

The Best of Both Worlds - Making Blended Learning Really Work By Engaging the Whole Brain[®]

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The What and Why of the Blend Trend

Let's start with a definition (Wikipedia):

Blended learning is a blending of different learning methods, techniques and resources and applying them in an interactively meaningful learning environment. The ultimate aim of blended **learning** being to provide realistic practical opportunities for learners and teachers to make learning independent, useful, sustainable and ever growing.

The availability and applicability of technology-related learning tools, combined with the need for the three S's, *scope, scale and speed*, all have contributed to this now ever-broadening field where learning is made available in a wide range of media and modalities (online, classroom, formal and informal workplace, offline, etc.). By its very design, blended learning makes use of multiple learning platforms and processes, providing variety and options for many different types of learners who are often dispersed—a very brain-friendly approach when done well.

A challenge is that the field has emerged organically, starting from stick-on hybrids of content repurposed for multiple platforms that were not really designed for the platform per se. Just because something is built does not mean the learning will be effective across delivery mechanisms. E-learning, for example, got a bad reputation early on because it often consisted of poorly repurposed content on a different and inappropriate platform.

Current research shows that in order to achieve good blended learning results, there are three essential questions to answer when building a blend:

1. **Learners:** What is the best method for the target audience?
2. **Learning Design:** What is the best instruc-

tional model and delivery method for the content?

3. **Learning Environment:** What is the best method to meet your organizational constraints and requirements?

I recently worked with IBM as they were designing and developing a global blended program that includes (among other activities) pre-reading, a pre-training assessment, a personalized individual online simulation, on-line reference tools, a face-to-face workshop and ongoing online collaboration. I learned a great deal in the process, and those learnings are the genesis of what follows. I drew on several other helpful resources as well, which I highly recommend, including Josh Bersin's book: [The Blended Learning Book \(Wiley\)](#) or the online Powerpoint at http://www.e-learningguru.com/wpapers/blended_bersin.doc, EPIC's white paper on [Blended Learning: Best Practices](#) (available for download at www.epic.co.uk).

What does the Brain Have to Do with It?

"The brain is involved in all aspects of the learning process. It is the single bodily organ that is the central processor of all learning activities."

Ned Herrmann

Each one of us as a learner is a unique human being with a unique learning style. Consider your own experience: you likely did much better in some subjects than others; surely you responded much more to some teaching methods than others; finally, you retained some material more accurately and for a longer period of time than other material delivered in a different way.

While I have forgotten many teachers because they simply weren't effective for me as a learner, there are three or four of whom I will never forget because, for me at least, they were "outstanding." They connected with me. Our unique learning style is the result of the brains we were born with, combined with the years of experience that have developed into our own distinctive learning approaches over the course of our lives.

Our 30 years of research into these different thinking and learning styles has shown that, taken as a whole, the world is a composite of different learning preferences, crossing the traits described in the Whole Brain® Learning Considerations model (Fig.1). Thus, any population of more than 100 learners will represent distinct differences in their individual learning and thinking styles. Since each learner population will be diverse in their learning, training design and delivery methods must take into account an approach that works well across those differences.

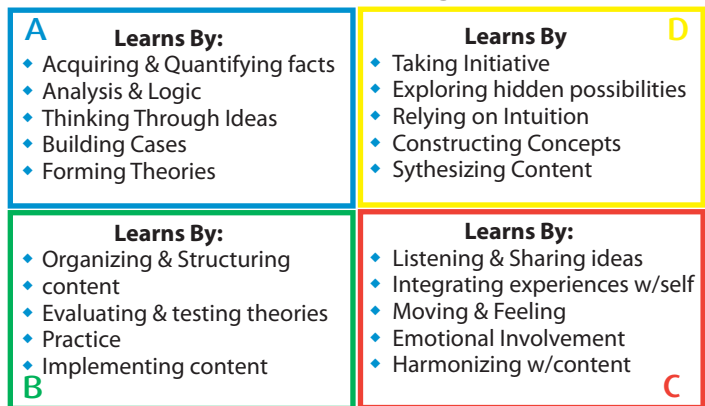
The concept of Whole Brain® Teaching and Learning provides the basis for bridging the gap between the unique individual learner and the design and delivery of the learning.

Using the Whole Brain® Teaching and Learning tools provided in this white paper will help you create Whole Brain® Blended Learning. With a Whole Brain® approach, you'll be able to better reach and engage with diverse learners, improve their retention and deliver one of those memorable – rather than forgettable – learning experiences.

The focus of this white paper is to explore specific ways you can more effectively:

- ◆ Find ways to engage the learner's brain as much as possible when using a blended approach.
- ◆ Look for ways to make blended learning designs as Whole Brained as possible by better understanding the implications of

FIG 1: Whole Brain® Learning Considerations



choices that are made when the specific ingredients of the blended "recipe" are decided on.

- ◆ Understand the impact of the learning environment challenges we all face.

Step 1: Understand your Learners!

Review the Whole Brain® Learning Considerations model and think about the populations you serve. How are they different? Similar? If you think of each of these quadrants as four different people learning how to drive a car, imagine how each might approach the process. Mr. A., Allan, would want to relish the technical aspects of driving, would be very comfortable with the mechanical issues and would approach the challenge quite logically. Ms. B., Barb, on the other hand, would be ready and organized, enjoying the steps as they progressed: Sit in the vehicle, adjust your mirrors, attach your seat belt, etc. Mr. C., Carl, would be thinking about the fun he will have with his friends, and spend time talking and chatting throughout the whole lesson. Ms. D., Deb, might be imagining the freedom she will have, all the places she will see and experience, and doesn't seem too worried about the procedures.

As a driving instructor you might have all four of these students, and certainly may prefer teaching one or more over others. Fortunately, we are not limited to a one-quadrant

perspective, but are “hard wired” to be whole. There is “wiring” that crosses the center of our brain representing massive connections that allow for direct interaction between these different specialized areas. The good news is that each learner does have access to all four quadrants, meaning that any given learning design will have the potential to reach them, even if it is not in their preferred style. The even better news is that when you are able to effectively plan for a very diverse audience, you can look for ways to use your blended options to provide different platforms for learning as well as diversity for your learners.

If you were designing a blended learning program for the above four (albeit stereotypical) characters, you could easily use the different platforms and options available to best meet their needs. More on that later.

More often than not we do not know the preferences and styles of our learners. Thus, when in doubt, plan for a Whole Brained audience—chances are you will have that diversity anyway. Keep in mind that you will also need to think about other differences, including how introverted or extroverted the audience may be. In general, extroverts will want more interaction, either online or face to face. Introverts may be more comfortable with a self study option. Generational differences may also come into play, especially as they relate to comfort with technology.

There are other aspects to audience diagnosis, including numbers, technical skills and need for support. Answer each of the questions below (also organized by quadrant) to explore other key aspects of your target audience and begin developing a learner profile.

LEARNER PROFILE:

Assumed Learning Styles: A, B, C and D

Introvert/Extrovert: Assume both unless other information is available

Generational Aspects: Expect differences unless you know otherwise

A Quadrant aspects:

- ◆ **Are they technically astute?** It is critical to know how comfortable your audience is with the technology solutions you may be considering. Keep in mind that culturally diverse audiences may have very different levels of technical skill. The lower the skill level, the greater the need for training on the platform, and/or favoring non-technical options.
- ◆ **How many learners are there?** Large numbers of learners may require more scalable online solutions (make sure the infrastructure can support it!). Small numbers may allow for less scalable, offline solutions.

B Quadrant Aspects:

- ◆ **How much time is available for learning?** Several studies have shown that online solutions can be up to 30-40% faster. Keep in mind that there are lots of variables that can impact those outcomes, especially available time in the workday, management support for the learning and access to technology after hours if that is a requirement.
- ◆ **How consistent is the knowledge level among learners?** Online systems can provide a pre-test assessment to allow for better alignment between learner, knowledge level and the learning process. You can provide the basic theory in an online format for those with less knowledge and save those learners with greater knowledge time and effort.

C Quadrant Aspects:

- ◆ **How motivated are your learners?** The more motivated your learners are, the easier it will be to sustain the learning process and get compliance with a self-study type program. Lesser motivated learners will need more support that can

be provided through online facilitators, mentors or face-to-face workshops. Also keep in mind confidence and comfort with technology that can get in the way of motivation!

- ◆ **How supportive is the culture toward learning?** Workplace environments are increasingly demanding and may leave little time for the learning to take place, or employees may be reluctant to take the time to participate in training activities. Where and when will your learners be learning? The more you can work with local management to get buy-in and support for the learning experience, as well as provide follow-on workplace initiatives, informal learning options and other opportunities that take into consideration the workplace realities, the greater chance your learning program will be successful.

D Quadrant Aspects:

- ◆ **How widely dispersed are your learners?** The greater the geographic scope, the more economical online solutions will be. Note, however, that online collaborative synchronous approaches (happening at the same time) may present a challenge when scheduling and navigating time zones.
- ◆ **How global or culturally diverse is your audience?** Cultural diversity often (but not always) goes along with geographic dispersion. Any online approaches should include a closed captioning option if the learning is in non-native language. The global consistency that comes from an online option is often a reason for selecting that choice. When face-to-face learning is an option or a priority (over efficiency), other benefits will emerge as different cultures may get to know each other more rapidly than when online.

Step 2: Think about Your Learning Design

Now that you have analyzed your learners, your learning design and key learning points require the same. Just as in any learning design, you need to design the instructional approach(es) and delivery methods you will use to teach those critical learning points.

For the purposes of this overview, I will not discuss the front-end diagnosis of the type of learning (more knowledge oriented, procedural, complex, aspirational, etc.—see Bloom’s taxonomy, ADDIE or EPIC’s white paper mentioned above for a nice analysis) but rather the selection of options and methods available to best engage the brains of your learners.

EPIC suggests three main categories of delivery methods and their respective lists: Workplace/Face-to-Face learning-, Individual learning (offline), Online learning. This adapted list represents your available options as you consider a blend. I find it useful to first create your “optimum learning method” list for each learning objective or module in your design. Next, review the list below for alternatives in light of what is available to you and your organization, taking into account infrastructure, audience and resources.

Workplace/Face-to-Face

Learning experiences that are not online and most often involve interaction:

- ◆ Lectures/presentations
- ◆ Tutorials
- ◆ Workshops/seminars
- ◆ On the job learning/training
- ◆ Role play
- ◆ Simulations
- ◆ Conferences



- ◆ Tutoring
- ◆ Coaching
- ◆ Mentoring
- ◆ Feedback
- ◆ Manager as developer
- ◆ Projects (action learning and other)
- ◆ Informal
- ◆ Apprenticeships
- ◆ Shadowing
- ◆ Job rotation
- ◆ Communities of practice
- ◆ Site visits

Individual Learning Methods and Resources (Offline):

- ◆ Reading (books, magazines, newspapers, articles, et al)
- ◆ Workbooks
- ◆ Keeping a journal
- ◆ Review/learning logs
- ◆ Audio files, MP3s and CDs
- ◆ Videos and DVDs
- ◆ TV
- ◆ Radio and music

Online Technology Methods and Resources:

- ◆ Interactive learning programs (off-the-shelf and custom)
- ◆ Performance support (EPSS)
- ◆ Simulations
- ◆ E-tutoring
- ◆ E-coaching
- ◆ E-mentoring
- ◆ 360° feedback
- ◆ Email
- ◆ Bulletin boards

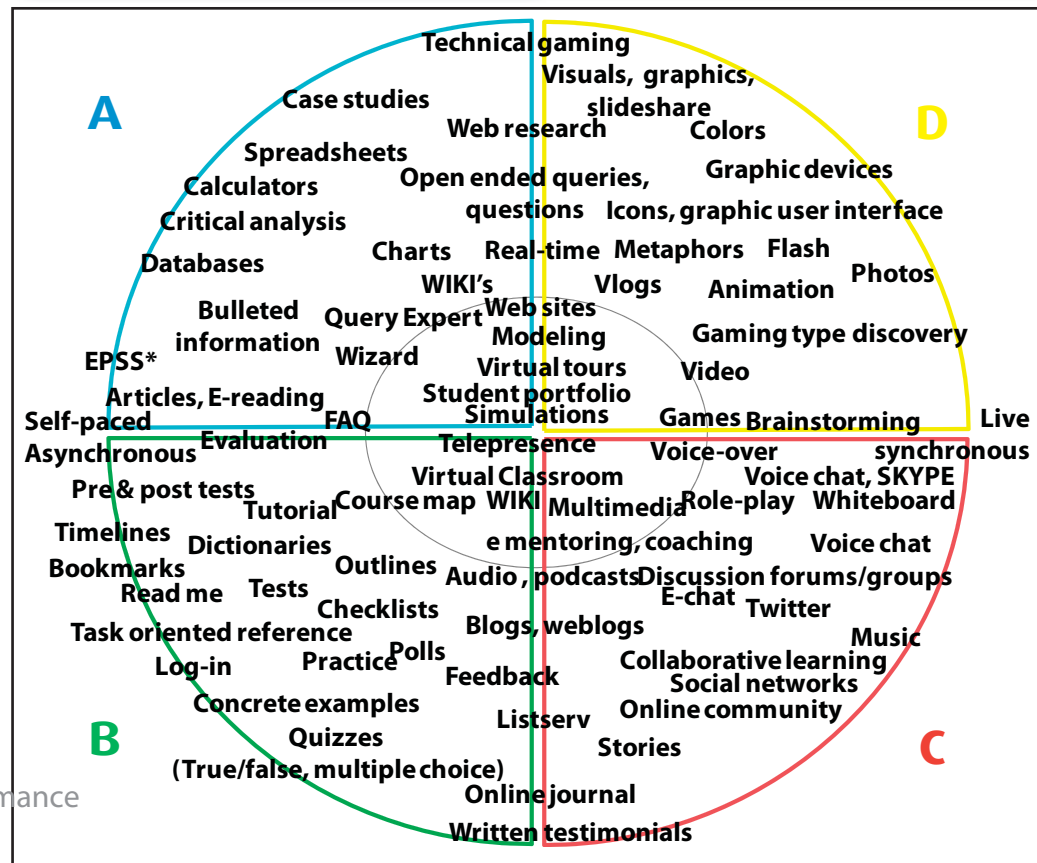
- ◆ Text chat
- ◆ Twitter
- ◆ IM (Instant Messaging)
- ◆ Application sharing
- ◆ Audio conferencing
- ◆ Video conferencing
- ◆ Webinars
- ◆ Virtual classrooms
- ◆ Cisco TelePresence/ Virtual meetings
- ◆ Searching knowledge bases
- ◆ Data mining
- ◆ Document sharing and file retrieval
- ◆ Ask an expert
- ◆ Blogs
- ◆ Vlogs
- ◆ Search engines
- ◆ Websites
- ◆ Social networks
- ◆ User groups
- ◆ E-commerce sites

Our research has shown that different design and delivery approaches improve and facilitate learning for each of these four specialized quadrants. The two models on the following page show different design and delivery approaches by quadrants for online and face-to-face/workshop learning. Use them as a guide in creating the optimum blend of approaches across the online and offline spectrum as well as the four quadrants.

FIG 2:
Face-to-Face and Workplace Learning Methods: The Whole Brain® Way



FIG 3:
Whole Brain® Locator Map for Online Learning Activities



*Electronic Performance Support System

Step 3: Put it all together in the context of the reality of your learning environment!

An important secret to successful blended learning initiatives is doing a reality check. It is very easy to get caught up in the “spell” of the technology options available—a good friend calls this the “dancing hotdog” syndrome: using technology that is totally unrelated to the learning just for the sake of the “coolness” of the technology. Remember that learning is the most important word in Blended Learning (as it was, in e-learning).

Learning guru Roger Schank says it this way:

‘Blended learning seems to mean, if I understand it right, that there will be some e-learning and some classroom learning. It is in vogue for a simple reason. No one wants to spend that much on e-learning and people in general want to preserve what they have, so they have made up this nice name for not changing much and called it blended learning.’

Thus, keep in mind the most important of your objectives. Focus on the two to five approaches that will best serve your design, your audience, and your organization—within its constraints. Keep it simple and always, always keep the brain in mind. You are, after all, a learner yourself. Put together a Whole Brain® team to help you evaluate your options and think this through. Then do your own reality check: Ask yourself and your team:

Does this make sense?

Will people really do this?

Is this good learning design?

Have we tested this?

Does the technology add value?

Have we looked at the change management aspects?

The last question brings up one last important dimension. If this new blended solution represents a change for you, your team and your organization, be prepared. Our styles will impact how we deal with change.*

Now you are equipped to think about how you would design a Whole Brain® blended learning solution for the learners we met earlier: Alan, Barb, Carl and Deb. How might you leverage the options available? What would you add to a typical “driving lesson” to make it an even richer learning experience?

Good luck with your blended learning initiatives. By using a Whole Brain® approach, you, and your learners will get the best of both worlds (and all quadrants).

*Our whitepaper [Know Change or No Change Will Happen](http://www.hbdi.com/Resources/WhitePapers/index.cfm) is a great resource for evaluating change issues. <http://www.hbdi.com/Resources/WhitePapers/index.cfm>

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