Renovation of Parsons Hall Classrooms

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Introduction

Purpose

ACI aims for its students to achieve high academic success, especially in the field of languages. One of the most important of learning is a comfortable class environment which helps the students focus on their lessons. The school's mission includes raising students who continuously renew themselves while adapting to the developing conditions. To achieve this, the school must also continuously change itself to keep up with the most recent technology in order to improve its educational quality. Redesigning the Parsons buildings to be a more effective learning environment will help ACI students improve their knowledge of their Second Foreign Languages.

Problem

The classrooms should encourage students to do their best in class but some of the older and historical buildings of our school cause problems and disrupt the student's learning process. In the Parsons buildings, the language lessons are constantly interrupted by small things like a complaint about how hot the room is or flickering lights caused by old cables connecting the lights. These problems ruin the wholeness of the class and each tiny problem wastes the time of the teachers and students. Also students can easily stop paying attention and start listening the sounds from the other students in other classes or outside the building. Heating and lighting problems, and noises from the whole school make a class much less effective than it should be for a student to have a high comprehension of the lesson for that period.

Description of Project Objectives

The first objective of this project is to have a climate in the classrooms which the students can feel comfortable learning in. Many students waste a lot of time changing their seating positions and they even have a choice of desks in the class they feel right sitting in. If students are in the right environment, they can pass their time more efficiently, learning the most they can from their teacher. Also there are constant complaints to the teacher about the room being too hot or too cold. These tiny problems which usually take 2 minutes to fix lead to a whole conversation and ruin the lesson. Organising their time to fit all of the year's lesson plan is already a hard job, this time spent on dealing with the issues caused by the structure of the inside of the classroom and the building makes it even harder to catch up with the curriculum. If this project takes place, class time will pass more efficiently without being interrupted by any distractions.

It is not just the comfort level of the classroom that distracts the students; they can spend the lesson focusing on their desks, the sounds from outside the classroom or the lights. Sounds from other classrooms divert the students attention from the lesson, this project also proposes to install sound insulation in the classes to absorb sounds from the outside. Independent research conducted by the Universitätsklinikum Hamburg-Eppendorf (May 2009) also shows that different kinds of lights can have different effects on the students, not too bright that it would bother them but not too dim to make them feel tired. The Philips SchoolVision systems increase reading and understanding speed by 35% and decrease hyperactive behaviour by 45%. This shows that specially designed lighting can help students be calm and focused in class, adapting to different activities. Students working under this kind of light have been seen to have a higher attention span and a lower level of hyperactivity. The teachers will be able to adjust the lighting according to the needs of their own classroom and lesson. With these changes, the students will be concentrated on learning, looking at the board instead of their surroundings, joining in class by raising their hands and asking questions.

Description of Project Activities

The first step of this project is to install sound absorbing material in the walls of the classrooms, this is needed since 40% of students state that they are being distracted by sounds from other classrooms during their lessons. This part of the project may take some time as the walls will have to be opened up but Ecoplus Systems produces easily installable tiles that can absorb a large amount of background noise. These tiles are easily cleaned and are resistant to moisture, this means they can be used for many years. The same company also produces tiles for ceilings which are effective in noise reduction.

After the insulation, the new lighting systems will be installed to enhance learning. The SchoolVision system is the best choice for this since it has many benefits that help students engage in class. It is a cost-effective way that also saves energy by automatically reducing brightness when daylight is detected. The University of Twente also carried out a study in 2009 that concluded the majority of the students score higher on concentration test and are much more motivated in class. The installation of these systems and the sensors will be done by the company.

The next step for the renovation of the Parsons classrooms is solving one of the most common issue among the students, creating a comfortable room temperature. The current single wall mounted air conditioners are not sufficient to cool or warm the room, instead new ceiling mounted air conditioners should be installed to improve air distribution in the room. Companies like Fujitsu have systems that fit classrooms. These devices have easy installation and maintenance, and are invisible once sunk into the ceiling.

Many students state that they are distracted by their desks as well during their lessons, the classic desk design can be replaced by more durable desks that fit any activity. The Smith System produces innovative desks can help students be more comfortable in their class. With these changes, the lesson time will not be passed inefficiently since the students will not be distracted by their environment. The desks can be placed in the class at the end of the project, right before the school year starts, and the renovation will be fully completed by the end of summer.

Time Frame

The project will start with the survey which will provide results about the effectiveness of the current Parsons classrooms. After this research, the project will be passed to the administration. Then, if it is accepted, the purchase of material will be done from separate companies. Air Conditioners, Wall and Ceiling Insulation, Desks and Lighting. The rest of the plan will continue with the start of the summer break, the 12th of June. First of all, the classrooms will be emptied of all desks, chairs and anything else that might get in the way or get damaged. The insulation company will install the sound absorbing tiles on the walls and ceilings, this will take most of the time, until about 1st of July since the material needs a week to dry. After that the AC company will bring their products and install them on the ceilings, burying them inside. On 25th of July the lighting company will put up the lights and connect the remote controls. The last step will be done right before school starts, the desks will be brought over and will be assembled by the workers in the classrooms. The whole project will be done by 20th of August.

Project Cost:

Expenditure Category	[local currency]	Total, [local currency	US$
1. Personnel / Labour	1200	1200	423,95
2. Equipment / Materials	Lighting: 7170 Insulation: 5020 Desks: 19700 AC: 5700	37590	Lighting: 2498 Insulation: 1748,95 Desks: 6863,39 AC: 1985,86
3. Other costs**	57	57	20
Total Project Cost		38847	13539,97

** -Tools Exchange Rate ([local currency /USD $): 1 USD = 2,80 TL

This project costs approximately 38847 TL including desks, lighting, air conditioning and ceiling and wall tiles for 8 classrooms including labour prices. This is very cost-effective since many of these systems were designed specially for the needs of schools and will have many benefits on the classrooms. Another advantage of using these products is that the majority of the materials will be installed by the company themselves and the rest can be easily prepared by

school janitors, like taking the desks in and out of the classroom. In all, this project's cost will be adequate compared to the improved levels of concentration and the time saved in class.

Works Cited

Michael Schulte- Marktwort, Claus Barkmann & Nino Wessolowski "Wirksamkeit von dynamischen Licht in Hamburger Schulklassen", May 2009, Universitätsklinikum Hamburg-Eppendorf, Klinik und Poliklinik für Kinder- und Jugendpsychosomatik