

# **An Evaluation of The Students' Expectations, Assignments and Acquisitions from The Summer Office Practice in Architectural Design Education**

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## **ABSTRACT**

Architectural design training includes theoretical lessons and practical studio courses. However professional application practice and interaction with stakeholders are limited Therefore in order to reinforce the theoretical and practical knowledge taken in lessons and courses and to observe the working environment in private architectural firms and the development of the architectural design process in public institutions, the summer office practice is compulsory in the student education program. Lessons in architectural schools are mainly based on giving of theoretical knowledge by class lectures and practical knowledge by atelier (Studio) lessons. Summer Practices are described in the curriculum as practical lessons. The student applies to the Office Practice Commission and presents the information required of the office he or she is going to work in summer for 25 days and seeks for approval. In this study it is aimed to determine the students' expectations from summer office practice and evaluate their acquisitions through their assignments. All the students that applied for "M300 STAJ II" Summer Office Practice Course previous year enrolled to the course at the beginning of the 2014-2015 Autumn semesters. 97 Students answered a 50 Question Survey asking them to grade their level of satisfaction from 1 (highest) to 5 (lowest). Questions were related with the students' **EXPECTATIONS (EX)**, workload of **ASSIGNMENTS (AS)** and level of **ACQUISITIONS (AC)** they believed they derived from the **Summer Office Practice (SofP)**. Despite the results that show the students **EXPECTATIONS** were high in many areas of the questioned about the **Knowledge (-Kn)** and **Involvement (-In)** in Specific Attributes and skills, many believed they derived far less **ACQUISITIONS** from their summer office practices. Only certain kinds of jobs related with drafting and 3D modelling were highly imposed on the students as their **ASSIGNMENTS**.

**Key words:** *Summer office practice, Architectural education, Students' expectations, assignments and acquisitions.*

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## 1. INTRODUCTION

Summer Practice in Architectural education takes a minimal importance in the curriculum where mostly given 1 or no credit at all. The ECTS of Summer Practices were raised to 2 credits by the Gazi University faculty of Architecture, Department of Architecture in 2014 due to the Bologna Requirements. The local credit of the summer Practice lessons “M200 STAJ I” and “M300 STAJ II” is still zero up to this date. This shows the amount of importance given to actual working conditions of architects in the free market and offices by the academia.

Lessons in Architectural schools are mainly based on giving of theoretical knowledge by theoretical (class) lectures and practical knowledge by atelier (studio) lessons. Throughout four years of education, eight Architectural design projects lessons are compulsory of students. They are given a subject or a building type as a problem to be solved at a chosen site by the academicians. They are then expected to draw projects of that subject within a period of 14 to 15 weeks. This semester’s work is evaluated by the academicians and the student is graded according to the accomplishments he or she achieved while researching, drawing and presenting the solution he or she came up with to the problem he or she was presented. The Architectural offices in the market however are mostly following a more complex and diverse routine when acquiring a design job, working on the projects and presenting the project to the government or the customer.

Summer Practices are described in the curriculum as practical lessons. Internship is identified as a tool that allows students to gain professional awareness consolidation of theoretical and practical knowledge gained in courses by the application of acquired knowledge and skills of ongoing building design, construction, and manufacturing processes and their management.[Kanoğlu, Yazıcıoğlu,2014] In Office Practice it is also aimed to improve the students in their understanding the organization and business processes, their responsibilities and the relationships with the stakeholders in the firm that they are working. Office practice is enhancing the skills and experience that allows students the opportunity to see design and office practice applications in the design field and it is a guide in this regard for their profession. [2]

In Gazi University Faculty of Architecture Department of Architecture, Summer office practice is implemented as follows.

The student applies to the Office Practice Commission and presents the information required of the office he or she is going to work in summer for 25 days and seeks for approval. The commission evaluates the offices and the dates of summer practice with the academic calendar and approves the student’s application. Then the student is expected to prepare a report regarding his or her work throughout the summer practice and present this report to the commission at the beginning of the

following semester. The student also has to select the lesson “M300 STAJ II” while add-remove lessons period at the beginning of the semester.

Summer office practice is a very good opportunity for a student to acquire valuable experience of the architectural offices in the market. Therefore should be considered as an important part of academic education as it has a potential to show the student the real face of the work environment and the working environment he or she is going to live for the rest of their lives should they choose to pursue a career as an architect in architectural offices.

The aim of this study is to understand and evaluate the summer office practice and the effects of the time spent in office on student’s involvement in design and improvement in the level of knowledge. This study emphasizes on the students expectations, assignments and acquisitions throughout their summer practices.

## 2. METHODOLOGY

All the students that applied for “M300 STAJ II” Summer Office Practice Course previous year enrolled to the course at the beginning of the 2014-2015 Autumn semesters. Their Reports were due 16.10.2014 when they answered a 50 Question (Q#) Survey. 97 Students of 101 enrolled students brought in reports and took the questionnaire. The questions asked at the questionnaire were directly and cross related with each other.

First group of questions from 6 to 20 were about the **EXPECTATIONS (EX)** of the students when they started the practice. The second group of questions from 21 to 35 was related with the **ASSIGNMENTS (AS)** they undertook throughout the practice. The third group of questions form-36 to 50 was related with the **ACQUISITIONS (AC)** they believed they derived from the **Summer Office Practice (SofP)**.

The questions also varied with in themselves as for which type of benefits students derived from SofP. The questions within the range of 15 were cross related with each other as they were questioning same **Knowledge (-Kn)** and **Involvement (-In)** in Specific Attributes of Students expected to be **improved** via the assignments about that ability and the level of acquisitions of these specific abilities. (I.e. Questions 6, 21 and 36 are cross related as they questioned same attributes. So on and so forth) the attributes and abilities presumably **improved** from the assignments during the **SofP** in the questionnaire were as follows:

### **Knowledge and Involvement in;**

Drawing and Drafting Processes. (**Dr-Kn / Dr-In**)

Materials and Associative Usage. (**Ma-Kn / Ma-In**)

Computer Aided Design Process. (**Ca-Kn / Ca-In**)

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Regulations and Specification Preparation. **(Re-Kn / Re-In)**

Coordination with customers and within other related disciplines. **(Co-Kn / Co-In)**

Design process of projects at the office and/or design competitions. **(De-Kn / De-In)**

Observation of the project site and preparation of Conservation Projects of historical buildings. **(Ob-Kn / Ob-In)**

Sub-Categories of Questions	Codes	Types of Assignments and gained abilities
questions involving person-specific information	PQ	Q1-Q5
Architectural design process	De-in	-Involvement in Architectural design/Competition process
	De-kn	-Improving the design / competition process knowledge
	Ma-kn	-Improving material knowledge
	Ma-in	-Involvement in making models/mock-up for design
Professional application processes	Dr-in	-Involvement in drawing and drafting processes
	Dr-kn	-Improving the drawing and drafting speed and detail knowledge
	Ca-in	-Involvement in Computer Aided Design programs
	Ca-kn	-Improving the knowledge on new Computer Aided Design programs
	Ob-kn	-Improving the knowledge on Observation of the project site and preparation of Conservation Projects of historical buildings.
	Ob-in	-Involvement in Observation of the project site and preparation of Conservation Projects of historical buildings.
Inter-institutional or inter-disciplinary relationships	Re-kn	-Improving the knowledge on Regulations and Specification Preparation and calculations
	Re-in	- Involvement in preparation of projects for Regulations and Specification and calculations
	Co-in	- Involvement in Coordination with customers and within other related disciplines
	Co-kn	- Improving the knowledge on Coordination with customers and within other related disciplines and preparing presentations

Questions which were answered within a range of **1 to 5 grades** where;

“5” represented **HIGHEST**; degree of **EXPECTATONS** / level of workload of **ASSINGMENTS** / degree of **ACQUISITIONS**

“4” represented **HIGH**; degree of **EXPECTATONS** / level of workload of **ASSINGMENTS** / degree of **ACQUISITIONS**

“3” represented **AVERAGE**; degree of **EXPECTATONS** / level of workload of **ASSINGMENTS** / degree of **ACQUISITIONS**

“2” represented **LOW**; degree of **EXPECTATONS** / level of workload of **ASSINGMENTS** / degree of **ACQUISITIONS**

“1” represented **LOWEST**; degree of **EXPECTATONS** / level of workload of **ASSINGMENTS** / degree of **ACQUISITIONS**

Questions six and seven were related with the students **EXPECTATONS** about their *Knowledge and Involvement in Drawing and Drafting Processes* when they started **SoİP**

**Q6:** To Improve my drawing speed and consistency within sheets. (1 to 5)

**Q7:** To Improve my quality of drawing and knowledge of detail. (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q21:** I made Plan/Section/Elevation drawings 1/100 scale and more. (1 to 5)

**Q22:** I made 1/50 Scale Wet spaces drawings and Detail Plans 1/20 and less. (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q36:** I improved my drawing speed and consistency within sheets. (1 to 5)

**Q37:** I improved my quality of drawing and knowledge of detail. (1 to 5)

Questions eight and nine were related with the students **EXPECTATONS** about their *Knowledge and Involvement in Materials and Associative Usage* when they started **SofP**

**Q8:** To improve my material knowledge of associative usage in projects. (1 to 5)

**Q9:** To improve my material usage and design abilities via making models. (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q23:** I investigated materials and prepared material zone lists for projects. (1 to 5)

**Q24:** I contributed to design process via making models with different materials. (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q38:** I improved my material knowledge of associative usage in projects. (1 to 5)

**Q39:** I improved my material usage and design abilities via making models. (1 to 5)

Questions ten and eleven were related with the students **EXPECTATONS** about their *Knowledge and Involvement in Computer Aided Design Process* when they started **SofP**

**Q10:** To improve my 3D perception and my skills in using CAD programs (1 to 5)

**Q11:** To improve my skills in using a new CAD program which I did not know. (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q25:** I prepared 3D renderings and animations in CAD programs (1 to 5)

**Q26:** I made drawings/analysis/calculations in a new CAD program I did not know. (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q40:** I improved my 3D perception and my skills in using CAD programs (1 to 5)

**Q41:** I improved my skills in using a new CAD program which I did not know. (1 to 5)

Questions twelve and thirteen were related with the students **EXPECTATONS** about their *Knowledge and Involvement in Regulations and Specification Preparation* when they started **SofP**

**Q12:** To improve my knowledge of preparing and understanding regulations (1 to 5)

**Q13:** To improve my skills in preparing and presenting new project specifications (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q27:** I Studied on preparing and understanding regulations (1 to 5)

**Q28:** I Prepared and presented new project specifications (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q42:** I improved my knowledge of preparing and understanding regulations (1 to 5)

**Q43:** I improved skills in preparing and presenting project new specifications (1 to 5)

Questions fourteen and fifteen were related with the students **EXPECTATONS** about their *Knowledge and Involvement in design process of projects at the office and/or design competitions* when they started **SofP**

**Q14:** To improve in presenting my ideas and applying my decisions in design process (1 to 5)

**Q15:** To Improve my knowledge in Project / Design Competition preparation process (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q29:** I presented my ideas and applied my decisions in ongoing design process (1 to 5)

**Q30:** I Involved in in Project / Design Competition preparation process (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q44:** I improved in presenting my ideas and applying my decisions in design process (1 to 5)

**Q45:** I improved my knowledge in Project / Design Competition preparation process (1 to 5)

Questions sixteen and seventeen were related with the students **EXPECTATONS** about their *Knowledge and Involvement in coordination with customers and within other related disciplines* when they started **SofP**

**Q16:** To improve my skills in customer relations and understanding of their needs (1 to 5)

**Q17:** To improve my knowledge of interdisciplinary coordination and interaction (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q31:** I engaged in direct relations with customers and understood their needs (1 to 5)

**Q32:** I interacted with other people in other disciplines for project coordination (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q46:** I improved my skills in customer relations and understanding of their needs (1 to 5)

**Q47:** I improved my knowledge of interdisciplinary coordination and interaction (1 to 5)

Questions eighteen and nineteen were related with the students **EXPECTATONS** about their *Knowledge and Involvement in observation of the project site and preparation of conservation projects of historical buildings* when they started **SofP**

**Q18:** To Improve my knowledge in project site investigation and existing condition documentation (1 to 5)

**Q19:** To Improve my skills in observation of the project site and preparation of conservation projects of historical buildings. (1 to 5)

Cross related questions about **ASSINGMENTS** they undertook were;

**Q33:** I attended project site investigations and participated in existing condition documentation (1 to 5)

**Q34:** I participated in preparation of conservation projects of historical buildings (1 to 5)

Cross related questions about **ACQUISITIONS** they believed they derived were;

**Q48:** I improved my knowledge in project site investigation and existing condition documentation (1 to 5)

**Q49:** I improved my skills in observation of the project site and preparation of conservation projects of historical buildings (1 to 5)

Questions twenty, thirty-five and fifty were related with the students **OTHER Expectations, Assignments and Acquisitions** from the SofP apart from the types of questions asked and were expected to be answered by the students personally in written form.

### 3.RESULTS

The total number of students participating in the questionnaire were Ninety-Seven (n=97). Sixty-one (62.89%) of the participant students were women and thirty-four (32.05%) were men. The mean age of the women were 22 (born 1992) and of the men were 24 (born 1990). Ninety (92.78%) of the students stated that this was their 4<sup>th</sup> year at school and it was their first time taking the office summer practice course.

A total number of Eighty-three (85.57%) students stated that they were not working at that office when they started the summer practice and seventy (72.16%) did not go on working at the same office. Sixty-eight (70.1%) students who stated they were not working at that same office also stated that that did not go on working there. Only seventeen (17.5%) students went on working at the same office after summer practice. Four students (4.1%) were working at the office and quit after the summer practice and just eight students (8.2%) are still working at the same office they were working before they started the summer office practice.

The results were firstly evaluated within themselves where they varied about the **EXPECTATONS** of the students when they started the practice. (Questions from 6 to 20), the **ASSINGMENTS** they undertook throughout the practice (questions from 21 to 35), the **ACQUISITIONS** they believed they derived (questions form-36 to 50) from the **Summer Office Practice (SofP)**.

After that the results were evaluated in-between the inter-related questions to determine the differences between the students' **EXPECTATIONS** versus level of **ASSIGNEMENTS**, the students' **EXPECTATIONS** versus the degree of **ACQUISITIONS** and finally level of **ASSIGNEMENTS** versus the degree of **ACQUISITIONS** from the Summer Office Practice (**SofP**).

#### 3.1 Expectations

Students **EXPECTATIONS** before starting the SofP were questioned in Q6 to Q19 at the first part of the questionnaire. The results from the answers given to these questions show that most of the students were highly optimistic about the oncoming office practice as shown in Figure 1.

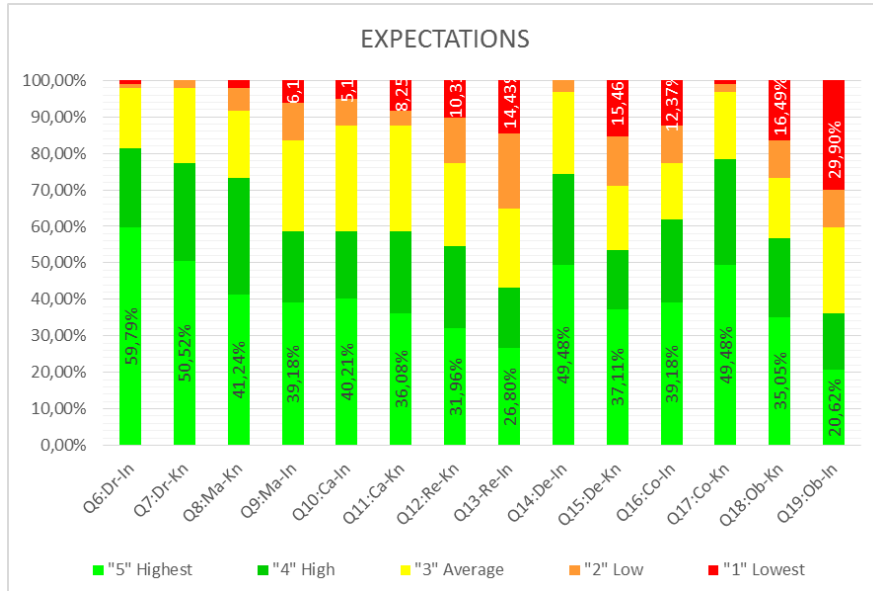


Figure 1: Students' level of EXPECTATIONS about improving their attributes questioned in Q6 to Q19

Students' expectations at the highest and above average level about improving their skills were observed to be highly optimistic. 12 of 14 questions gave "high" or "highest" expectations (totally over 50%) about improving most of their skills. Only, **Q13**: Involvement in Regulations and Specification Preparation gave a total of 46,39% "high" and "highest" expectations and **Q19**: Involvement in observation of the project site and preparation of conservation projects of historical buildings gave a total of 36,08% "high" and "highest" expectations with respect to answers retrieved from the questionnaire as shown in Figure 1. **Q19**: also gave

29,90% "lowest" expectation in improving students' skills in Involvement in observation of the project site and preparation of conservation projects of historical buildings.

### 3.2 Assignments

Students' level of ASSIGNMENTS during the SofP was questioned in Q21 to Q34 at the second part of the questionnaire. The results from the answers given to these questions show that most of the students were highly involved in technical drawing and drafting side of the office practice as shown in Figure 2.

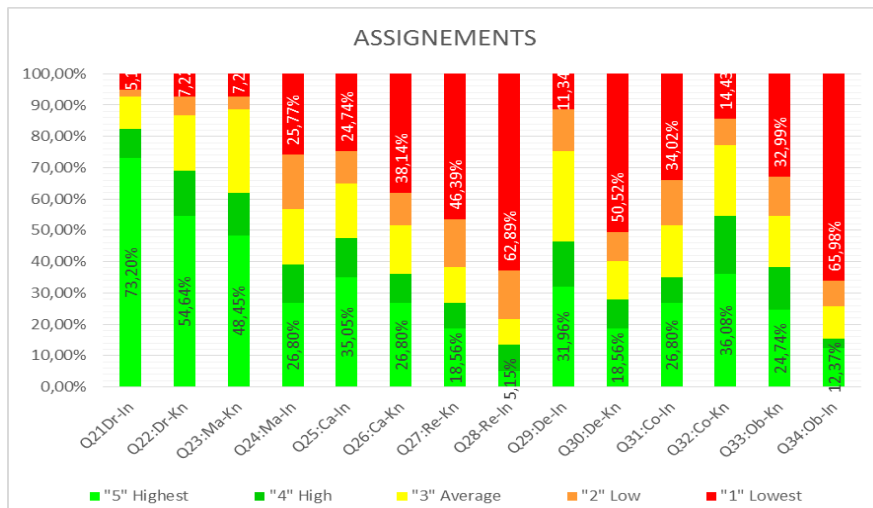


Figure 2: Students' level of workloads of ASSIGNMENTS undertaken questioned in Q21-Q34

Students' level of workloads of **ASSIGNMENTS** undertaken at the "high" and "highest" level is observed to be rather dramatically negative. 10 of 14 questions gave below 50% "high" and "highest" workload levels in assignments undertaken. Only, **Q21 & Q22: Knowledge and Involvement in Drawing and Drafting Processes** gave a total of 82,48% and 69,07% "high" and "highest" level of workloads and **Q23: Knowledge in Materials and Associative Usage** gave a total of 61,95% "high" and "highest" level of workload. Along with that also **Q32: Knowledge in coordination with customers and within other related disciplines** gave a total of 54,64% "high" and "highest" level of workload with respect to answers retrieved from the questionnaire as shown in Figure 2

The "lowest" level of workload was observed in **Q34: Involvement in observation of the project site and preparation of conservation projects of historical buildings** with 65,98%, followed by **Q27 & Q28:**

Knowledge and Involvement in Regulations and Specification Preparation with 46,39% and 62,89% respectively with respect to answers retrieved from the questionnaire as shown in figure 2

Another "lowest" level of workload was observed in **Q30: Knowledge and Involvement in design process of projects at the office and/or design competitions** with 50,52% with respect to answers retrieved from the questionnaire as shown in figure 2

### 3.3 Acquisitions

Students' degree of **ACQUISITIONS** they believed they derived from the SofP were questioned in Q36 to 49 at the third part of the questionnaire. The results from the answers given to these questions show that most of the students believed that they benefited mostly of the skills that their assignments required during the SofP as shown in Figure 3.

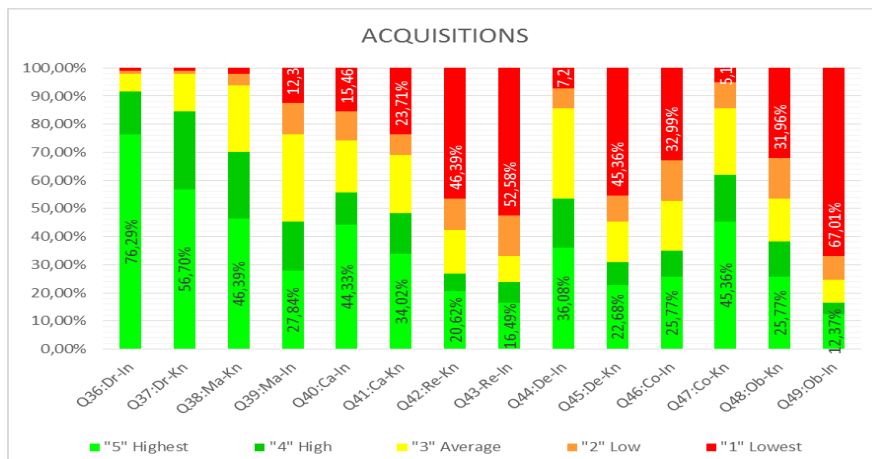


Figure 3: Students' degree of gained ACQUISITIONS improving their skills questioned in Q36-Q49

Students' level of gained **ACQUISITIONS** improving their skills at the highest and above average level is observed to be moderately positive. 6 of 14 questions gave above 50% "high" and "highest" degree of Acquisition in their skills. Firstly **Q36 & Q37: Knowledge and Involvement in Drawing and Drafting Processes** gave a total of 91,75% and 84,54% "high" and "highest" degree of acquisition and **Q38: Knowledge in Materials and Associative Usage** gave a total of 70,40 "high" and "highest" degree of acquisition. Also **Q40: Knowledge in Computer Aided Design Process** gave a total of 55,67% "high" and "highest" degree of acquisition along with **Q44: Involvement in design process of projects at the office and/or design competitions** gave a total of 53,61% "high" and "highest" degree of acquisition. Finally **Q47: Knowledge in coordination with customers and within other related disciplines** gave a total of 61,85% "high" and "highest" degree of acquisition with respect to answers retrieved from the questionnaire as shown in figure 3

Surprisingly **Q45: Knowledge of design process of projects at the office and/or design competitions** gave a total of 45,36% "lowest" degree of acquisition with respect to the "high" and "highest" degree of acquisition derived from **Q44: Involvement in design process.** with respect to answers retrieved from the questionnaire as shown in figure 3 The "lowest" level of acquisition was observed in **Q49: Involvement in observation of the project site and preparation of conservation projects of historical buildings** with 67,01%, followed by **Q42 & Q43: Knowledge and Involvement in Regulations and Specification Preparation** with 46,39% and 52,58% respectively which is not surprising at all as the workloads of assignments of these three attributes were similarly at the top of the "lowest" workload list with respect to answers retrieved from the questionnaire as shown in Figure 2.

### 3.4 Expectations versus Assignments

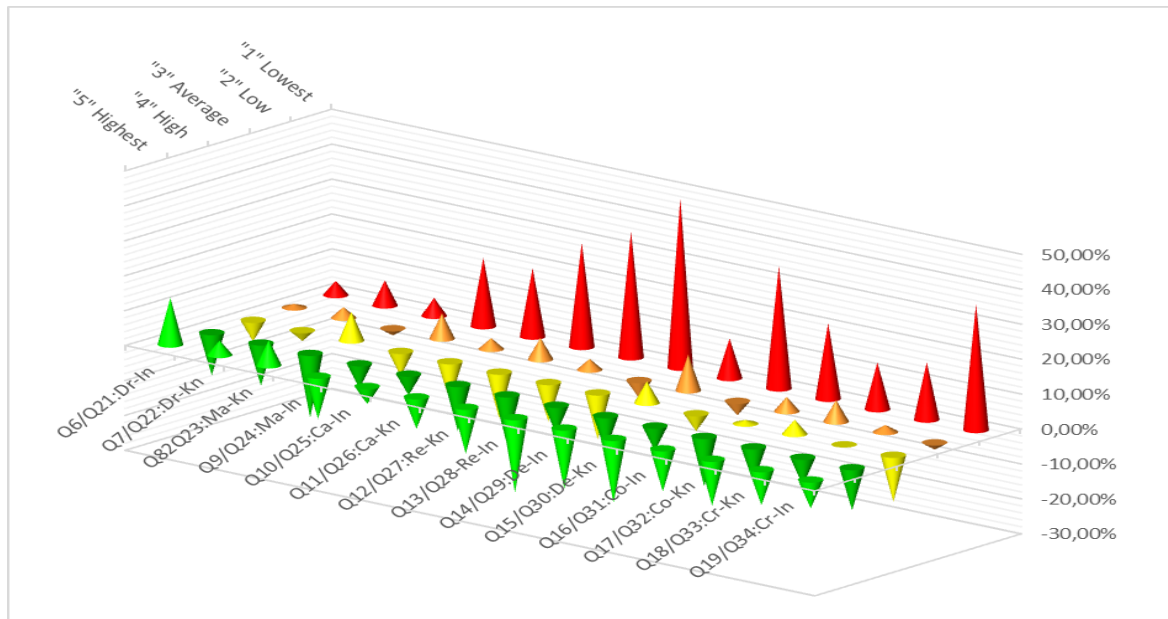


Figure 4: Students' Primary **Expectations versus** Workload of **Assignments** Undertaken during Summer Office Practice (Percentile differences between answers to cross related questions Q6-Q19 and Q21 to Q34) (Cones pointing downwards represent negative values)

Students with "Highest" level of expectations about improving their Drawing and drafting knowledge and involvements (Q6 & Q7) and students with "highest" level of expectations about improving their Knowledge on Materials (Q8) were given even higher level of workload in their assignments during the summer office practice parallel to their expectations according to their answers to cross related questions (Q22, Q23 & Q24)

However, All other students with "highest", "high" & "average" expectations on nearly all questions (exception (Q8, Q14, Q16 & Q17) were given even lower level of workload in their assignments during the summer office practice contrary to their expectations. according to their answers to cross related questions.

Along with that Students with "low" and "Lowest" level of expectations about improving their nearly all attributes (exception: Q13 & Q15) were given even lower level of workload in their assignments during the summer office practice parallel to their expectations according to the vast amounts of increases in "1" and "2" answers to cross related questions as shown in Figure 4.

Most Significant differences were observed in Students expectations of improving their *Knowledge and Involvement in Regulations and Specification Preparation* where 26,80% to 31,96% (Figure 1: Q12 & Q13) of students expected to improve on this subject at the "highest" levels were assigned tasks 46,39% and 62,89% respectively at the lowest level according to their answers to cross related questions (Figure 2: Q27 &

Q28) Percentile differences according to their answers to cross related questions are shown in Figure 4.

Similarly Students' expectations of improving their *Knowledge and Involvement in design process of projects at the office and/or design competitions* where 49,48% and 37,11% (Figure 1: Q14 & Q15) of Students expected to improve on this subject at the highest levels were assigned tasks 11,34% and 50,52% respectively at the "lowest" level according to their answers to cross related questions (Figure 2: Q29 & Q30) Percentile differences according to their answers to cross related questions are shown in Figure 4.

When the relationship between expectations and assignments are evaluated;

Similarities between the level of expectations and the workload of assignments were observed in drawing and drafting abilities as well as the materials knowledge and the usage of CAD implementations. However, highly expected level of study in improving knowledge on specification and regulations, making calculations were not met in workload of assignments. Student's involvement in the design process had been observed to be less than expected and made nearly no observation on the relationships with the stakeholders.

Along with that, the student's improvement in CAD knowledge had limited development.



### 3.5 Assignments versus Acquisitions

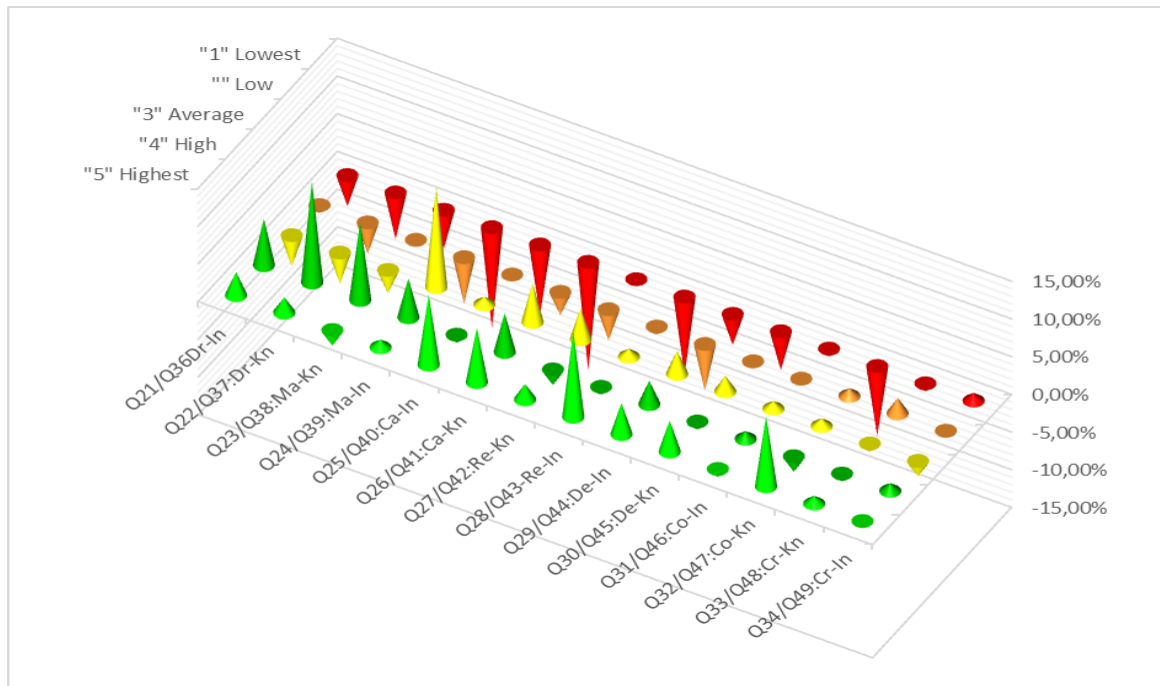


Figure 5: Students' Workload of **Assignment** Undertaken **versus** Students **Acquisitions** They Believe They Derived during Summer Office Practice (Percentile differences between answers to cross related questions Q21-Q34 and Q36 to Q49) (Cones pointing downwards represent negative values)

When evaluating the workload of **ASSIGNMENTS** and the degree of **ACQUISITIONS** of students it is observed that the percentile differences between cross related questions about the same kind of abilities differ up to 15% at the highest level. The maximum difference in answers to questions Q26 & Q41: number of "1" answers is **-14,43%** as shown in Figure 5 whereas the values of differences of **EXPECTATIONS VERSUS ASSIGNMENTS** (Figure 4) and **EXPECTATIONS VERSUS ACQUISITIONS** (Figure 6) vary to a range of **48,45%** and **38,14%** at the highest levels respectively.

Most Significant differences were observed in Students' level of workloads of **ASSIGNMENTS** about **Knowledge of Computer Aided Design Process** where they were asked if they made drawings/analysis/calculations in a new CAD program they did not know. According to the answers to this question the students were assigned 38.14% at the "lowest" level (Q26: Figure 2). Number of "1" answers to the cross related question (Q41) about the **ACQUISITIONS** on this subject show that only 23.71% of the students believe that they derived the "lowest" acquisition on this subject. This shows a **-14,43%** decrease in "1" answers to cross related questions.. Percentile differences according to their answers to cross related questions are shown in Figure 5.

When the relationship between assignments and acquisitions are evaluated;

Student believed they improved their skills on drafting abilities, CAD knowledge and the material knowledge through their assignments. However their involvement in preparation of specifications and relationships with stakeholders was not satisfactory.

Along with that, the students that were involved in offices that work on the restoration and conservation projects reported to have improved highly on the benefits for conservation awareness.

### 3.6 Expectations versus Acquisitions

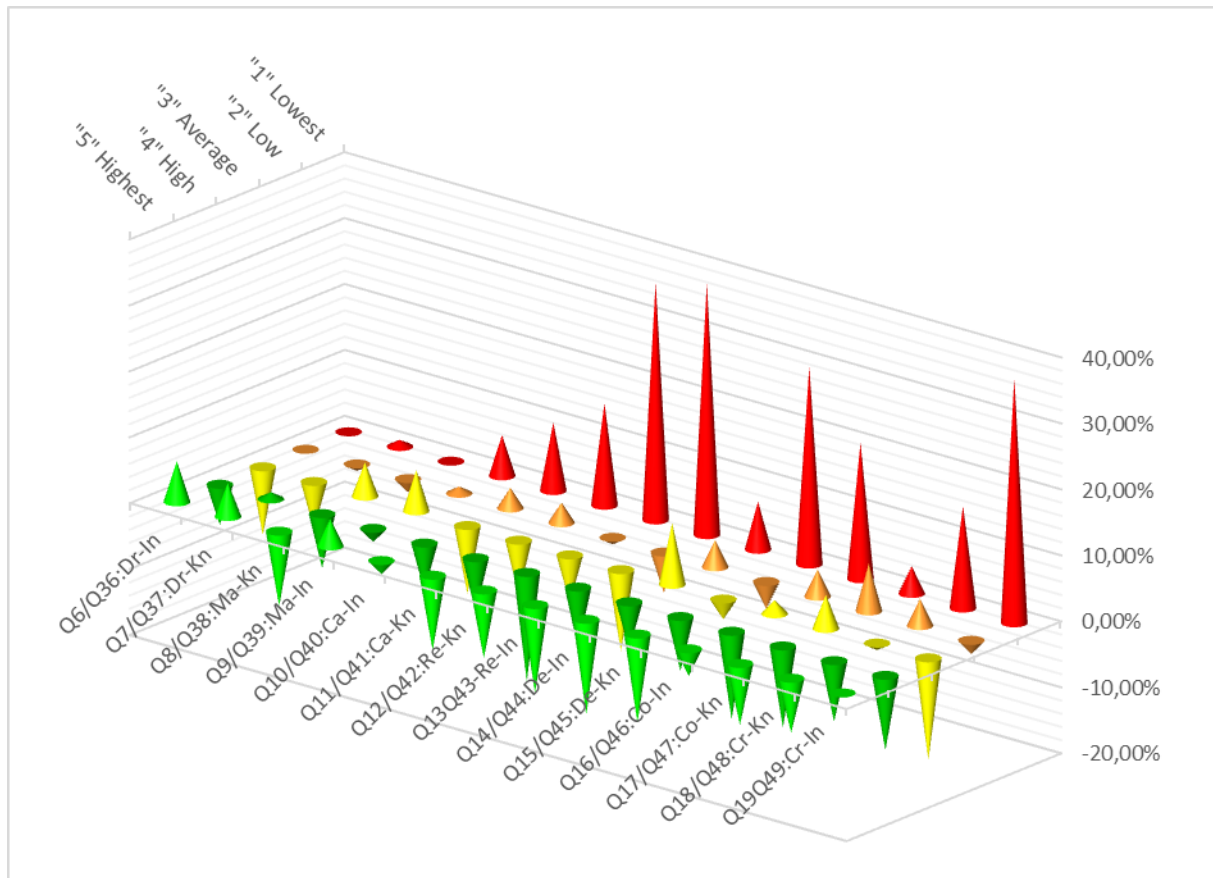


Figure 6: Students Primary Expectations versus Students Acquisitions They Believe They Derived during Summer Office Practice (Percentile differences between answers to cross related questions Q6-Q19 and Q36 to Q49) (Cones pointing downwards represent negative values)

Students with “Highest” level of expectations about improving their *Drawing and drafting knowledge and involvements* (Q6 & Q7) and students with “highest” level of expectations about improving their involvement in usage of Materials (Q9) believed that they derived a slightly higher degree of acquisitions during the summer office practice parallel to their expectations according to their answers to cross related questions (Q36, Q37 & Q39)

However, all other students with “highest”, “high” & “average” expectations on nearly all questions (exception Q8, Q9, Q14, Q16 & Q17) believed that they derived a lower degree of acquisitions during the summer office practice contrary to their expectations. According to their answers to cross related questions.

Along with that Students with “low” and “Lowest” level of expectations about improving their nearly all attributes (exception: Q8, Q13, Q15 & Q19) believed that they derived a lower degree of acquisitions during their assignments during the summer office practice parallel to their expectations according to the vast amounts of increases in “1” and “2” answers to cross related questions as shown in Figure 6.

Most Significant differences were observed in students expectation of *Involvement in observation of the project site and preparation of conservation projects of historical building* where 20,62% (Figure 1: Q19) of students expected to improve on this subject at the “lowest” level stated that they derived the “lowest” degree of acquisition about these subject 67.01%, -parallel to their primary expectations-according to their answers to cross related question (Figure 3:Q49) Percentile differences according to their answers to cross related questions are shown in Figure 6.

Similarly Students’ expectations of improving their *Knowledge and Involvement in Regulations and Specification Preparation* where 31,96% to 26,80% (Figure 1: Q12 & Q13) of students expected to improve on this subject at the “highest” levels believed that they derived the “lowest” degree of acquisition about these subjects 46,39% and 52,58% respectively according to their answers to cross related questions (Figure 3:Q42 & Q43) Percentile differences according to their answers to cross related questions are shown in Figure 6.

Also Students' Students' expectations of improving their *Knowledge of design process of projects at the office and/or design competitions* where 37,11% (Figure 1:Q15) of Students expected to improve on this subject at the highest levels believed that they derived the "lowest" degree of acquisition about these subjects %45.36% respectively according to their answers to cross related questions (Figure 3: Q45) Percentile differences according to their answers to cross related questions are shown in Figure 6.

#### 4. CONCLUSION

In this study it is aimed to determine the acquisition of professional knowledge of the Gazi University Department of Architecture students in their summer office practice. In order to determine that, the levels of expectations, before the summer office practice, the workload of assignments during the practice and the level of acquisitions they believed they derived were comparatively evaluated.

Despite the results that show the students **EXPECTATIONS** were high in many areas of the questioned about the **Knowledge (-Kn) and Involvement (-In)** in Specific Attributes and skills, many believed they derived far less **ACQUISITIONS** from their summer office practices. Only certain kinds of **ASSIGNMENTS** related with drafting and 3D modelling were highly imposed on the students.

The highly expected level of study in improving knowledge on specification and regulations, making calculations were not met in workload of assignments of the level of acquisitions were not met. Student's involvement in the design process had been observed to be less than expected and made nearly no observation on the relationships with the stakeholders.

As a part of the architectural education process, the learning process is a "learning by making" process via "simultaneously thinking, making, and improving skills and knowledge" instead of a linear relationship such as; "knowledge, skill development and activity" [3]. Along with that the student has must also live and learn the processes related with the design and building processes, institutions and establishing relationships with other disciplines and stakeholders throughout their architectural education. Summer office practice should take a more efficient part In this important task.

This study might be a significant result for the Office Practice Commissions of the architecture schools in which coordinate the main requirements form the summer practices and control the reports of the students. With these and further studies a better method of evaluating the students reports would be prepared regarding the expectations and the real working environment at the offices. Following studies will focus on the expectations and acquisitions of the students as well as the office owners that have given an opportunity to the student to work in a real world environment and gain experience during their summer office practice.

With the results obtained; the relationship between institutions and between disciplines to contribute to the

design and improvement of professional knowledge should be improved via the improvement of relations and interactions between the educators and the Offices the students attend in their summer office practice. For this, educational institutions, architect offices, and joint study stakeholders, should be conducted in order to prepare a program of work to increase the acquisitions of the students. Thus, work culture, professional environment and students' interaction areas can be improved more efficiently.

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