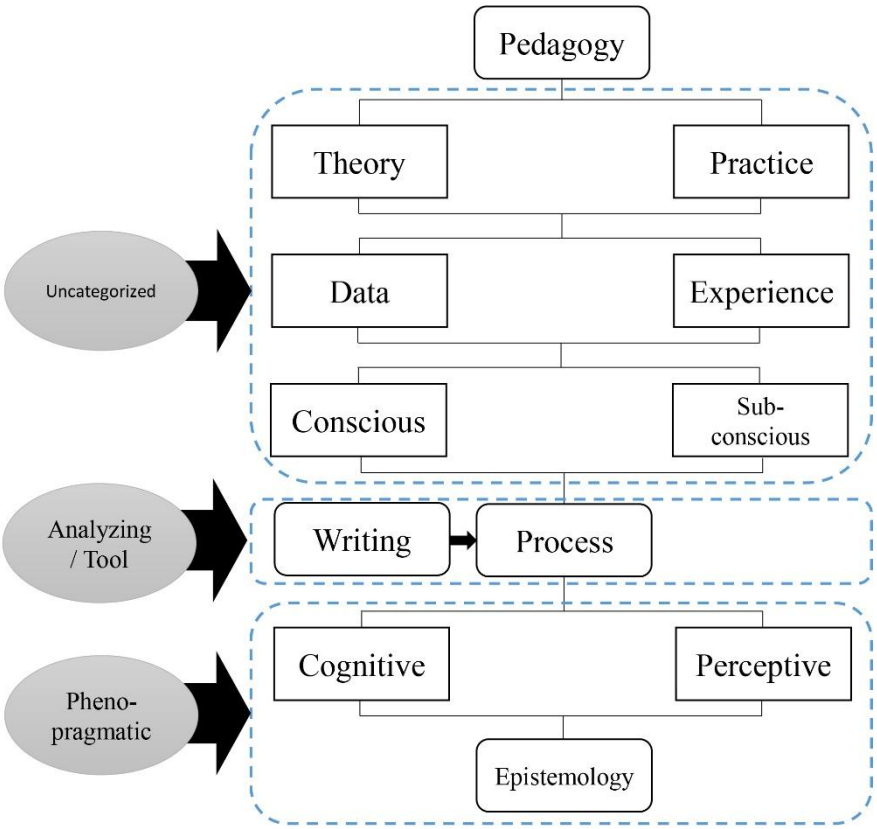


Fig. 3. Primary process of a pheno-pragmatic method

Based on this process it can be concluded that the educational relationships of the phone-pramatic model is established on these three main factors: cognition, perception and epistemology. To understand the fragmental effects, and lack thereof, in the teaching of Iranian universities, a survey of 79 architecture students was conducted within the two relevant universities. The result can be seen in figure 4.

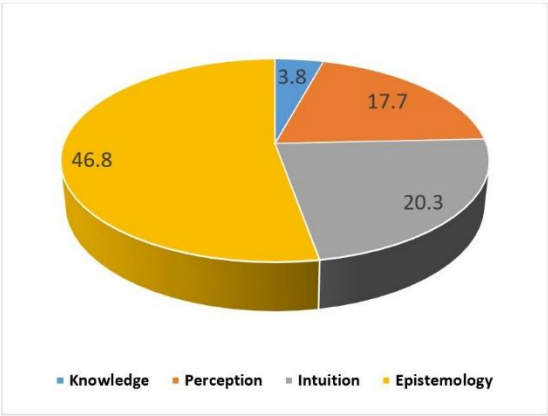


Fig. 4. Comparison structure of effective factors in architecture education

It is evident from comparisons the value and lack of the ideology needed and sensed by student studying architecture in the past few years. Therefore, by understanding the weaknesses of educators in this regard, a proper educational mindset can be effectively formulated, the result of which would be the dual force of phenomenology and pragmatism can educators the edge, that is, necessary tool to do so.

2.3. Self-direct education method

Self-directed learning can be viewed as a method of organizing teaching and learning in which the learning tasks are largely within the learners' control. It can also be viewed as a goal towards which learners strive, so that they become empowered to accept personal responsibility for their own learning, personal autonomy, and individual choice. Success in the former would lead to achievement of the latter (Kaufman, 2003: 213). Scholars argue that students do not learn much by sitting in class, listening to instructors, memorizing pre-packaged and ready-made

interpretations, and that, students must talk about what they are learning, write about it, and relate it to past experiences (Salama, 2010: 282). Students are like children who, in the verbal or theoretical plan, take into consideration the intentions in order to evaluate the acts from other people (objective responsibility), but when it comes the question about personal subjects, take into consideration the intentions relevant for the moment (Montoya, 2020: 2). For a student to be able to establish a personal requisition in both situations, a proper field and practice in needed, so that they can extend their horizon and ideology.

The aims of phenomenological investigations are description, interpretation, and critical self-reflection on the 'world as world' (Ashkan, 2016: 45). More research is therefore needed on interventions aiming at fostering students' writing motivation to provide instructors with evidence-based guidelines on effective instructional practices, hence creating motivational writing experiences for their students (Smedt, Graham, Van Keer, 2018). The function of the analysis of the lifeworld is precisely to return to the origin of the constitution of sense before the realization of natural being and intersubjective being in culture, society and history. Remember that one size does not fit all, either for yourself or for others. What you need for your own learning and personal growth will change over time (Hunt, 2008: 55).

Upon the various viewpoints and methods in architecture, some general factors can be discerned, in which Khalifa (2017) subjugates as the optimal goal for education is to generate lifelong, self-directed learners; however, many current educational processes propagate dependency rather than self-direction. Hurol (2020) states that recent paradigms in research and education should mainly focus on the use of mixed methods as a process to gain proper and more intuitive knowledge of ones' field.

To achieve a reasonable self-direct learning, Aldrich (2005) has described steps required a student must take to gain the necessary experience:

1. Articulate their current personal relationship with architecture and their agendas and aspirations for architecture.
2. Represent their findings in a form that allows them to be addressed and developed.
3. Identify and undertake activities that support this development
4. Reflect on the outcomes of the various module activities.
5. Produce a reflective written and graphic record of the entire process.

2.4. Writing as a first perspective tool

De Gagne and Walters (2010) have established some of the primary attributes of any lived experience that are necessary for an individuals' education, flexibility and convenience, time and labor-intensiveness, communication skills, learner-centeredness, and continuing education and training so that the advancement process can continue, and upon these factors, the base for personal growth can be presumed. Due to the necessity of these factors, variance education systems have been developed.

Any information that is somewhat topically appropriate is retrieved from memory and hence written down, with each preceding phrase or sentence serving as a stimulus for the generation of the next idea (Page-Voth, Graham, 1999: 230). By integrating thoughts and feelings, the person can more easily construct a coherent narrative of the experience (Smyth, 2001: 162). Natural language sentences can encode propositions (among other kinds of information); this encoding is a focus for semantic theory (Potts, 2011: 2).

Shape grammar is considered part of this transaction which focuses on the ability of language. Languages are created by transforming the spatial relations underlying grammars for existing languages. In other words, a known style is first analyzed by inferring a grammar for it, the rules of the grammar are transformed, and then the transformed rules become the basis for a new grammar and style. There is no better way to learn about styles or languages of designs (at least compositionally) than by either studying shape grammars already written for languages or by writing grammars oneself. Good analytic grammars are both parsimonious and descriptive. They are eye-openers, revealing simplicity or regularities behind designs seemingly complex or random. They reveal the thoughtfulness, the 'individual genius', behind designs that students might otherwise take as unfathomable. Grammars also reveal general design strategies that students can learn from and use in their own work. Different grammars for very different languages (temporally, culturally, geographically) often use common design strategies (Knight, 1999: 2 & 4).

As architects, we usually forget the power of humanity arts. Literary texts are important for architects, because just like other types of artistic expression, words can help them form perceptions about life and create imaginary worlds when shapes and spaces are "molded" into human surroundings. Among the possible skills of literature, writing is the main tool to extract ones' experience. Experience becomes what it is when it is put into language, particularly when this language has figurative, rhythmic, alliterative or related qualities that connect it with sounds, rhythms, and figures as they are (or can be) experienced. It is in this sense or for this reason that phenomenology encourages aesthetically sensitized writing as both part of the research process and in the completed research product (Henriksson, 2012: 1).

3. Discussion

It is noteworthy that since the dawn of architecture, the term "practice" has long been used in contrast to the term

"theory." Valuing the theoretical realm over that of practice is perceived to hint at high commitment to the truth and contemplating good practice. Thus, theory can be perceived as a rebuttal of practice, but it can also be seen to be in the service of practice, following practice, or as the essence of practice itself (Manen, 2007: 14).

All instructors can do here is to try as much as possible to deal carefully with the texts that a student of phenomenology produces, and to help the student intensify their reflections by offering suggestions and other possible ways of reinforcement. There is no proper way to start or end but to go on (Kalisha, 2015: 67). Architects are no longer merely in charge of designing, writing, and building, but of promoting identity, arranging critical content, fundraising, advancing research, and constructing public images through social networks and public relations. This is evident not only in the flourishing of curatorial studies in a plethora of degrees, specializations, and workshops but also in the proliferating market (Marullo, 2019 :174). If the knowledge applied in the professional projects fail to take the evolutions and progress of theoretical knowledge, the theory-practice gap will be widened, the knowledge generated in these projects (practical knowledge) will be subsequently incapable of developing and correcting the theoretical knowledge, and the knowledge cycle (Alikaei et.al, 2020: 11). Therefore, higher valued education and tools are needed to reflect upon these new world views.

Phenomenology of practice is an ethical corrective of the technological and calculative modalities of contemporary life. It finds its source and impetus in practical phenomenology of reading and writing that open up possibilities for creating formative relations between being and acting, self and other, interiorities and exteriorities, between who we are and how we act (Manen, 2007: 11). In the process of Shape grammar method, students analyze the buildings of an architect, extract rules, then play with these rules to formulate their own rules for buildings that satisfy a given program (Knight, 1999: 2).

The students were required to maintain an architecture diary to document their experience during the semester. The willingness of participants is presented in Table 1. Developing student's academic identity is essential for achieving academic success in universities. In this regard, environmental psychologists believe that physical context directly affects the level of ones' place identity. In other words, more positive assessment of the environment results in higher place identity (Karimifard, Tabatabaei Malazi, 2017: 55). Two universities and three classes (2 theoretical and 1 studio) where selected for this study, amassing a total of 310 students.

Table 1
Have you been able to enter the required information in the course of the semester in order?

Class type/ location	Valid	Frequency	Percent
Theory/ Khorasgan Uni	yes	88	72.7
	no	33	27.3
	Total	121	100.0
Theory/ Najafabad Uni	yes	93	52.5
	no	84	47.5
	Total	177	100.0
Studio/ Najafabad Uni	yes	7	35.0
	no	13	65.0
	Total	20	100.0
Total	yes	188	59
	no	130	41

First, the students were asked to score their own performance (Table 2). It is evident from the results that the mean value of 30 pages has the highest weight, possibly due to the request of minimum work by the author.

Table 2

How many pages were you able to fill?

Class type/ location		Theory/ Khorasgan Uni		Theory/ Najafabad Uni		Studio/ Najafabad Uni	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Valid	0-10	5	4.1	8	4.5	4	20.0
	11-20	8	6.6	15	8.5	7	35.0
	21-30	10	8.3	43	24.3	5	25.0
	31-40	55	45.5	66	37.3	3	15.0
	41-50	26	21.5	33	18.6	1	5.0
	51-60	16	13.2	8	4.5	-	-
	>60	1	.8	4	2.3	-	-
	Total	121	100.0	177	100.0	20	100.0

Next, the main goal was to see if the aforementioned practice is effective for theory, studio or both classes (Table 3). Based on the findings from table 3, more than 50 percent of participants agreed it is suitable for both realms, while less than 6 percent were against this practice.

Table 3

In your opinion, in which fields this lesson can be used to increase learning?

Class type/ location		Theory/ Khorasgan Uni		Theory/ Najafabad Uni		Studio/ Najafabad Uni	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Valid	Design Study	37	30.6	57	32.2	3	15.0
	Theory	25	20.7	14	7.9	1	5.0
	Both	54	44.6	97	54.8	15	75.0
	None	5	4.1	9	5.1	1	5.0
	Total	121	100.0	177	100.0	20	100.0

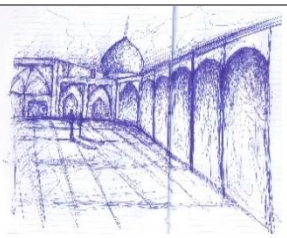
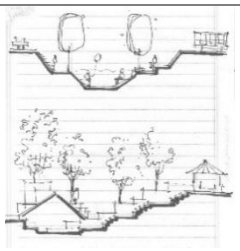
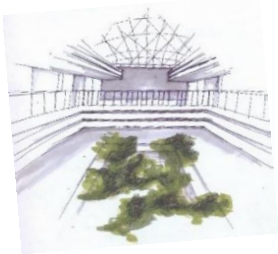
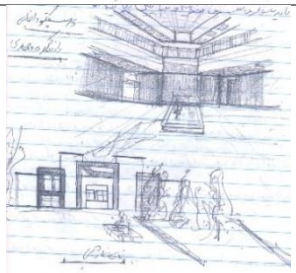
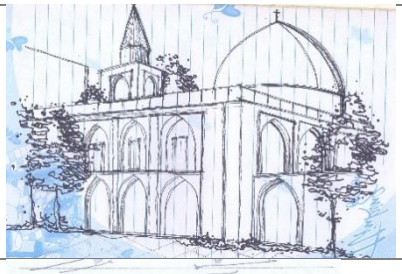
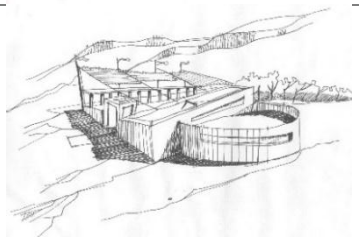
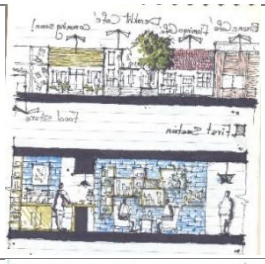
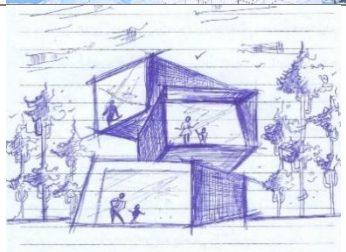
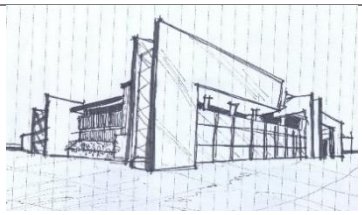
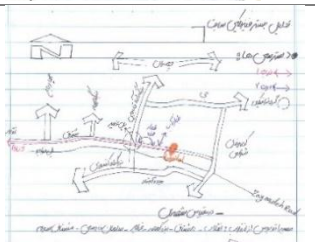
Another purpose of the questionnaire was to try to gain more insight on the effectiveness of the study in student's experience during the semester. It is perceived that the diversity of the cognitive style affects user-related attributes, such as user-perceived value or effectiveness ratings (Menold, Jablokow, 2019: 92). For the integrity of information, descriptive statistics were determined for various items (Table 40).

Table 4
Quantitative data

Questions	Class type/ location	Valid	Mean	Variance	Sum
How much did this project affected your view to the buildings around you	Theory/ Khorasgan	121	3.6942	.697	447.00
	Theory/ Najafabad	177	3.6667	.837	649.00
	Studio/ Najafabad	20	3.7000	.642	74.00
How much did this project affect your attention to the theory course subject	Theory/ Khorasgan	121	3.4000	.780	408.00
	Theory/ Najafabad	177	3.1751	.918	562.00
	Studio/ Najafabad	20	3.1500	1.397	63.00
How much has this project affected your attention to design lessons	Theory/ Khorasgan	121	3.4298	.930	415.00
	Theory/ Najafabad	177	3.4746	.842	615.00
	Studio/ Najafabad	20	3.2000	1.011	64.00
In your opinion, how much is the educational value of this project for students	Theory/ Khorasgan	121	3.4132	.978	413.00
	Theory/ Najafabad	177	3.4576	.954	612.00
	Studio/ Najafabad	20	3.4500	1.418	69.00

Last but not least, the students were told that each week they could use one page of their diary to sketch something that they saw or thought about during that week. The idea was to unlock some hidden parts of the student chain of thought and at the same time add variety to the project to make it more interesting for the participants. Table 5 presents some of the selected sketches.

Table 5
Drawing samples

Uni.	**Class type**	**Historical/ Live**	**Concept**	**Diagrams**
Khorasgan	Theory 1			
	Theory 2			
Najafabad	Theory			
	Practice			

4. Conclusion

Architecture has always been considered as a practical field of science but during the past few centuries, a rise in the theoretic and educational part of this discipline has required an extension to the need and experiences of architects. Therefore, one important goal of design education is to develop students' independent abilities of designing and to enhance their cognitive and representation skills (Tezel, Casakin, 2010: 262). Heath (2010) believes that being equipped with the virtue of choice is desirable and oftentimes essential in learning from the environment. Furthermore, it can support diverse activates. Phenomena can transform one's ideology and sociology into the basic needs of humanity, but it also can gain the trust of a pragmatic art. As a tool that is usually neglected in architecture, writing has been considered as a proper way to integrate our basic knowledge of a phenomenon and the experience hence gained therefrom. The pheno-pragmatic method consists of a theoretical combination between phenomenology and pragmatism and is an attempt to mitigate the major aspects of theory and practice; therefore, it tries to subsequent the students learning attributes of their conscious and subconscious learning in theoretical and practical classes, and in doing so we can take their knowledge and transform it into experiences that they can contradict and reevaluate whenever necessary.

In many situations in architecture, the design factor is focused on the rationality and objectivity of the project, and hence the subjectivity and epistemological aspect may be easily forgotten. Based on this, the pheno-pragmatic structure has the value of constructing phenomenological theory into a subjective view and Design Studio as an objective site to invigorate the architectural system as a whole.

As architecture is not considered a pure pragmatic science, it requires an artistic and theoretical base to maintain its globalization of art and functions, and in the realm of education, this matter is dubbed the joint force of theory and practice.

In this study, the authors sought to the art of literature as a concept to maintain the structural conscience of students in their comprehension of phenomenon environment and practical learning. The results revealed that more than 57% of the students appreciated the learning concepts to gain and increase learning throughout the semester. Two theoretical classes in Isfahan's main universities were selected as the research population, along with one studio class that was under the full control of the author and was selected as a primary subject. Students were required to document their stages of learning in a notebook and re-evaluate them at the end of the semester. One of the main findings of the research was that most of the students in the Design Studio agreed that this practice has had beneficial attributes for both practical and theoretical learning, and even though they were able to sketch one page per week, only a small percent (less than 15%) took advantage of this chance; the reason could be due to lack of drawing ability in the previous semesters. Therefore, the benefits of writing as a pheno-pragmatic tool can be summarized as follows:

1. The students can conduct a summary of their experiences;
2. The perceptional view and lack thereof can be alleviated by both students and teachers;
3. A cognitive process of mind is gained by reevaluating one's learning knowledge;
4. A higher concentration is achieved or lack of it is diagnosed;

Table 6
A recap on student's ideas and experiences

NO.	Questions	Responds
1	**How do you think the relationship between practical and theoretical courses can be increased?**	I just think the class is too rigid and it is not good that only the teacher is active
		In theory classes, movies and even practical work can be presented, and it is not just the authority that makes the class dry and dull
		Lessons that teach theory should be put into practice
		Having both practical and theoretical lessons at the same time means a greater understanding
		Lessons should be divided into practical and theoretical units instead of 5 practical units. Also, visit construction workshops, visit projects under construction
2	**Have the topics of theory lessons ever had an impact or application in your daily life? Explain.**	has helped a lot in the personality and cognition of those around us
		The concept of some of the things that was said in the theoretical lessons would become an idea for everyday life
3	**What method of teaching in theory lessons have you found useful so far? Explain.**	Teach more slowly and make topics easier
		Visit the site and get acquainted with the environment
		Teacher-centered, because professors are more proficient and explain more efficiently, as in student-centered methods, students often do not have sufficient proficiency in teaching

		lessons.
		A method in which the teacher performs the planning teaches the lesson collaboratively (both teacher and student), makes the student interested in the lesson, and then asks the student to present (if it is not mandatory, the student will be more interested) the lessons
		Teaching in the form of questions and answers, and the involvement of professors and students on the scientific content
4	**What practical teaching methods do you find useful? Explain.**	Collective corrections and familiarity with the designs and ideas of others
		The teacher first explains the do's and don'ts and then expect the design. Usually, many professors ask the student to present a design without explaining the rules and regulations and leave it to the student to find the requirements, but they taught the lesson well in the previous semester in designing the desired teacher (for example, proper kitchen design in Hotel) and later we designed
		That the teacher shows us a sample work and explains generalities about the concept
5	**Have any of the architecture courses ever had an impact on your way of thinking or speaking or your point of view? Explain**	it changed my view of architecture and the surrounding nature in general In the structure of modern architecture and the way of thinking of architects and modeling of new urban methods and different views and attitudes of architects in the world
		Previously, if I went somewhere, I would just look at it and pass by, but now, even when I go to an ordinary house, I think about why this architect-designed it like this or what she was thinking could have been much better.
		We participated in the projects and had our own opinions and criticisms. So it has a positive effect on the way of thinking and speaking

Comparing the student's opinions in table 6 with the data gathered in table 4 of this project, a high level of satisfaction (about 70% higher) compared to normal structured studies and projects is evident. In the end, to establish a basic idea of student experiences and fortitude to architecture pedagogy, a series of questions were asked from them, indicating that the students feel the need for a more competent and intuitive-worthy education process. The results also imply the need for known educational methods such as problem-based and inquiry-based learning, highly achievable through the pheno-pragmatic method. As Cash (2018) states, a new paradigm of theory-driven design research is needed to challenge the existing and current state of architecture and therefore the pheno-pragmatic method can be considered as an instrument for paving this path.

Acknowledgments

The authors would like to first offer their gratitude to the students of Najafabad University and Khorasgan university that participated in this study .It is noteworthy that this article has been retrieved from the Ph.D. thesis of Homan Khajeh pour, with the title "Establishing the fundamental connection of theoretical and practical courses of architecture based on the Pheno-pragmatism principles Case study: linking environmental building control and architecture design courses" in the Department of Art, Architecture and Urban Design, Najafabad Branch, Islamic Azad University, Isfahan, Iran; and no funding from any public or private party was used or acquired for this research.

References

1) Aldrich, T. (2005). Self-Awareness and Empowerment in Architectural Education: A Case Study, European Journal of Arts Education (1), 1-13.
2) Alikaei, S. Nouri, S.A. Alipour Kouhi, P. (2020). Explaining the Theory-Practice Gap In Iranian Urban Design Projects Based on Communicative Theory. Space Ontology International Journal, 9(4), 1-13.
3) Ashkan, M. (2016). The Phenomenological Evaluation of Teaching Professionalism in The Architecture Design Studio Culture: A Case at The University of Kansas. International Journal of Architectural Research, 10(1), 41-61.
4) Bangert-Drowns, R. Hurley, M. Wilkinson, B. (2004). The Effects of School-Based Writing-to-Learn Interventions on Academic Achievement: A Meta-Analysis. Review of Educational Research, 74(1), 29-58.
5) Barrett, T. (2017). New Model of Problem-based learning: Inspiring Concepts, Practice Strategies and Case Studies from Higher Education: Maynooth: AISHE.
6) Brinkmann, M. (2016). Phenomenological Theory of Bildung and Education. Springer Science. DOI 10.1007/978-981-287-532-7_94-1.
7) Brinkmann, M. Friesen, N. (2018). Phenomenology and Education. Springer International Handbooks of Education. DOI: 10.1007/978-3-319-72761-5.

8) Cash, P. J. (2018). Developing theory-driven design research. Design Studies, 56, 84-119
9) Creswell, J. W. (2014). Qualitative Research Designs. In V. Knight (Ed.), Research Designs (Fourth ed.). United States of America: Sage Publication.
10) Finlay, L. (2009). Debating Phenomenological Research Methods. Phenomenology & Practice, 3(1), 20.
11) Firmanto, A. Rahmawati, H. Degeng, I. N. S. Chusniyah, T. (2019). Pragmatism-Philosophy of John Dewey's Education: Role and Position in Learning Information Literacy (Study in Educational Psychology). Advances in Social Science, Education and Humanities Research, 349, 111-117.
12) Friesen, N., Henriksson, C., & Saevi, T. (2012). Hermeneutic Phenomenology in Education Method and Practice. Boston: Sense Publishers.
13) Gagne, J. C. D., & Walters, K. J. (2010). The Lived Experience of Online Educators: Hermeneutic Phenomenology. MERLOT Journal of Online Learning and Teaching, 6(2), 357-366.
14) Heath, Tom. (2010). Learning architecture/teaching architecture: a guide for the perplexed. Denarius Design Books, Australia.
15) Henriksson, C. Hermeneutic Phenomenology and Pedagogical Practice, in: N. Friesen, C. Henriksson, T. Saevi (Eds.) Hermeneutic Phenomenology In Education, Sense Publishers, Boston, 2012.
16) Hunt, A. (2008). Pragmatic Thinking and Learning. USA: The Pragmatic Bookshelf.
17) Hurol, Y. (2020). On ontological approaches to academic research in architecture. Open House International. doi:10.1108/OHI-04-2020-0001.
18) James, William, (1922). Pragmatism A New Name for Some Old Ways of Thinking, Longmans, Green and Co., New York.
19) Kalantari, B. Nourtaghani, A. Farrokhzad, M. (2019). An Educational model of Creativity Enhancement in Design Studios Using Prior Researches. Space Ontology International Journal, 9(3), 15-26.
20) Kalisha, W. (2015). Writing the in-between spaces: Discovering Hermeneutic Phenomenological seeing in Dadaabi Refugee Camp, Kenya. Phenomenology & Practice, 9(1), 55-69.
21) Karimifard, L. Tabatabaei Malazi, F. (2017). Physical Factors Influencing Place Identity in Higher Education Environments (Case study: Islamic Azad University, South Tehran Branch). Space Ontology International Journal, 6(1), 55-68.
22) Kaufman, D. M. (2003). Applying educational theory in practice. BMJ, 326, 213-216.
23) Khalifa, F. A. (2017). Autonomy in Architectural Education: A Bahraini Perspective. International Journal of Architectural Research, 11(2), 24-33.
24) Knight, T. (1999). Applications in Architectural Design, And Education and Practice. Retrieved from Report for the NSF/MIT Workshop on Shape Computation:
25) Küpers, W. (2011). Embodied Pheno-Pragma-Practice – Phenomenological and Pragmatic Perspectives on Creative "Inter-practice" in Organisations between Habits and Improvisation. Phenomenology & Practice, 5(1), 100-139.
26) Krupinska, J. (2014). What an architecture student should know. New York, USA: Routledge.
27) Lofthouse, N. (2013). The Changing Nature of Architectural Education Do Live Projects prepare students for the realities of architectural practice? (MA degree), Oxford Brookes University.
28) Manen, M. v. (2007). Phenomenology of Practice. Phenomenology & Practice, 1(1), 11-30.
29) Page-Voth, V. Graham, S. (1999). Effects of Goal Setting and Strategy Use on the Writing Performance and Self-Efficacy of Students with Writing and Learning Problems. Journal of Educational Psychology, 91(2), 230-240.
30) Marullo, F. (2019). Climatic Universal System Architecture and Living Knowledge. Journal of Architectural Education, 73(2), 168-177.
31) Menold, J. Jablokow, K. (2019). Exploring the effects of cognitive style diversity and self-efficacy beliefs on final design attributes in student design teams, Design Studies, 60(C), 71-102.
32) Montoya, A. O. D. (2020). Practice and Theory in the Moral Development: Question of Awareness. Education Journal, 9(1), 1-8. doi:10.11648/j.edu.20200901.11.
33) Potts, C. (2011). Pragmatics. Oxford Handbook of Computational Linguistics.
34) Owen, I. R. (2015). Phenomenology and Meaning for Consciousness Phenomenology in Action in Psychotherapy. Switzerland: Springer International Publishing. pp. 17-26
35) Sirowy, B. (2010). Phenomenological Concepts in Architecture, Towards a User-Oriented Practice. (Dissertation).
36) Stolz, S. (2020). Phenomenology and phenomenography in educational research: A critique. Educational Philosophy and Theory, 55(10), 1077-1096.
37) Potts, C. (2011). Pragmatics. Oxford Handbook of Computational Linguistics.
38) Sævi, T. (2013). Between Beng and Knowing: Addressing the Fundamental Hesitation in Hermeneutic Phenomenological Writing. Indo-Pacific Journal of Phenomenology, 13(1), 1-11.

39) Saevi, T. (2013). Nothing but Phenomenology…. Phenomenology & Practice, 7(1), 1-4.
40) Salama, A. M. (2010). Delivering Theory Courses in Architecture: Inquiry Based, Active, and Experiential Learning Integrated. International Journal of Architectural Research, 4(2-3), 278-295.
41) Schyff, D. v. d. (2016). From Necker Cubes to Polyrhythms: Fostering a Phenomenological Attitude in Music Education. Phenomenology & Practice, 10(1), 4-24.
42) Sgambi, L., Kubiak, L., Basso, N., & Garavaglia, E. (2019). Active learning for the promotion of students' creativity and critical thinking. International Journal of Architectural Research, 13(2), 386-407. doi:DOI 10.1108/ARCH-11-2018-0018.
43) Smedt, F. Graham, S. Van Keer, H. (2018). The bright and dark side of writing motivation: Effects of explicit instruction and peer assistance. The Journal of Educational Research. DOI:10.1080/00220671.2018.1461598.
44) Smyth, J. (2001). Effects of Writing About Traumatic Experiences: The Necessity for Narrative Structuring. Journal of Social and Clinical Psychology, 20(2), 161-172.
45) Tezel, E., & Casakin, H. (2010). Learning Styles and Students' Performance in Design Problem Solving. International Journal of Architectural Research, 4(2-3), 262-277.