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Certified Learning
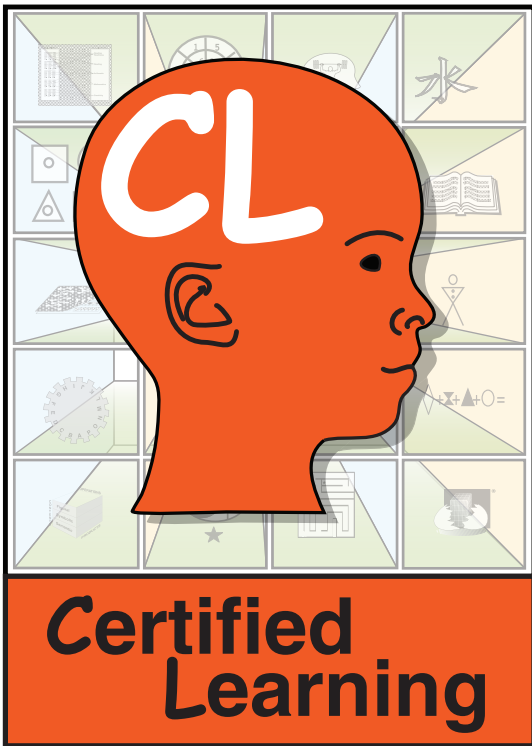
A Managed Classroom-Based Program to Teach Essential Primary Learning Abilities and Skills

A Product of SOI Systems®

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Introduction

SOI Certified Learning is a classroom instructional system with five integrated elements. These elements are based on the principles of Total Quality Management – continuous measurement of performance, early detection of performance failures, systematic procedures to quickly eliminate the failures detected, documentation of all aspects of the operation (measurement, failure detection, failure remediation, and resultant performance), and evaluation of overall system performance.

1. Curriculum Design. The design (K-2) is based on the standards of state-defined curriculum and objectives. The units within the curriculum provide the measurable points of performance.

2. Tracking and Scheduling. The Certified Learning Management program includes classroom scheduling of daily instruction and tracks student progress daily, including the detection of any learning failures that occur.

3. Consultant System. The SOI Consultant has access to the classroom and assists classroom teachers with diagnoses and interventions for learning problems revealed by the tracking system. The system documents consultant interventions and their outcomes.

4. Evaluation System. Provides performance criteria for all involved – student performance, teacher performance, consultant performance, and system performance. The criteria used are integral to the system – does the curriculum achieve the objectives; does the tracking system detect learning problems accurately and efficiently; does the consultant system provide the proper interventions; and does the reporting system provide adequate and timely information for system improvement.

5. Classroom Operation. The Certified system contains educational modules integrated in the web-based interface, making student and teacher resources cohesive and universally accessible.

Curriculum Design

Our goal is to design a curriculum that meets the objectives for primary schooling, but also facilitates learning – a curriculum that simply meets a given set of standards may not be effective in producing academically competent students. If the gap between the demands of the curriculum and the competencies of the students is too wide or is otherwise ignored in the curriculum design, then too great a burden falls on the teaching staff.

A facilitating curriculum aims to insure that the students have the competencies required for the particular skills acquisition or content assimilation that is being taught.

Perceptual skills. At the most fundamental level of learning we devote some teaching units to the exercise of basic perceptual skills -- visual, auditory, and sensory-integration. These are obviously required by almost all learning, so if they are not sufficiently developed they will be a constant impediment to the students' progress.

General learning abilities. At the next level of learning, we devote some teaching units to the development of general learning abilities – cognition, memory, evaluation, problem-solving and creativity. In these exercises we focus on the development of a specific learning ability – not the exercise of that ability in a content learning situation. This focus is the same as developing muscle strength in the weight room before going out on the practice field. Better muscle strength makes a better player; better learning abilities make a better student.

Concepts before content. At the third level of learning, we devote some teaching units to the attainment of relevant concepts. Learners must first acquire the concepts, then they can more easily learn and retain the associated content details. For instance, students who understand decimal place value will more easily understand all facets of arithmetic operations beyond single digits. In another instance, students who understand the syntax of

two-idea sentences will more easily understand the proper construction, uses and punctuation of conjunctions. We try, wherever it is practical, to teach concepts before content.

Content.   The mastery of these specific objectives is what constitutes certification of a successful primary school education. That certification lies at the heart of the entire Certified Learning system. Our articulation of the content units differs from other curriculum designs, but it is the cumulative achievement to enable the transition from primary to elementary schooling that is important. For example we might place a unit such as "Counting to 100 by 10s" later than other curricula. This reflects the judgement that we consider this skill as coming best later within the span of K-3 learning.

The Tracking and Scheduling System

The management system provides student scheduling for the instructional series. It allows all students to proceed at their own pace (continuous progress); tracks each student's progress on a daily basis; requires demonstrated mastery of each curricular unit before proceeding; detects learning problems at a unit level; and, perhaps most importantly, provides immediate interventions to deal with learning problems when they do occur.

Tracking.   In addition to tracking progress, the management program provides recording for the different Levels-of-Learning-Difficulty encountered by the students in learning the units to which they are currently assigned. These Levels-of-Learning-Difficulty provide alerts to the classroom teacher and are derived from the progress records upon which the Learning Consultant can base her interventions.

Max-Time.   The design provides an expected number of contact days in which to complete any of the curriculum modules. This serves as a benchmark for the management system to evaluate student performance. If a student significantly exceeds the nominal duration before completing a unit, this serves as the lowest level indicator of learning difficulty – Max-Time. While the first indication is only a warning sign, if Max-Time persists, it is an occasion for the consultant to consider an intervention.

Mastery Test Failure.   Once students complete a given instructional unit, they take a brief test to verify their mastery of the learning objective.   These tests are administered one-on-one by the classroom teacher or aide.   The criterion for mastery is very high – either no errors or no more than one error on longer mastery tests.   If students meet the criterion for mastery, they graduate to the next unit in that curriculum series.   If students fail the meet the criterion for mastery, they are reassigned to the same unit to review the instruction.

Halting.   If students fail the mastery test a second time, we recommend that the teacher halt the student in that curriculum series and seek consultation as to what type of intervention is needed.   The rationale for halting the students is twofold: first, to have time to make a measured diagnosis of the problem and the type of intervention that would best remedy the difficulty; and, second, to save the student from frustration in this segment of the learning process.   If the teacher and consultant can agree on a suitable intervention, then the teacher can take that action and put the student back on track.

Reassignment.   If the teacher and the consultant agree that a student's difficulty learning with a specific instructional unit is more related to content than to a general learning impairment, then the system provides for reassigning the student to the next module in the series.   Occasionally, especially in the early months of a new school year, the judgment will be made to have the student revert in this instructional series to a lower grade level.   This most often happens with incoming students who are nominally placed at a grade level based on their records from another school. Going back one grade level does not mean that the student leaves the class – all levels of the curriculum are available to all classrooms so students can seamlessly go back to a more appropriate level. (And, by the same token, students can finish a series at the nominal level and go on to the next grade's lessons by simply reassigning them to the next instructional series.)

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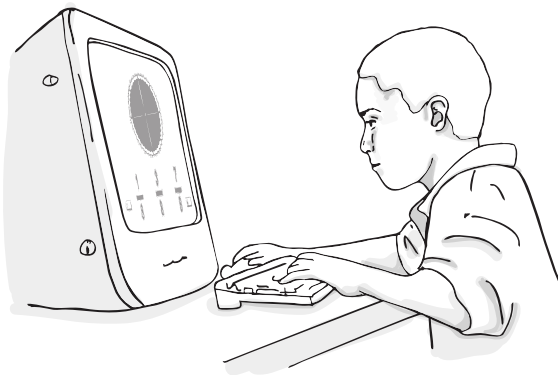
Level III Intervention. If the teacher and consultant agree that a given learning failure is not specifically related to the instructional demands of a given unit, but is more general in origin, then they have the option to provide the student with general learning interventions. This is not a permanent dismissal from the system; it is designed as an opportunity to use the time normally devoted to Certified Learning to work on improving the students' general learning preparation – sensory integration, visual and auditory processing, and directed memory training. This is a brief program available within the resources of Certified Learning. The expectation is that the student will return within weeks and pick up where he or she left before the Level III action. Generally speaking this is a much more effective use of the student's time and, since he or she is returning to a continuous progress program, nothing will have been irreparably lost in the interim.

Scheduling. Students move among the three instructional series from period to period. The scheduling for this movement is provided by the management system in two ways. Automatic scheduling assigns students so that student assignments in Workbook and Group are as homogeneous as possible, and are consistent with the number of computers available in the classroom. The teacher may want to modify the results of the automatic scheduling for reasons of general classroom management – e.g. separating two talkative students in Workbook, putting given students on the Computer in first period when they are most able to hold concentration, and so on. The manual assignment mode allows the teacher to customize the scheduling to these types of considerations, which are, of course, unknown to the automatic scheduling routine.

Once the scheduling is established, the teacher can print out a roster of each student's assignments. This roster uses both the student name and an assigned icon so even the non-reading students can self-manage their assignments. Self-reliance is new to some kindergartners, but the entire class very quickly learns to move between assignments in a self-directed manner.

Some of the periods may not have a Certified Learning assignment for a given student; this results because a limited number of computers cannot accommodate the entire class for three different assignments in only three periods – the open periods are unavoidable, but they

can be used for additional Certified Learning or other pre-planned, curriculum supportive materials.

In summary, the Management System provides scheduling, tracking, sensors for potential and emerging learning problems, and a range of options for dealing with learning difficulties in a collaborative and timely manner.

⊕ Consultant System

A unique feature of Certified Learning is the embedded consultant system. Certified Learning has a full-time consulting organization headed by Diane Hochstein who has been an SOI practitioner for more than twenty years; has had a clinical practice for nearly ten years; has supervised SOI Model Schools in the field; and has had a close working relationship with diagnosticians and teachers for more than 15 years. She is uniquely qualified to advise on learning problems within the Certified Learning system.

Diane is aided in her consultation by a reporting system that looks at classroom records of performance and singles out the incipient and extant learning problems.

Her interventions range from small, but effective, teaching techniques that are focused on specific instructional units and specific students, to general classroom management procedures that have proved effective with Certified Learning in the past. The intervention reporting system follows any identified problem through to its final resolution; no problem goes away unnoticed, unexamined, or unattended.

The consultation and intervention system needs to be a partnership with the classroom teachers and the teachers' supervisors. While the primary focus is on the learning problems and not on teacher performance, improvement in teacher performance is a by-product of dealing successfully with the learning problems encountered. The ultimate payoff is the fact that most often the students are able to get back on a learning-track and progress in the curriculum.
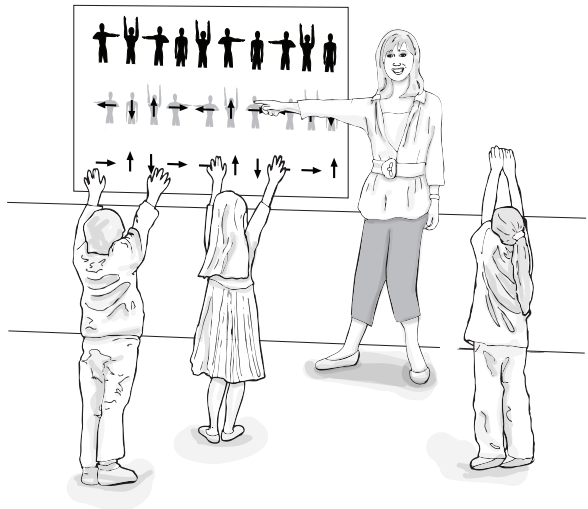
Reporting System

The keystone of any Total Quality Management system is the flow of information – it must be timely, accurate, appropriately distributed, and easy to access. The information is not just documentation; it is an integral part of the instructional system.

The primary data in the system are the daily records that are compiled by the teacher, aide and students in each classroom. The students, by their learning efforts in each of the three areas of the curriculum, are compiling a daily record of their progress. Their positive progress results in demonstrated mastery of the specific curriculum units; their lack of progress results in initiating interventions.

The teacher and aide oversee the Workbook and Group portions of the instruction, determining when students have successfully completed a unit, and then verifying their achievement by administering a mastery test. The results of the mastery tests are then immediately entered into the system.

Students who have demonstrated mastery want immediate and concrete verification of the mastery and of their consequent advancement in the instructional sequence – they want to see the unit boxes change color to show another step of achievement. In fact, some teachers have put the mastery screen on the overhead, so the whole class can celebrate a student's advancement.)

The Certified Learning system keeps continuous classroom records which enable the teacher and the Learning Consultant to monitor student learning problems through to their resolution. The resulting record chronicles the problem detection and learning interventions so that continuous

improvement in learning development can take place.

This component of the reporting system enables the Learning Consultant to effectively monitor and intervene with remedial counseling for classrooms.

The reporting program also provides reports on overall classroom progress. The data provides a basis for system evaluation, especially the appropriateness of the curriculum, the usefulness of the classification and presentation of learning problems for producing interventions, and the relative effectiveness of the modes of communication (email, telephone, and in-person) for different types of teaching and/or learning problems.

Overall, the reporting system must perform contemporaneously, accurately, and specifically to achieve the goal of continuous system improvement.

Evaluation System

The unsettling aspect of most educational evaluation is the underlying assumption that all students are essentially drawn from the same population, if not by locale, at least by year-to-year. If the domain of that population is defined by learning ability, then the assumption is patently not true.

Any teacher will tell you that every class presents a range of nascent and developed learning abilities. Any teacher will also tell you that the central tendencies and range vary from locale to locale. Teachers also know that even within the same locale the central tendencies and range vary from year to year.

These facts are indisputable. Why then would we judge teachers on how well their class does as a whole in meeting any group-oriented standards – whether it is the standards of No Child Left Behind, or Race to the Top, or, more broadly, international test results?

We need to be very clear. Evaluating by group-oriented standards does not necessarily mean "grading on the curve"; even if criterion-referenced assessments are used, if the evaluation is based on how well the group achieved, then group-oriented standards are being used.

Consider the following cases:

1.   The first year the teacher has a class of 25 students; during the course of the year they have to deal with 50 identified learning problems – an average of 2 per student throughout the year. All of her students master the complete curriculum for this grade level and advance a significant way into the curriculum for the next grade level. The teacher works hard to pursue extra learning materials in the areas where the students have particularly excelled.

2.   The second year the teacher has another class of 25 students; during the course of the year they have to deal with 250 identified learning problems – an average of 10 per student throughout the year. A large majority of her students complete the curriculum for this grade and many advance a significant way into the curriculum for the next grade level. The teacher works hard with the learning problems and overcomes almost all of them. There are only two students who need to be retained; the others who presented learning problems are now on track for achievement so they are advanced even though they did not complete the entire curriculum.

3.   The third year the teacher has another class of 25 students who, during the course of the year, present them with 1000 learning problems — an average of 40 problems per student. She learns to prioritize the problems to deal with as many of them as she can during the year. By year's end 10 students have completed the curriculum, 10 are now on track for achievement even thought they have achieved between 50% and 75% of the curriculum; and 5 students need to be retained until next year but are improved in their learning profile.

Now, on the basis of merit pay, the teacher would get a bonus the first year, would get a nominal review the second year, and might be on probation the third year.   All of that, of course, would have very little to do with her competence as a teacher; on the contrary, she probably did her best teaching the third year given the hand she was dealt.

These cases are, of course, contrived to make a point, but three points need to be drawn.

First, the students who come into the classroom on the first day are the "raw materials" of the teaching process. We are hearing more and more that the "raw materials" today are not as good as they used to be, that "many of the students who come to school are not prepared

to learn." To the extent that this is true, teachers need to improve their skills in dealing with learning problems because those are the impediments to learning. Certified Learning is designed to enter into a partnership with teachers in learning how to deal with learning problems – detecting them early and intervening quickly.

Second, the measure of good teaching is not solely the end-year measured achievement of the class; the measure of good teaching is how well they deal with the students that they are given – i.e. how well do they do in eliminating the impediments to learning that they encounter. It is apparent that Certified Learning has the data to make a credible metric of the "Learning-Problem-Environment" of a given classroom, and of the "Learning-Problem-Interventions" that were successfully made.

Third, the content competence of a primary teacher is not as critical as in the more advanced grades in the curriculum. Any primary teacher should be able to answer all the questions on a standardized third grade competency test. So, the "better" primary teacher is an expert in putting young students on a sustained path to achievement – even if they do not necessarily finish the curriculum for a year. The contrary is too often the case; the teacher finishes the lessons for the year, but many students are neither competent in all of them nor on a sustained path to achievement. Given a choice, the student is better served by becoming a better learner. This is Certified Learning's primary objective – to enable every student to learn to the best of his or her ability. And we intend to be judged by that criterion.

Classroom Operation

The Certified Learning system enables students to be self directed where possible, allowing the teacher to supervise Group and/or Workbook activities. Students assigned to Computer lessons can select their names and/or individual icons from the Student Mode menu as shown below. They can usually progress through these lessons at their own pace without teacher assistance.

Teachers can access the Certified Learning system from any internet-enabled computer, giving them more flexibility in updating and viewing information. Students can interface with Computer Modules on any computer that has internet access as long as the teacher is present to log in to the system.

Testimonials

"In my opinion, the Certified Learning program is fantastic at filling in the gaps that kids have. This is my 20th year as an educator, and I have seen nothing that does it better."

– Jennifer Maldonado, teacher
   Lubbock Cooper North ES

"'Excitement' and 'empowerment' are words being used by these (Certified Learning) teachers as they and their students reap the benefits of being able to 'certify' that the individual educational needs of students in their classes are being met and they are reaching their goal of truly leaving no student behind!"

– Renee Anderson,
   SOI Senior Program Consultant