The Mobile Virtual Classroom

Authors: Jennifer Hofmann & Charles Dye
with contributions from Anna Heinrich
InSync Training: Your Source for Blended Learning and Virtual Design and Delivery

InSync Training sets standards for virtual learning, specializing in developing the best training professionals for your organization.

InSync Training is the acknowledged leader in the virtual training design and delivery field – we have been in the business of virtual training delivery since 1999, and are routinely identified as the “go-to” vendor for expertise in this field. InSync provides accredited, comprehensive live and interactive online training solutions, enabling learning and development professionals and organizations to realize the full potential of individual and organizational growth by leveraging the live online environment. InSync’s curriculum offerings provide its clients with the skills required to become knowledgeable, effective, and dynamic instructional experts in the virtual classroom. We help learning and development professionals understand the world of virtual training, empowering them with the skills to support their organization’s growth.

Our passion lies in improving the effectiveness of your live online learning initiatives, allowing your organization to reach its potential.

We work with organizations from all sectors, global corporations in numerous industries (including energy and utilities, financial, government, healthcare, information technology, manufacturing, medical devices, oil and gas, software development, and telecommunications).

Our ethos is “Reaching Learners Globally” which we do with our global team based in the USA and Europe.

Contact InSync Training

Telephone: +1-860-598-0888
E-mail: sales@insynctraining.com
Website: http://www.insynctraining.com
Facebook: https://www.facebook.com/InSyncTraining
Twitter: http://twitter.com/insynctraining
Table of Contents

Introduction to the Mobile Virtual Classroom .......................................................... 7
Why Go Mobile? ........................................................................................................ 7
The Live Classroom and Learning ......................................................................... 9
Filling the mLearning Gap ..................................................................................... 10
Paradigm Shift Required ........................................................................................ 11
Meeting Business Needs: The Manager’s Take on Mobile Virtual Classrooms ...... 12
BYOD: Learning on Mobile Devices .................................................................... 15
Creating the Mobile Virtual Classroom: What’s Different for Designers? ......... 20
What And HOW can you teach well in a mobile virtual classroom? ................. 21
Where DOES The Mobile Virtual Classroom Fit in a Blended Learning Curriculum? 24
Facilitating in the Mobile Virtual Classroom ..................................................... 26
Adult Learning Theory and Mobile Virtual Learning ............................................ 30
Conclusion .......................................................................................................... 31
InSync Training’s Learn Anywhere! Series ......................................................... 32
Contact InSync Training ..................................................................................... 33
About The Authors .............................................................................................. 33
InSync Training As Featured In Forbes Magazine ............................................. 35
It’s not your mother’s virtual classroom anymore.

Live learning is following us wherever we go – to other countries, to factories, even informally through social networks. InSync Training is dedicated to adapting best practices to the evolving virtual classroom, including globalization, mobile technologies, and social networks.

This paper is focused on the mobile virtual classroom but don’t worry, we’ll be covering the other concepts (globalization and social networks) in future publications. (The concepts are useful here to help explain the context in which we will be discussing the mobile virtual classroom and its place in the modern virtual classroom.)
Making the Virtual Classroom Global

Globalization, new learning technologies and dispersed workforces have provided us with a much more diverse learner base than ever before. Naturally, the virtual classroom paves the way for working with these global audiences more easily. However, it also creates a whole host of new challenges that need to be considered. How are you adapting to respond to these changes in your classroom?

In order to answer these questions, training professionals need to recognize the influence that culture plays in the classroom - especially classrooms that have three or even more cultures represented at the same time. Reading the body language in the multicultural bandwidth becomes critical to learning success. Managing class dynamics, communication issues, and cultural differences is an advanced facilitation skill, supported by informed design.

Creating a true global virtual classroom does not just happen - it takes planning, training, and understanding from all members of the training delivery team. And understanding from the learners: this is new to all of us, and we can all learn from each other.

Making the Virtual Classroom Mobile

When virtual classrooms were first introduced, the tendency was to migrate existing face-to-face content directly to the virtual classroom, without thought to redesigning that content to take advantage of this new delivery medium. And, if truth be told, without much thought given to the disadvantages of the virtual classroom. The goal was to just get that content out there.

In this brave new world of mobile technologies and the era of Bring Your Own Device (BYOD), we are facing similar challenges. In the rush to deploy content quickly and make it accessible from wherever the learners are, we aren't giving thought to what exactly should be taught and how it should be delivered.
To be successful, savvy designers need to take advantage of the mobile virtual classroom technologies and avoid design catastrophes, facilitators need the ability to deliver to a mobile audience, and managers need to understand how mobile learning fits in the larger learning context.

**Making the Virtual Classroom Social**

Organizations are beginning to rely on learning resources outside of classroom training events. In today’s hyper-networked virtual workplace, it is only natural to begin “thinking outside the classroom,” -- virtual or otherwise!

Social media provides rich resources for informal learning outside of the classroom as well as supplemental learning within the classroom. Both timely and collaborative, social media outlets provide you with the power to make sure learning occurs during your events and continues afterwards. It can be used to build community and continue the learning conversation started in the classroom or it can be used as a stand-alone “just in time” set of resources for instant gratification education -- or anything in between.
Introduction to the Mobile Virtual Classroom

It seems like everyone’s talking about mobile learning, or ‘mLearning’, these days. And it’s no surprise, tablets and smart phones are everywhere. So, how does mLearning relate to the live virtual classroom?

As we mentioned earlier, the transition from the live virtual classroom to mLearning is quite similar to the transition from the traditional classroom to the live virtual classroom. If you think back to the early days of the virtual classroom, this should feel familiar to you. When the virtual classroom was first introduced in the 1990s, the training community assumed it would be just like the traditional classroom. All the elements were there: we had learners and instructors, and we had slides. Since the ingredients were the same, it was assumed that the learning outcome would be the same. So we just migrated the content, without giving thought to redesigning it to take advantage of the new technologies (or avoid the disadvantages of the new technologies).

WHY GO MOBILE?

The desktop virtual classroom has a different toolset and unique engagement opportunities when compared to the traditional classroom environment. And the same is true when comparing the mobile virtual classroom to the desktop virtual classroom. The two environments are not the same and we need to focus on the differences in the interface and the engagement techniques used to create interaction and collaboration on a mobile device, not just push the content out there to make it accessible from wherever the learners are.
When considering mobile learning, stakeholders should approach the topic from two (very different) conceptual frameworks:

1. Mobile learning as a platform that closely matches the actual, real-world environment that the learner will use to perform or otherwise implement the learning outcomes (a good example might be a traveling insurance claims adjuster, who use mobile technology to conduct his/her claims process, or a technician that will use mobile platforms to use electronic performance support in the conduct of maintenance in the field); and

2. Mobile learning as an alternative delivery platform of convenience selected by the learner for convenience or availability.

The two frameworks are fundamentally different. In the first case, mobile technology offers an opportunity to engage the learner in meaningful, realistic activities similar to those he/she will encounter in the real world. In the latter, current (and realistic near-term) limitations of mobile technology limit (in some ways we’ll see later) the capacity to participate or otherwise follow a similar learner trajectory as one sitting at a fully functional PC or other more capable learning environment. That said, mobile technology generally offers the ability to access effectively designed and implemented training materials, and provides exceptional flexibility in reaching learners in a myriad of locations. Throughout this discussion, we will attempt to differentiate the outcomes within these two frameworks.

After reviewing some definitions and setting the context for live learning in today’s environment, we’ll explore the mobile virtual classroom from the perspective of managers, learners, designers, and facilitators.

Definitions

For the purposes of this paper, let’s clarify vocabulary:

- **Traditional classroom**: a traditional classroom refers to a live learning experience that is not facilitated by technology, and the facilitator and learners are co-located.

- **Desktop virtual classroom**: a desktop virtual classroom refers to a live learning experience when the learner is working on a desktop computer (including a laptop computer), most likely from a desk. Facilitators and learners are not co-located, but learning occurs at the same time via technology. Popular virtual classroom technologies include WebEx Training Center™, Adobe® Connect™, and Citrix GoToTraining™.

- **Mobile virtual classroom**: a mobile virtual classroom refers to a live learning experience where the learner is working from a smart phone or a
tablet. Learners could be at desks, or just about anywhere that their jobs might take them. Remember:

- A full-featured laptop is NOT considered to be a mobile device. While you could indeed take the laptop just about anywhere, for the purposes of our discussion a laptop functions in the same way that a desktop computer functions.
- The design of the virtual learning experience will be maximized for either the desktop virtual classroom or the mobile virtual classroom; not both. They are very different environments and must be optimized in different ways. We’ll discuss quite a bit about learner choice, and during those discussions we will address what to do when the learner is not participating from an optimal virtual environment.

The Live Classroom and Learning

Even with all of the advances in learning technologies over the last two decades, traditional face-to-face training is still seen by most as the best training solution. Managers can depend on someone completing training simply by reviewing attendance records; once they are assured that their employee showed up, they can feel confident the employee has been trained. Learners often feel cheated if they don’t have a live instructor all of the time, and, when participating in a blended learning program, often will focus on any traditional classroom interactions while ignoring content being delivered via technology.

Even with these obstacles, training organizations are being charged with utilizing instructional technologies whenever possible. It’s up to us to ensure that content is
matched with the most appropriate delivery technology.

As we’ve been discussing, the latest design technique to conquer is mLearning. We need to keep in mind that, just like the traditional classroom requires a different treatment than the desktop virtual classroom, the mobile virtual classroom is also a unique animal.

Today, the virtual classroom is an expected part of our learning environment. When effectively designed and delivered by a skilled facilitator, it allows learners to be engaged and master content.

But we have all attended bad webinars that were clearly not well designed and not masterfully delivered. It’s important to keep in mind that without consideration for design and delivery, mobile versus desktop doesn’t matter. Bad design is always bad design.

I challenge you not to go through the ‘bad webinar’ phase of mobile virtual classroom evolution. We have an opportunity now, early on in the mobile deployment of the live virtual classroom, to avoid the mistakes in design that can give the delivery methodology (in this case, mobile virtual classrooms), a reputation for not being effective.

**FILLING THE mLEARNING GAP**

One of the advantages of mLearning is that it excels at disseminating new information very quickly. How many of you have used your mobile device in a new city to find the nearest place for a caffeine fix? That’s a great example of disseminating new information quickly.

Using a mobile device for performance support by providing information right when the learner is applying the new knowledge is another area where mLearning is king. How many of you have used your mobile device to quickly Google an answer and therefore win bragging rights among your friends? This is another example of performance support and mLearning.

Note that these very common applications of mLearning are user-initiated, and self-directed in nature.

One of the big gaps we’ve discovered when designing content for the mobile virtual classroom is creating live engagement and interaction. You might enjoy spending time over lunch, in the break room, or in a conference room because that is where you can debate and discuss ideas with peers. There are many moments where we all need a little information to help us solve a problem -- or simply win a bet with our friends. But there are just as many moments where we want to get feedback
and suggestions from our peers on a new idea or we need some input on a challenge we’re facing. We want this feedback immediately, not in a week or so, as is common on a discussion board. As much as I’d like to, I can’t spend a week in the break room waiting for an answer.

The mobile virtual classroom, with a live facilitator, fills that gap by offering a mobile solution where we can interact, engage, and collaborate with our peers in an immediate, live environment. It’s almost as good as a discussion over lunch.

In addition, if you’re like me, you probably spend time at work contemplating current challenges and future possibilities. I do this often by myself over a cup of coffee, but when I have peers to try out my thoughts and ideas with, the experience is enriched. More often than not, they each have a different viewpoint to offer which can take me in an entirely new direction. Google is great, as are other self-paced mLearning lessons, but it can’t debate different points of view or offer examples from different life experiences.

Peer reflection and input via the live mobile virtual classroom fills this gap in mobile learning. These types of interactions are ideal for the live mobile virtual classroom for two important reasons: First, it takes a certain level of comfort and trust in your peers to offer personal reflections on your successes and failures. You can build this level of comfort in a live virtual classroom more quickly than on a discussion board. Second, because there is no travel involved in a live virtual classroom, you can have your peer reflection before the learning event as well as after the learning event. This allows for pre-event contemplation and post-event reflection.

Paradigm Shift Required

As we’ve discussed previously, the desktop virtual classroom and the mobile virtual classroom are NOT the same. In order to be successful designing and delivering content for the mobile virtual classroom, we need to understand the way learner’s think about mobile learning. (Hint: they think it’s the same as the desktop virtual classroom.)

Here’s the paradigm we need to shift: tablets and smart phones have become so powerful that users expect that anything they can accomplish on a
desktop computer can also be accomplished on a mobile device.

Unfortunately, as we all have probably experienced, that’s simply not true. Learners can try to participate in a lesson designed for a different technology using a mobile device, but the learning won’t be as meaningful.

The fact that mobile devices are ubiquitous actually causes some problems because the learning environments are highly varied depending on exactly which mobile device is being used. Individuals may be using very different devices (tablets, phones, different operating systems, different interfaces, etc.) and also find themselves in very physically different learning environments (home, airport, coffee shop, etc.). And some of these environments are not going to be as conducive to efficient transfer of information as others.

However, in some circumstances, of course, mobile virtual learning will work. One of the key questions we’ll tackle when discussing designing content will be focused on what we CAN really teach well in the mobile virtual environment.

Meeting Business Needs: The Manager’s Take on Mobile Virtual Classrooms

There is, of course, a business need driving mobile learning. Organizations need learning to occur wherever their employees are, and often whenever they need it.

Organizations are also making significant investments in mobile devices to help move their businesses into the future. They are very incentivized to maximize the return on those technology investments.

My major concern, with respect to the mobile virtual classroom, is that organizations/managers/supervisors expect the same outcomes from mobile learners as they expect from individuals learning from desktop virtual classrooms or even traditional classrooms. This stakeholder group (I’ll call them ‘managers’) have not yet learned that different learning environments are NOT created equal and there must be a different expectation for each learning environment in terms of outcome.

Set expectations with managers

The solution, as with most business problems, is communication and training. I’ve come to realize that most managers do not have the experience necessary to understand the difference between the learning environments (most likely because they haven’t experienced the different learning environments personally).
To help set realistic expectations, create informational sheets, short recordings, and even informational lessons explaining what mobile learning is and is not. Consider delivering those informational lessons on mobile devices, so these important stakeholders can have an authentic experience and the background they need to make decisions about mobile virtual classrooms.

**But be ready for pushback**

You will have resistance to the idea that managers cannot expect the same learning outcomes from learners participating in a mobile virtual classroom with a lesson designed for a desktop virtual classroom. (Never fear, we’ll discuss designing lessons specifically for mobile success later in this paper - that is a different conversation.)

This resistance stems from the issue we discussed previously – most people believe they can do anything they do on their desktop on their mobile device when the reality is much different.

And even when they understand that the experience may not be as meaningful, the response might be, “It’s good enough for what we need.” As long as the decision makers understand the impact of their choice, we need to accept this as a business decision.
Establishing credibility with managers

Later, we’ll address specific design techniques to optimize the mobile environment, but for now, you need to be ready to answer the following questions:

1. **When is it best to utilize mobile virtual classrooms to train my workforce?**
   a. If the mobile device provides more instructional fidelity (content is taught in CONTEXT) to the task/outcome you are teaching, then mobile is best. For example, if you are teaching a warehouse supervisor how to manage inventory using a tablet, delivering the training via the tablet is a more authentic (‘real-life’) way of teaching the skill; therefore the learners will leave the lesson with more skills than training taught in a less authentic environment. (“If he is going to perform the task that way, then he should learn the task that way.”)
   b. Most organizations have compliance requirements that do not require participation; they simply require attendance. No matter how someone participates, as long as they are logged in and (in theory) listening, we have met our requirement. (I am not suggesting this is meaningful training, just a reality we sometimes need to address.)

2. **Why shouldn’t learners attend lessons designed for the desktop virtual classroom on mobile devices?**
   a. When lessons are designed to take advantage of engagement tools like breakout rooms, application sharing, and whiteboards, mobile learners can become very frustrated when they find they cannot participate in many of the interactions, or the smaller mobile device screen size makes it too difficult to absorb the details.
   b. Lessons designed for the desktop environment are often 60-120 minutes long. Learners will often not be able to fully engage for that period of time while mobile.
BYOD: Learning on Mobile Devices

Did you realize that BYOD (Bring Your Own Device) was one of the hottest buzzwords in computing?

Don’t believe me? Try an experiment. Go to Twitter and search for #BYOD and see how many references have been made using that hashtag in just the last hour. It’s everywhere. Posts about security (Bring Your Own Disaster), inevitability (young people will use their own devices even if it is not allowed) and usability (how great is this!) will be immediately available for your perusal.

BYOD is not just a trend – it’s happening all around us. For those in corporate education, it is becoming an expectation. Our audience wants to learn WHENEVER and WHEREVER they are.

It is getting so organizations are starting to enforce policies such as, "Employees are not permitted to participate in a virtual class while driving."

It's a new world for training.

So, we've been experimenting. Recently, InSync delivered a short lesson for a local training organization’s annual conference. The facilitators delivered remotely, while the onsite audience, co-located in one room, had the option of watching the projected screen or logging on with their mobile device. The room had a very experienced moderator to help interested people log in, printed directions, and the assurance that if they couldn't log in, it was fine. The content would also be delivered on the projected screen. Logging in with their mobile device was an optional experience.

The result? Many members of the audience were much more concerned with how to get their personal devices to work, and less concerned with the content being delivered. The time was spent trying to manage, for example, the difference between virtual whiteboards on an Android tablet when compared to an iPhone.
You would think that after all this time we would have remembered that technology that has not been mastered is a distractor to the learning process.

**Why are learners choosing mobile?**

Business needs aside, learners started this BYOD revolution. Self-paced learning for the mobile audience has really been taking off, as tablets and smart phones become more ubiquitous. Still, it's a relatively new learning method. Live mobile learning, via virtual classrooms, is practically an accidental phenomena. Learners with busy schedules are trying to do too many things at once, and sometimes that means learning while driving or learning in between meetings.

The decision for learners to ‘go mobile’, independent of the suggested learning delivery format, is based on two factors:

1. First, it comes down to learner choice. People are more comfortable with personal devices that they already know how to navigate. We all ‘tune’ our devices to the way that works best for us as individuals. For instance, a left-handed person might have the computer mouse on the opposite side of a keyboard from a right-handed person. If they switch computers for a day, each could get very frustrated that the device is personalized for someone else. We are much more fluent on our personal devices.

   This is called technical literacy, which, as defined by the [International Technology Education Association](http://www.iste.org), is “the ability of an individual, working independently, and with others, to responsibly, appropriately, and effectively use technology tools to access, manage, integrate, evaluate, create and communicate information.”

   (Technical literacy is one of many ‘new literacies.’ The concept of new literacies is one with which we should all become familiar, as it will have more impacts on our profession as technologies and methods evolve. I suggest reading the Wikipedia article on the topic to get started - [http://en.wikipedia.org/wiki/New_literacies](http://en.wikipedia.org/wiki/New_literacies))

2. Next, it comes down to access and what device is available at the moment. If I happen to be in the office, I might choose my desktop computer. If I am on the road, and attending a session between appointments, I will probably choose to attend using my mobile device.
Can we mandate that this is a desktop learning experience only?

Selecting a device on which to learn, whether a desktop computer, tablet, or smartphone, is ultimately about learner choice. Will the learner be in an airport or an office? At work or at home? To allow the learner to be as effective as possible, we need to give them as much information about the learning event ahead of time so they can make a salient and intelligent choice about which device to use.

We will often design for a desktop environment, and communicate that this is not a ‘mobile-ready’ course, but some learners are going to use their mobile device anyway. They might not have access to another machine. They may prefer it. They may be peripherally involved with the subject matter and just want some exposure to it. These are all learner informed decisions.

And ultimately, the learner is the arbiter of what’s important to them. No matter how often we stress that a particular lesson won’t be valuable if joined from a mobile device, the learner may choose to join on their tablet. So for those mobile attendees, facilitators need to send the message that if a learner elects not to participate on the suggested technology, that learner will not have the optimal learning experience and will not (presumably) master the content.

Whether your virtual classroom content is being delivered at the desktop or via a mobile device, learners will always try to push the boundaries. For instance, they’ll ask questions such as, “Can I participate audio only?” Or, “Can I just watch the recording later?” Again, this comes down to some aspect of learner choice.

There were presumably design decisions made that dictated why this content is being delivered in a live virtual format. If you allow learners to participate using audio only or just watch a recording, they will not have the same experience and therefore the mastery of the content will not be the same as those participating in the environment for which the content was designed.

The question of instructional fidelity needs to be answered prior to the learner making the choice as to how to participate. And, whenever
possible, the learner’s supervisor should understand the implications of that learner not participating in the suggested environment.

If someone is determined to learn, and decides to use a mobile device even though it isn’t recommended, it is up to the learner to make it work. And you know what? A motivated learner will probably make it work, but it will probably take more effort during and after the lesson.

The learner has the ultimate responsibility of choosing which environment will work best for them AND making it work when it’s not the recommended environment.

**Pros of BYOD/Learner Choice**

1. If an individual is using the same device for work, learning, and personal use, they develop a strong 'technical literacy' with that device, and tailor it to work for them. The device becomes a natural extension of how they communicate, and the learning curve for new tasks incorporating that tool can, in theory, be reduced.

2. BYOD encourages collaboration outside of the learning event or the workplace. The concept of, "I left the password for the eLearning at work" doesn't exist, because the device is always with the learner.

3. BYOD supports public policy concerns about learners with special needs. English to Speakers of Other Languages (ESOL) learners, or those with hearing or sight impairments, can utilize a device that supports their personal requirements. When the device is the same for phone calls, email, learning, and leisure, individual concerns about success are greatly reduced.

**Cons of BYOD/Learner Choice**

1. BYOD by definition implies 'whatever you want.' But not all devices are created equal. The device chosen (iPad, tablet, etc.) can create a very different user experience and each individual's budget, personal preference and available connectivity all contribute to which device is chosen. For example, what device is most appropriate for a learner's budget? Or, do they prefer a tablet, a laptop, or a phone? Are they a Windows® user or do they prefer IOS? And of course, different connectivity options such as wireless or cellular networks can create very different user experiences. For the facilitator of BYOD virtual classrooms, this means they must become familiar with a great variety of devices and operating systems, and the way the virtual classroom works in these various systems, in order to seem credible.
It is so frustrating to be judged on this new technical literacy requirement before we can start to teach and encourage collaboration!

2. Learners need to be taught how to install apps/software and how to collaborate with their specific device and configuration. And then, there are upgrades to hardware and software to consider!

3. Because the variance is so high, and the interoperability between application versions is not always known, lessons will need to be designed for the lowest common denominator. Lessons designed to be very hands-on and collaborative may not be great on some devices.

4. Information Technology (IT) departments continue to be concerned about BYOD - letting any device onto a private network is a nightmare for your colleagues in charge of security. As organizations provide more and more mobile devices to employees, IT may start to feel more in control.

Are digital natives really more adept at learning in the mobile virtual classroom?

There is an assumption that digital natives (people born after 1980) are more inclined and more adept at using technology to learn. It’s true, the more naturally comfortable with these technologies, the easier it is for the learner to learn, but they are still often looking for a facilitator to tie the content together. This is because even though they know how to access information, the technology is a tool. They aren’t necessarily learning in context. Remember, THE TOOL IS NOT THE INSTRUCTIONAL ENVIRONMENT!

Also, be careful not to push the digital migrants (those not raised with all these gadgets). Mobile learning can teach more than just its intended performance objectives; it can teach digital migrants how to live and how to work in an increasingly mobile world.

For more information on these terms, see: http://en.wikipedia.org/wiki/Digital_native.

As the workforce becomes more technically literate, this dynamic between the generations will most certainly change. But this won’t happen overnight – this is a decade long change. In the meantime, technology and devices are going to continue to evolve, and the conversation will be very different in the future.
Creating the Mobile Virtual Classroom: What’s Different for Designers?

As I mentioned earlier, the virtual classroom is an expected part of our learning environment. But it needs to be designed effectively, and specifically, for the mobile worker. Start the design process with two questions:

1. Why are we bringing people together to learn in a LIVE virtual classroom environment (as opposed to learning in a self-paced format)?

   Whenever we decide to convene a live class, of any variety, we are spending money and time on the people attending. Some of the most compelling reasons to bring people together at the same time include the ability of the facilitator to organically respond to ad hoc questions and to put content into context. You don’t have to anticipate every question. Also, in a live lesson you can build on content learned in a self-paced lesson, which is usually a one-size-fits all scenario. Live lessons allow you to provide true customization, problem solving, and real-work application to content in a way that is difficult to execute in self-paced lessons.

2. Why are we designing this for a mobile environment (as opposed to a desktop virtual classroom)?

   When designing specifically for the mobile virtual classroom, it should be for very strategic reasons.

   The key thing to remember here is to be authentic, where the real-world task is recreated in the learning environment. Learners are using mobile devices often because they are, well, mobile. To take advantage of that, be sure to think about what skills they need when they’re on the go.

   This is called “contextual learning.” If we are teaching someone how to create pivot tables in Microsoft® Excel®, that content should be designed for a virtual desktop environment because that is the environment in which learners will be applying the skill. Learning this skill on a mobile device is not
only not contextual, it’s difficult to see the detail involved with the tasks. However, if we are teaching a warehouse manager how to use an iPad to assess stock levels, short mobile interactions are contextually appropriate because we are delivering content using the tool the learner will eventually need to master for the job.

WHAT AND HOW CAN YOU TEACH WELL IN A MOBILE VIRTUAL CLASSROOM?

Self-paced learning for mobile devices has really come into its own with tablets and smart phones becoming ubiquitous. Still, it's a relatively new learning method. Live mobile learning is even newer. It's practically accidental. Learners with busy schedules are trying to do too many things at once, and sometimes that means learning while driving or learning in between meetings.

But sometimes mobile is simply not the best way to deliver content. Small group collaboration in breakout rooms, or role-plays using application sharing cannot be accomplished easily, if at all, in today’s mobile virtual classrooms.

The toolset is different. As a consequence we need to design to engage the learner differently than we would in a non-mobile environment.

As a designer for virtual learning, you need to know your audience and the devices they use, and design for the experiences interacting with those devices will create. Pilot the designs with a realistic group. Sure, the app says whiteboards work, but what is the EXPERIENCE like for the end user? How does the producer troubleshoot the experience?

The lesson also needs to be designed to manage distractions proactively. If the device is where a person's LIFE (working, learning, and communicating) happens, distractions will be everywhere. Mobile lessons should be designed to have learners interact every 3-5 minutes, or even more often!
Create a policy for BYOD in your virtual classroom

Consider creating a COLLABORATION RATING so potential learners can intelligently select how they want to participate. An "A" Rating means "highly collaborative, laptops required." A "B" Rating might mean "BYOD." Publish the requirements and send out reminders with the calendar invites. Be strict! One person trying to participate from the airport on their smart phone in an "A-rated" class could derail the experience for everyone else.

Create short tutorials (eLearning, recorded virtual lessons, etc.) that teach people how to install and use each expected iteration of the virtual classroom software. For example, how do you chat on WebEx on the iPhone? How about video when using an Android tablet with Adobe Connect?

How long should lessons be?

To keep that all important engagement, if you are designing a lesson to be delivered in the live mobile environment, you must keep that lesson short. Most people using mobile devices are looking at a small screen, and are often not in a comfortable learning environment. So I suggest you schedule live mobile lessons for 30 minutes, and plan for 20 minutes of content and conversation. Then learners can leave the lesson without worrying about being late for their next appointment (remember, these are MOBILE workers) and without missing valuable content. Designing such short live interactions means capsulizing the content into short pieces, or applying the concepts of ‘microlearning.’

Your Training Edge Blog:
http://www.yourtrainingedge.com/megatrends-in-moocs-4-microlearning-paths/

“A new interest in microlearning, which is essentially any type of learning done in very short bursts. Digital learning environments ... can provide frameworks for a wide variety of microlearning activities. Microlearning isn’t necessarily appropriate for all aspects of workplace education, but it is highly advantageous in environments in which people don’t have a lot of concentrated time to devote to their training, for process reinforcement, and for spaced repetition, among others.”

Wikipedia:
http://en.wikipedia.org/wiki/Microlearning

“Microlearning is a term that can be used to describe the way more and more people are actually doing informal learning and gaining knowledge in microcontent, micromedia or multitasking environments (microcosm), especially those that become increasingly based on Web 2.0 and wireless web technologies. In this wider sense, the borders between microlearning and the complementary concept of microknowledge are blurring.”
To keep your lessons short:

- Omit discussions about agenda, objectives, and introductions. These take time, and are probably not relevant in a mobile environment. Learners should have that information ahead of time, and be ready to jump right in.
- Create a resource page that contains links to recorded lectures, job aids, technology aids, and anything else that might assist the learner after the lesson. And don’t forget, you can add to this page based on input and suggestions.
- Don’t have the facilitator teach all the tools at once up front. Teach technology in the moment it is needed; and teach only what is needed.
- Send a summary, in the form of a job aid or whitepaper, at the end so learners can be confident they haven’t missed critical content. This summary can be posted to the resource page for download, but, if attendance and participation are mandatory, it should not be made available until after the lesson has concluded.
- And to support engagement, be sure to use a producer to keep track of who is actually engaged. The producer can help you manage the roster to make sure that everyone gets a chance to speak and will pay attention to who’s actually participating. And, in poll and chat exercises, the producer, in this environment, has the primary job of actively monitoring your learners.

Back to basics

When you are designing a lesson specifically for a mobile audience, some basic design considerations include:

- Design slides for the lowest common denominator and script talking points so they are very concise. Minimal (and inconsistent) screen space and potentially noisy surroundings make it critical that all visual and audible messages be very focused.
- When creating participant materials, remember that their screen space is limited and they are probably only able to engage in one artifact at a time. A mobile learning design cannot depend on parallel interactions, like constantly flipping between an online workbook and the virtual classroom.
- Requiring mobile learners to have printed materials simply isn’t reasonable. All content should be on a resource page for review later.
- Serial collaboration (one person contributing at a time) will be your primary engagement technique in a mobile virtual classroom. Concurrent collaboration (where everyone is contributing at exactly the same time) is much harder to achieve (though chat can work very well for this in certain situations).
• Learners will make their own decision about if and how to take notes. (Perhaps they will use a notebook!) Consider how hard it might be to take notes when mobile, and make sure your resource pages have all of the information learners will need later on.

WHERE DOES THE MOBILE VIRTUAL CLASSROOM FIT IN A BLENDED LEARNING CURRICULUM?

Blended learning is a learning program in which performance objectives are matched to the most appropriate medium to ensure that learning occurs -- at least in part -- through facilitator-led delivery of content with some element of learner control over where, when, pace or path in the overall program sequence.

In the right context, mobile virtual learning can be an impactful component of a blend. Consider our warehouse supervisor learning how to manage inventory. The basics of inventory control can be taught via a desktop computer where the supervisor needs to create the inventory reports, but actually taking inventory using a tablet can be taught on the warehouse floor using the mobile device. Eureka! Microlearning in context.

Setting learner expectations with a blended learning course map

One of the most important things to note about a blended learning program is that each part is required and none of them are more important than the others. Providing the course map helps to set that expectation ahead of time and allow learners to plan for virtual learning.

The course map provides an overview of the entire blended learning curriculum and can be used as a checklist by learners to track completion of the various modules and presentations, as well as serve as an effective time management aid. It helps learners manage their time and not be surprised when faced with five hours of self-
paced work, or requirements concerning whether to use a mobile or desktop learning device.

The course map provides an explanation of the sequence of events, the type of learning activities, the anticipated length for each activity, and an idea of when the activity will occur.

When utilized, it should be the ‘home page’ of the online course resource area, linking related resources when appropriate.

For an actual curriculum, more detail (such as module name) might be added. Independent assessment activities also may be part of the map. If this learning map were available on a course home page (online), learners could use the map to navigate to more information about each topic, and potentially access and log into each independent learning activity.
Facilitating in the Mobile Virtual Classroom

The virtual facilitator plays a vital role in ensuring that learners are successful. Whether participating via a traditional, desktop, or mobile virtual classroom, learners need to feel as though they have developed a personal rapport with the facilitator.

This need is even more important in a virtual environment than a traditional program because the facilitator acts as an anchor, reassuring learners that support, reinforcement, and assessment is readily available. An active and participative facilitator is crucial to the success of any virtual classroom initiative, whether mobile or not.

But take note: active and participative doesn’t mean excessively communicating with email messages and lectures. Instead, it means that facilitators must create a learner-centered environment. More importantly, they need to move the focus away from themselves and the technology to the content and the learners.

As training professionals begin to facilitate in the desktop virtual classroom, they experience some expected challenges, usually focused on the theme of how to ensure learning has taken place without the benefit of eye contact and body language, as well as how to make sure learners are engaged.

When facilitators have mobile virtual learners, these challenges are compounded, especially when a learner has opted to participate via a mobile device when the lesson was designed for a desktop learning environment. How do we keep these ‘non-optimized’ learners engaged?

What do we mean by engagement?

Engagement is defined by Merriam-Webster as "emotional involvement or commitment." When a learner is engaged, that learner wants to be involved in the event; he or she wants to hear what you have to say and wants to meet the objectives of the lesson. Whether delivering a one-hour webinar or a three-week...
blended curriculum, we need learners to be engaged for the lesson to be successful. Interaction and collaboration are the engagement techniques used to ensure this success.

- **Interaction** is communication between learners, trainers, and technology. The purpose of interaction in a virtual classroom is to keep the lesson moving, make sure learners are paying attention, and to clarify misunderstandings. Interaction provides feedback to all involved, and focuses on data/information. Learning objectives that fall into a 'knowledge' category (recite, recall, list....) can usually be taught using an interactive approach. In the virtual classroom, interaction can be accomplished in many ways, including polling, web scavenger hunts, and Q&A lessons. These types of interactive activities don't include PRACTICE of a new skill or APPLICATION of new knowledge. They simply confirm KNOWLEDGE. Interaction should be the primary engagement technique during events with titles like "Webinar" and "Presentation." As we move into events with training goals, interaction is used to ensure the transfer of baseline information before learners need to practice skills or apply knowledge.

- **Collaboration** builds on baseline information, and is one of the factors that, in my opinion, moves an event from being a presentation to being true training. The purpose of collaboration in a virtual classroom is to ensure learners achieve the desired level of content mastery while working with other learners. (If they could have learned it on their own, why bother sending them to a live class?) Collaboration is exemplified by the PRACTICE of new skills and APPLICATION of knowledge by the learners. We can achieve collaboration in a virtual setting by using breakout rooms, shared whiteboards, and facilitated discussions, all the while moving up the Bloom's Taxonomy ladder. Generally, collaboration can best be achieved with small groups and supplemental participant materials to support the learning process.

Can you really engage live learners participating from a mobile device, especially when the lesson was designed for desktop learning?

All mobile learning can definitely be effective for any particular individual, however statistics show that a larger proportion of our learner audience is less likely to be fully engaged when using a mobile device. Chances are, many of those learners are located in transient environments such as conference rooms, coffee shops, or executive lounges and airports. As we all know, it’s very hard to maintain focus when the environment is demanding your attention. Therefore, all things being
equal, we need to recognize that a higher proportion of our audience will not obtain the knowledge transfer/skill building to the extent the performance objectives promised. We just have to recognize that as a limitation of the platform.

When a lesson is designed for a desktop virtual environment, facilitators have to pay particular attention to engaging with individual learners during the class to make sure that mobile learners have an opportunity to participate. To do this, facilitators need to recognize who is mobile in the audience, without implying mobile learners are having the same experience as desktop learners.

When a lesson is designed for a mobile virtual environment, the microlearning nature of the design should go a long way towards keeping learners engaged. To support the design, the facilitator needs to fully understand the learner environment.

The facilitator should OBSERVE the environment on a mobile device. This will help ensure the facilitator fully understands the learner experience and gives the facilitator the ability to provide strong verbal instructions. It can be very challenging to visualize what an iPad screen looks like when you are only viewing a desktop computer.

However, the facilitator should DELIVER the content from a desktop computer. Don’t depend on facilitating from today’s mobile environments - they are not robust enough nor do they provide enough visual feedback for a facilitator to be effective.

**Producing in the Mobile Virtual Classroom**

Using a producer, or what is sometimes referred to as an assistant facilitator, allows the facilitator to focus on content and maximizing interaction. Meanwhile, the producer can focus on such issues as technical support, distribution of materials and email, and validation that deadlines have been met. During the live lessons, the producer can assist by managing chat and encouraging learners to participate.

In essence, the course has two equally important people ensuring its success and supporting one another. To alleviate confusion, make sure that learners are aware of the dual roles, the responsibilities of each person, and to whom they should direct their questions. For example, instructional or assignment questions go to
the facilitator; questions of a technical nature go to the producer.

Some organizations are resistant to the team teaching approach primarily because it’s perceived as an additional overhead expense. The producer role doesn’t need to be an expensive resource, though. Organizations have successfully used college interns, administrative assistants, and training coordinators as producers. In addition, a facilitator can serve as a producer when a subject matter expert is delivering the content. Finally, the role of producer can fill your trainer “pipeline” by developing in-house expertise for virtual learning.

While we always recommend a producer for virtual classroom lessons, the role of a producer in a lesson with mobile learners is even more critical. They need to keep track of who is engaged, manage learner interactions and questions, and do whatever is necessary to make sure learners are investing their time wisely. For instance, the producer is in charge of tracking when someone doesn’t vote, respond, or volunteer during an exercise. They are also responsible for anticipating and minimizing technical disruptions, including noise and connectivity issues.

In short, producers in the mobile virtual classroom need to be more sensitive to the interaction levels and ensure that each learner is contributing to the experience. If that isn’t happening, it’s up to the producer to actively work the problem and get those mobile learners engaged.

Responding to questions about how to participate in virtual programs

No matter how well the lesson is designed, and how effectivity the format is communicated, the facilitation team is going to have to answer the same questions over and over again. Here is some information to help you to respond to these questions.

- **I have chosen to be on my mobile device even though I know this is a desktop learning experience. Is that ok?** Your learner is logged in to the classroom and ready to participate, but on a less than optimal device. In this situation, you need to be very explicit to say, the following things will not happen for you in a learning experience because you are on a mobile device, and there are certain activities in which you will not be able to participate.

  This is almost guaranteed to disengage them.

  If you know this is going to occur, you can try to plan to maximize their time by preparing exercises for these learners to complete independently from the resource page. Perhaps, instead of working in a breakout room to solve a problem, the mobile learners read an article and prepare to answer pre-
planned questions. These are not ‘on the fly’ design decisions; they need to be planned ahead of time, and are best managed by the producer.

At some point, as long as the mobile learners are not impacting the rest of the class, it comes down to learner choice.

- **Can I just watch the recording?** This situation is very common because the message has been sent, “Don’t worry if you miss the session; it will be recorded.” This is the wrong message to send, as it devalues the live experience. If a live lesson is designed to be interactive and collaborative, then reviewing a recording instead is not worthwhile. It turns collaborative application oriented lessons into informational sessions, and precludes any opportunity for practice and mastery of objectives.

- **Can I participate audio only?** This question is very likely coming from someone who is very literally mobile at the moment – on route from one place to another, and able to listen to a phone conversation but not log in to the virtual classroom. Though the learner obviously is trying to participate, this is a worst-case scenario. Opportunities to participate in collaborative exercises are taken away, and the learning environments are very distracting. (Picture the back seat of a taxi, or, worse, someone actually driving!) Best case scenario is little learning takes place; worse case scenarios include distracting environments for other learners and potential dangerous situations.

**Adult Learning Theory and Mobile Virtual Learning**

It should come as no surprise that mobile technology in training has been widely adopted by the professional learning audience – fundamental adult learning principles relating to relevance of material and timeliness of training are supported by mobile in ways few (if any) other platforms can. For instance:

- They understand why something is important to know or do.
- They have the freedom to learn in their own way.
- Learning is experiential.
- The time is right for them to learn.
- The process is positive and encouraging.

As we have seen, this flexibility is not without its own costs, principally related to the current limitations of mobile platforms and the high likelihood of differentiated experiences that result from them.
**Conclusion**

There are a lot of misconceptions about how and when to use the mobile virtual classroom. But no one is really to blame; the mobile virtual classroom has only been around as long as programmers have been creating mobile apps. So best practices for facilitation and design and the expectations of learners and their immediate supervisors are still evolving.

When designing and implementing live mobile training, we need to address three questions:

1. What is the desired outcome of training?
2. What do we expect of the learner after completion of the training?
3. What does the learner expect to get out of the experience?

When these three expectations align, we have a winning design.

Mobile technology provides unparalleled access and flexibility of delivery to enhance learner outreach. However, there are many pitfalls along the way that minimize the capacity of the mobile learning platform. These include bad design, and not setting learner expectations for the mobile experience.

In the end, business needs will drive the implementation of mobile virtual learning, and learner behavior will drive adoption.

In this brave new world of mobile technologies and BYOD, the training community is facing many challenges. In the rush to deploy content quickly and make it accessible from wherever the learners are, we aren't giving enough thought as to what should be taught and how it should be delivered.

To be successful, savvy designers need to take advantage of the mobile virtual classroom technologies and avoid design catastrophes, facilitators need the ability to deliver to a mobile audience, and we should all strive to create an authentic experience where office workers learn at their desks, and mobile workers learn wherever they happen to be. And always remember that these experiences are not the same.
InSync Training’s Learn Anywhere! Series

The virtual classroom has evolved, and expectations for quality are higher than ever. Some organizations have been teaching and learning this way for over a decade, and are ready to bring their virtual learning design and delivery to the next level to ensure virtual delivery is meeting, and potentially exceeding, the traditional classroom experience.

After your organization has implemented specialized techniques in support of virtual instructional design and virtual facilitation, what do designers and facilitators need to become masters at their crafts?

Trends in business and training include globalization, mobility, and social networking. By establishing a foundation of knowledge and skills in these areas, training professionals can get ahead of the trends and create core practices in their organizations.

Learn Anywhere!

The Learn Anywhere! Workshop Series will deliver a different title periodically, addressing advanced topics such as Excelling in the Global Virtual Classroom, Crafting the Mobile Virtual Classroom, and Integrating Social Media into the Virtual Classroom. Each workshop will be limited to 30 participants, in order to accommodate hands-on interaction and in-depth collaboration.

For more information on this series, visit the Workshops link on http://www.insynctraining.com.
About The Authors

Jennifer Hofmann is the president of InSync Training, LLC, a consulting firm that specializes in the design and delivery of virtual and blended learning. Featured in Forbes Most Powerful Women issue (June 16, 2014) as a New England Women Business Leader, she has led InSync Training to the Inc. 5000 as the 10th Fastest Growing Education Company in the US (2013).

Hofmann is a recognized thought leader in the field of synchronous learning. She is the author of The Synchronous Trainer’s Survival Guide: Facilitating Successful Live and Online Courses, Meetings and Events (Pfeiffer, 2003), Live and Online! Tips, Techniques, and Ready-To-Use Activities for the Virtual Classroom (Pfeiffer, 2004), and How To Design For The Live Online Classroom: Creating Great Interactive and Collaborative Training Using Web Conferencing (Brandon Hall, 2005). Additionally, she is a chapter contributor to The Handbook of Blended Learning (Pfeiffer, 2006), The AMA Handbook of E-Learning (The American Management Association, 2003), and The ASTD Handbook for Workplace Learning Professionals (ASTD, 2008 and 2014). She has co-authored, with Dr. Nanette Miner, Tailored Learning: Designing the Blend That Fits (ASTD, 2009), a book focused on taking advantage of distributed technologies to create the best blended training solution possible.


Follow Jennifer Hofmann at her blog, Body Language In The Bandwidth at http://blog.insynctraining.com or on Twitter @InSyncJennifer.
Charles (Chip) Dye is the technical director of InSync Training, LLC, a consulting firm that specializes in the design and delivery of virtual and blended learning.

Chip is a senior executive with experience growing technology-based service companies in the eLearning industry. His primary functional expertise lies in enterprise learning, learner-centric universal design, situated cognition, training function automation, and learner community development and optimization.

Here at InSync, his responsibilities include development of key personnel, advising on strategic implementations of eLearning systems, and professional development of technical staffs. Chip is currently engaged in doctoral research focusing on the development of skills and mastery with an eye towards return on investment, whether in public education, industry, or military preparedness training. He has been fortunate to work with some extraordinary leaders in industry, and works to leverage his experience to afford the best outcome given a set of operational limitations. Research areas:

1. Assessment of unstructured and structured constructivist learning.
2. Virtualization technology & its impact on learner behaviors and expectations.
3. Structured modeling for return on investment in educational technologies.
4. Combinatorial uses of educational technologies to facilitate particularized learning trajectories/outcomes.

Anna Heinrich, M.Ed., has been working in the field of training for over 20 years. After completing her Master’s in Adult Education, she moved her focus to virtual classroom training. She has designed and facilitated training for multinational corporations from around the globe including KPMG, National Australian Bank and Mercer. She has also been part of many implementation, design, and production teams. “No tool is an island,” is her favorite saying which reflects her passion for blended programs that use not only the virtual classroom, but other methods to reach out to learners.
InSync Training As Featured In Forbes Magazine

NEW ENGLAND
WOMEN BUSINESS LEADERS

As Seen In... Forbes, June 16, 2014

Virtual Classroom Experts Maximize Impact, ROI

InSync Training

Corporate employers invest more than $160 billion annually in employee training. Much of that amount is spent on live virtual-training programs, particularly for workforces spread across the globe.

Not all webinars, however, are created equal.

Jennifer Hofmann, veteran corporate training consultant and a leading expert on virtual learning for over 20 years, says employers pay a high price for subpar training sessions. In fact, the hidden costs for subpar training far exceed the $160 billion employers spend. She founded InSync Training in 1999 to banish boring webinars and help businesses extract significant value from their e-learning platforms and build core competencies for their virtual-learning teams.

InSync is currently managing Cisco Systems’ 10-week virtual-learner training program—the Cisco Sales Associate Program (CSAP)—using Cisco’s own TelePresence and WebEx virtual learning tools. For InSync’s broad support of Cisco’s training needs since 2000, the firm was awarded an Excellence in Practice award by ASTD, the world’s largest organization of training and development professionals.

“Just talking to a PowerPoint presentation for an hour doesn’t cut it,” she says. “If you lose participants’ interest and attention, they don’t absorb, process and retain what they hear. Companies see little return on their investment. We set out to change all that.”

Best-Practices Pioneer in a Booming Industry

For the past 15 years, Hofmann and her team have been the standard bearers of the online classroom experience. Today, with new competitors continuing to enter the marketplace, InSync maintains its thought leadership position and enjoys $10 million in annual revenues. In 2013, the firm ranked #741 among the Inc. 5000 and was the #10 fastest-growing education company in the U.S.

“Our business surged in 2008, when companies hit by the recession needed to take advantage of their existing virtual learning technologies,” Hofmann says.

“We introduced them to the best practices we’d developed for the virtual classroom, which proved just as engaging and effective as traditional classroom training. Companies that work with us recognize the value of live online-training programs immediately.”

Design, Support and Delivery Worldwide

InSync’s instructional designers and professional facilitators—leveraging deep expertise in virtual-learning technologies, cognitive psychology, sales and leadership training, and other key specialties—support clients’ corporate training needs in a variety of ways.

Traditional “train the trainer”—InSync helps virtual-classroom facilitators connect with students in a whole new way to ensure every training session meets workforce and organizational needs.

Instructional design—inSync has the expertise, reach and resources to provide seamless, end-to-end course creation as well as consulting and assessment in the field.

Facilitators and producers at the ready—InSync’s program facilitators and producers, who deliver both tech support and instructional excellence, help manage and deliver virtual-training sessions that are exciting, impactful and memorable.

“We’re a global organization,” Hofmann says. “We start on Sunday evening, supporting training in China, and we don’t stop until training ends in California on Friday afternoon. We are there wherever and whenever client training takes place.”