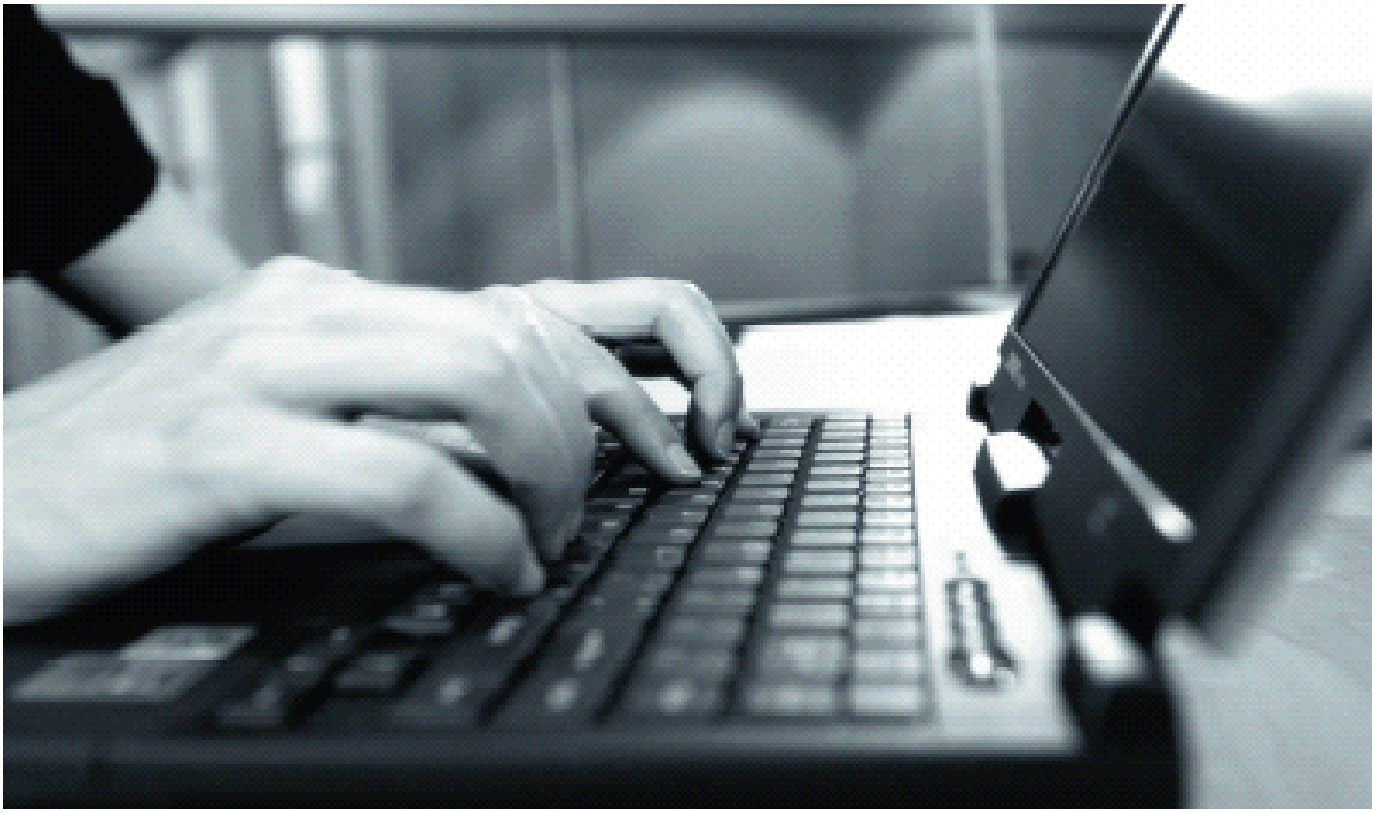

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WHITE PAPER

Blended Learning Strategies
Selecting the Best Instructional Method

Dorman Woodall
Director of SkillSoft Learning
SkillSoft

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The Goal of Blended Learning

Blended learning has become the norm in large enterprises today as a method of delivering training to large, diverse employee populations. This trend is driven in large part by the need to deliver more kinds of training to more employees in more places—within existing training budgets. The definition of blended learning has also changed from a simple blend of classroom training and e-learning courses to more complex programs that incorporate an array of synchronous and asynchronous learning modalities. Whatever the mix, the goal is to empower the individual to achieve understanding of a given topic, become self-sufficient, improve his or her job performance and ultimately drive results that support business objectives.

Blended learning can support a variety of informal learning processes. The performance support function is an increasingly important part of the job for many corporate training departments. Blended learning expands the traditional role of training beyond its usual scope of formal training by providing a robust set of tools that allow employees to obtain the information and instruction they independently and uniquely need, all within the daily flow of work. A just-in-time approach to learning brings with it new challenges and new opportunities. Training professionals need to have a strong understanding of the suitability of various tools to achieving learning objectives.

Ultimately, good blending is about establishing a balance between the instructional advantages for the learner and the learning objective. Blended learning captures the best of both worlds by allowing learners to pick and choose how they want to learn and affords them greater flexibility and convenience about when they want to learn. It can be as simple as combining two different learning methods (reading a book before going to a classroom) or as complex as obtaining a degree via a longer-term distance education program.

Defining Blended Learning

The term *blended learning* has become ambiguous. According to Dr. Margaret Discroll, *blended learning* is defined as a combination or mixing of at least four different methodologies, including:

- Mixing of technology-based learning (e-learning, collaboration, virtual classroom, etc.)
- Combination of pedagogical approaches (behaviorism, cognitivism and constructivism)
- Mixing of forms of instructional technology (face-to-face, Internet, CD-ROM, etc.)
- Integrating instructional technology with actual job activities

According to the U.S. Department of Labor, 70% of workplace learning occurs informally through books and articles, fellow employees, water cooler discussions and even trial and error. Only 30% of employee learning takes place through formal activities such as leader-led classes, seminars or structured courses. However, most corporate training initiatives focus their efforts, and their budgets, on formal training.

Since most of learning occurs in informal settings, perhaps the greatest single potential gain for blended learning is in this area. Currently, many companies are successfully integrating classroom training with e-learning, mentoring support, simulations, online reference material and virtual tools in order to support informal, on-the-job training.

Most of today's investments in learning are on the formal side of the time to performance continuum. The net result is that we spend the most money on the smallest part of the learning equation.

Blended learning goes beyond good and basic training to a more systematic education that promotes ongoing learning within the workplace. By developing learning strategies that incorporate a wide variety of learning activities – classroom instruction, virtual meetings, online books, mentoring, self-paced study, simulations and assessments – companies can more efficiently utilize learning resources while offering employees more learning flexibility and improved performance support. Employees can choose the type of learning that best suits their particular learning style, the amount of time available and the kind of information needed.

Too often blended learning is viewed as some kind of hastily mixed "learning stew," a potluck combination of instructor-led classes, self-study courses, corporate library resources and various seminars and conferences.

The companies having the greatest success with blended learning take a more methodical approach. For instance, IBM's Basic Blue blended learning model structures curricula so that learners spend approximately 80% of their time obtaining information through a variety of self-study materials ranging from white papers, student guides and PowerPoint presentations, as well as role-plays, simulations and assessments. The remaining 20% is reserved for leader-led classroom study. This approach allows the company to condense actual class time, since much of the material is covered in other information sources. Additionally, learners attending the classes are better prepared by going through the prerequisite materials.

Unisys University currently has more than 200 active blended learning curricula paths encompassing technical and business skills development. More than 7,000 employees worldwide are currently enrolled in Unisys University, and more than 3,500 have completed one or more blended curricula paths. The blended learning curriculum has proven to be so popular (satisfaction rates range from 85 to 95%) that the company is evaluating the development of an additional 50 blended curricula paths.

Two Key Learning Experiences

Media selection must be based on the learning context, the skills to be taught, the practicality of the situation and what theory indicates would be appropriate.

Dick and Carey (1996)

The fast-paced growth of e-learning has brought about a new context for learning within corporate and academic organizations. The exciting and developing universe of learner-centric methods balances the traditional classroom approach and the constantly evolving technology-based learning. This balance has tremendous potential for building increased performance within all organizations.

By mixing traditional methods with new ones, we now have synchronous and asynchronous tools that provide modern training and learning programs with two very powerful methods.

The synchronous (real time) domain is the more traditional instructional approach to online training and has the instructor (or mentor) and learner available at the same time. Usually they are in the same place where all participants share the learning experience and may interact with

each other. It is also possible for learners to be in different places at the same time. Synchronous training via the Internet is very helpful to learners that are willing to adjust their learning style away from the traditional classroom or lab.

Asynchronous (different time) means that the instructor (or in most cases, computer-based courseware) and the learner are available at different times, a benefit for self-directed learners that like to learn at their own pace and own time. A blended learning solution should place appropriate emphasis on both important learning domains.

Synchronous Instructional Methods

Methods in this domain consist of traditional classrooms, virtual classrooms, live product practice (labs), interactive chats and mentoring (coaching).

Live Classroom (Traditional)

Traditional classrooms allow instructors and learners to be face-to-face in the same place. The subjects usually consist of topics (complex, broad, programmatic or new content) that require face-to-face interactions, expert observation, culture building, team building, networking, business problem solving or materials to be presented by an instructor or facilitator. The term instructor-led training (ILT) is used synonymously with on-site training and classroom training (c-learning).

Advantages: Allows the dissemination of unpublished material and learners to have access to peers and experts. Group discussion and practice can be engaging and add additional interest in a topic. Traditional classroom learning complements learners with certain learning preferences (those who depend upon highly teacher-centered methods) and is a good method for "people" people. It also provides gradual development of complex or difficult concepts and theories.

Disadvantages: Classroom training can be expensive if learners must travel to the classroom location. Also, learners are required to attend sessions at a set time and classrooms usually require large blocks of time from the learner. If the session is lecture based, discussion and interaction are reduced. Classrooms can place the learner in a passive role and their attention may be lost.

Consider using this method when:	*Consider using another method when:*
• Teams of people will be using the information and skills to work together to achieve business goals. • Learners have job roles that permit extended absences from daily activities. • Skills involve extensive practice in face-to-face interaction with others or practice with complex physical skills. • Comprehension requires group interaction around subjective topics.	• Business goals are not affected by whether people learn in the same place. • Learning can be delivered in small chunks, integrated into the regular activities of the target-learning group. • Business objectives make it difficult for learners to take extended absence from daily activities. • Mastering subject matter is not affected by physical proximity.

Virtual Classroom

A virtual classroom allows instructors and learners to be different places at the same time, and allows the instructor to archive the event for later viewing. These events are usually conducted via virtual meeting tools. The topics covered can be similar to those in a live classroom unless it is too complex or contentious.

Advantages: You don't have to be at the classroom location to benefit from the instruction. You can raise your hand by clicking a button. A list of other students in the class is viewable and you can hear an instructor speak. Additionally, the instructor can pass a virtual microphone to you so that you can be heard by the entire group. Information can be presented and desktops and computer applications can be shared across the Internet.

Disadvantages: Everyone must be online at the same time. In most cases, the participants need advanced workstations and a high-speed connection. The instructor must have technical skills, adequate resources and is personally dedicated to making the event interactive. Just like live classrooms, informational sessions can place the learner in a passive role and learner attention may be lost.

Consider using this method when:	*Consider using another method when:*
• Business will benefit from rapid distribution of information or skills to widely dispersed groups. • Content can be effectively delivered in less than one to two hours. • Business will benefit from ability to capture learner and presenter interactions and content for reference and replay.	• Content is highly contentious or complex. • Retention requires extensive practice. • Business will benefit from professional quality broadcast recording.

Live Demo or Practice (labs)

Consider using this method when:	*Consider using another method when:*
• Business needs are not met by investing in detailed simulation of complex hardware or software. • Team-based practice is critical to understanding of complex hardware. • Excess capacity of live product and instructors for in-person training.	• It could destroy working products. • Business goals can be met easily and cost-effectively via simulation. • Limited live product and experienced instructional staff available.

Broadcast (TV or Streaming Video)

Consider using this method when:	*Consider using another method when:*
• Business will benefit from rapid distribution of information to widely dispersed groups. • Business will benefit from professional quality broadcast recording. • Content needs to be created quickly, but will not be updated frequently.	• No business significance to broadcast quality production values. • No business value to providing video to supplement content message. • Frequent content upgrades required.

Interactive Chat Session

Consider using this method when:	*Consider using another method when:*
• Learners have divergent needs that cannot be met by one-size-fits-all instruction. • Expert resources are available for one-to-one information sharing and support.	• Content is highly subjective or potentially divisive. • Experts cannot maintain regular schedules. • Technology limits access.

Asynchronous Instructional Methods

Methods in this domain consist of documents and Web pages, Web-based training (WBT), computer-based training (CBT), CD-ROM, assessments, tests, surveys, simulations and labs and recorded live events.

Online Information via Website

Consider using this method when:	*Consider using another method when:*
• Basic concepts, policies, procedures, corporate information needs to be available to widely dispersed audience over an extended period.	• Content must be updated frequently. • Insufficient resources to maintain Web sites • Practice is key to mastering content.

Online instructional materials (WBT or e-learning)

Consider using this method when:	*Consider using another method when:*
• Practice is key to mastering content. • Learners are geographically dispersed. • Learner job roles demand rapid acquisition of new skills. • Learner job roles require maximum learning schedule flexibility. • Learners have the right technology to access content and practice at own pace. • Resources exist to maintain and update content. • Content can be linked to other learning resources.	• Content changes infrequently – once learners have mastered it, little need to refresh or update skills. • Small learner population, geographically centralized, with limited turnover. • Learner technology makes it difficult to access online content reliably. • Insufficient resources to maintain Web sites. • Limited or nonexistent performance and learning management systems.

Online reference materials

Consider using this method when:	*Consider using another method when:*
• Learners need to access content during flow of work • Learners are geographically dispersed. • Learner job roles demand rapid acquisition of new skills. • Learner job roles require maximum learning schedule flexibility. • Learners have the right technology to access content and practice at own pace. • Resources exist to maintain and update content. • Content can be linked to other learning resources.	• Content changes infrequently – once learners have mastered it, little need to refresh or update skills. • Small learner population, geographically centralized, with limited turnover. • Learner technology makes it difficult to access online content reliably. • Insufficient resources to maintain Web sites. • Limited or nonexistent performance and learning management systems.

Offline instructional materials

Consider using this method when:	*Consider using another method when:*
• Small number of learners makes distributing content easy. • Relatively long shelf life for content. • Basic concepts, policies, procedures, corporate information that never changes and does not need to be communicated widely.	• Rapidly changing content. • Large, changing user base. • High need for portability. • Need to distribute content widely and update frequently.

Threaded Discussion

Consider using this method when:	*Consider using another method when:*
• Learners have divergent needs from the content that cannot be met by one-size-fits-all instruction. • Expert resources are available for group information sharing and support. • Learners need to enter discussion at different times and be able to catch up on conversations that have occurred.	• Content is highly subjective or potentially divisive. • Experts cannot maintain regular schedules. • Technology limits access.

Electronic Performance Support System (EPSS)

Consider using this method when:	*Consider using another method when:*
• Content supports users developing software application skills. • Learner benefits from on the job access to context-sensitive support. • Learner requires ongoing reference to context-sensitive support.	• Learning content is not software. • Limited need to refer back to content information once mastery achieved.

Job aids

Consider using this method when:	*Consider using another method when:*
• Content key points can be condensed into brief "how to" aids. • Job process changes are frequent, but small and easy to understand. • Learners have already mastered the basics of the job role processes covered by the content. • Regulations require checklists or procedures to be completed exactly in sequence and according to a specific process without shortcuts or errors.	• Content is highly detailed or complex. • Requires extensive interaction. • Learners have limited need for reference materials after initial training.

Product simulation practice (Virtual lab)

Consider using this method when:	*Consider using another method when:*
• Safe environment required: live practice could destroy live systems. • Learners can't easily access live systems. • Need for trained users are greater than systems available for training.	• More cost effective to work directly on live system. • Possible to work on live system remotely. • Mastering complex skills requires team-based activities on working system. • Regulations require certified hands-on practice with live systems.

Live practice

Consider using this method when:	*Consider using another method when:*
• In-person teamwork central to using new skills to support business results. • Small, geographically centralized learner population. • Limited consequences of failure. • Access to repeated practice critical. • Certification requirements mandate live practice.	• Individual practice effective and learner population is dispersed. • Practice most effective if performed in small units spread out over several days or weeks. • Practice most effective if reinforced by application on the job immediately. • Significant danger if practice on live system fails.

Simulation-based practice

Consider using this method when:	*Consider using another method when:*
• Business critical concepts. • Legal implications of misapplication. • Complete comprehension is critical before live application • Certification requirements.	• Simple concepts – can be mastered with information sharing or informally by most workers. • Small business impacts. • Stable concepts.

Written Tests

Consider using this method when:	*Consider using another method when:*
• Goal is to test knowledge and information recall. • Case study analyses are good indicators of job performance.	• The required outcome of the training is behavior. • There is no right answer. • There is no need to remember; a job aid or example can be used.

Performance Tests

Consider using this method when:	*Consider using another method when:*
• Physical performance of a skill or behavior is the required outcome of the training. • Observers (raters) can be trained and deployed to observe performance or analyze work products.	• Raters are allowed too much freedom in judging acceptable performance. There are insufficient rater resources and no means of videotaping performance for later study. • Awareness or knowledge about a skill is sufficient.

Self-Assessments

Consider using this method when:	*Consider using another method when:*
• Elective learning – no job role implications. • Within learning overall – use in concert with more formal measures.	• Tie performance to job advancement. • Develop objective measures of individual and group performance. • Communicate results except to individual.

Formal Certification

Consider using this method when:	*Consider using another method when:*
• Regular certification requirements for job roles. • Regulatory requirements.	• There is no agreement on what constitutes “certifiable” performance.

Books

Consider using this method when:	*Consider using another method when:*
• Inexpensive, consistent and pleasantly tangible. • Portable and easy to transport. • High comfort level since everyone knows how to navigate. • Readily available.	• Non interactive • Limited sensory involvement • Completing a book is a commitment, only about half are completed. • Difficult to distribute to a large group of people.