

The educational environment

For the information technology

Supplies, Software and Human Resources

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The new vision for professional development of teachers

It aims to put the student in the center of the educational process. The ESP aims to do so by preparing the human resources that is considered the base for the reforming process. It also requires preparing an educational environment that provides the teacher and the student with the resources and facilities needed to support the educational process within the new vision that concentrates on cooperation and interactive work. The reforming programme of education towards the economical knowledge also concentrates on utilizing (engaging) the technology in education, and preparing a new generation capable to deal with the information technology and communication. Also providing the suitable opportunity and utilizing it in the educational process for the total development of the local society. From this starting point it is important to prepare the place or the interactive educational environment whereby the students from different age levels can acquire knowledge and skills that enables them to develop their professional abilities by interacting and by doing real applications through creative ways in an interactive environment.

The basic axis to develop the requirements of the educational environment for the information technology section

First: The interactive room:

It is a place made especially for the students studying in the information technology section. It is considered as an alternative to the computer lab found in that section. In addition to a special place supplied with the tools and instruments that enables the implementation of the real and interactive activities.

The interactive room aims to achieve the following outcomes:

1. To reinforce the education through educational circumstances related to the real life.
2. To improve the students knowledge and skill, through cooperative, interactive education.
3. To provide a suitable environment for the teachers to implement the different educational strategies integrating the technology through it.

The supplies and specifications

For the interactive room

To achieve the basic goals for the interactive room, the committee found that this needs designing an interactive room made specially for the IT section. It includes a number of computers in addition to a space for implementing the interactive activities amongst the students. It had been agreed upon the following points:

- The importance of providing an interactive room in all schools of (IT) instead of the IT labs. That is due to the confidentiality of IT subjects and their relying on the technology and the educational strategies based on the interactive activity and the use of technology.
- The interactive room's area should be the same as other classroom areas at school. (48m^2 or 64m^2) or more if available at that school.

The attachment number (1) the different suggested designs for the room

Model a.

Model b.

To minimize the pressure over the interactive room the committee suggested putting a data show system in every class of the IT section.

The supplies and specifications

For the interactive room

The computers: The committee approved two models for distributing the computers in the interactive room. (employing a ratio of one computer for every two students).

Attachments 2 (shows the specification of the equipment).

First Model: 18 computers distributed as follows

- 8 portable computers
- 10 fixed computers.
- Server.
- A special computer for the lab's attendant.

Second model: 25 computers distributed as follows.

- 8 portable computers
- 10 fixed computers.
- Server.
- A special computer for the lab's attendant.

The models will be chosen for every school according to the following specifications:

The model	Room's area
Model (1)	64m ² or less
Model (2)	64m ² or more

Note: It has been agreed on the previous areas of the room as long as the number of students in the IT section does not exceed 40 (forty) students.

- The furniture: According to what the committee has agreed upon in the previous points, the following supplies of furniture has been approved. (Attachment 3 shows the models and furniture design), and it will be distributed according to the model chosen to the number of computers.

- A cabinet to store the equipment.
- Air condition (AC).
- Curtains.
- Tables (attachments 4 show tables models).
- Chairs.

The supplies and specifications for the interactive room

The nets:

- The school provides the internet.
- Providing a wireless net for the portable computers inside the interactive room.
- Provide a wires net for the fixed computers.

The programs: the following programs have been used to support the educational process in the interactive room according to the curriculums for the IT section.

- Window XP (updated version).
- Operation system professional.
- Microsoft office (updated version).
- Adobe Photoshop.
- ITAC (Last version).

- VB 6.2.
- VB net.
- Web copier.
- Web – To – CD copier.
- Dream weaver.
- Web publisher.
- Graphic tools.
- Dictionary.
- Management terms dictionary.
- Adobe Acrobat reader.
- Flash.
- Encarta.

Electrical equipment, electrical installations and supplements.

Attachment number 2.

- 3 Faz Board
- Electrical MK outlets.
- The installations for the fixed computers.
- Electricity regulator.
- UPS.

Other supplies (attachment number 2).

- air condition (heating and cooling system.

- Magic wireless white board
- Data show.
- Digital camera.
- Web cam (2 in number).
- Library (MIS) KIT.
- Laser printer.

Human resources: Lab attendant

The basic axis to develop the requirements of the educational environment for the information technology section.

Second: Professional Development Center for the IT Section.

It is a private place for the IT section teachers equipped with the tools and equipment that enables the teachers to make regular meetings, training programs in addition to providing resources that the teachers can use to implement the interactive and real activities.

The Ministry of Education is aiming within the new vision of the educational rehabilitation to prepare human resources in the ministry itself according, to the national standards for the teachers. To achieve this vision the supporting Developmental Project for the Economical Knowledge, suggested providing a suitable environment to make the developmental programs concerning IT teachers succeed and to join in the local society. It named them The Professional Development Centers.

The goals for the Professional Development Centers

These centers aim to achieve the following goals:

1. Support the training in the Ministry of Education to activate the decentralization vision for the professional development programs.
2. To concentrate on the individual needs for the learners.
3. To encourage learning by doing that is by forming societies for practicing from the section's teachers.
4. To provide the opportunity for the teachers to exchange experiences by providing a center where they can meet.
5. To provide and produce educational resources needed for the professional development programs for the IT teachers.

The suggested supplies for the professional development center

1. Geographic Location:

The location will be chosen if it applies the following regulations.

- Central whereby it can serve the highest number of learners in one directorate.
- It has an easy access.

2. The building:

The rooms area adopted for the center should not be less than 96m² (12*8). According to the letter issued by the Ministry of Education number mn/3/793 dated on 12th June 2003 (attached) that has the requirements from the IT sector.

It should also apply the following conditions:

- The centers location should be on the first or ground level.
- Good ventilation
- Provides sanitary facilities concerning it.
- A special entrance for the center.

3. Equipments (attachment 2):

The second model for computers had been adopted: 25 computers distributed as follows.

- 8 portable computers.
- 15 fixed computers
- Server.
- A special computer for the lab attendant. In addition to five fixed computers making that a total of 30 computers.

Additional equipment

- Multi function machine.
- Mimio board.
- Water cooler

The suggested structure for the center

The committee suggested the Professional Development Center for Information Management to be accredited, and to provide its services for the teachers in the educational directorate, and to technically and managerially link it with the educational resources centers on the governorate level. Whereby it can become a focal meeting place for the teachers in the IT management schools in the one directorate and governorate.

The structure for the center that had been suggested:

First: The center's supervisor

Job description

1. To organize for the professional development programs before, during and after the program.
2. The responsibility of the center's management affairs.
3. To coordinate among the Ministry of Education, the learning resources center and the teachers.

Second: The lab Attendant:

Job description:

1. To prepare the required software for the professional programs.
2. To help in organizing the professional development programs.
3. To make sure that the computers or equipment used during the training is in good working condition and to solve any technical problems.

- The job description for the lab supervisor and the lab attendant, and the mechanism by which they are connected to the related parties in the Ministry of Education will be specified later.

Attachment 2

Equipment list

Attached are the basic specifications for the equipment in the interactive rooms and the professional development center.

1. Server.
2. Three phase power line stabilizer.
3. UPS.
4. personal computers for labs.
5. Lap Top.
6. Web CAM
7. VPN Board Router.
8. Digital Camera.
9. Multi Function Machine.
10. Net OP School last virgin.
11. Interactive white board solution.
12. White board.