

# The Future of Distance Learning: Defining and Sustaining Useful Results

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## Asking the Right Questions

In response to societal demands, many organizations (including educational institutions, corporations, and government agencies) have moved toward offering employees, students, and others the opportunity to learn at a distance: to provide learning opportunities at a time and place more convenient for each learner. Distance learning,\* in recent years, has become a viable option or adjunct to the conventional educational delivery that served learners throughout the twentieth century. Further, while many corporations view distance learning as an inexpensive and pragmatic

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\*The literature does not always differentiate between "distance learning" and "distance education." We use the terms interchangeably to mean the delivery of useful learning opportunities at a time and place convenient to the learner, regardless of the organization providing the learning opportunity.

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method for delivering training (and many educational institutions perceive distance education/distance learning as an alternative format for increasing enrollments and revenues by accessing new student markets), these expectations and intentions will not by themselves ensure the future success of distance learning.

Without a revised focus on meeting the requirements of learners that moved us toward distance learning in the first place, there is little hope that distance learning will be capable of leading learners into the upcoming decades with the necessary knowledge, skills, attitudes, and/or abilities for achieving success and useful contributions.

So is distance learning "right" for one's specific organization? This is a question that can only be resolved by answering the "right" questions...questions few organizations have asked.

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## Why Distance Learning in the First Place?

Distance learning has evolved over the past two centuries from correspondence courses to educational radio, one- and two-way teleconferencing, educational television, video conferencing to computer assisted/Web-based interactive learning opportunities (Saba, 1999a). Yet, with all the technological changes that have evolved in distance learning, there have been few changes in the reasons why distance learning exists. Distance learning is intended to offer useful learning opportunities to people at a time and location that is convenient to them (Kaufman & Watkins, 2000). In recent decades, we have been successful at finding alternative media for providing learners with learning opportunities at times and locations that are more convenient than those offered by conventional education. Unfortunately, the value and usefulness to learners has rarely been the focus in the unfolding of this evolution.

A great deal has been written about the technologies that allow organizations to offer learning opportunities at a time and place convenient to the learner. Yet the usefulness of those opportunities (i.e., the value added for learners and their constituent partners, including employers and communities) has rarely been questioned.

Offering useful learning opportunities is the key to future success in distance learning. Many organizations will offer distance learning in the future. Some will use the Internet, others will use satellites, and still others will use technologies we can only dream of today. But those that will be successful in making a valuable contribution to learners and society will be those that focus on offering *useful* learning opportunities. After all, does it really add any value to an organization (or learners) to provide educational opportunities at a time and location convenient to them if the opportunity

provides little to no value in terms of assisting them, their organizations, and/or our communities in achieving defined and useful goals?

Providing "useful" opportunities, we contend, has always been the intention of distance learning. From the beginning of correspondence courses founded in Germany during the first half of the nineteenth century, when Gustav Langenscheid started language courses in Berlin (Visser & Visser, in press) to the modern distance or open university, providing students with useful skills, knowledge, attitudes, and abilities (SKAAs) has always been the purpose of successful educational programs. The manner in which they have met this goal has changed many times over the years, but the goal itself has not differed.

Many organizations are now offering high-tech distance learning, yet few have focused comparable resources on the basic elements of sound instructional and performance system design (e.g., needs assessment, strategic planning, needs analysis, performance requirements analysis, performance objectives, systematic instructional development, formative evaluation based on performance, and continuous improvement). These oversights in instructional design have brought most distance learning programs to a point where technology expenditures are exploding, pressures from executives are building for more effective e-commerce, interest from learners in available opportunities is rising...and little to no measurable value added has come from the results of distance learning programs. It is no wonder that so many educators and trainers only conduct evaluations at Kirkpatrick level one, assuming useful results at levels two, three, four, and five (Watkins, Leigh, Foshay, & Kaufman, 1998). Measurable results and contributions are not likely to come from placing mediocre training and education programs on the Internet.

### How Is "Usefulness" Defined?

Useful distance learning is that which provides a measurable value added toward achieving results at three organizational levels. The first level of results is defined by the use of an Ideal Vision for society (i.e., the kind of world we want to create together for tomorrow's child). The second is defined by the mission objectives of an organization, and the third is comprised of performance objectives for individuals or teams (Kaufman, 1998, 2000). Usefulness (as defined by measurable results at the three levels) then becomes the focus of all organizational strategic planning and needs assessment activities (see Table 1). Only distance learning programs that can align and link the achievement of results at all three of these levels will have a strategic advantage for future success.

We do not want to suggest that these results should be achieved without the use of new technologies. In

**Table 1.** The levels of measurable value added (Kaufman, 1992, 1998, 2000).

Level of Planning	Primary Client and Beneficiary*	Name of Results	Defining Statement
Mega	Society	Outcomes	Ideal Vision
Macro	Organization	Outputs	Mission objective
Micro	Individual/ Small group	Products	Individual's objectives

\*It is understood that the primary client listed always incorporates those clients at the lower levels as well.

contrast, it is the new technologies, used appropriately, that will likely allow organizations and individuals to achieve required results efficiently and effectively. But the application of the technologies without a focus (i.e., including intended design, development, and continuous improvement toward the achievement of defined results) will not lead to the success that organizations are looking for in the future.

### What Should Distance Learning Look Like and Deliver?

As distance learning increases its utility by stretching conventional boundaries and achieving results at the societal, organizational, and individual/team levels, changes in the processes (activities, interactions, etc.) and inputs (teachers, technologies, instructional materials, etc.) will be required to meet the demands of learners in order for them to be successful in school and in life. Table 2 examines these evolving processes and inputs in relationship to four general periods of distance learning delivery: *Numbers 1-7 cover Planning; 8-10, Design and Development; 11-15, Delivery; and 16-18, Evaluation and Continuous Improvement.*

### A Useful Framework for Success: The Organizational Elements Model

How do organizations searching to create useful distance learning plan for success? One pragmatic framework for strategic planning, needs assessment, and decision-making is the Organizational Elements Model, or OEM (Kaufman, 1992, 1998, 2000). The OEM offers a guide for defining and linking what organizations use, do, produce, and deliver (Kaufman, 1992, 1998, 2000; Kaufman, Herman, & Watters, 1996). With the appropriate attention, the alignment of the organization with both its internal partners and external stakeholders can lead to accurate specification

**Table 2.** A general evolution of distance education/distance learning.

<b>Dimensions of Distance learning</b>	<b>Conventional Instruction</b>	<b>Classic/Historic Distance Learning</b>	<b>Current Distance Learning</b>	<b>Future Distance Learning</b>
1. Is it focused on the learner, teacher, organization, or society?	Teacher/ Organizational	Learner	Learner/ organizational	Societal/ organizational/learner
2. Is it driven by the content or its usefulness?	Content	Content	Content delivery (see Saba, 1999a)	Usefulness (see Dutton & Lievrouw, 1982)
3. Are needs defined as gaps between current and required/desired results?	Gaps in demand and/or perception of usefulness	Gaps in demand and/or perception of usefulness	Gaps in demand and/or perception of usefulness	Gaps in results
4. Are needs (gaps in results) formally identified and prioritized?	Assumed	Assumed	Assumed	Formally identified and prioritized
5. Are the courses/ programs linked to external usefulness?	Assumed	Assumed	Assumed	Linked to external value added through an Ideal Vision
6. Does a clear and common goal link courses/ programs with other learning opportunities?	Usually informally	Usually informally	Sometimes formally	Formally linked through the Ideal Vision, Mission Objective, and individual objectives
7. Is the content dictated by subject matter experts or derived by usefulness in the learner's future?	Subject-matter experts	Subject-matter experts	Subject-matter experts	Future usefulness
8. Is the content of courses/ programs designed through a systematic process (i.e., performance system or instructional design)?	Rarely	Rarely	Some systematic design and development with emphasis on rapid development and delivery	Systematic learning systems design process always applied

**Table 2.** A general evolution of distance education/distance learning (cont'd.).

<b>Dimensions of Distance learning</b>	<b>Conventional Instruction</b>	<b>Classic/Historic Distance Learning</b>	<b>Current Distance Learning</b>	<b>Future Distance Learning</b>
9. Are there options for the learner to explore areas of interest to her or him?	Not usually within the course	Not usually within the course	Some (see Saba, 1999b)	Full options for exploration
10. Are the designers, developers, deliverers credentialed to do what they do: develop learning materials that work?	General academic credentials	General academic credentials	Some credentialed in learning system design (see Matthews, 1999)	All credentialed for all aspects
11. Are the courses/ programs delivered at an institution or at a remote site, including one's home or workplace?	General academic credentials	General academic credentials	Some credentialed in learning system design (see Matthews, 1999)	All credentialed for all aspects
12. Are the courses delivered using conventional, telephone, books and/or workbooks, video, computer, Web-based means?	Conventional with some audio-visual support (see Duning, 1987)	Video, telephone, correspondence materials/books and workbooks (see Matthews, 1999; Moore & Kearsley, 1996)	Computer, Web-based, some video	All used
13. Is there open synchronous interactivity between learner and instructor/ deliverer?	Rarely	Rarely	Some	Almost always (see Garrison, in Hanson <i>et al.</i> , 1997)
14. Does the learner have access to a support unit (i.e., academic advisement, career counseling and planning)?	Normally	Rarely	Sometimes	Always (Converso, Schaffer, & Guerra, 1999; Ely, 1990; Moore & Kearsley, 1996)

**Table 2.** A general evolution of distance education/distance learning (cont'd.).

<b>Dimensions of Distance learning</b>	<b>Conventional Instruction</b>	<b>Classic/Historic Distance Learning</b>	<b>Current Distance Learning</b>	<b>Future Distance Learning</b>
15. Does the learner get immediate feedback concerning performance?	No immediate feedback	No immediate feedback	Some immediate feedback	Immediate feedback, often
16. Is the content of the courses/ programs formatively evaluated? Summatively evaluated?	Teacher-constructed test on content	Teacher-constructed test on content	Some formative evaluation; some summative evaluation (at the learning site only)	Formative and summative evaluation (evaluation data are used for continuous improvement of the learner and for the course/program)
17. Are the delivery vehicles for the courses/ programs evaluated for their effectiveness and efficiency?	Not considered	Not considered	Some concern for delivery efficiency	Effectiveness and efficiency both considered and evaluated (see Welsh, 1999)
18. Are the courses/ programs evaluated for return-on-investment for: (a) The learners (b) The designers/ deliverers (c) For the institution (d) For the society?	Assumed	For learners	For learners and, sometimes, the organization (see Moore & Kearsley, 1996)	For all

of client needs (gaps in results) and society value-added for the identification and service of potential markets.

Defined in the OEM framework are the elements of any organization (whether private or public, education or industrial). The elements of the framework are Outcomes (e.g., future self-sufficiency), Outputs (e.g., degree or program completion), Products (e.g., mastery of a course), Processes (e.g., distance learning), and Inputs (e.g., course content or technology). For each of the three results elements (Outcomes, Outputs, Products), there is an associated level of planning that focuses on each: Mega, Macro, and Micro.

- **Mega level planning—outcomes.** Responsive, responsible, and justifiable interventions, including distance learning, are rooted in strategic thinking and planning. For any intervention to be successful, it starts with an Ideal Vision that states, in measurable terms, where it is headed and how to tell when it has arrived in terms of the kind of world we want to help create for tomorrow's child. In Mega planning, the primary client and beneficiary is society and the community. Thus, any education, training, or performance improvement organization is actually a means to

societal ends. In this light, distance learning is only a means to societal ends, and thus its design, development, implementation, and evaluation must be focused on measurably adding value not only to the learners, but to society as well.

- **Macro level planning—outputs.** From the Mega level—the Ideal Vision—the organization determines what its mission objective is to be. A *mission objective* states where the organization is headed and how to measure when it has arrived. An organization’s mission objective states, in precise terms, what part or parts of the Ideal Vision it commits to deliver and moves ever closer toward. In implementing distance learning, a primary objective is to enable learners to meet all graduation and completion requirements that, in turn, allow them to add value to our shared society.
- **Micro level planning—products.** Based on the mission objective (Macro level plans), an organization then “rolls down” from that to define what building block results it should deliver. This level of planning usually depends on individuals and small groups to develop and deliver these important results. In distance learning implementation, Products are the building-block results obtained by learners as they demonstrate competence in required performance areas.

If we analyze the delivery modes for training or education identified earlier against the OEM, we find some information patterns (see Table 3).

**Table 3.** Modes of instructional delivery and their association to the OEM.

	Conventional Instruction	Classic/Historic Distance Learning	Current Distance Learning	Future Distance Learning
Mega/Outcomes				x
Macro/Outputs			(?)	x
Micro/Products	x	x	x	x
Processes	x	x	x	x
Inputs	x	x	x	x

This analysis suggests that “Classic/Historic Distance Learning” tended to rely on conversions of conventional instruction to a different mode of delivery. Then, with the availability of more sophisticated

delivery vehicles (e.g., computers, the Internet, CD-ROMs), distance learning has evolved to include more concern with the design of learning opportunities as well as the linkages among the curriculum, the learner, and completion of programs. The distance learning paradigm of the future will have to address and link all of the elements of OEM and will be responsible for demonstrating societal value added.

### Achieving Future Success

We recommend the following guidelines for defining and delivering future usefulness, effectiveness, and efficiency of distance learning:

- **Select a valid performance model or process and then rigorously apply it.** Performance and learning design is not a matter of hunch, intuition, and content-orientation alone. The development of any distance learning performance system should have standardized, responsive, and responsible performance models applied by all. We suggest that the conventional ADDIE model (analyze, design, develop, implement, and evaluate) is useful but incomplete. It does not assess needs before analyzing needs, and continuous improvement is not a part of conventional evaluation, as it should be. We thus suggest a rational extension of the ADDIE model: AADDIE, where the added “A” is for “assessment.” Contemporary understandings of performance systems indicate that many of the steps of the performance system model can overlap and thus avoid the long and often drawn-out “analysis paralysis” of some ill-conceived approaches, especially if the first step is a useful assessment that precedes any analysis. Starting any process with analysis usually assumes that one knows *what* to analyze.
- **Link all three levels of planning and results.** Use an Ideal Vision as the starting place for all planning and decision-making. An Ideal Vision states the kind of world we want to create for future generations. An Ideal Vision *is* the same as the Mega level of planning and only identifies Outcomes. It never includes Inputs, Processes, Products, or even Outputs. The Basic Ideal Vision (Kaufman, 1998, 2000) is derived from asking people to define in measurable terms the kind of world they want to help create for tomorrow’s child. Then, all Inputs, Processes, Products, and Outputs are deleted to form what is in the Basic Ideal Vision. An organization’s mission objective is then derived from the accepted and shared Ideal Vision. It represents that part of the Ideal Vision the organization commits to deliver. If there is *no* linkage between Outcomes (self-sufficient, self-reliant individual who is also a “good neighbor”), Outputs (e.g., certification,

graduation, or completion), and Products (e.g., course mastery), then distance learning might be a "solution to no known problem." In other words, for distance learning to be a solution of the future, it will have to begin by defining the value it adds to learners and society. In so doing, distance education programs should pay special attention to the following:

- **Don't confuse the means of delivery with the mastery requirements of learning.** Unfortunately, most contemporary approaches to education and distance learning start with the assumptions about the most effective and efficient mode and methods of delivery. Don't select the means before defining and justifying the ends. Select the methods and means of distance learning on the basis of who are the learners, where they are, what they must master, and how best to organize the learning opportunities. The future will allow for more motion, inquiry, and simulation. Prepare to use what can best meet the objectives.
- **Conduct needs assessments.** Many so-called needs assessment approaches, such as *training needs assessments*, blur the distinction and relationship between ends and means. To be useful, needs should be defined as *gaps* between current and desired results. A needs assessment is then the identification of needs and the process of prioritizing them on the basis of the costs of meeting the needs as compared to the costs of ignoring them (Kaufman, 2000). A systematic as well as valid approach to needs assessment is critical in setting direction for an organization and providing information for decision-makers (Kaufman & Grise, 1995; Kaufman, Rojas, & Mayer, 1993).
- **Use a learner-focused, performance-centered approach.** The distance learning experience should be designed specifically for the results to be achieved, using research knowledge of individual differences, motivation, and learning styles for defining and achieving objectives. The learning materials and methods of delivery will be responsive to who the learners are, where they are, and how they best learn to perform the tasks to be completed. Research shows that performance improvement efforts should follow scientific principles rather than "craft"—not replicable—principles (Clark & Estes, 1998). We know how to design learning opportunities that will be successful, but we don't usually use them, relying instead on conventional wisdom and short-cuts (Clark & Estes, 2000; Farrington & Clark, 2000; Stolovitch, 2000). A crucial element in the success of future distance learning activities will be that the materials are responsive to individual differences among the learners and that

they are designed, developed, formatively evaluated and revised, and implemented in a way that will be continuously improved.

- **Create distance learning that systemically adds value.** There are many new realities for society, organizations, and individuals. In education we are increasingly being required to provide responsive and responsible learning opportunities at a time and place convenient for the learner. To do this effectively, we must not continue to select the means of distance learning before selecting and justifying the ends and consequences we commit to deliver. And to be successful, everything we use, do, produce, and deliver should add value to all partners: learners, organizations, and society.

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### Creating the Future of Distance Learning

Successful distance learning programs of the future must maintain agility. As educators, we should be able to provide responsive and responsible learning opportunities at a time and place convenient for the learner. It is absolutely crucial that we select and justify the ends and consequences we commit to deliver before selecting the required means of distance learning.

The Organizational Elements Model is a pragmatic framework for organizations searching to align everything they use, do, produce, and deliver with results that deliver value added for all partners: the learners, organizations, and society. When used with systematic instructional design and other management technologies, the OEM can assist organizations in defining and achieving useful results now and in the future. □

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