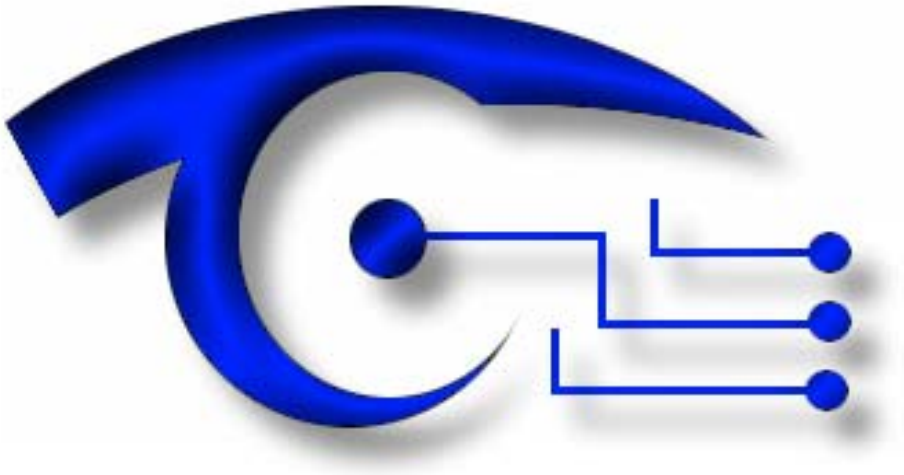

COSTECH TECHNOLOGIES

eLearning Systems Overview

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Is there a better way?

Over the last twenty years there have been many published papers about the internet and how this media can be effectively used in the teaching/training of personnel and clientele. Discussions about how to use technologies to teach has revolved first around standard computer methods that utilize LAN and WAN based systems, and second the use of web based systems. These studies have concluded that the methods implemented to date have been ineffective and have failed to produce the desired impact.

***Researchers and annalists have concluded that more must be done — there is a need for training and education systems that are usable, expandable and universal for all areas of learning*.**

To accomplish this task, a training system must take into consideration all companies have different training requirements, and a list of goals they want to achieve for their personnel and/or client training. Therefore the approach taken is critical to the results that will be achieved.

The questions that arises are:

Can an e-training system meet the corporate, state, and federal safety training requirements that are needed for your business?

The answer is:

YES

The solution is e-training. E-training is a method of extending the training capabilities your company requires, wherever you are and whenever you need them. To accomplish this Costech has developed an e-training system that will provide both your personnel and clientele with an e-learning solution that is available 24 hours a day, every day. This e-training solution will provide an environment for all learners that is not only efficient, but versatile enough to provide ***ease to use*** to anyone and everyone that must use it regardless of their computer savvy.

***Success* is based on results**

***Results* are based on what you know**

***What you know* is based on your ability to learn**

Innovations in e-Training

The right e-training solution needs to also provide corporate administrators and their training staff with the ***feedback and analysis*** of a learner's performance which may be critical to them performing their jobs safely. It should provide detailed information about the learner's progress and if that learner's performance meets the standards required to do their task efficiently and safely.

If a learner should encounters areas in the course where he/she require assistance with the materials being studied, a qualified instructor will be readily available to assist. The ability in identifying problem areas will allow an instructor to follow-up and assist him/her in the areas of difficulty encountered.

The following information is not just another paper of the benefits and directions that need to be taken, instead it is a discussion of an eLearning environment that is usable, expandable and available NOW.

Areas of discussion will encompass the following key areas:

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Technology and the Internet	**3**
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Is it expandable?	3
What is required?	3
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Building the Foundation of Web-Based Training and Instruction

The focal point for learning by individuals, whether at school, home or in the workplace has now included the use of technology based education. The use of computers and the internet has provided us with opportunities never before presented.

How can Costech HELP?
Recognizing the need for an efficient education/training system that would helps learners everywhere has guided Costech in the development of eLearning systems that identify and define the four fundamental characteristics required to obtain an optimum web-based learning environment.

An Internet eLearning System:

- is equipped with tools to facilitate teaching and evaluation
- is managed by a knowledgeable, skilled, and motivated employer who will be prepared to use all the tools accessible to him/her for the implementation of online courses
- includes a comprehensive monitoring system for an employee/student's supervision and tracking of progress and productivity
- provides full functionality in all areas of teaching, training and study

In support of the first characteristic, trainees must be provided a technology-rich environment conducive to improving productivity in all work areas. They must, on a daily basis, be prepared to study relevant course information and use training and testing utilities to effectively apply the knowledge they obtain.

By using a complete multi-media platform never before incorporated into any training program to render assistance in all areas, employers will ensure trainees are motivated and ready to work under anticipated circumstances, as well as respond effectively to unexpected events, during their service within that occupation. In addition, the course set-up is designed to increase retention using powerful multi-media cues and well-tested training techniques to allow all employees to grasp and apply, in sequence, simple and complex skills more quickly, accessing and benefiting from additional resource materials.

In support of the second characteristic, instructors/administrators must be equipped with learning and instructional management technology, and they must be well trained to use it to the benefit of all company members.

The eLearning system provides reporting on any employee's/trainee's work history, as well as offering the capacity to manage learning progress and activities to ensure instructors/employers acquire the data and information they need to individualize instruction/assessment and make other important instructional management decisions. Further, this technology will be used to connect instructors and administrators to resources and services within the commercial sector, the community, and world-wide. Instructors will have many sources of support to motivate their employees and expedite positive outcomes in all levels of production.

Trainees will research information, solve problems, incorporate new methodologies, and gain and hone their work skills in order to come out ahead in the corporate forum.

In support of the third characteristic, administrators will access instantaneous record and report processes 24X7; attendance records, evaluation reporting, performance and progress sheets, objectives and initiatives, and many other routine record-keeping tasks are made convenient and immediate.

As vital as it is in the monitoring all aspects of the employee's activities, it must also be applied to all other personnel, most importantly teachers/instructors. Educator's monitoring tools allow authorized staff the capability of tracking and recording activities on all levels.

In support of the fourth characteristic, the last characteristic has to do with the expectation that all will be in order with information made available to instructors, trainees, and clientele at all times, without the burden of requiring outside assistance and special maintenance provisions.

A true Training and Education system ensures total functionality and complete reliability for all personnel, giving them what they need, when they need it, and with Costech's Online platform, businesses can be certain they will have just that.

Technology and the Internet

Does it exist? YES

In today's fast-paced enterprises, only four kinds of publishers dominate the Web: (1) large commercial companies (2) small individual publishers (3) schools, and (4) nonprofit organizations. Here, they share two common but limited goals.

1. to reach a national or local audience with an interest in the issues of their particular niche.
2. to make publishing interactive.

If your business requires a means to instruct and/or teach employee/students/clientele in the fast and dynamic way the internet, with its ability to communicate globally could be your solution. How?

Costech has developed a series of eLearning systems that will give you the ability to standardize the method of education you require and provide you the capability of accomplishing your educational/training goals --- ***wherever you are*** --- ***whenever you need it!***

Is it expandable? YES

Educator with it's internet based systems provides you an eLearning environment with unlimited expandability and growth potential. Analysts cannot fully describe the growth and potential possibilities, but have concluded one absolute — that the internet has given everyone the ability to communicate and interact globally making expandability necessary and critical in maintaining pace in today's fast moving economy.

What is Required:

Although there are many new and exciting avenues being opened every day on the world wide web, it is important to note that a key and crucial element is being overlooked. Where is the potential of online education and training being fulfilled? In other words, if today's institutions are to keep pace, they must move forward in terms of technological enhancements, utilizing the potential of eLearning to help fill key areas in training and instruction, while standardizing methodologies globally.

Consider the possibilities! Labor-oriented teaching environments, which include workshops, orientation sessions, training courses, etc., all involve considerable time and expense. Educator will help replace these types of environments with a single eLearning system that will expand with your requirements as the need arises. Following the implementation of Costech's eLearning system Educator, the internet will be become a valuable tool in your arsenal to accommodate all aspects of education and regulate the production of your teaching/training materials. As Windows became the standard in the computer industry, Educator will do no less in providing you with all the tools necessary to standardize your training and education requirements through use of the world wide web.

To help initialize your training requirement goals, we at Costech will:

- establish interoperability between and among users throughout your personnel and clientele
- ensure that appropriate internet technologies and their applications are integrated into the curricula as defined by your corporate standards for course instruction
- identify professional and technical personnel requirements and competencies for effective use of the eLearning system

Education requirements divide into distinct areas:

i.e.; Administration
Training
Learning
Participation
Educational Materials & Resources

What is its life expectancy? NO LIMIT

Many computer software programs are designed with a limited life expectancy — often this is intentional, forcing the user to upgrade or purchase a new version entirely. This method does not assure the consumer of a long-term use. Often, within a relatively short period of time, these software products fade away and become obsolete, being replaced by something new and supposedly more exciting. However, such limited longevity must be avoided when utilizing and implementing a true eLearning system.

In teaching/training methodologies changes often occur unexpectedly and rapidly, requiring the same advancements be made in their eLearning system.

Can eLearning change to meet the demands of these advancements?

⇒ Information may change, new facts surface, new methodologies are brought to bear — course materials will need to be changed instantly to accommodate this new influx of material. Learners will continually benefit from the most recent advances in the subject areas they are studying. With Educator, the ability to keep all materials updated to the new standards as soon as they become available will provide your organization with the advantage you may require to keep positioned at the top of your industry.

⇒ Record keeping and monitoring will become a problem of the past, the varying of databases due to upgrading of course materials, or improvement of conventional programming sources, will no longer plague your training environment. Data storage will remain constant with Educator; as technology advances, and courses improve, the automatic updating of changes will be incorporated into your eLearning system, providing the security you need to ensure the safe and accurate retrieval of all personnel and learners' records. (Additional and/or specialized reporting features can easily be added to your eLearning system upon request.)

⇒ Technologies grow faster and computers more versatile. This can only enhance the use of your eLearning system. The more technology advances, the greater the advantage Educator can provide, the eLearning capabilities will only increase usability and enhance the functionality as the system evolves along with the technological advances. This versatility and flexibility will make Educator an asset now and in the future.

What is Costech's eLearning System (Educator)?

Educator is not a traditional instruction program, its **internet construction and expandability** provide users with an unlimited, unrestricted platform. Educator is a complete teaching/training system — used by administrators/employers, teachers/instructors, trainees/employees, additional personnel, clientele and developers.

The Costech eLearning System: Educator

Description

The Costech Internet Educational System (Educator) is a multi-media internet program that includes animation, narration, literature and interactivity between the trainee and all course training materials. An administrative mode includes employee registration. Administrators and instructors are encouraged to monitor and record all trainee progress over the course of the training period, and to archive past records (which may be recalled instantly. Available in both internet and standard computer network versions, Educator allows the versatility needed to accommodate the different workplace situations.

Flexibility is a major feature of the program allowing curriculum editing by the teacher. Employers/ Developers can edit modules by adding, modifying or removing topics, questions, and/or specific content in order to meet learning standards. Utilizing the self-instructional tools as a computer-assisted-instructional program (CAI) promotes interaction in a number of instructional methodologies.

Employees are introduced to the course training materials to be studied. The instructor becomes involved by going over the exercises and giving employees additional instruction using online multi-media aids. The
employee/trainee answers a series of questions and is given the correct answer with detailed explanation and terminology included. When the lesson is completed, the employee's results are shown instantly. His/her results are displayed with references to the page(s) in the multi media course or textbook where the
information can be reviewed in greater detail. All accomplishments are filed for review. This will further allow the instructor to evaluate the employee's/trainee's progress and suggest further study for practice on specific topics. All test results will be recorded in the employee's file and a printout will be available. From the data charted, the administrator/instructor/employer can evaluate areas where improvement may be needed.

The administrator/instructor/employer can also evaluate the materials and questions being studied. The program will record and accumulate all answers given for any particular question. The program permits the
instructor to know that a particular question has been asked 90 times but correctly answered 28 times for a success rate of 31.11%. The instructor may then take a new approach in explaining this particular topic, or assign supplementary work.

Educator has many modules that can be used independently or combined as one unit. Listed below are some of the areas covered:

Administration: Main control system

- Access to all records (personnel and clientele)
- Control record locations (corporate headquarters, regions, divisions, individual facilities can all be monitored and managed from wherever you are, whenever you need it)
- Administer module control (assign usage to authorized personnel ONLY)
- Maintain security (set security access to key areas and personnel)

Personnel: Keeps records on all personnel.

- Name, address, phone #, social security #, photo id and personal notes
- Organization and categorization of personnel
- Individual work and assignment schedules
- Multi-media course instruction and record keeping for all activities performed during the course of study
- Provides teachers/instructors with both registration and activation sections

Employee/Trainee: Every aspect of a learner's course(s) progress and performance is easily accessible.

- Maintains a complete record of learner's progress, including registration, course marks, and other pertinent information (records and maintains name, address, phone #, social security #, photo id and personal notes).
- Allows for the archiving of records no longer active within the system (includes error-protection for re-accessing files if they have been archived in error)
- Maintains an up-to-the-minute attendance record.
- Tracks and monitors all activities, including amount of time expended per project.
- Records and reports are provided, displaying charts containing all results.

Evaluation and Testing: Educator makes the task of evaluating and grading employee/trainee performance easy.

Tests — Learners can be tested on all course material they have studied, providing a comprehensive overview of how a learner's progression is proceeding — instructors and/or administrators also can review these results. The reports generated provided invaluable data on course material comprehension and progress by the learner, allowing both the learner and administrative personnel to determine when, where, and if help is needed.

Each test can be created to motivate the learner. How? — Set in a mandatory order, tests provide the learner with a standard of learning that is determined from the outset by the administration overseeing this educational process. Following the completion of all tests, learners can also be given a final exam to summarize the complete course when more than one topic or module/chapter is involved. This final exam or test can also be set to include the high standards you require in your personnel.

Quizzes — To help assist learners in achieving these standards, quizzes play an essential role in the aiding and testing of a learner's comprehension on the materials he/she has studied. When a learner feels he/she is prepared to advance to other course subjects or courses (when available), a minimum achievement score will help motivate the learner and prepare him/her for any test that may be required on the subject material being presented.

Internal Mail and Messaging: eLearning often involves great distances that make communication between the parties involved difficult at the best of times; complicating this are issues such as different time zones, and availability of phone services (cell and/or pagers, etc.). Educator contains its own mail utility which gives users an internal messaging and correspondence area that provides communication between learners, teachers/instructors, and administrators.

This forum will ensure communication between all parties —- administration, instruction, and study can be carried out efficiently, by eliminating the possibility of any individual not receiving proper instruction or the misunderstanding the correspondence they have received. A record of the communication between sender and recipient is posted for review by both parties to help reaffirm the details of the correspondence, a notification of this communication will be presented to the participants as soon as they enter the eLearning system.

Course Studies: *View Book and View Curr* (Curriculum) Utilities

View Book: Course materials are presented to learners in a full multi-media format —- this methodology will help maximize a learner's use of his/her visual, audio, and intellectual abilities, stimulating imagination, and increasing retention and comprehension.

View Curriculum: teachers/instructors are provided with a set of standards that will assist them in the instruction of the course being presented. This standard of learning will act as a focal area, helping to maximize the effectiveness of course content, allowing all learners to benefit through these standardized directives.

Using the Training Program: learners will interact with course information in two main areas:

Preliminary Lessons:

- The self-teaching mode allows the acclimation of course materials to be studied at a pace that individuals find most comfortable.
- Course materials can be reviewed as many times as needed, allowing the learner to accomplish his/her goals by achieving the standard of learning required for course completion.
- Each time a learner access enters his or her course utilities, a long entry is automatically recorded and updated to their record. This log with help administrator and instructors monitor the learner progress.
- Learners can review personal records (Quiz and Test scores included) —– designed to help provide a method of self-monitoring that will aid their education process by identifying areas of difficulty.

Testing: Following diligent study of course materials, a learner is tested on the knowledge and experience he/she has obtained. To assist in this evaluation, each course contains a series of quizzes and tests to help monitor the comprehension achieved on the materials studied.

- TESTS — results are auto-saved and recorded. The instructor can review test questions and responses, identifying the areas of difficulty. Proper analyses of results will inform the instructor and administrators if the learner is having a problem, and what area that problem is in. The instructor can then use that information to assist the learner in acquiring the needed help he/she needs to achieve the standards set for course graduation.
- Auto correction allows instant results upon completion (NO waiting, NO worrying). Learners are provided immediate feedback on all test (and quiz) results the instant they are completed — this feedback allows the learner to see where further review of the material he/she had just evaluated may require a further effort.

Developers: As your eLearning system grows so will your course subjects and materials follow. Expandability is an area where Educator gives you a variety of options that will make this possible — the ability to assign developers within or outside your organization to participate in multi-media courses construction will keep your eLearning system current now and in the future.

Our criteria for course development:

- "Intuitively" user friendly — no programming skills required
- Informative — easy to use multi-media book and test creation tools (complete with easy to follow instructions & help files)
- Powerful — allowing users the capacity to create, incorporate and run various types of files - images, animation, movie clips, sound files, etc.
- Portability — PC, Macintosh programming conflicts are eliminated, internet programming is usable on all operating systems
- Security — ID and Password protected logins
- Graphical User Interface
- Speed
- Testing and evaluation capacity
- Management capacity - learners, instructors, administrators, etc.
- Flexibility - capacity to change once done

UNLIMITED COURSE DEVELOPMENT, IMPLEMENTATION AND EXPANSION

Development tools allow educators globally to incorporate and combine their knowledge into a single education format with all the technologies available today for full multi-media learning capabilities.

The potential for course development is unlimited. The eLearning multi-media course/book creator will give all organizations the edge they will need: requiring no programming skills or knowledge from the

users, authors no longer need concern themselves with having to familiarize themselves with complicated computer languages and codes, any moderately computer literate person can now create multimedia courses and presentations easily.

NOTE: The number of persons working on the same electronic book is only limited by the content and the users' creativity. NO restrictions apply to the number or size of database/electronic books being created.

In conclusion:

Educator will allow, corporations, businesses or learning institutions, to combine their knowledge into a single web-based education/training platform.

Educator's eLearning system will supply you with:

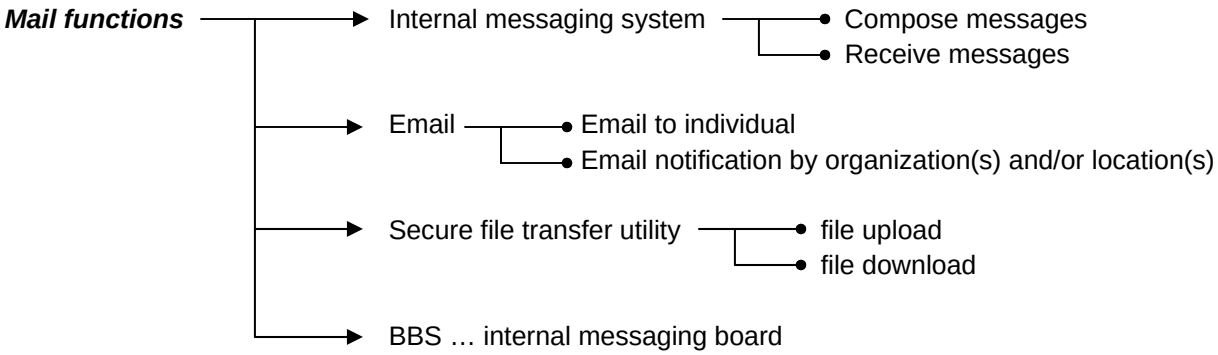
- ***a state-of-the art educational support system —*** designed to accommodate any teaching/ training platform
- ***global accessibility —*** accessible to personnel and clientele, wherever they are, whenever they need it
- ***secure internet and/or intranet environments —*** protected access requiring ID and PASSWORD for entry
- ***a technology-based infrastructure —*** expandable and flexible to meet corporate requirements, NOW and in the FUTURE, assuring all educational materials are kept up-to-date and current
- ***a web-based presence using shared resources —*** hardware, software, and Internet connectivity offered at considerable savings while maintaining full functionality

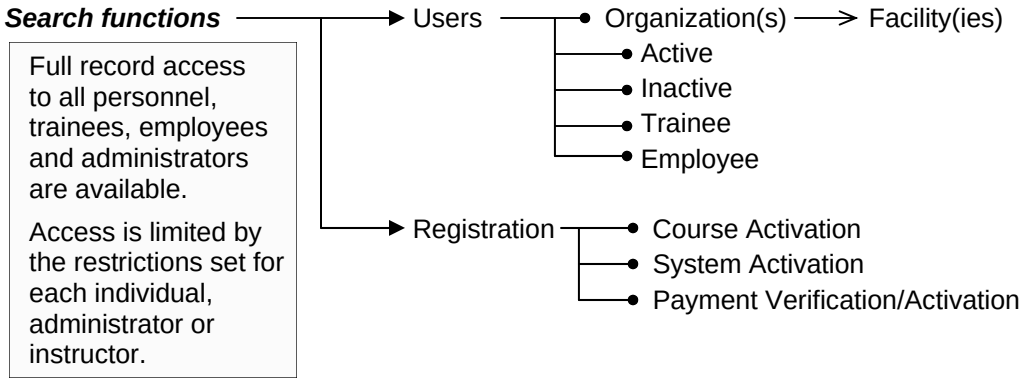
Administration Module

This is the heart to the Educator system. Whereas many on-line training programs can present courses in multiple formats and register students and record test results, very few even attempt to track and monitor the data that Educator does.

The administration module has access to every aspect of the student/learner's educational life, from registration, finance, scheduling, attendance and monitoring. It will allow the Administrators, instructors/ teachers to see exactly where and how a student/learner is doing, when and if the student is having difficulty. No longer will there be a need to guess what area(s) may be causing problems, ***the instructor will know exactly*** what the problem is, where the problem is and when the problem happened.

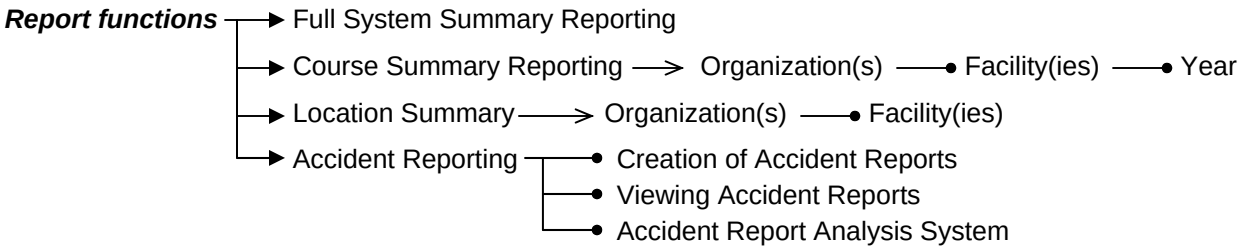
Key components of the Administration Module are listed below.

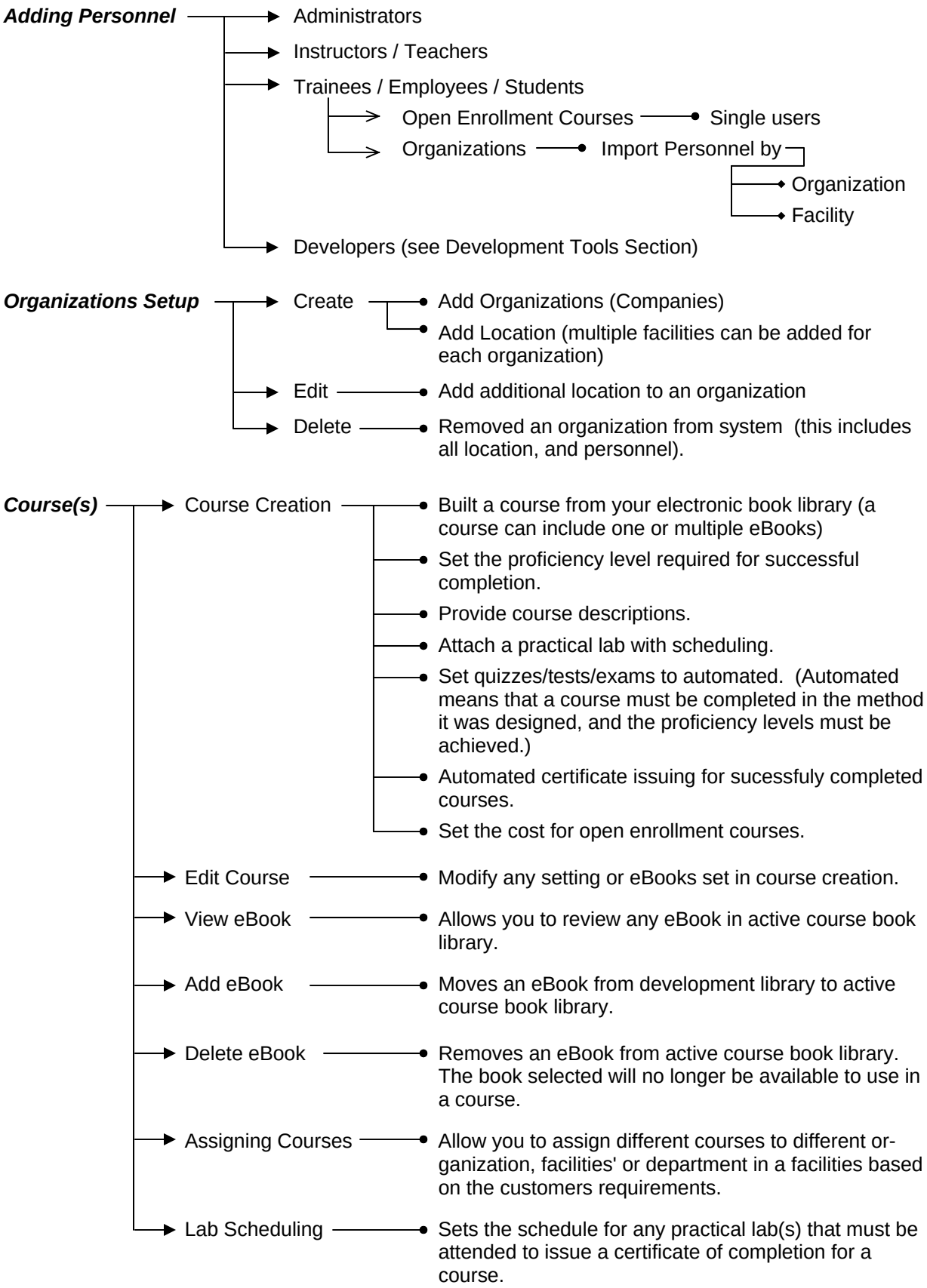




Full record access to all personnel, trainees, employees and administrators are available.

Access is limited by the restrictions set for each individual, administrator or instructor.




Adding Personnel
Administrators
Instructors / Teachers
Trainees / Employees / Students
Open Enrollment Courses
Single users
Organizations
Import Personnel by
Organization
Facility
Developers (see Development Tools Section)
Organizations Setup
Create
Add Organizations (Companies)
Add Location (multiple facilities can be added for each organization)
Edit
Add additional location to an organization
Delete
Removed an organization from system (this includes all location, and personnel).
Course(s)
Course Creation
Built a course from your electronic book library (a course can include one or multiple eBooks)
Set the proficiency level required for successful completion.
Provide course descriptions.
Attach a practical lab with scheduling.
Set quizzes/tests/exams to automated. (Automated means that a course must be completed in the method it was designed, and the proficiency levels must be achieved.)
Automated certificate issuing for sucessfuly completed courses.
Set the cost for open enrollment courses.
Edit Course
Modify any setting or eBooks set in course creation.
View eBook
Allows you to review any eBook in active course book library.
Add eBook
Moves an eBook from development library to active course book library.
Delete eBook
Removes an eBook from active course book library. The book selected will no longer be available to use in a course.
Assigning Courses
Allow you to assign different courses to different or-ganization, facilities' or department in a facilities based on the customers requirements.
Lab Scheduling
Sets the schedule for any practical lab(s) that must be attended to issue a certificate of completion for a course.

Self-teaching Module (Student/Learner Module)

Whether in business or in the educational milieu, EDUCATOR provides you with the information needed, to ensure maximum learning. Course materials are presented in a full multi media format, in combination with self teaching and testing modules, this method permits the student/learner to review materials quickly and easily, never intimidating.

Designed for everyone, the teaching modules have a simple to use interface which allows users to concentrate on learning the course materials **not the software.**

Educator's eLearning system is composed of 3 distinctive operations.

1st is the course content. This is the cornerstone of the course being delivered.

As previously mentioned the course books are presented in a full multi media format, this is to help learners attain the proficiency level set for passing the course(s) they are taking. As a person opens their online course, they will experience the complete range of senses computer assisted learning can provide, they will be able to read information, or listen to materials be presented or watch as videos help them visualize the information. Upon review of the information, a quiz, test, or final exam can be assigned to ensure the student/learner has grasped the understanding and information retention required for successful completion of the course.

Remember: All word processors today have the ability to save as html pages. This makes it so anyone can create html pages and display them on the net. Unfortunately this does not make a virtual course.

A course consist of :

eBooks (Textbooks) → This is the course cornerstone of your course, it provides a student/learner with a standard of learning that will act as a focal area, helping to maximize the effectiveness of course content, allowing all learners to benefit through standardized directives.

Quizzes / Tests / Final Exams →
- Auto correcting, gives student/learners instant results.
- To help learners understand the material they are learning the proficiency level requirement can be set. Student/learners will be required to meet these levels before he/she can progress to next topic or book.
- Randomization and question replacement helps to ensure a learner has retained the course information by eliminating the chance of cheating by copying previous test responses.

2nd is the course deliver system.

This area is where the student/learners will utilize the course content. The delivering the course materials is presented in a manner that is easy to use and effective.

Login → Id and password secured. (A learner will only have assess to there own course materials and results.)

Multi media textbook viewing system →
- Allows textbook pages to be reviewed as many times as needed.
- Creates a booklog, records date, and time spent reading every page.

Testing Utilities → Quizzes
- Can be prepared in a multi media format
- Multiple choice questions
- No limit to number of questions.
- Reminder page attached to question. On review of quiz results a reminder link is displayed on each wrong answer. This link when clicked will return the learner to the page in the textbook where the correct information for the question can be re-viewed.

Tests
- Can be prepared in a multi media format
- Multiple choice questions
- No limit to number of questions entered in test database.
- Limit to number of questions can be set for randomization process.

Exams
- Can be prepared in a multi media format
- Multiple choice questions
- No limit to number of questions entered in test database.
- Maximum 100 questions can be set for randomization process.

Help systems
- Internal messaging and notification system for teacher help or questions.
- Email messaging.
- Live help by instructor/teacher via text chat for course question and assistance.
- Live help by technician via text chat for computer or program problems.
- Toll fee line for voice assistance.

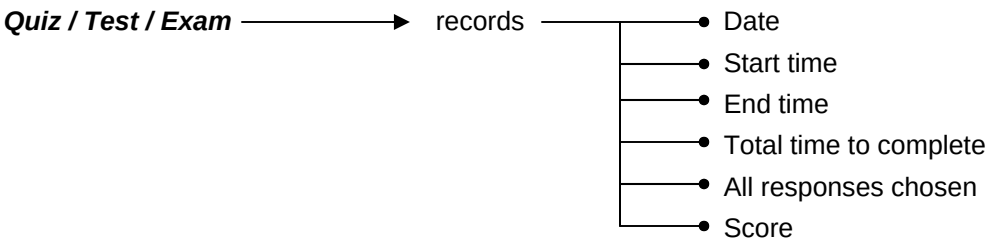
3rd is the information recording and monitoring systems.

This area is the most critical of the three operations. Although each level has a high level of importance level 3 is what is used to determine whether a student/learner reaches the necessary proficiency level and requirements set by you to issue a certificate of completion.

Login → Records student login date and time. This allows the teacher to see when a student is working on their course, helping him/her to evaluate the student's effort.

Logout → Records date and time of logout.

Course Books → Page logging
- Pages are logged and categorized by book and chapter.
- Records date/time spent on each page.
- Tags pages with inappropriate time.
- Times out page when left idle.
- Provides graphical display showing total time and percentages of proper and inappropriate page review.



Student / Learner / Employee Monitoring Systems

Course monitoring and evaluation is another component of Educator. A student's course(s) status can be evaluated by any administrator or teacher who has been granted the proper accesses. When granted the administrator or instructor can review all aspects of a students records. A list of course(s) a student/learner is currently taking is displayed with the following evaluation tools.

Maintains records on all current and completed courses for both active and inactive individuals.

View textbook logs →
- Date accessed
- Time viewed
- Inadequate Warning

Quiz/Test/Exam viewer →
- All tests taken
- Date of test (start and end times included)
- Proficiency level achieved for each test
- Responses chosen for each test
- Course average

Attendance viewer → Days and times accessed by student/learners

Accident reports → Review any accidents an employee has had. (The accident analysis system will automatically reference the course scores and results when an employee is injured.)