Just One Thing –

Microlearning
A Practitioners Guide

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Microlearning – An Orientation

Twitter, Instagram and Vine are embraced modern technologies that deliver short bursts of information, much of which is for entertainment, but some of which can be for learning. It has, in fact, become a working theory that millennials and Twitter are the perfect match – since the input processing capability of that generation might be limited to about 140 characters at a time. The trend towards brief communication of information seems here with us to stay – and perhaps the deeper question is "which came first, the 140 character attention span or the technologies that put out content in that way?"

Short information bursts – headlines, tweets, brief videos – and gaming have shaken up how to effectively deliver information. Welcome to the age of people wanting what they want just when they want it!

It's actually not that new – marketers have been trying to get to the essence of products and solutions for decades, and the "tagline" needs to be memorable and emotive. It reminds me of the life-departing advice of cowboy Curly in the movie City Slickers – "just one thing". To move us away from cognitive overload in learning, and to align with trends in information processing, we have come into the era of microlearning.

Microlearning – An Orientation

About Our Survey

A global survey was conducted to gain insight into the perspectives of those who are currently involved in the provision of learning – whether face-to-face or e-learning – to others. Respondents were recruited based on defined interest in learning on LinkedIn, and from a list of clients of Harbinger International.

Participants were invited to complete the survey online (SurveyMonkey).

A total of 61 learning-involved professionals responded at least in part to the online survey, and how they described their roles/professional circumstances is summarized in Table 1, below:

Professional Circumstances	Response Percent
I am an employee working in a training group or department of a company whose business is not the production of e-learning	28.3%
I am an employee working for a company whose business is not the production of e-learning (i.e., I don't produce e-learning, but play some role in decision-making about or contracting for e-learning)	10.9%
I am an employee working on the production of e-learning for a company whose business is the production of e-learning	23.9%
I am an (e-learning) consultant who freelances for other organizations	17.4%
Other	19.6%

Table 1: Professional Circumstances of Respondents to Microlearning Survey

Microlearning Development is Common

Based on a provided definition of microlearning, just more than half of those responding to the survey indicated that they had actually developed or participated in the development of microlearning in the 18 months preceding the survey date (August, 2015). [Figure 1]

Based on the definition above, have you produced or supported the production of online/digital microlearning in the last 18 months?
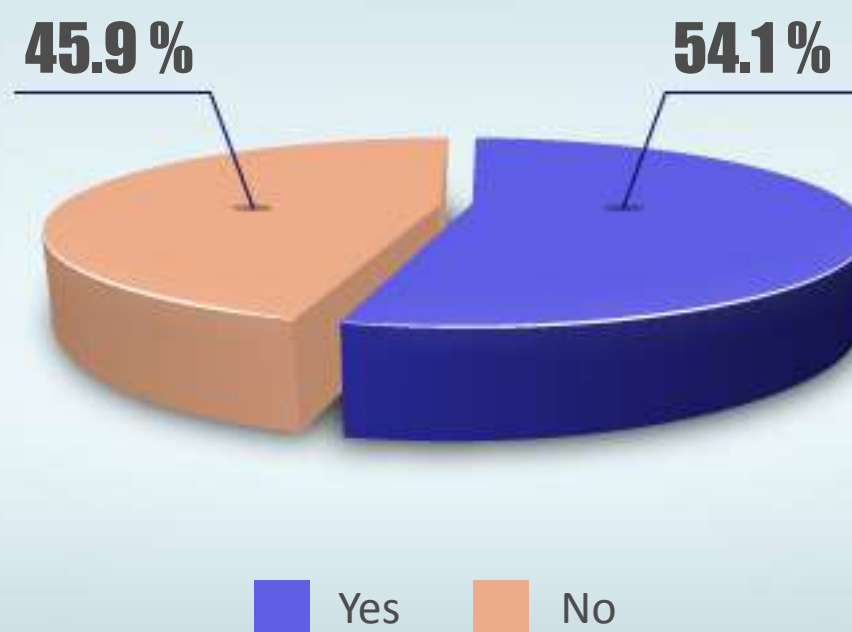
45.9 %   54.1 %

Yes   No

Figure 1: Microlearning Development is Common

Microlearning – An Orientation

Almost All Survey Respondents Expect to Be Involved in Microlearning next year

Virtually all survey respondents who had been involved in microlearning in the 18 months leading up to the survey indicated that they believed they would be involved in the production of microlearning in the next 12 months. [Figure 2]

Based on the definition of microlearning, do you anticipate being involved in the production of online/digital microlearning in the next 12 months?
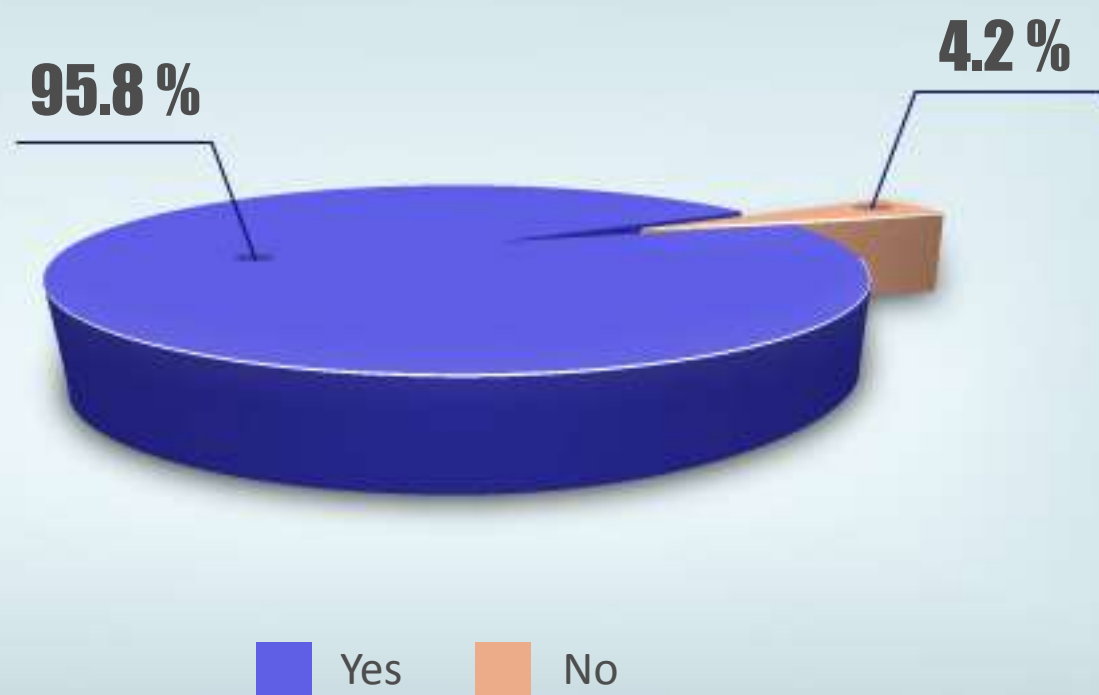
95.8 %

4.2 %

Yes   No

Figure 2: Anticipated Involvement in Microlearning Almost 100%

Microlearning is a way of teaching and delivering content to learners in small, very specific bursts. The learners are typically in control of what and when they're learning.

Three minute videos could be microlearning. A one-question quiz with reinforcement for wrong answer – that could be microlearning. The Google search conducted to find out whatever happened to that beautiful girl who played Wesley Crusher's love interest in an episode of Star Trek: The Next Generation could be (informal) microlearning. Microlearning is a bit amorphous in execution, but tends to cohere through philosophy and intent.

Microlearning – An Orientation

Microlearning has to be completed within a short time. This, of course, brings us back to the simple advice that what is "deliverable" is just one thing. Engagement times for microlearning encounters are measured on the order of minutes, with five minutes pushing the upper limit. That makes microlearning opportunities able to fit into hectic schedules and busy lives without a need to pause, hoping to resume at a later time. It also means that it is almost impossible to complete the traditional delivery of a unit of learning in one microlearning encounter – which often can leave instructional designers apoplectic or, alternatively (and more constructively), relying more on their native creativity.

Microlearning Means Short Duration Learning Programs

Approximately 75% of respondents indicated that the typical duration of microlearning which they've produced is less than 10 minutes. [Figure 3]

What is the typical duration of online/digital microlearning course that you've produced?

4.2 %
29.2 %
20.8 %
45.8 %

- Less than 5 minutes
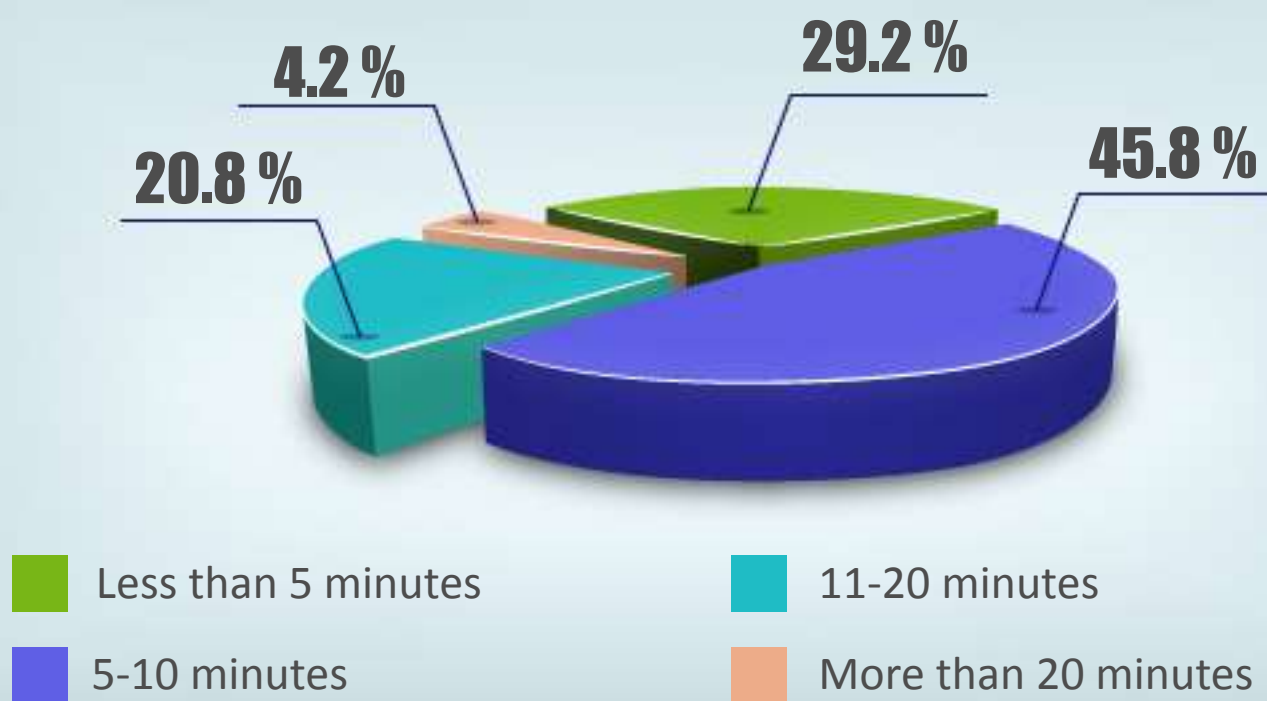- 5-10 minutes
- 11-20 minutes
- More than 20 minutes

Figure 3: Usual Duration of Microlearning Courseware

Microlearning typically presents somewhat a casual ambiance, allowing learners to feel that they aren't forced to commit to time/place/tools. It can be sequenced and paced (an approach that takes us not too far from typical chunking of learning content, although we should not mistake that we are just "chunking", and make sure that all microlearning provides complete…), or it can be on-demand. When on-demand, it could look like a job aide (e.g., providing guidance or reinforcement on a particular step of a process), or it could be pulled from targeted search through a library of prepared microlessons. Microlearning objects may be so simple that they need no navigation, and there is no inherently complex structure.

What are the Usual Methods and Technologies Associated with Microlearning?

Because each microlearning product serves but one objective and is tightly focused on that objective, there are a somewhat limited range of ways microlearning can be delivered. These can include:

- One to two question quizzes or polls
- Infographics
- Activity notifications from online communities of practice
- RSS feeds (titles more than content)
- Flashcard "pushes"
- Challenge-type interactivities
- Brief games
- Microblogging exercises
- (Brief) videos, including interactive videos
- Single question case studies
- Question and response
- Learner recording of a brief audio or video response to a question

As a result of the short-burst content approach, a microlearning object can prove easier to produce (and require less professional coding/videography), easier to maintain, and easier to test.

What are the Usual Methods and Technologies Associated with Microlearning?

For Whom Is Microlearning Being Developed?

Survey respondents appear to be engaged in producing microlearning for adults – and the audience targeted by their efforts most often is between 26 and 35 years of age. [Figure 4] A majority of respondents did indicate their efforts were targeted at adults, regardless of the apparent age group explored.
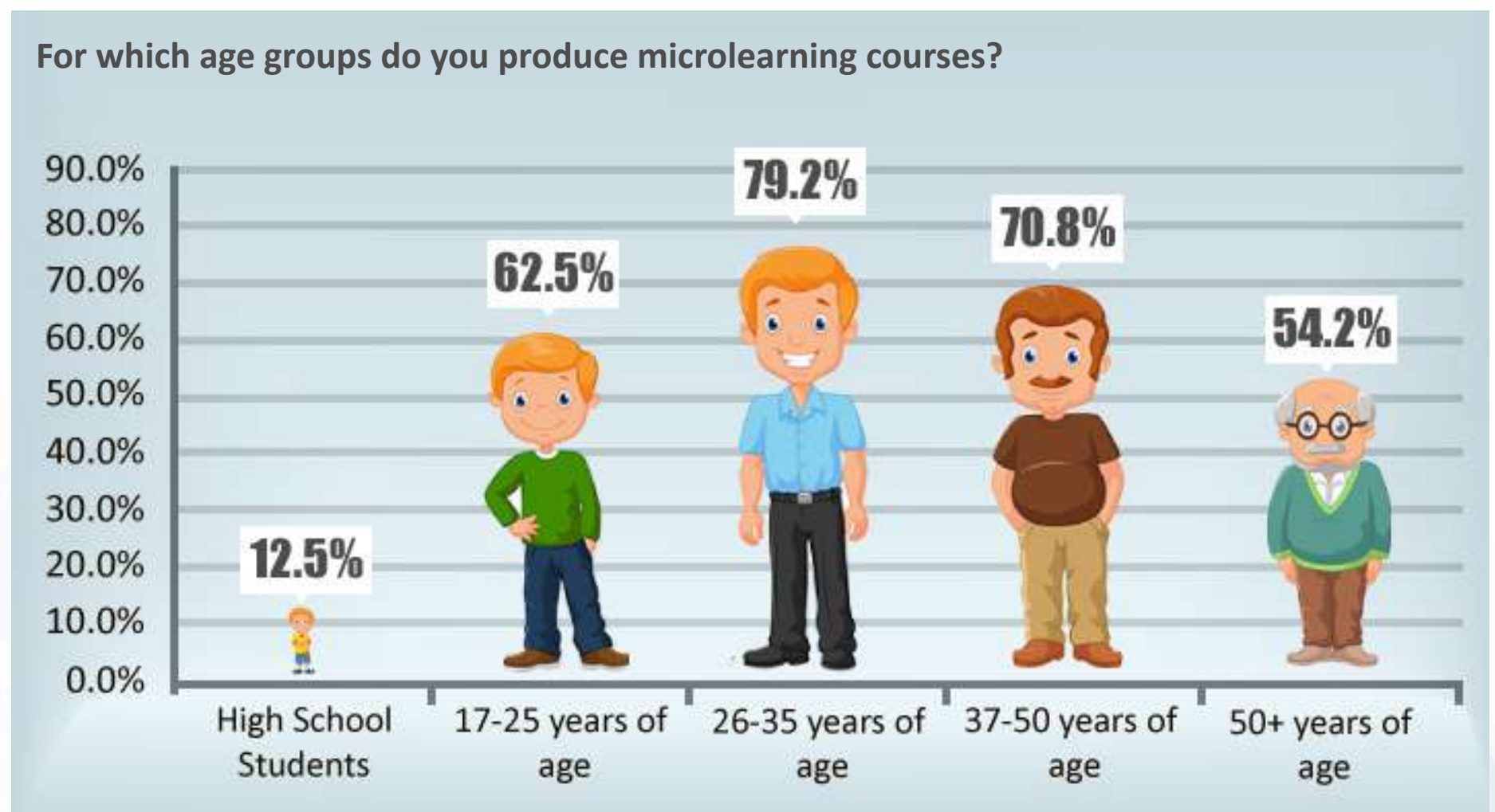

Figure 4: Age Group Profile / Target Audiences for Microlearning Offerings

What are the Usual Methods and Technologies Associated with Microlearning?

What Approaches and Technologies Are Being Used in Microlearning Development?

Survey respondents leveraged a wide range of methodologies for delivering online/digital microlearning. Most popular are videos and multimedia interactivities, but many of the other methodologies specifically tested are used in microlearning. [Figure 5]
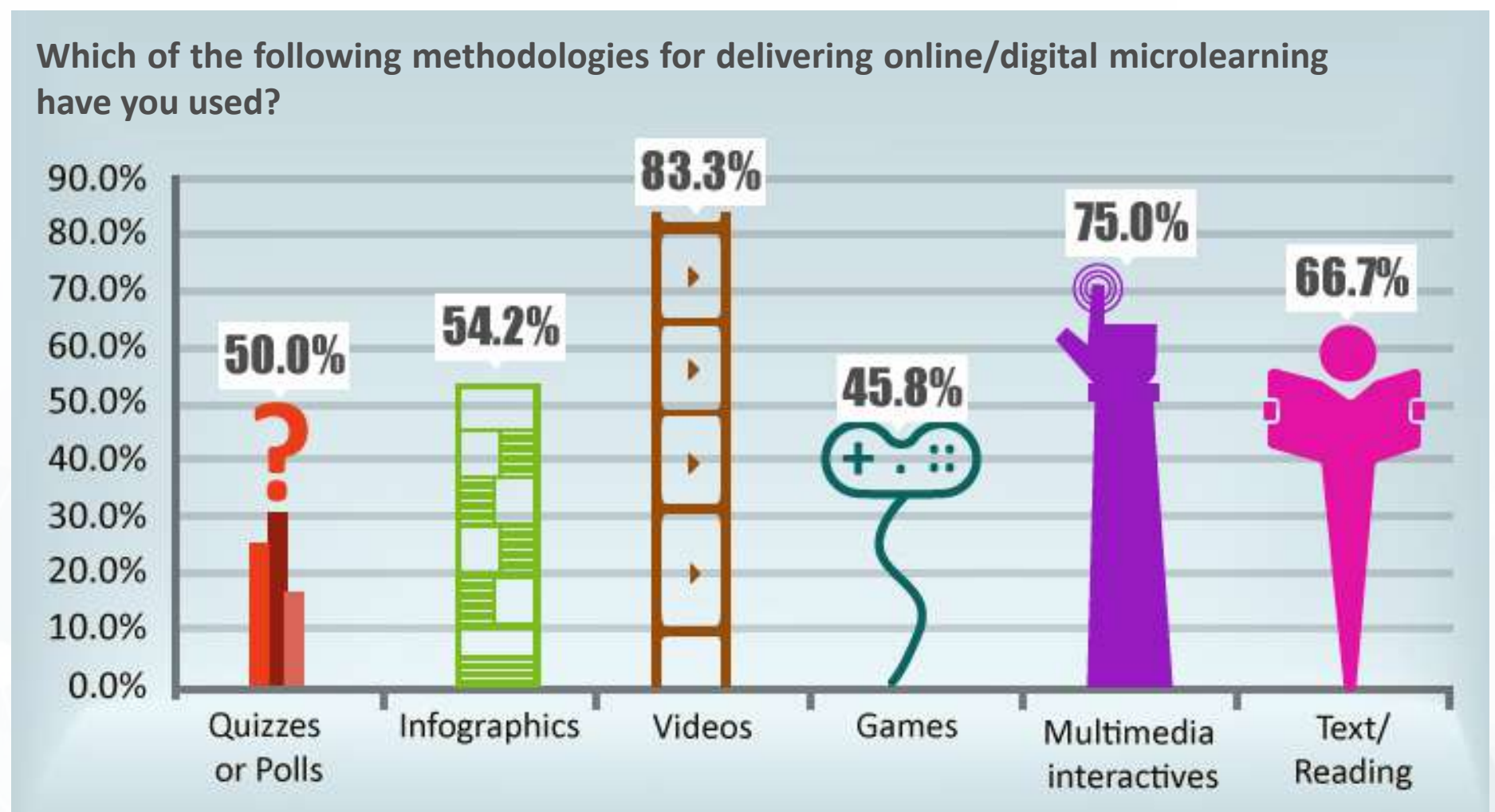
Which of the following methodologies for delivering online/digital microlearning have you used?

Figure 5: Methodologies Used to Develop Microlearning

What are the Usual Methods and Technologies Associated with Microlearning?

When asked for preferred methodology for microlearning delivery, respondents clearly indicated a preference for multimedia interactives. [Figure 6]
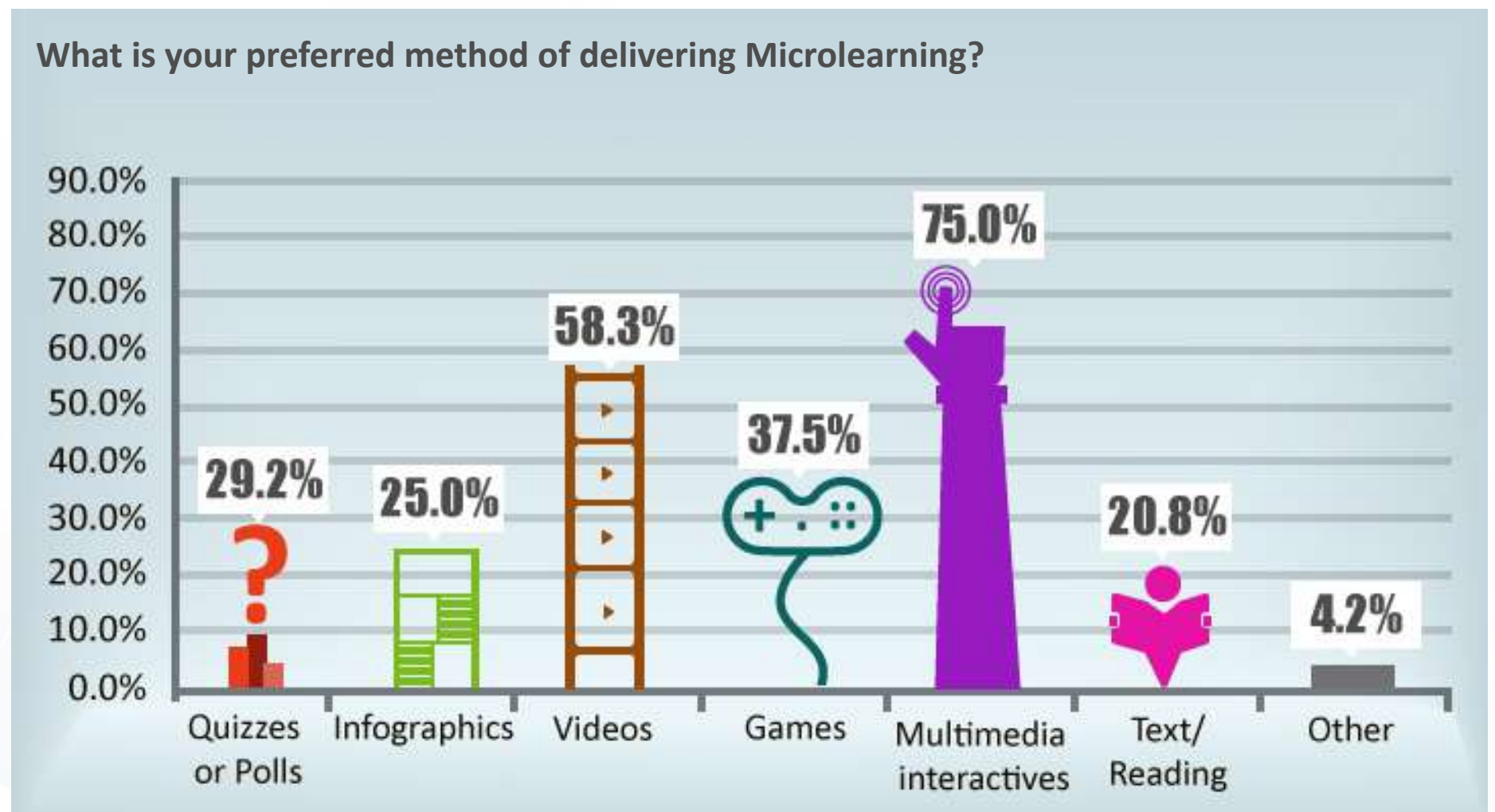
What is your preferred method of delivering Microlearning?

Figure 6: Preferred Methods for Delivering Microlearning

In a time of MOOCs, communities of practice, and the application of activity theory and flow theory in learning, microlearning can and should take its place with potential to "participate" in many of these trends and address the implications of much learning theory.

One of the larger challenges today is that the e-learning marketplace offers a dizzying number of composing platforms for the variety of approaches currently being used. Despite this, at least at the time of this writing, convincing technology to develop microlearning for smart phones seemingly has yet to emerge from a recent, and expensive, habit of hiring web developers and developing custom code for the phone.

What are the Usual Methods and Technologies Associated with Microlearning?

Given Mobile Device Importance, What Technologies are Being Used to Develop Microlearning?

A large majority of respondents indicated that microlearning device targets include both traditional desktop and mobile tablet/phone devices. [Figure 7]

Which of the following best represents device targets for your online/digital microlearning courseware?

16.7 %

83.3 %

I develop microlearning courseware for both mobile devices and traditional computers

I develop microlearning courseware exclusivly for traditional computers

0.0 %: I develop microlearning courseware exclusivly for deployment mobile devices (+/- LMS)
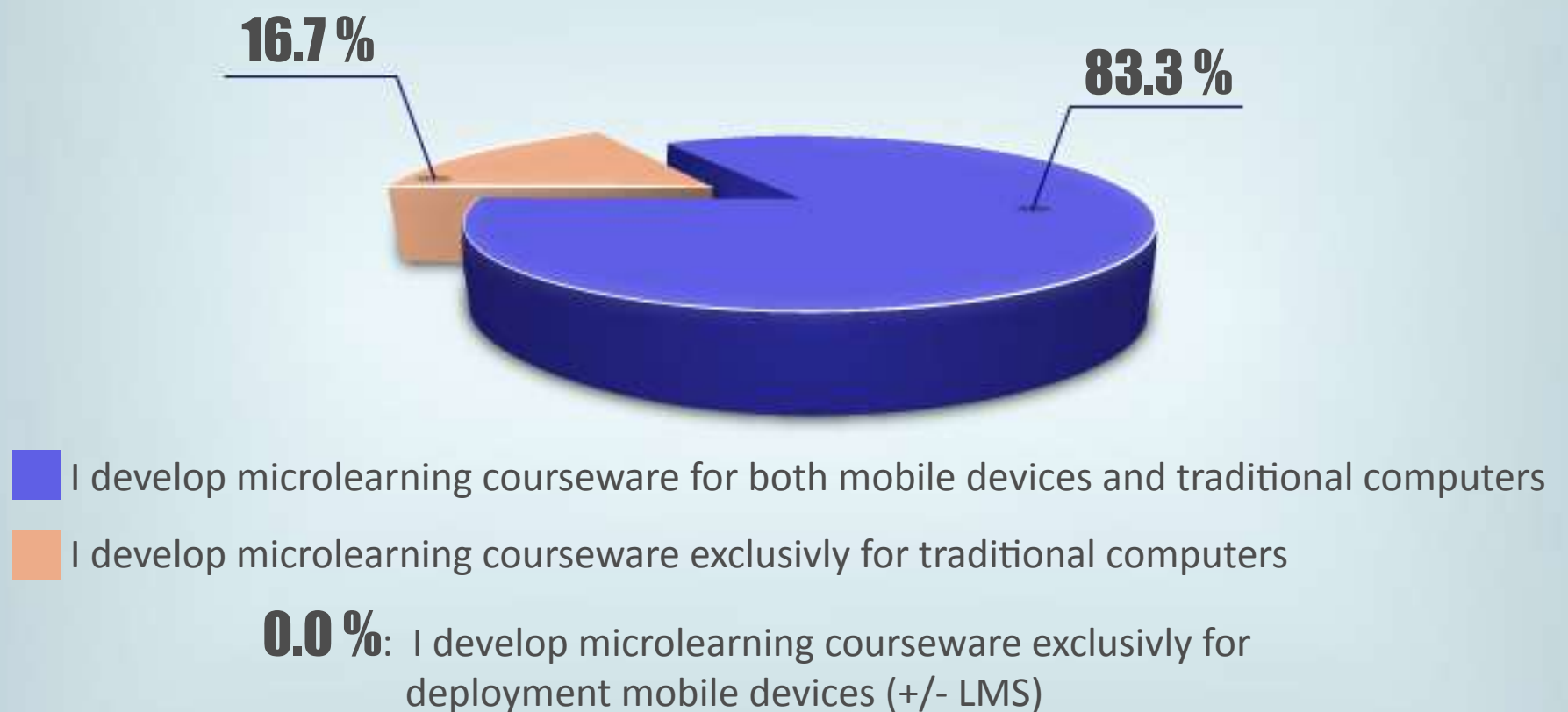
Figure 7: Target Devices for the Delivery of Microlearning Courseware

What are the Usual Methods and Technologies Associated with Microlearning?

A wide range of technologies have been/are being used by survey respondents to create microlearning courseware. Common responses to what was an open-ended question in this survey include :

- Adobe Captivate,
- Raptivity,
- Articulate,
- Hotpotatoes,
- video production tools,
- Adobe Photoshop
- Microsoft PowerPoint.

A few respondents reported developing microlearning from custom toolsets or with developers.

Response to a question about the biggest challenge did yield, from some respondents, the concern that the currently available toolset for developing microlearning is inadequate.

Benefits in Delivering Microlearning

Microlearning offers a range of attractive benefits that can overcome some traditional problems with learning design and technologies.

1. Learners' in Content Driver Seat

Microlearning can allow learners to feel in charge, giving them opportunity to pick and choose applicable lessons while guiding themselves.

2. Learners' Time is Respected

Respect for the time of learners – so important today – is inherently part of any microlearning approach. Busy professionals may only have a few minutes to learn, process and apply new information.

3. Repetition in Bursts Drives Retention

Microlearning can be used to deliver allied messages again and again, reinforcing best practice and allowing for exploration of possibilities (and learner synthesis) over many interactions.

4. Rapid Upgrading

Through most technologies adopted to support microlearning, you gain the ability to send out updates easily and quickly with less commitment of development time.

5. Learner-Created Content

When learners become creators (and teach others), learning is driven deep. Microlearning provides opportunity for that transformation in roles, through possibilities of creating social feeds, blogs, and immediate feedback to others when in a community or network of learners.

6. Addressing Multiple Intelligences

Microlearning, done well, can vary the modes/methods of delivery, selected based on learner intelligences. Done really well, microlearning can even be a highly personalized experience.

7. Employee Productivity

Microlearning gives learners focused training in a small time frame. The result - more time on the job, less time away from the action.

8. Cost Containment

While there are bits and pieces of paid technologies that can currently be used to create microlearning lessons/objects, many technologies, including those called social media, come with no cost at all.

9. Aligning with Current Behaviours/Habits

Most learners in the modern workforce are used to thumbing the screens of their mobile devices and picking up quick tidbits. Microlearning leverages a pre-existing behaviour, not putting learners out of their environment or the development of new habits.

Risks and Challenges in Delivering Microlearning

When you determine to adopt a microlearning approach to a body of knowledge and behavioural change, there are, of course, risks that arise.

1. Casual Learners

When learners know that the encounters are going to end within a short time, they may not fully process the content delivered.

2. Technology Barriers

Since much microlearning is best delivered through web technologies, often optimized for smart phone or tablets, there is a clear mandate to make sure that the learner audience is comfortable with the technologies.

3. Incoherence / Learning Fragments

If the instructional designer doesn't adapt to the necessary different thinking about short, full-context learning objects, microlearning could lead to a lot of head shaking and leave learners feeling they don't have enough details to address newest offerings.

4. Overfocus (i.e., lack of cognitive synthesis)

While not specific to microlearning, there is a risk that learners will not be able to see the big picture when interacting, either on a scheduled or on-demand basis, with a series of microlearning lessons. Too many trees can leave the forest picture somewhat out of focus.

What's Getting in The Way of Delivering Microlearning?

Survey respondents reported a number of reasons for their lack of involvement in the production of microlearning to this point in time; the most common answers were lack of executive support, lack of expertise or skills to produce microlearning, and no or little interest expressed by learners. [Table 2] Respondents answering "Other" indicated a lack of project opportunity, a lack of software to build microlearning, the newness of the approach leading to unfamiliarity, and a sense that the market wasn't ready for microlearning during the timeframe.

Answer Options	Response Percent
Lack of executive support	50.0%
Lack of expertise or skills to produce it	37.5%
No/little interest from learners	33.3%
Difficulty/complexity in producing it	20.8%
Cost-prohibitive approach to needs	20.8%
Mandates don't lend themselves to microlearning	12.5%
Discomfort (or philosophical disagreement) with this approach	8.3%
Other	16.7%

Table 2: Barriers to Involvement in Microlearning Development

Further, in response to a question about the biggest challenge in the development of microlearning, a few common themes emerged:

- Cross-device compatibility is critical for success

- Engaging learners and holding their interest can be challenging, especially in small device formats where text is the "usual" option

- LMS limitations are affecting ability to deliver microlearning

- Managing the temptation to overprogram with too many learning outcomes.

- Getting appropriate content for microlearning from clients/subject matter experts

- Creating effective visuals and media for content

- Co-ordinating the team producing microlearning

Tips for Microlearning Success

1. Keep it to Just One Thing

Identify one, and only one, learning outcome per microlearning object or lesson.

2. Cut the Clutter

Don't overwhelm with information that can be sought and processed from other sources. Allow the learner to self-enrich a microlearning experience with web searches, online forums, etc. Point the way if that seems relevant to organizational standards.

3. Keep it Brief

Keep each microlearning lesson and encounters very brief - less than 5 minutes in duration.

4. Share that Learning Took Place

Find a way to validate knowledge transfer or behavioural change. Invite those exhibiting right experiences to share best practices as their proof of ability or learning.

5. Bring in Coaching

Provide ways for those in the know to share and coach those who are in the process of learning.

6. Identify the "why"

Don't neglect to share with the learners why the information in the microlearning lesson/object is important to their personal development and/ or work success. So much of learning retention relies on evoking emotion and creating deep rationales for incorporating the information and/or changing the behaviour.

7. Vary your methods

find ways to deliver a range of microlearning experiences, leveraging simple interactions, games, video, quizzes and text.

Creating a Microlearning Lesson – An Approach

To keep it short and sweet, instructional design effort must be highly focused on achieving the outcome without frills. For many of us, that is a huge challenge – the usual paradigm of telling a story, the whole story, is compelling. Microlearning definitely does not involve cramming all the material you used to deliver in 15 minutes into 5 – that is a strategy bound to lead to failure. Some re-engineering of content to match a targeted approach on the achievement of one key outcome must happen, and will put most of our skills as communicators to the test.

Microlearning development involves two key stages :

- The creation of the lesson plan or instructional design (a strategic component).
- The implementation of the lesson plan in suitable technology for the task.

Creating the Instructional Design

• Understand the Learner

Be sure to understand whether there are various types or levels of learners, their preferred modalities for learning, and the learner environment that could be encountered in the delivery of the microlearning lesson.

On the Microlearning Course Outline form [Appendix A], this can be addressed in sections "Learner Description", "Environment for Learning", "Desired Arousal States".

• Know the Big Picture

Like any instructional design, it is helpful to know all learning gaps, and to have a big picture of the subject landscape or processes which will be conveyed, in parts, through the microlearning lesson. Work with a mind-map to visualize the big picture – the content/learning landscape.

On the Microlearning Course Outline form [Appendix A], this can be addressed in sections "Course Title", "What outcomes are candidates for consideration in the course/lesson?", "How does a proficient individual achieve the outcome now?", "What are the current gaps to be addressed in the course/lesson?"

• Begin with the End in Mind

Microlearning focuses your lesson design on the achievement of "just one thing". Consider how to chunk the content so that you winnow away the "nice to haves" and get to the core outcome that must be achieved.

On the Microlearning Course Outline form [Appendix A], this can be refined in sections entitled "Focused Outcome". Ensure this aligns with your inputs on the current means by which a proficient individual achieves the outcome.

Creating a Microlearning Lesson – An Approach

• Focus on the Feeling

To be effective in any learning program, and microlearning is not exempt, you must consider what emotional states will get the learner engaged and support successful action on the learning outcome. Consider, up front, how creating the emotional states can be achieved.

On the Microlearning Course Outline form [Appendix A], this can be refined in sections entitled "Focused Outcome", "How does a proficient individual achieve the outcome now?"

• Outline the Key Messages

Document the key messages, in bullet points, that must be delivered in order for the focused learning outcome to be achieved. Ruthlessly identify all fluff by asking "does the learner need to know/do this to be successful when this lesson is delivered?", and take it out. Make sure you aren't burdening the learner with more information than is absolutely essential.

On the Microlearning Course Outline form [Appendix A], this can be refined in sections entitled "What are the key points or messages to be presented?" and "Chunking". These messages will be leveraged as a checklist in subsequent efforts in this workflow.

• Select a Delivery Methodology and Channel

Determine the best platform on which to deliver the key messages so that learning is convenient, in line with current habits, and will integrate well with tools and other learning initiatives. There are many ways to deliver microlearning – but having a known toolset that will help you be effective is critical.

On the Microlearning Course Outline form [Appendix A], this can be refined in section entitled "What media could contribute to achieving the outcomes, including emotional states?" The instructional designer will also reference selected media in the Editorial Outline for the lesson, which follows.

Creating a Microlearning Lesson – An Approach

• Establish the Outline

Working from your key points or messages, evolve step by step content that addresses your key messages, outlines the media to be used, caps the time allowed for the delivery, and indicates any audio narration or multimedia handling. In many cases, this content originates from something much too long that has been provided by subject matter experts – so you may have some back and forth with (an) SME(s) to gain clarity. Keep a close eye on the time of each key message being delivered. When it runs long, consider whether you are trying to achieve too much in a single lesson against your Focused Learning Outcome.

On the Microlearning Course Outline form [Appendix A], a brief storyboard table is provided to help you document content, media, narrative and handling. Use expanded storyboards if that is helpful – but beware, typical storyboards can actually prompt you to draw out your content beyond the reasonable intentions of microlearning.

• Identify your Post-course Knowledge Translation Supports

Microlearning provides a very brief burst of information and activity yet seeks to ensure that the learner either commits the information to memory or, better still, takes some action. Be sure, as you consider the entirety of the microlearning course/lesson, to pinpoint what will support the learner, after the interaction, achieve the outcome. Case studies, email reminders, periodic quizzes and more can all reinforce after the fact.

On the Microlearning Course Outline form [Appendix A], this can be refined in section entitled "How will you help learners translate knowledge to action or achieve the outcome?"

Implementing the Lesson Plan

• Work with the SMEs

Subject Matter Experts are frequently involved in providing the content for learning. Microlearning is an unfamiliar approach for many, so be ready, either during the Instructional Design stage or as you work towards a lesson build, to answer their questions and do lots of training and teaching.

• Implement from Your Outline (or Storyboards)

If you have the design well documented, you can efficiently develop in the medium or media selected using your toolset.

• Know your Toolset

If you are not the implementer of the microlearning lesson, be sure that you at least are familiar with the capabilities of the toolset you will use. Can the tools used to create video permit interactive branching and on-screen text delivery? What are the range of options in your interactivity builder? Are these tools going to deliver device-agnostic results, or will you be limited to certain screen sizes? Will the tools limit the number of iterations for development efforts?

• Compose – and Check!

Iterative design is a common notion to most instructional designers, but when working with some tools, you need to be aware of limitation. Once that is clear, build, check, then adjust. Normal development processes can apply to microlearning.

• Challenge Every Word

One of the best professional lessons presented to me was to challenge the value of every word. In microlearning, where the time for delivery is very short, and delivery is commonly to smart phones and tablets, every word used onscreen or in an audio narrative is precious. Be relentless in cutting words where pictures will do.

• Test, then Fix

Again, usual composing practices apply to microlearning. Be sure to test solid alphas and betas with others – particularly, if possible, those in the learning target audience. This testing is not just for technical problems – but for content focus, user experience and even emotional engagement.

• Deploy the Call to Action

Remember the emphasis, in microlearning, on just one learning outcome per lesson? Here's where everything culminates – when the user hits the program's last screen or page, what is he or she called upon to do? Just as clarity in language and message is sought in microlearning, the learner should have no doubts – and be fully empowered – to act in order for the learning outcome to be fully realized. Borrow here from the marketing playbook on clear call to action.

Future Prospects of Microlearning

Is microlearning a fad or here to stay? To address this question, we are forced to face various paradoxes that would both accelerate or apply the brakes to microlearning.

- **Compliance Training Complexity:** A lot of learning being produced is of the compliance training sort – aimed at delivering a mandatory body of information to learners who must take the content over and over again on a regular basis (e.g., health and safety, respect in the workplace). Some instructional designers are challenged in the bridging between the traditional "full-out" model for compliance training, especially when certification models relate to "hours" spent in learning, and the short duration of microlearning.

- **Full Picture Insight Achievement:** Short bursts of learning may leave learners either with an inadequate framework (i.e., some content skipped over), or create gaps in seeing "the full picture".

- **Executive or Learner Support:** When we are honest – many in the C-suite might find the idea of short, brief blasts of information, as learning objects, hard to swallow because they are stuck with outdated ideas of what learning is. In aggregate – there are some pains ahead for the adoption of microlearning, and only a few decently-conducted parallel trials of more conventional delivery approaches vs microlearning approaches may shed light into what is truly important – behavioural change, knowledge retention, improving systems and structures and motivation to act.

Future Prospects of Microlearning

Where Will Microlearning Fit?

Respondents to the survey were asked to speculate about the future of microlearning – and fully 7 in 10 believe that it is a strong approach that will be used more in coming years. Notably, roughly equal proportions reflect minority opinions that it is either the wave of the future or that it should be used rarely, as a supplement to typical e-learning. [Figure 8]

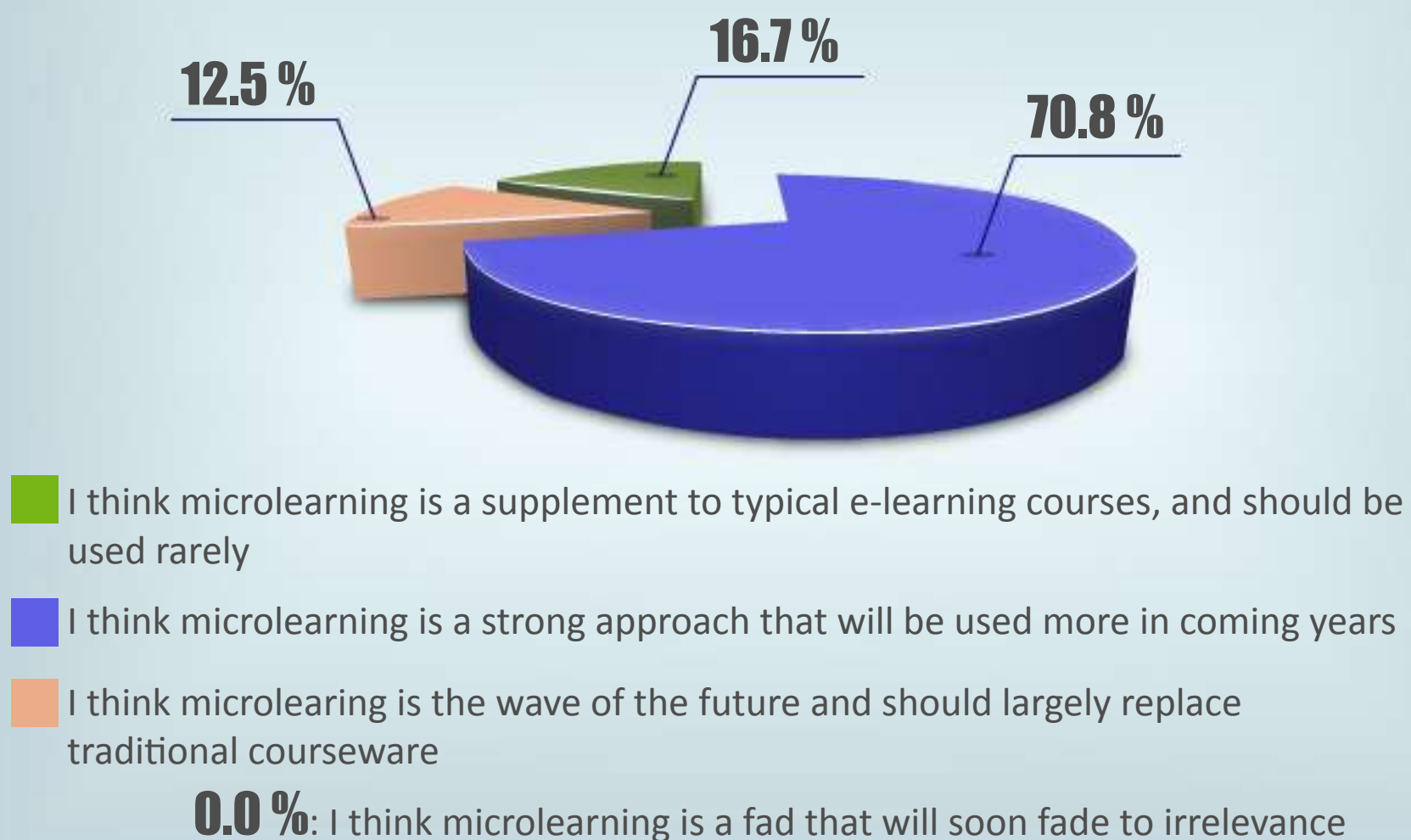**Which of the following best represents your opinion about the future of microlearning?**

12.5 %   16.7 %   70.8 %

■ I think microlearning is a supplement to typical e-learning courses, and should be used rarely

■ I think microlearning is a strong approach that will be used more in coming years

■ I think microlearing is the wave of the future and should largely replace traditional courseware

0.0 %: I think microlearning is a fad that will soon fade to irrelevance

Figure 8: Perspective on Microlearning's Future

Connecting Microlearning to the Just-in-Time Learning Movement

Connecting Microlearning to the Just-in-Time Learning Movement

Microlearning is part of a movement towards the delivery of just-in-time content and insight, something increasingly being enabled by the internet. Just-in-time is an extremely relevant approach to learning that provides information/coaching/validation at the point of need, exactly when it is needed, and tailored to the individual who needs it. Microlearning is a conscious approach to addressing learning just-in-time; but as we move forward, we are bound to find that it is but a subset of just-in-time learning, and that we need to align systems and approaches and design to account for the many faces of this emergent learning movement. **It's going to take a village to raise this child!**

Appendix A: Microlearning Course Outline form

Course Title:	

Learner Characteristics

Learner Description:	
Environment for Learning	
Desired Arousal States	

Current Competence Model

What outcomes are candidates for consideration in the course/lesson?	
How does a proficient individual achieve the outcome now?	
What resources or approach was used to teach them how to achieve the outcome?	
What are the current gaps to be addressed in the course/lesson?	

Strategic Microlearning Focus

Focused Outcome:	

Based on what you know about how this learning has happened for others, can you deliver this training in less than 5 minutes?

☐ Yes   ☐ No

Emotional States and Choices

What are the emotional states required for learner engagement?	
What are the emotional states required for achieving the outcome?	
What media could contribute to achieving the outcomes, including emotional states?	

Key Messages/Points

What are the key points or messages to be presented?	
Chunking	

Editorial Outline

You've got fewer than 5 minutes to deliver the outcome. How will you deliver it and validate its delivery?

Time / Duration	Media	Description
		Content:
		Narrative:
		Handling:
		Content:

		Narrative:
		Handling:

Evaluation Model

How will you evaluate the microlearning? How will you help learners translate knowledge to action or achieve the outcome?	

About Raptivity

Raptivity is a powerful interactivity building tool that enables creation of stunning eLearning interactions quickly and easily, without any programming. It offers a rich collection of 190+ Flash and HTML5 compliant interactions to choose from, which span across categories like games, simulations, brainteasers, interactive diagrams, virtual worlds, and many more. These interactions are conveniently grouped into various categories for the users to choose from.

Getting started with Raptivity is as simple as picking an interaction template and customizing it with your own content. You can integrate Raptivity output seamlessly with any authoring tool(s) that you use, such as PowerPoint, Captivate, Storyline, Lectora, and Claro.

Click here to know more about Raptivity.

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Most days, Todd Kasenberg calls himself a geek marketer with expertise in healthcare and high technology. Through Guiding Star Communications and Consulting, Todd's consulting company, he gets to tackle meaty projects and is allowed to dream about e-learning and digital innovation and enablement.

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