

## AN ALTERNATIVE CLASSROOM PROPOSAL FOR EDUCATION FACULTIES OF THE FUTURE AND ITS APPLICATION

Assist. Prof. Dr. Necdet KONAN  
Inonu University, Faculty of Education  
Malatya-TÜRKİYE

### ABSTRACT

In this study, in order to make the learning - teaching process more effective, the process of building an enriched class will be discussed in terms of education technology. The physical conditions of the class, the technological equipment, class regulations and the specifications of these regulations and equipments will be discussed in terms of usefulness. As envisaged in the literature of educational sciences, all basic physical properties of a contemporary class (lighted enough, soothing colored, adequately ventilated, equipped with the up-to-date technology, with desks and chairs suitable to the physical needs of students, with well-organized classroom equipment) were realized in line with available means. Besides, more effective and efficient teaching and learning process were accomplished with the help of an adjustable mechanism to desired speed by a remote control device, by turning 7 meter-diameter circular platform half-way in either direction, with interactive lessons as the students see each other face to face.

**Key Words:** Faculty of education, classroom management, educational technology, educational environment..

### INTRODUCTION

With decree Law No. 41 came into force on July 20, 1982, all institutions giving teacher education were tied to universities instead of Ministry of Education. With the name of "Faculties of Education" within the universities, these institutions (YOK, 2007), not only train teachers but play a role of sources for education administrators and supervisors as well. Faculties of Education assume responsibility for raising the basic source of manpower in education sector. From this perspective, the nature of the Faculties of Education directly affects the quality of the education system. The nature of the Faculties of Education is directly related to what extent graduates get education in accordance with the requirements of the modern age the education system expectations.

There are many factors that influence the quality of graduates of the Faculties of Education. Among these, classes and their physical properties are also included. The class can be defined as specially designed areas for the learning-teaching activities, planned, programmed and with goals. There are many factors that affect the effectiveness and efficiency within classroom teaching-learning process. One of these is physical properties of the class. Various elements of the physical properties of a class is put forward. However, views, ventilation, noise, heat, light, color, cleanliness, the number of students, classroom arrangement and the tools are widely accepted physical environment of the class (Akbaşlı, 2010; Akyol, 2011; Aydın, 2008; Başar, 2010; Celep, 2004; Çelik, 2009; Çeliköz, 2006; Erdoğan, 2008; Işık, 2008; Karaçalı, 2006; Kohen, 2006; Korkmaz, 2007; Özden, 2003; Özyürek, 2007; Tabancalı, 2006; Toprakçı, 2002; Tutkun, 2003; Ünal & Ada, 2000; Yücel, 2008).

In this study, in light of class physical environment variables, for future education faculties, designing a class and its building process was explained based on a proposal for an alternative model.

The author being the project manager, the construction of this class was supported by the Scientific Research Projects Unit at Inonu University as research project. With the help of this classroom, it is aimed to train teachers, who will educate new generations, who are the future of Turkey, educational administrators, primary school supervisors and academics in bachelor's, master's and doctoral level, within more appropriate instructional conditions.

#### **This class is basically created to meet the following requirements**

1. One of the ways to fulfill the need of teaching staff for academic departments and programs is to take the contribution of the universities. Smart classrooms provide technological infrastructure to the universities in need to contribute to the universities by their teaching staff without leaving the university.
2. Our faculty is in need of teaching staff, especially in some departments and programs (Department of Foreign Languages, Preschool Education, Department of Computer and Instructional Technology). This condition is being experienced in other programs though not this intensity. Especially in areas highlighted the need for faculty members, not just specific to our university, for many universities, the teaching staff is needed in these areas. More specifically in big city universities, with a limited number of these faculty members, the technological infrastructure was realized to give lectures for students, via video conferencing system.
3. Inter-University Cooperation Program (ÜNİP) within the framework of pre-graduate and undergraduate education, graduate education, scientific and technological research and development projects, scientific, social and cultural activities to the areas of joint work environment was created for communication and interaction through video conferencing .
4. An environment was set up to ensure the solidarity for members of the jury and for the bachelor's, master's and doctorate level courses.
5. National and international academic experts were given an environment to interact with the students and academic staff.
6. In the field "distance learning", which will come up more frequently in the near future, an infrastructure was created. Within this class, enrolled students, using their passwords can actively participate, also can able to download and watch all audio and videos in the archives when needed.
7. Our faculty is expected to be in the front when it comes to accreditation process, a standard of the Council of Higher Education and in the highest level with the latest technology within other education faculties in Turkey.
8. An ideal environment was provided to first our university employees, then organizations and institutions located in the Malatya for providing in-service training requirements.
9. Especially on issues related to education and training, for local or national television channels a suitable environment for the programs was created.

#### **THINGS TO DO TO REALIZE CONTEMPORARY CLASSROOM**

- I. Existing desks were cut and displaced dismantled without damage, to be used somewhere else.
- II. For ceiling lighting, existing lighting apparatus was dismantled and parts are covered with plaster ceiling and complete fasarit and applied two coats. For lighting and acoustics, semi-circular iron mounts profile was created, one full circle 30 cm below the ceiling 100 cm wide and 7 meters diameter and the other 40 cm below the ceiling, 100 cm in width up to 9 m diameter (Figure 1). Lighting and ceiling mounts are created for acoustic,

covered using plaster and painted. Daylight lamps for lighting fixtures created for the ceiling suspension was placed in hiding for lighting and acoustics. Created for the purpose of lighting and acoustics, audio speakers were installed to the ceiling suspension apparatus.

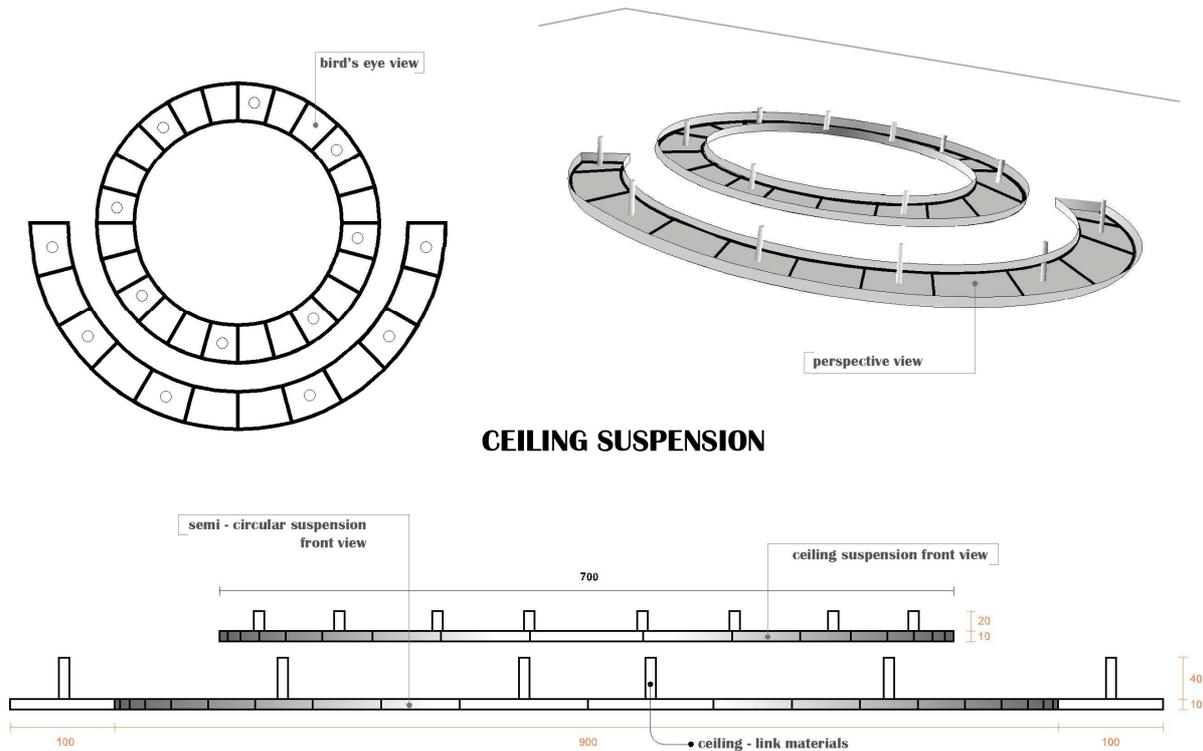


Figure 1: Ceiling Suspension Apparatus

III. On the walls of the class was applied gypsum plaster. The walls of the classroom were painted beige-colored using nano technology just like the colors of PVC and seats. For lighting and acoustic purposes, on two side walls, within 40 cm and 60 cm distances from the wall zigzag iron profile was created with three scaffolds. On both side walls, 13 MDF panels were placed .each of which was prepared on the iron scaffolding profile, its width varying between 40 cm and 100 cm, height 205 cm and 280 cm (Figure 2). Each wall panel was painted the color tone of light and dark. On the side-wall panels for the purpose of lighting and acoustics, daylight lamps for lighting purposes was placed in hiding. The gap between zigzag wall panels was covered with Plexiglas coated foil.

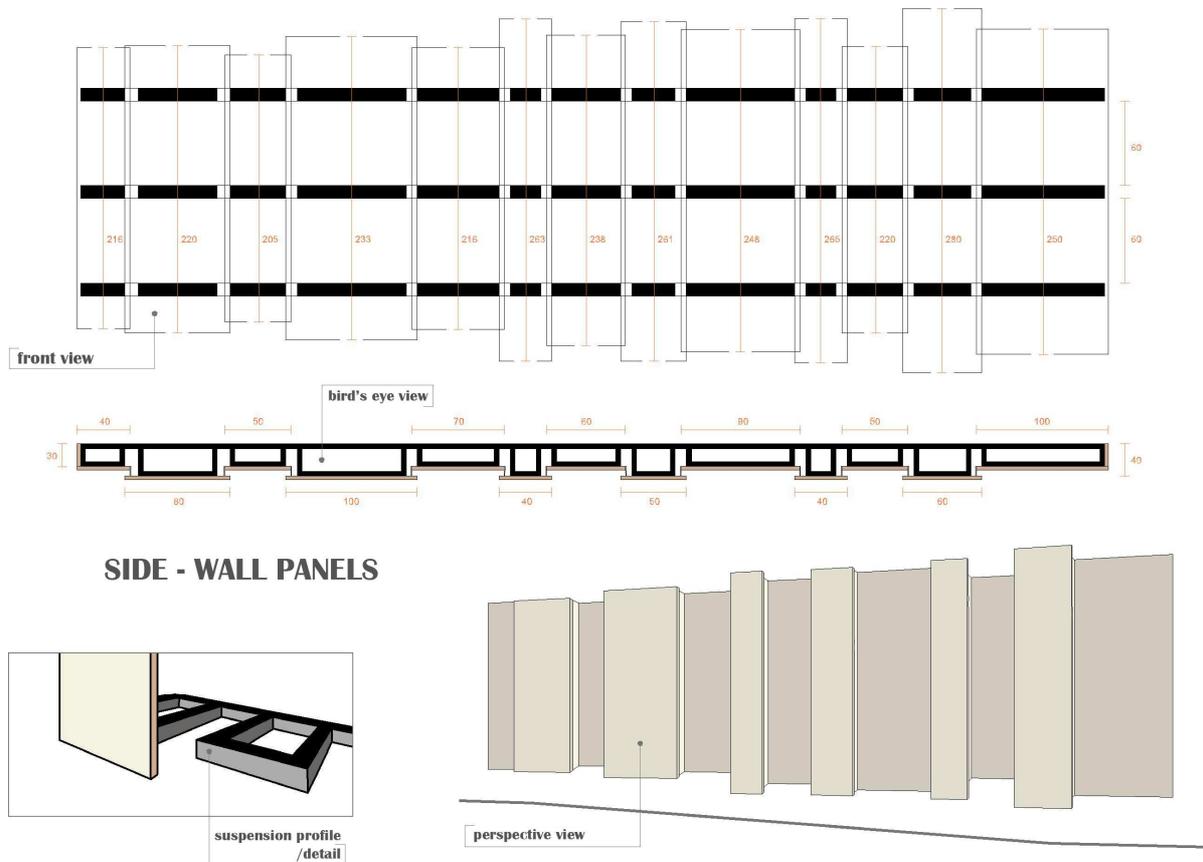


Figure 2: Side-Wall Panels

IV. Concrete ankraj platform was laid. Production and assembly of a circular platform was done, which is adjusted to the desired speed setting with the remote control, instead of half a lap to come back again in the form of half a lap running in the opposite direction of 7 meters in diameter. In accordance with the project, the area outside the platform was filled accordingly and 10 cm over the sloping plain concrete, 250 dz, was poured. Tiles, 50x50cm profile on the MDF covered with iron. According to recommendation of the architect and construction engineer from Construction Department of the university and faculty members from Painting Department of Teacher Education Program, floors was coated with PVC (homogeneous, anti-bacterial and anti-static). In order to provide the students face to face communication, one for 14 people and the other for 24 people, two interwoven semicircle, floor seats are properly secured to the settlement plan (Figure 3).

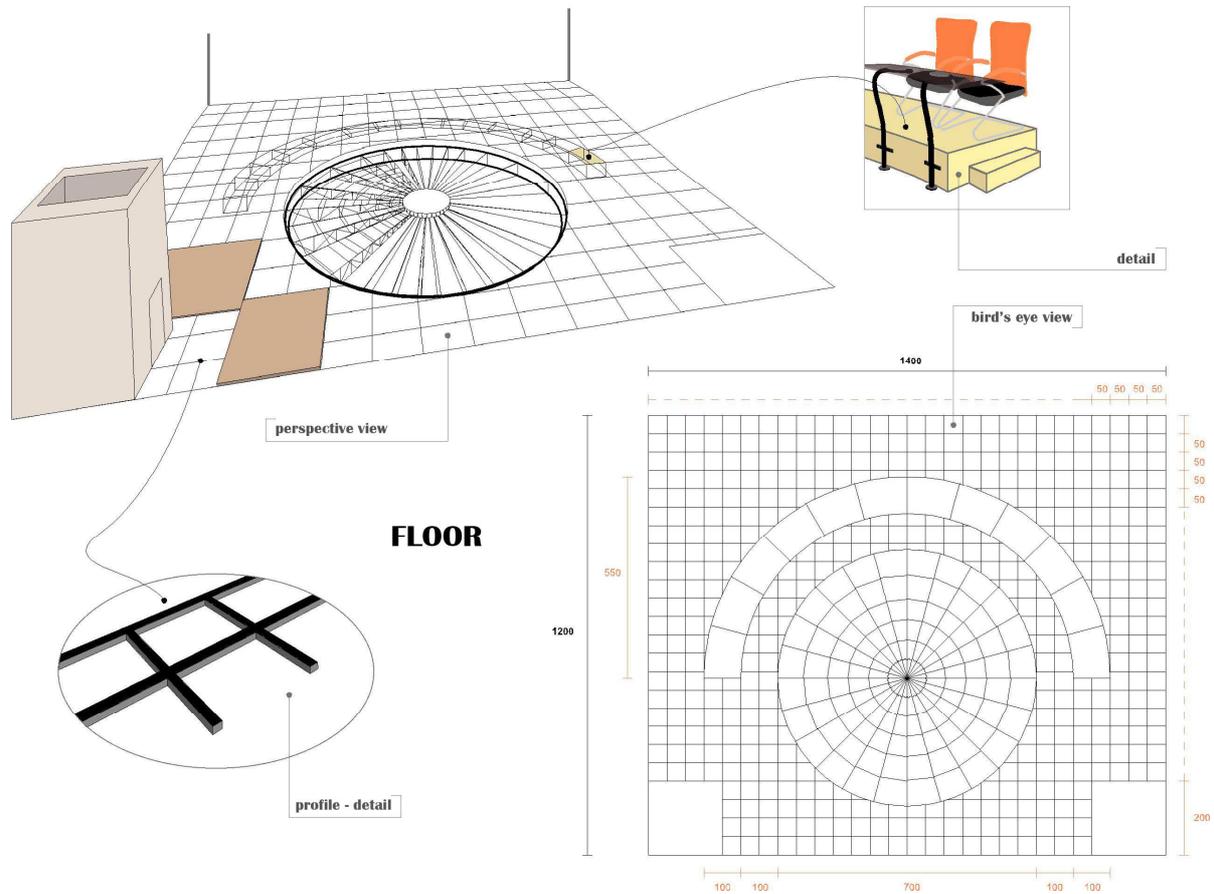


Figure 3. Circular Platform

V. One desk for every two students, in separate tables with metal legs and a special design of the front panels were painted with enamel paint and then secured to the floor. Student desks were tempered glass 10mm thick (approximately five times more durable than regular glass and provided a special procedure in case there is a break, leaving no cutting edge or points) was smoked glass, specially manufactured and assembled with the laser (Figure 4).

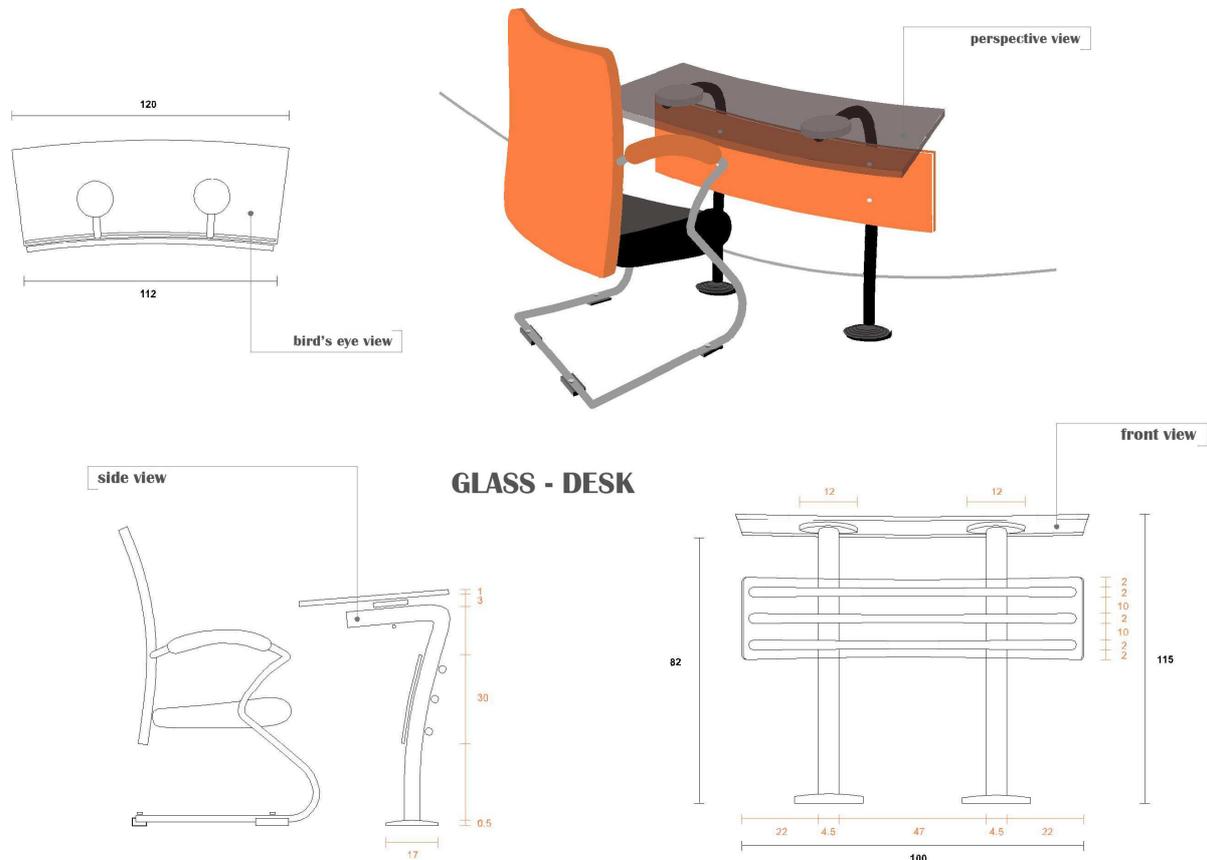


Figure 4: Student Desks

VI. To be able to manage the classroom teaching and learning activities, specially designed teacher's desk was fixed to the most appropriate location. On the instructor desk, there is a computer with internet connection and one LCD panel is connected to it. From the instructor desk, computer and LCD panel can be used for presentation, and also two video projection device with a fixed ceiling mounts can be used via data transfer from the computer. From the instructor desk, each of six different microphone (on - off), which can be used within the classroom is possible. From the instructor desk, all lighting in sections or as a whole can be controlled (Figure 5).

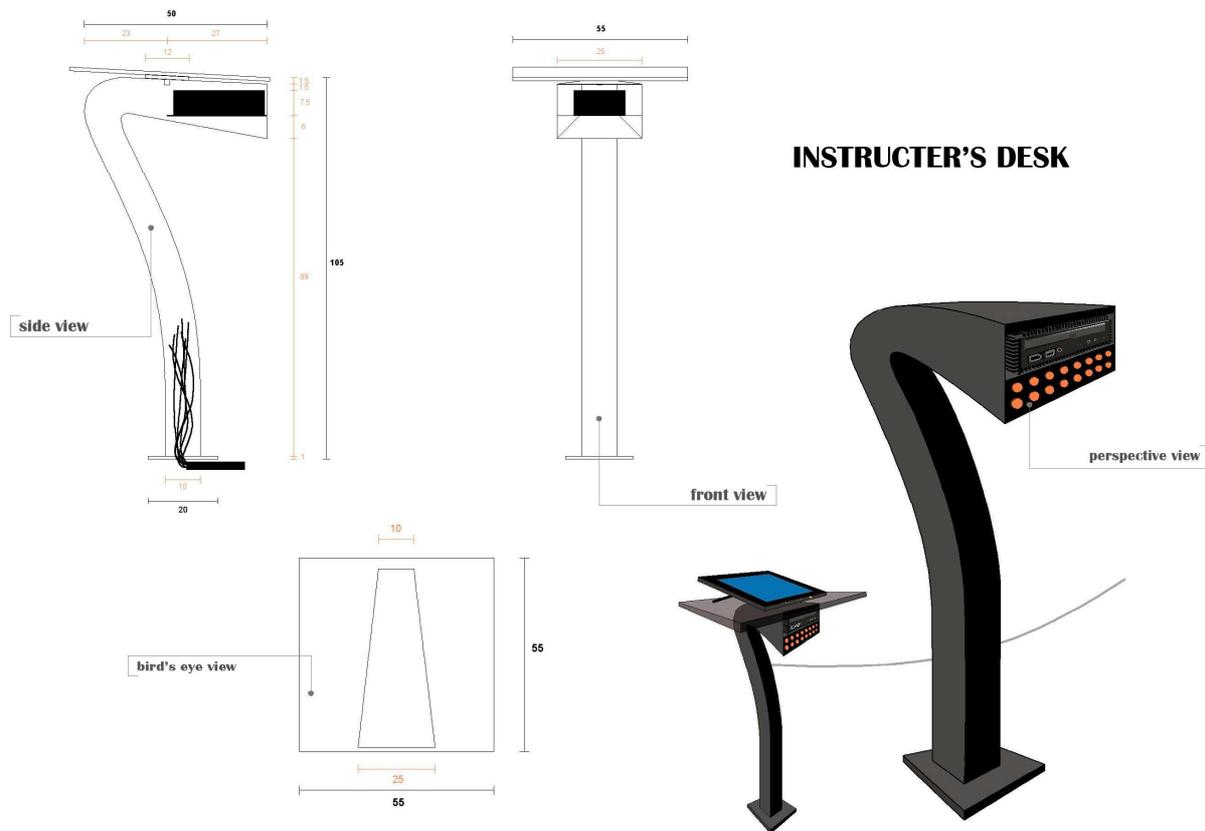


Figure 5: Instructor Desks

VII. A Video Conference System, sensitive to sound, thereby turning to the person speaking in the meantime and enabling voice communication and image transferring, was installed using a hanger just above projection screen. With a dimension of 4 x 3 meters with remote control retractable presentation screen, was established immediately below Video Conferencing System. To project data from both computers on the instructor's desk and in Control Room, one video projecting device, and also another video projecting device for a mobile smart board, were fixed to the ceiling using a suitable apparatus.

VIII. Sound Mixer for 1 piece, 2-amp was purchased. To be used in Class 8 units, 6 units in foyer area, a two-way speaker was bought and fixed to the most convenient locations specified for dubbing. 2 hand-type, 2 headphone (headset) wireless microphone and 4 pieces of table type lighted conference microphone were installed.

IX. In order to provide heating of the classroom, the previously existing radiators were removed without damage to the heat distribution, to be used elsewhere, and in two most appropriate places, specially designed panel radiators were mounted. To ensure Class heating, cooling and ventilation, an air conditioner, having an external unit connected to two indoor units, was place both student entrances.

X. An electrical panel was made, which can control all electrical connections in the classroom, individually or as a whole. Short-term uninterruptible power supply was provided in case of possible electric cuts and to prevent damage to electronic devices.

XI. To the cover of Fire Cabinet in relaxation (foyer) area, was written "FIRE" with capital letters and the hose and Lans were fitted. 6-kg 5 fire extinguishers were put 2 for foyer, 1 for the point next to the student entrance, 1 for the point next to the remote control devices and receivers, 1 for the back part. For the main control room, 1 automatic extinguishing system, 3 Kg was installed. 7 phosphorus "Exit" signs were put within the classroom, 1 to the right, 1 to the left, for the foyer, 2 to the right, 2 to the left, 1 to the backdoor of the classroom. Within the classroom, 1 Fire Alarm Sensor Units, to control the main entrance doors Burglar Alarm Sensor (will be a silent alarm, the alarm detection unit directly notify the University Power Plant and the security unit) was installed.

XII. Control Room was designed for lighting, sound management in the classroom, to control two computers to ensure the transfer of data to the classroom environment. For Control Room, the walls were iron profile, covered by plaster and coated by painting, the floor covered with iron and then MDF profiles on the elevated platform. To the control room for monitoring and control of the class was opened in the wall 40x180 cm in size, attached to the chassis 10 mm tempered smoked glass blind, black film drawn, covered with aluminum frame fitted. A specially designed Control Panel was put into the Control Room, which has internet connection, to be used for dubbing mixer provided one piece, two pieces of lighting to control the amplifier. Specially designed material cabinet was put to Control Room to protect the materials. A wall-type air conditioning was installed to the Control Room in order to protect people and the devices from overheat. To the control room, wireless internet connection was established for use in the classroom when needed.

## CONCLUSIONS

As envisaged in the literature of educational sciences, all basic physical properties of a contemporary class (lighted enough, soothing colored, adequately ventilated, equipped with the up-to-date technology, with desks and chairs suitable to the physical needs of students, with well-organized classroom equipment) were realized in line with available means.

To date, unprecedented in our country, according to the setting desired speed can be adjusted by remote control, instead of half a lap to come back again in the form of half-lap run in the opposite direction, thanks to seven meters in diameter, circular platform, interactive lessons the students seeing each other face to face, the more effective and efficient processing will take place.

During the process in which a special learning - teaching aiming to many senses in an environment, to facilitate learning and perceiving, to attract attention and interest to pursue, to lessen the learning time, to develop positive relationships between students and maximize the motivation of academic staff and students, in the end, the desired behavior is expected to make a permanent change.



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#### BIODATA AND CONTACT ADDRESS OF AUTHOR



**Necdet KONAN** is an Assistant Professor in Educational Administration and Supervision in Educational Sciences Department of Education Faculty in Inonu University. He graduated from Educational Sciences Faculty of Ankara University, he completed his master's and doctoral degrees at Institute of Social Sciences of Inonu University. He served as head of Educational Sciences Department, vice-dean of Faculty of Education, a board member in Education Faculty board of directors. His research interests are leadership in education, teacher, principal and supervisor competencies, class management, physical conditions of schools and classrooms.

Asst. Prof.Dr. Necdet KONAN  
Inonu University, Education Faculty  
44280 Malatya- TURKEY  
[necdet.konan@inonu.edu.tr](mailto:necdet.konan@inonu.edu.tr)

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