



Highlighting The Importance of **TIME ATTENDANCE SYSTEM** in the Higher Education Industry for Students

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Braxton (2000) wrote that the greater the level of student's academic integration is, the greater the level of subsequent commitment to the goal of college graduation will be. He continues further by saying that attendance is very crucial in order for a student to advance in his education.

Education plays a major role in our lives and when it comes to higher learning institutes, such as colleges and universities, it is very important to attend each and every class for students to be able to not only learn the entire syllabus, but in the case for most higher learning institutes, the more classes you attend, the higher the chance of being able to sit for your final exams, which in turn determines your final grade for graduation.

Absenteeism in the higher education industry is not a new issue, it's been practised by students for years yet the lax attitude of authority in handling absenteeism could lead to disastrous impacts on the students themselves, their families and the image of the school in general. Considering the amount

of monetary investment to school one higher education student, parents have high expectations for their children's success and by having attendance in check, the probability of passing a course increases.

In this article, several issues of absenteeism are brought up in order to elaborate further on the growing number of absenteeism over the years and how biometric time clocks and its bundled software, the powerful Time Control Management Software (TCMS V2), can offer effective automation in the higher education industry to not only curb absenteeism, but also raise the productivity level of students and help boost their success in their studies.

Does Attendance Really Matter on Campus?

Yes, it does and its importance is paramount when it comes to education in higher learning institutes. However, modern day students do have other issues when it comes to attending classes. Levine and Cureton (1998) identified students partaking in other activities, particularly if they happen to have jobs outside of campus, usually to pay off their university tuition fees, and/or if they happen to be external or part-time students. Sometimes, it happens to be a case of students who spend more time working late hours that they end up sleeping in class as Dr. Massingham (2006) discovered during one of his lectures.

In her study on student attendance, Dr. Muir (2009) found that low attendance was commonly linked with poor student motivation (e.g. Race, 2007) and retention issues (Bowen et al., 2005). Dr. Muir also questioned about whether students are making better use of their time by not attending classes and studying on their own instead. For most students of today, they are a lot more focused on assessment requirements, being keen users of technology such as online learning materials (WebCT, online notes, PowerPoint presentations, lecture materials etc.) which they use strategically. (Muir, J., 2009, Student Attendance: Is It Important, and What Do Students Think) Dr. Massingham questioned the availability of vast study materials online for students to use. "If students can access the lecture slides and the audio online, why should they come to lectures? If they can access necessary

readings online, why even bother coming to the University campus at all particularly when they have other lifestyle commitments."

Gomis-Porqueras et al. (2011) came up with a theory that lecture materials available online "could be a complement in the learning process." On the other hand, they theorized that web-based materials could be substitutes for lecture attendance. This brings to mind a major point in contrast where attendances can be increased through access to web-based materials, while also leading to a decrease in physical attendance to lectures in higher learning institutes.

What about students who are known for having good attendance records? Do they perform better than others? According to Romer (1993), he believes that "students who are more interested in the material, or more skilled academically, or more focused...are almost certain to attend class more often than students who are less interested, less skilled, or less focused." He continued further with the thought that perhaps students are a lot more motivated to perform very well in their studies "rather than a true effect of attendance". Some faculty have taken stern actions in order to improve student attendances for their classes. For instance, Marburger (2006) discovered that attendance was higher in classes where chronic absentees were penalised. Naturally, the higher the attendance, the better results students would achieve in their exams.



A Crucial Must for Students and Faculty to Interact Together

Sometimes, the interaction between student and teacher is also crucial to improving attendance in higher learning institutes. Levine and Cureton (1998) pointed out that students are usually in campus for the sole sake of attending classes due to work and part-time attendance. Therefore, there is less time spent on campus together between students and faculty members. Bowen et al. (2005) found that the majority of students they studied (75%) felt that the university "should monitor attendance as it gave them a feeling that the university cared about their success." 90% of the students stated that the university should intervene if they feel that attendance was unsatisfactory, more reason for attendance to be monitored in order to improve students' perform-

ances. The reason for this is due to students "being unaware of who to contact with academic problems (Bowen et al., 2005, p. 382)".

Tom Hanaway of the University of Wisconsin Oshkosh Advance-Titan campus publication (2011) wrote an article discussing the plight of those affected by absenteeism. Speaking to two students from the university and also two of the university's professors, he discovered that skipping classes was a waste seeing how students pay so much for their tuition fees, yet prefer to skip classes. Other comments were based on how students will actually have to work even harder due to the work constantly piling up on them each time they miss classes, not being able to establish a healthy relationship with their professors (who could



put in a good word for them and assist them in their studies) and be a burden towards other students who usually attend classes by asking them for notes from previous classes.

Dr. Muir (2009) continued to discover more issues in relation to her findings on student attendance. The findings from Colby (2005) were considered to be particularly helpful for pointing out to students and colleagues on the importance of attendance during the early stages of a module. The quality of teaching should also be improved. According to Dr. Muir, "better feedback from students on individual sessions should be sought, and staff should reflect on the added value students gain from attending classes through interactive teaching and learning." Lastly, she touched on the practicalities of monitoring attendance. Issues such as students signing in for each other i.e. buddy punching would have to be acknowledged. Consistency across modules in monitoring procedures and sanctions are needed.

Biometrics is The Answer

According to the Biometric Consortium, biometrics is the science of "recognizing a person based on a physiological or behavioral characteristic." With buddy punching and frauds becoming prevalent in higher learning institutes as mentioned by Dr. Muir, biometrics is an effective method in order to record and monitor time attendance, which will prove to be very useful for the faculty to monitor students and ensure that not only will the rate of attendance rise up, but also productivity and positive results in a students' overall assessment as well. Several features are measured, including face, fingerprints, hand geometry, iris, retinal, vein and voice. While FingerTec have produced devices that help to monitor time attendance through the use of passwords, and RFID cards, the main draw would be its products that helps to verify users and time attendances with a touch of a finger or presenting a face.

Fingerprint recognition is the most effective way of biometrics verification and the reason for that is due to the uniqueness of a fingerprint and the accurate reading of the

fingerprint's minutia points. Such accurate readings will ensure that forgery and buddy punching are eliminated in order to monitor attendance and discover who are the ones that are constantly absent from class so that further action can be taken to rectify the matter. Fingerprint method is also convenient, non-intrusive and relatively economical when it comes to biometrics solution available in the market. When students know that there is no option of using a friend to sign in for classes, the possibility of the real student to show up in classes could be improved. The percentage of attendance can be factored into the final grade as well to curb absenteeism. Biometric verification is also useful when it comes to monitoring attendances for examinations to eliminate all kinds of frauds committed by 'naughty and creative' college kids. With a small investment on biometrics system, universities can improve students' attendance in classes and console parents on the fact that their investment in higher learning institute for their children is a positive investment.



Tracking Students The TCMS V2 Way

In order to manage time and attendance of students, biometric readers is only one part of the solution. Another, is the solution that is bundled with all FingerTec biometric readers known as Time Control Management Software (TCMS V2). This software is designed to centrally manage all the attendance data from every connected fingerprint readers that are installed around campus. TCMS V2 provides administrator with an easy setup, comprehensive details of every user, detailed attendance in attendance sheet and various kinds of professional reports.

One important feature of TCMS V2 that is integral for higher-learning institute setup is that it supports multiple clocking schedules. This is advantageous for lecturers and tutors who are juggling multiple classes every week. Students can be assigned to flexi-schedule clock-

ing based on their respective classes. On Monday, a class starts at 9:00 and finishes at 10:00, another one starts at 3pm and finishes at 5pm. Schedules could differ in time everyday and TCMS V2 could cater to the environment. Therefore, each student who is attending the class would be required to report for attendance based on the scheduling that's been set by their lecturers or tutors. Compilation of the data will show the actual students attendance and it could be used to reflect on their grades or to advise them accordingly.

Weekday	Day Type	In	Out	In	Out	In	Out
Sunday	OFFDAY						
Monday	WORKDAY	09:00	10:00	15:00	17:00		
Tuesday	WORKDAY	09:00	11:00	12:00	14:00		
Wednesday	WORKDAY	09:00	09:00	13:00	14:00		
Thursday	WORKDAY	09:00	11:00	15:00	17:00		
Friday	WORKDAY	09:00	10:00	14:00	16:00		
Saturday	OFFDAY						

TCMS V2 also offers various sets of reports for better analysis of attendance and features real-time attendance reports that can easily be generated and are ready to be printed whenever required. There are a total of 23 time attendance reports that can be utilized in managing institutes of the higher learning. The reports include individual Electronic Time Card that detail every attendance activity of a user, Daily/Weekly/Monthly Attendance Listing detailing the overview of attendance according to the period selected, Attendance Sheet detailing the activities of all things that happened at the readers, Tardiness Report detailing the lateness of all users and many more. By having accurate data and presentable reports, universities could find ways to improve in managing students participation and attendance. The TCMS V2 interface is also user-friendly in order to backup and restore system data for easy housekeeping.

The following are list of reports available:-

- Correction Report
- Tardiness Report
- Overtime Approval Worksheet
- Attendance Summary
- Attendance Analysis
- Attendance Summary Report
- Day by Day Analysis
- Month by Month Analysis
- On Leave Report
- Employee Time Card

You may select the range of records by:

Group
 Department
 Section
 Employee ID
 Name

Payroll Cycle: Monthly Last Payroll Cycle

Date: 01/08/2013 to 31/08/2013

Sort by: Employee ID Emp No. Name

Employee ID Option: Employee ID Emp No. Card ID

Options:

 Group by Dept

 Work done in days

 Leave in hours

 Clocking Count

 In/Out Clocking

 Employee

 Remark

 Original Clocking

 Color printer

The use of biometric verification in monitoring class attendance absolutely negates the need for traditional attendance sheets. At the same

time, it also reduces the need for lecturers to spend limited time and effort to encourage students to attend classes and instead provides the administration with a clearer view of the campus situation in students' participation. At the end of a learning period, the Attendance Sheet in TCMS V2 could be used as a clear and definitive overview of a student's behavior in campus academically.

Employee ID	Name	Day Type	Schedule	In	Break	Resume	Out	OT	Done	Work	Overtime	Short Minutes	Late In	Leave Taken	Hour	Out
[Grid containing attendance data for multiple employees]																

In conclusion, managing students attendance actually requires quite a high level of sophistication in terms of the data and processes involved. A powerful and capable system is necessary to achieve this. When it comes to a solution that is effective in managing time attendance for students in the higher education industry, look no further than the TCMS V2 software, bundled with most FingerTec terminals, for an economically-friendly and highly effective solution to curb issues of time attendance in the higher education industry.

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