

DISTANCE EDUCATION AS TOOL FOR SUSTAINABLE DEVELOPMENT: A POINT OF VIEW FROM THE FIFTH DISCIPLINE

By

Prof. Dr. Felix Librero
fibrero@upou.org

Paper presented at the International Seminar on Open and Distance Learning for Sustainable Development, Universitas Terbuka, Jakarta, Indonesia, 2 September 2004.

Prof. Dr. Felix Librero is Chancellor, University of the Philippines Open University (UPOU), Los Baños, Laguna, Philippines (www.upou.org).

Introduction

I find the theme of this regional seminar tricky, even innocuous. It sounds so very simple and straight forward but the more you think about it the more you get sucked into an endless debate with yourself whether or not it is appropriate to really look at both distance and open learning as tools for sustainable development, or perhaps even be part of the problem itself. As a way out of this quagmire, I have decided to look at the issue from the point of view of the Fifth Discipline, that is, from the point of view of systems thinking in the field of management.

To begin with, I would like to explain where I am coming from and put to context my discussion of the theme and issues involved therein. In 1990, a book considered by Harvard Business Review as one of the five most influential books on management

during the last decade of the last century was published. Its title is *The Fifth Discipline (the Art and Practice of the Learning Organization)*. It was written by Peter M. Senge. Before we explain what the Fifth Discipline is, we need to mention first the four other disciplines called core disciplines. As this paper is not supposed to dwell deep into these core disciplines, let us just provide brief descriptions of what they are.

Personal mastery, according to Senge, is considered a discipline when we do two things: continually clarify what is important to us, and continually learn how to see current reality more clearly.

Mental models refer to simple generalizations such as “people are untrustworthy,” or they can be complex theories, such as my assumptions about why members of my family interact as they do. Mental models are active – they shape how we act. If we believe that distance education is not good enough as an educational delivery mechanism, we act differently from the way we would if we believed it is an excellent alternative delivery system. Mental models affect what we do because they affect what we see. Two people may be looking at the same physical object but see different things because they think differently or are thinking of two different things in relation to the physical object.

Shared vision is not simply an idea, but a force in people’s hearts, a force of impressive power. It may be inspired by an idea which has become so compelling that it would acquire support of more than one individual. The idea is no longer mere abstraction, but has become “real” that it exists. Shared vision may well be the most powerful in human affairs. In its simplest form, shared vision answers the question “what do we want to create?” These are mental pictures that people throughout the organization

carry in their minds and hearts. Where these pictures are the same in the minds and hearts of all the people in the organization they have a shared vision.

Team learning refers to the process of “aligning and developing the capacity of a team to create the results its members truly desire.” It builds on the discipline of developing shared vision and personal mastery.

Why the Fifth Discipline?

What we are going to focus on is the Fifth Discipline. What is the Fifth Discipline? It is *systems thinking*, according to Senge. He defines it as a “conceptual framework, a body of knowledge and tools that have been developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively.” In more practical terms, systems thinking refers to our ability to understand and explain the causal interrelationships of various entities affecting our focus of interest. In this case, since we are interested to look into the concepts of distance and open learning as tools for sustainable development, we are therefore interested to look at the components of development itself and the components of open and distance learning and how they affect one another. When we gain a certain level of understanding of systems theory, we are in a position to appreciate that our focus of concern that is open and distance learning influence as they are influenced by a whole lot of seemingly unrelated factors and circumstances. On second look, of course, these do have both direct and indirect relationships. For example, what decisions we make regarding our distance education programs are affected by what happens in society, and our distance education programs in return do affect society. There is always a synergistic relationship between

our distance education programs and the environment within which our educational institutions operate.

Applying the Laws of the Fifth Discipline

Senge outlines eleven laws of the Fifth Discipline. These laws are not complex dissertations resulting from laboratory experiments but wisdom generated from years of research and experience in the management of learning organizations. Learning organizations, Senge says, are “places where people are continuously discovering how they create their reality and how they can change it.” Therefore, the concept of a learning organization is by no means limited to educational institutions. In any case, let us see how the laws of the Fifth Discipline relate to open and distance education as tools for sustainable development.

Today’s Problems Come From Yesterday’s Solutions

When there is a problem to be solved in the system, what may happen is that the solutions applied will simply relocate the problem to another part of the system. Initially, this will not be detected because the one who applied the solution is not necessarily the same person as who inherits the problem.

If we are to use distance education as a tool to sustain development, then we need to be very specific in terms of how we must apply distance education to solve a specific problem associated with a development target. We cannot simply apply distance education as a cure-all for our development problems, otherwise we may have solved a problem but that will result in second generation problems. In formulating solutions, we

must be proactive and try to predetermine potential problems and their respective potential solutions so that when the problems do appear we would know what to do with them right away.

The Harder You Push, the Harder the System Pushes Back

This phenomenon also results in what is known as the compensating feedback, which means that our well-intentioned interventions in the system will actually help the system develop a response that will tend to offset the intended benefits. How does this mean? The compensating feedback is a natural response of a system to external elements that interferes with its normal operations. In some cases, this may be explained as resistance to change, or in more positive terms, the more you are able to perform well and complete a task assigned to you within a time frame, the more you will get new assignments from your superior.

From the point of view of distance education, we could perhaps say that the more we are able to solve major problems in the delivery of quality educational services through the distance education mode, the more likely policy and decision makers, including society as a whole, will expect distance education as a tool to solve other development problems. Of course, distance education alone cannot possibly solve every problem.

To improve our performance, we will actually have to increase our resource base because we cannot continue to be effective as a tool by doing more with less. For example, the more degree programs you offer the more experts you will need to development the required courses. And this means additional resources.

Behavior Grows Better Before It Grows Worse

This law says that there is usually a time lag between appearance of the short-term benefit resulting from applying a solution to a problem and the appearance of the long-term disbenefit. In other words, the compensating feedback is delayed. Senge says that there are various ways of making things look better for the short-term. Eventually, however, the compensating feedback comes and we will begin seeing the negative effects of said solution.

The important thing here is the term “eventually.” It may take a short time or perhaps a long time before the problem that was solved would reappear. Considering that people do transfer from one job to another quite frequently, what happens is that an individual would introduce a solution to a problem and the problem would disappear for a brief period of time. In the interim period, the individual who introduced the solution to the problem would leave the job and another would take his place. While the new individual is on the job, the old problem would most likely show up again after some years. He would not be aware of the history of the problem.

The solution applied to the problem would perhaps result in the disappearance of the problem itself or at least its symptoms for quite sometime, but since the solution is not likely going to be permanent the problem would eventually reappear.

An example would clarify this idea. Many of us have experienced that frequently our students wouldn't get their instructional packages on time because we have been dependent on the traditional postal service which is not always efficient. To solve this problem, we decided to offer our courses online. Fantastic! We found that our students,

largely concentrated in the urban centers, happened to have access to the Internet and so the problem of delayed delivery of instructional packages was solved quickly. Then more and more students from the rural areas where Internet penetration is very low started enrolling in droves. They would have access to the Internet only when they visit the urban centers. The sad result is that the problem of delayed delivery of instructional packages has reappeared.

The Easy Way Out Usually Leads Back In

The easy way out is applying familiar solutions to different problems. In other words, for most of us we stick to the solutions that we are familiar with. This is what many would say the “what-we-need-here-is-a-bigger-hammer” syndrome. Remember? If the only tool you have is a hammer, you tend to look at all problems as nails. While this approach may work for brief periods, they usually lead us right back to the original problem. And we start at square one again.

This principle points to the possibility that those who have been into distance education for too long could mistakenly employ distance education to all training needs of personnel involved in the implementation of development programs. True, continuing education in the distance mode would certainly help, but there are certain skills that require hands on experience and even one-on-one, face-to-face tutoring in order that the right skill may be learned. Distance education is not a cure-all solution to all our development problems.

The Cure Can Be Worse Than The Disease

Very frequently, interventions will result in short-term solutions to problems but eventually long-term consequences of such solutions would even be worse than the original problem. This phenomenon in systems thinking is known as “shifting the burden to the intervenor.” In this situation, the term intervenor seems to refer to the solution applied to a particular problem. Applying this principle to distance education, therefore, the intervenor or solution could be online tutorial because we are unable to provide face-to-face tutorial service. Online tutorial could be subsidized initially to include provision of hardware and access to the Internet, but this could result in greater problem especially when the learners may not have sustained access to the Internet.

Faster is Slower

The classical story that highlights this principle is the race between the turtle and the rabbit. Seeing that it has greater advantage in terms of its speed, the rabbit feels confident and as a result gets easily distracted by other concerns along its way. As the other concerns along the way become more interesting the rabbit forgets the race altogether. The turtle is much slower, but since it is focused all the time on the race, it eventually wins the race.

From the point of view of a business enterprise, many would want their businesses to grow quickly. In fact, the faster the growth the better. What happens is that the businesses that grow very fast tend to diversify too quickly as well. Complex natural systems, however, intrinsically have optimal growth, which is far less than the fastest

growth possible. The net effect is that the system will seek to compensate for this difference in the rate of growth by slowing down. This can be a dangerous thing.

Relating this to our theme, we can say that a quick way of providing the needed training for our workers in order to sustain quick development is through distance education. We do think of distance education as a cure-all intervention so that whatever that is needed to be done the automatic decision would be to do it through distance education. Unfortunately, distance education can be viewed by non-believers, who may be important decision makers within the system, as external intervention and their being unconvinced about the effectiveness of distance education becomes a discouragement that will permeate the entire system.

This attitude will appear in the form of lack of support from management, which would result in inappropriate implementation of training programs through distance education and, hence, slows down the training of personnel. Eventually, this results in lack of trained manpower to sustain the development programs being undertaken.

Cause And Effect Are Not Closely Related In Time And Space

The term “cause” refers to the “interaction of the underlying system that is most responsible for generating the symptoms, and which, if recognized, could lead to changes producing lasting improvement.” The “effect” refers to the “obvious symptoms that indicate that there are problems.” The “cause” and “effect” do not necessarily come close to each other either in time or space. In fact, in many cases the effect of a particular intervention may appear many years later when no one suspects. The added problem in this situation is that no one may even know that this was the effect of a previous solution

adopted years earlier. It is also entirely possible that the effect appears in another part of the system either closely or remotely related to the system unit on which the solution was applied earlier.

While we may be almost certain that we are solving a development problem by adopting distance education principles and procedures, we may not be too proactive enough to be able to establish the potential problems resulting from the process that would appear years later. The novelty of distance education may make it appear to development planners and implementers to be a welcome catalyst for the sustained development of the masses and so full-blast implementation of distance education programs may be undertaken, however a sudden implementation of distance education programs that are not well-planned particularly in terms of support services will prove to be disastrous later because by itself this approach to distance education would not be sustainable either. The real effects of distance education would come long after it was initially implemented. And the effects of lack of preparation would certainly show. By then, it would already be too late to remedy the situation.

Small Changes Can Produce Big Results – But The Areas Of Highest Leverage Are Often The Least Obvious

Systems thinking teaches us that the most obvious solutions frequently just do not work. While they may actually seem to improve matters in the short-run, they will only make things worse in the long run. Of course this is not always the case. Systems thinking, Senge observes, also shows us that the “small, well-focused actions can sometimes produce significant, enduring improvements, if they’re in the right place.” This is the “principle of leverage.” As Senge points out, “tackling a difficult problem is

often a matter of seeing where the high leverage lies.” This high leverage changes are usually not obvious to those within the system because they are not close in time and space.

If our basic problem is lack of training among our development workers, massive retraining through full-blown distance education programs may not be the right solution. Perhaps a combination of training methodologies and approaches might help. It would, in fact, help if the application of distance education techniques would be introduced gradually, say, from certain activities in face-to-face training to be undertaken online or through individual independent learning processes, to online search for training materials, to larger scale online interactions among training participants and trainers, to stand alone courses, to full-blown academic programs, and so forth.

In other words, let us do it step by step. Start small and deal with smaller problems at a time. Start big and be overwhelmed by the magnitude and complexity of the problems which we may not be ready to deal with at the time.

You Can Have Your Cake and Eat It Too – But Not At Once

This law focuses on the fact that open and distance learning can be powerful tools for sustainability of over-all development over time, but perhaps not immediately. In the short haul, distance education can appear to be less preferable because it requires extensive inputs, but over time such inputs will bring in benefits that can help achieve sustainability. The important point to remember is, we must learn to wait. We must remember that using open and distance learning as tools for sustainable development are up front costs. They are investments in themselves.

But for us to make open learning and distance education effective tools for development, we must invest in them first by putting in place the appropriate infrastructures and procedures.

Dividing An Elephant In Half Does Not Produce Two Small Elephants

Systems are more easily understood when viewed holistically rather than in parts. We recall the classic example of unclear communication when three men, all blind folded, were asked to touch an object and describe what it was. They did not know that they were going to describe an elephant. The first touched its ears and exclaimed, “It’s a large, rough thing, wide and broad, like a rug.” The second person holding the elephant’s trunk said, “It is straight and hollow pipe.” And the third person, holding onto one of its feet said, “it’s mighty and firm, like a pillar.” Clearly, none of the three parts described by the blind-folded men would constitute the entire elephant.

We tend to look at a development problem from our own areas of experience, knowledge, and expertise. If we come from the education sector, we always say that we can solve the problem through better education. The engineers would apply solutions from an engineering point of view. And so forth. Simply, it means that the viewpoint of one sector is not the entire view of a development problem. It may only be a part. We have to learn to look at development problems from their totality. We must view them holistically so that we can formulate a solution that perhaps might even include trans-disciplinary processes.

Of course, sometimes, we do not need to view the entire system to resolve specific problems. In systems thinking, this principle is called the “principle of the

system boundary.” This means that the interactions that need to be looked into are only those that are most important to the issue at hand regardless of the larger picture. For example, our ultimate concern might be to place distance education at the core of urban socio-economic development, but first we will have to determine and provide appropriate instructional delivery mechanisms and infrastructures to make our distance education effective and efficient in order that it can meet our over-all expectations.

This law is difficult to practice because human organizations are designed to prevent people from seeing the important interactions that must happen in order to achieve sustainable development. People’s views are limited by the boundaries of the system within which they operate. For example, it is not always easy for people in the education sector to appreciate fully that sometimes potential solutions originating from outside the education sector can be more significant than those that can be contributed by the education sector itself because they have not been able to view these possibilities as their exposure has largely been limited to the education sector only.

There is no Blame

Simply put, this law means that we tend to blame outside circumstances for our problems. In other words, there is always some one else or something else who is the culprit. Systems thinking tells us that there is no outside culprit, that we and the cause of our problems are part of a single system. The cure of our problem almost always lies in how we relate to our problem. How do we define our problem? If we define our problem carefully to include how it is that we are part of the problem, then we should not be blaming outside forces for such a problem. Consequently, we should not expect

external solutions to the problem because the solution itself would be found within the system.

Again, going back to the issue of distance education for sustainable development, we find ourselves complaining about the attitude of certain unsupportive decision makers as making it difficult to make distance education work. Instead of complaining, perhaps we should simply proceed to deal with the crucial issues that have impact of our ability to formulate distance education procedures that would work efficiently and effectively.

Concluding Statement

This discussion is by no means exhaustive. It is, however, an effort to highlight the possible role that systems thinking can play in our efforts to be proactive planners of distance education programs. My own personal feeling is that, indeed, the basic principles (or laws as put forth by Senge) can help us clarify the issues and potential problems that we will deal with if we adopt distance education and open learning as strategies for enhancing sustainable development.

Reference

Senge, Peter M. 1990. *The Fifth Discipline, The Art and Practice of the Learning Organization*. New York: Doubleday. 424p.