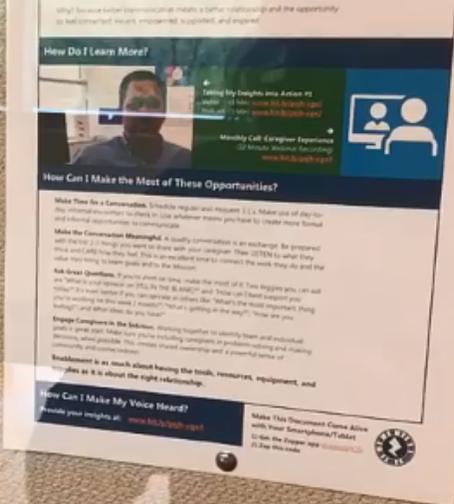


Zap This Cover  
and  
Watch It  
Come to Life!



# This is What Happens When MicroLearning Meets Augmented Reality

An Augmented Reality Enhanced Whitepaper



These AR experiences won the 2018 Brandon Hall Group  
Excellence in Learning Silver award for:  
**Best Approach to Human Capital Management Innovation**

**READY**  
Download Zappar for  
free from your app store



**AIM**  
Scan the zapcode then  
aim at the whole image



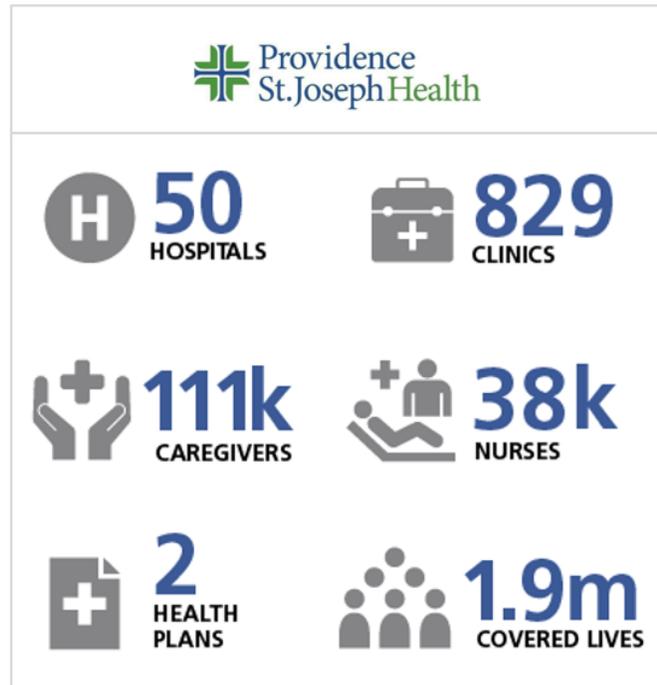
**ZAP**  
Watch it come to life!



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# What happens when MicroLearning meets Augmented Reality?



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Zap to explore more about Providence St. Joseph Health

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## Transforming into Health 2.0

Providence St. Joseph Health (PSJH) has a vision of a future state of our healthcare services that we call Health 2.0. By 2022, our services will be transformed and digitally enabled to enhance our core services of delivering outstanding, affordable healthcare, housing, education, and other services to our patients and communities. To successfully accomplish our vision, thousands of core leaders (managers) across the system will need to be trained and supported. To reach our goals, we need solutions beyond traditional eLearning methodologies that often are limited in where and when learners can access learning (typically only via in-person classes or on a computer for ½ to 6 hours). We need new, innovative solutions that are easy to access and use, data rich, and scalable.

A small but mighty team of PSJH learning professionals has accepted the challenge to create innovative learning solutions that support the Health 2.0 initiative. Our focus has been to design and deliver learning experiences that increase:

**1) Learning Engagement**

**2) Retention**

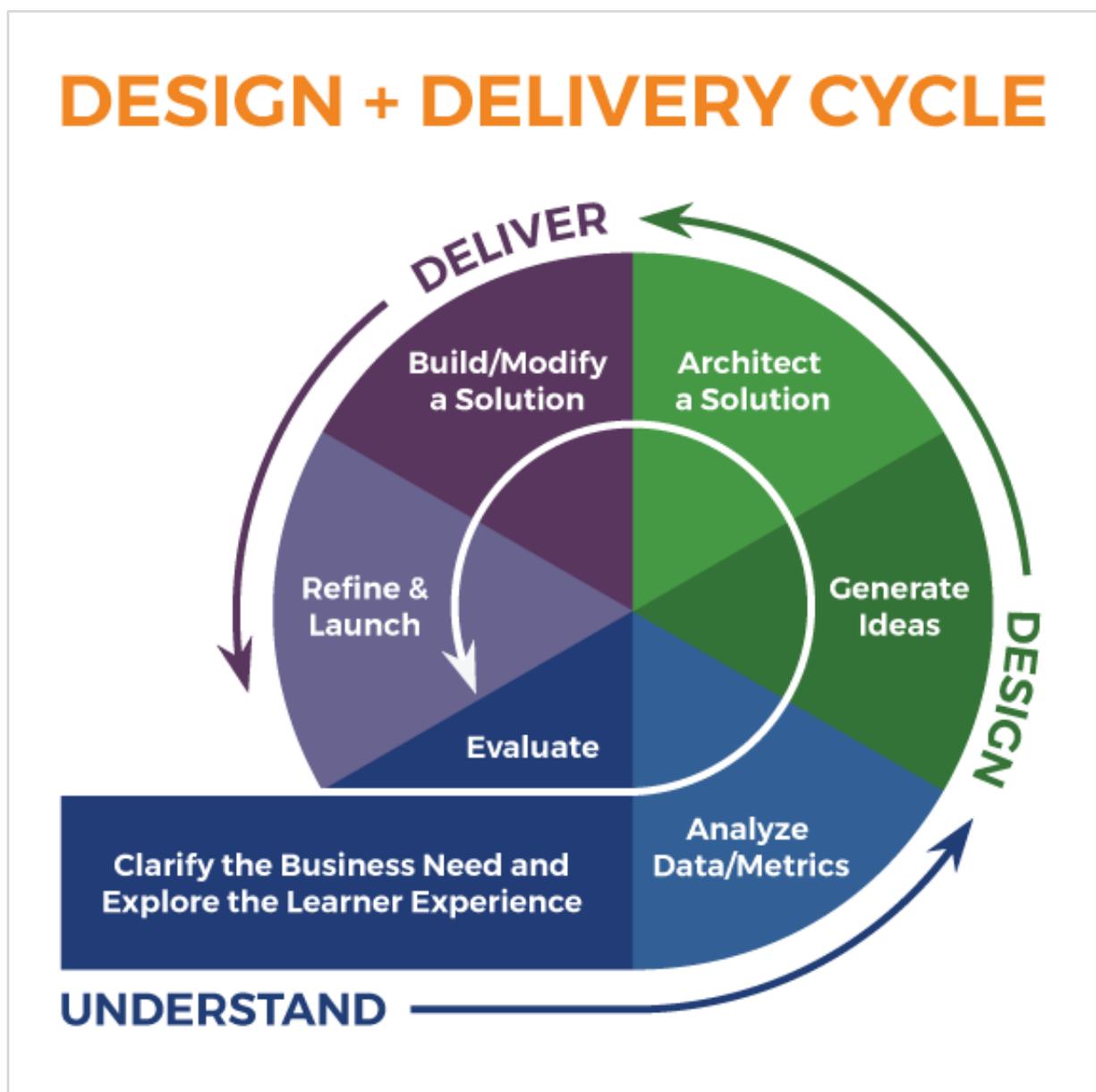
**3) Application to Work Efforts**

To do so, we explored new learning solutions that blend the power of new technologies (Augmented Reality) with proven learning methodologies (MicroLearning). Combining Augmented Reality with MicroLearning is innovative not only in its design, but in the unique set of value propositions it offers.

Stakeholder	Value Propositions
<p><b>Program Owner</b></p>	<p>Increase the value of printed material from being static into being updateable, multimodal, and data rich</p> <p>Support making data-informed strategic business decisions with data rich dashboards that provide real-time detailed analytics</p>
<p><b>Learners (Core Leaders)</b></p>	<p>Access learning when, where, and how they want with a mobile-first, just-in-time solution</p> <p>Easily access a variety of content (i.e., videos, 3-D experiences, online surveys, podcasts) to meet individual learning needs and preferences</p>
<p><b>Learning Facilitators</b></p>	<p>Utilize an additional instructional modality (beyond role-play, video, and reading/listening) to address specific learning needs and to add variety to the training</p>

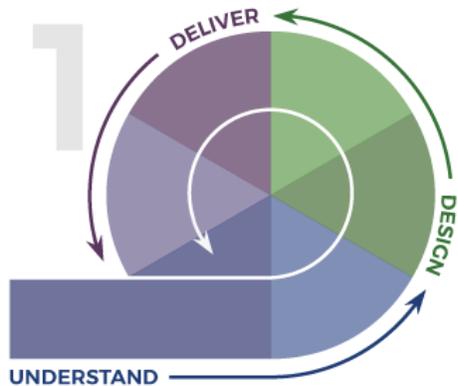
## Our Design and Innovation Process

Our learning design team used our design and delivery cycle as the foundation to guide our development. When we combined Augmented Reality with MicroLearning, we first sought to **Understand** the learners' experiences and explored the business impacts. Next, we generated many ideas and **Designed** proof of concept prototypes. Then we built and **Delivered** these solutions and collected user data.



We repeated our **Design and Delivery Cycle** multiples times as we progressed through our **Innovation Process** (shown below). Using this process, our team designed and delivered two innovative final products that were high impact/low risk and could be implemented quickly, easily, and inexpensively.

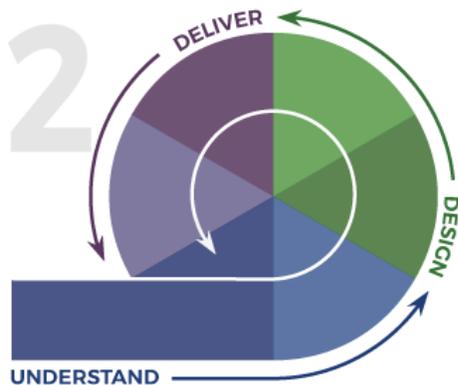
## OUR INNOVATION PROCESS



### Prototype

#### What If/Proof of Concept

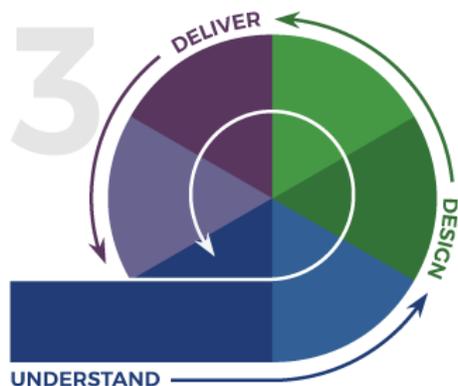
Tools and workflows are identified using free/trial/existing versions of software/services



### Demo

#### Refined Prototype of a Specific Product/Service

Prototype and content is developed further based on identified business and user experience (UX) data and needs



### Final

#### Production Ready Project/Product/Service

Demo and content are refined/incorporated into a live project/product/service. Final step is repeated as needed to support continuous improvement

# AR Enhanced Scenarios: A New Training Modality

## Seeing an Opportunity

Our facilitators currently teach several in-person leadership courses on a regular basis to core leaders to support the Health 2.0 initiative. Our design team wanted to increase learner comprehension and engagement with the course content, so they created an AR enhanced scenario called 'What Were You Thinking?' This new training modality complements current modalities that facilitators currently employ to share scenarios: role playing, videos, and reading/listening to stories.

Zap this image



Zap to see the  
experience in  
action

## How the Experience Works

During this AR enhanced scenario, the facilitator distributes to each learner a palm sized card (shown above) that prompts learners to think about what might go wrong during a developmental conversation.

Learners use their smartphones to install and open the

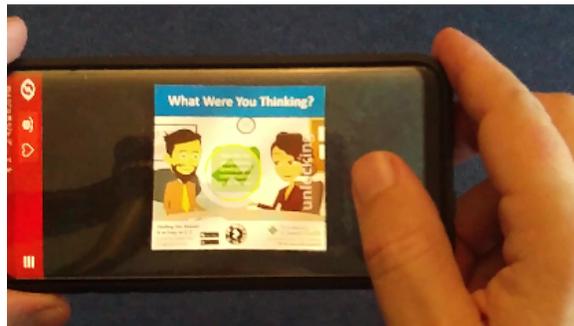


free Zappar app and then scan the card. When the experience launches in their app, learners watch a brief animated scenario between a caregiver (employee) and his manager. The video pauses and learners are prompted to explore what both characters are thinking by exploring their thoughts and brains in a 3-D virtual environment. The conversation then continues with another brief video followed by another opportunity to explore each character's thoughts. Then learners are prompted to respond and reflect by answering a few questions in an online survey. Once learners have completed the AR enhanced scenario, the facilitator asks follow-up questions to clarify the content and deepen their understanding.

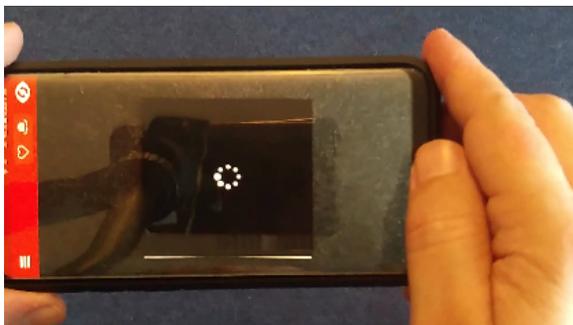
### View and Try the Experience Yourself



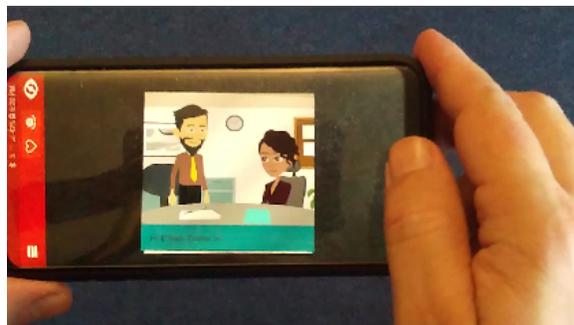
1) Learners use the card and the Zappar app on their mobile devices.



2) They launch the Zappar app and then scan the card.



3) The Augmented Reality experience automatically loads...



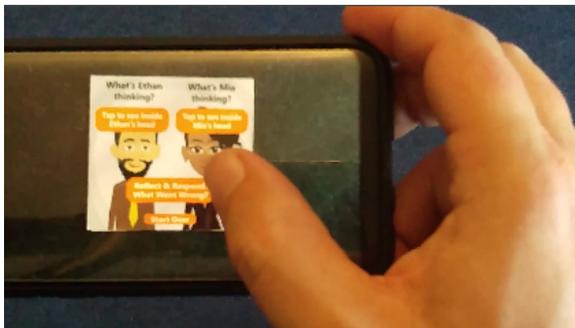
4) And begins by playing an animated video of a professional development conversation.



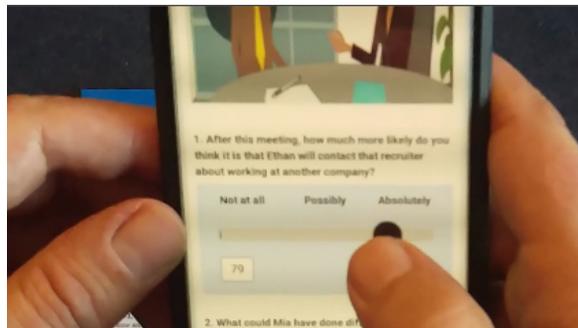
5) At key points in the story, learners tap to explore inside the mind of both characters.



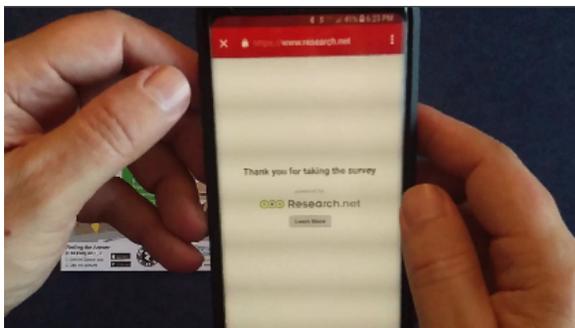
6) Learners move their devices around to explore thoughts in the characters' minds.



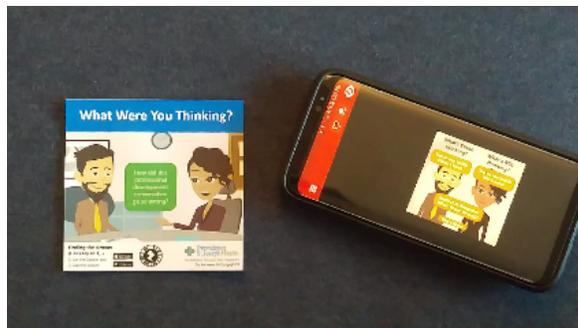
7) Then they reflect and respond about what went wrong in the story...



8) By answering a few questions in an online survey.



9) They can move their mobile device away from the card when completing the survey.



10) When finished, they can start the experience over again or close the app.

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## Zap to learn about the design and development

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To try this experience yourself, first download and install the free Zappar app ([iOS](#) and [Android](#)) on a mobile device (smartphone or tablet). Open the Zappar app and then scan the image on page 6. Once the experience is launched in the app, follow the prompts and move the mobile device around at key points to see all of the thoughts inside each characters' mind. Then answer the questions in the Respond and Reflect section. This experience earned an Honorable Mention in an Augmented Reality design competition ([www.bit.ly/WWYT-win](http://www.bit.ly/WWYT-win)).

For those learners who can't or don't want to access the Augmented Reality MicroLearning, a non-AR enhanced version is available. Learners simply go to the URL shown on the card ([www.bit.ly/psjh23](http://www.bit.ly/psjh23)) using their mobile device, laptop, or computer. They will view a video of the same content followed by an embedded link that will take them to the online survey to reflect and respond.

## **AR Enhanced Job Aids: A New Communication Method**

### **Seeing an Opportunity**

New business initiatives such as Health 2.0 require constant communication of complex content to thousands of core leaders. In this case, the Director of Caregiver Experience met with the design team to discuss how monthly communication to core leaders focusing on increasing caregiver satisfaction could be enhanced. Traditionally, an email would be sent to all core leaders that included links to access more information on our intranet site and to the hour-long recorded webinar. Our design team wondered how Augmented Reality MicroLearning experiences could be designed to increase learning engagement, retention, and business application.

Zap this image

## How the Experience Works

In this AR enhanced experience, core leaders receive an email with an attached PDF (shown below).

### Enablement Toolkit



#### What Is Enablement and Why Should I Care?

**Enablement** is one of the 3 components of Sustainable Engagement. It's about providing a work environment that supports productivity and performance and allows caregivers to bring their very best to work. Our caregivers tell us that one way they feel more enabled is when there is good communication with their front line supervisor.

**Why?** Because better communication means a better relationship and the opportunity to feel connected, valued, empowered, supported, and inspired.

#### How Do I Learn More?



← Taking My Insights into Action #1  
Video (3 Min) [www.bit.ly/psih-cox1](http://www.bit.ly/psih-cox1)  
Podcast (3 Min) [www.bit.ly/psih-cox2](http://www.bit.ly/psih-cox2)

→ Monthly Call: Caregiver Experience  
(22 Minute Webinar Recording)  
[www.bit.ly/psih-cox3](http://www.bit.ly/psih-cox3)



#### How Can I Make the Most of These Opportunities?

**Make Time for a Conversation.** Schedule regular and frequent 1:1's. Make use of day-to-day, informal encounters to check in. Use whatever means you have to create more formal and informal opportunities to communicate.

**Make the Conversation Meaningful.** A quality conversation is an exchange. Be prepared with the top 2-3 things you want to share with your caregiver. Then LISTEN to what they think and CARE how they feel. This is an excellent time to connect the work they do and the value they bring to team goals and to the Mission.

**Ask Great Questions.** If you're short on time, make the most of it. Two biggies you can ask are "What is your opinion on [FILL IN THE BLANK]?" and "How can I best support you today?" It's even better if you can sprinkle in others like "What's the most important thing you're working on this week / month?"; "What's getting in the way?"; "How are you feeling?"; and "What ideas do you have?"

**Engage Caregivers in the Solution.** Working together to identify team and individual goals is great start. Make sure you're including caregivers in problem-solving and making decisions, when possible. This creates shared ownership and a powerful sense of community and connectedness.

**Enablement is as much about having the tools, resources, equipment, and supplies as it is about the right relationship.**

#### How Can I Make My Voice Heard?

Provide your insights at: [www.bit.ly/psih-cqx4](http://www.bit.ly/psih-cqx4)

Make This Document Come Alive with Your Smartphone/Tablet

- 1) Get the Zappar app (Android/iOS)
- 2) Zap this code



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## Zap to see the experience in action

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This experience allows them to engage in the content using multiple modalities in a variety of ways, including:

- Reading the text on the page
- Watching a 2½ minute summary video
- Listening to a 2½ minute summary podcast
- Watching a 22 minute webinar
- Providing feedback in an online survey

They are able to access this content from their computer simply by opening the PDF and clicking any of the links. They can also print the PDF and post it in their office or on a bulletin board. If they do that, they are still able to access all of the digital content (videos, podcast, and online survey) on their smartphone or tablet via Augmented Reality.

### View and Try the Experience Yourself



1) A core leader glances at flyers posted on a bulletin board in the break room.



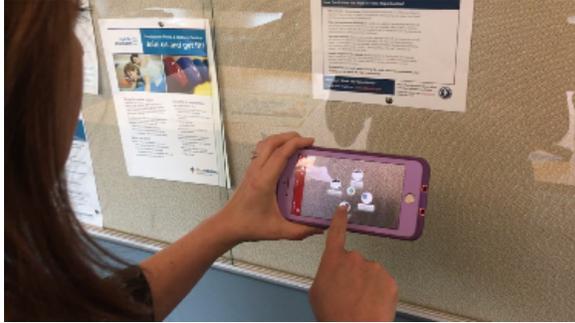
2) Wanting to know more about one, she opens the Zappar app on her smartphone...



3) And scans the code...



4) To launch the experience.



5) She selects the 3 minute video...



6) And begins watching it immediately.

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Zap to learn  
about the  
design and  
development

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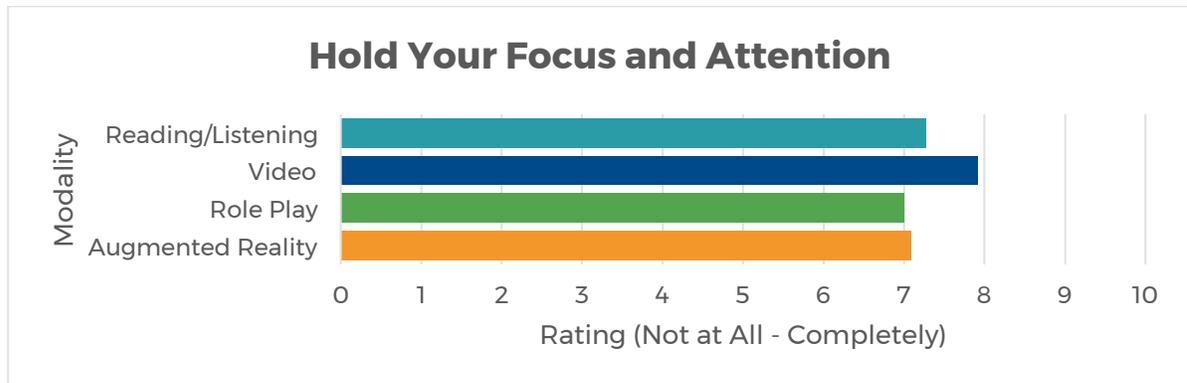
To try the AR enhanced version of this experience, download and install the free Zappar app ([iOS](#) and [Android](#)) on a mobile device (smartphone or tablet). Open the Zappar app and then scan the image on page 10 either from a computer screen or from a printed copy. Once the experience is launched, tap a button to open the video, podcast, or online survey.

To do the traditional version of this experience, go to page 10 of this PDF on a computer then click each of the links to open the video, podcast, or online survey.

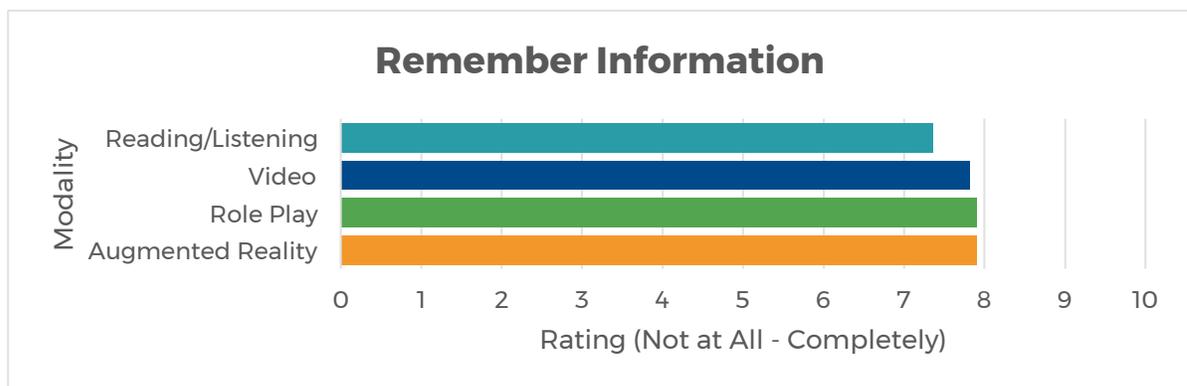
## Driving Business Decisions with AR Data

### Validating a New Training Modality

The team found preliminary evidence that AR Enhanced Scenarios are as effective across multiple measures as traditional modalities (role-play, video, listening/reading). Based on initial data of 12 respondents in May of 2018, over 80% of learners found that the Augmented Reality format made the content easier to 1) understand and 2) apply the course content.



Learners rated that all modalities are similarly effective in holding their focus and attention, with video slightly edging out the others.



They also rated all four modalities similarly effective when remembering information presented using each format.

## Creating Data Stories to Inform Strategic Thinking

Using AR Enhanced Job Aids generates data that helps stakeholders to ask the right kind of questions and to validate their assumptions. By accessing rich data across a variety of platforms, stakeholders can now create data stories to make strategic business decisions. For example, the first AR Enhanced Job Aid was sent to over 7,000 core leaders across the enterprise. This is what the data indicated, as the following screenshots of various dashboards detail.

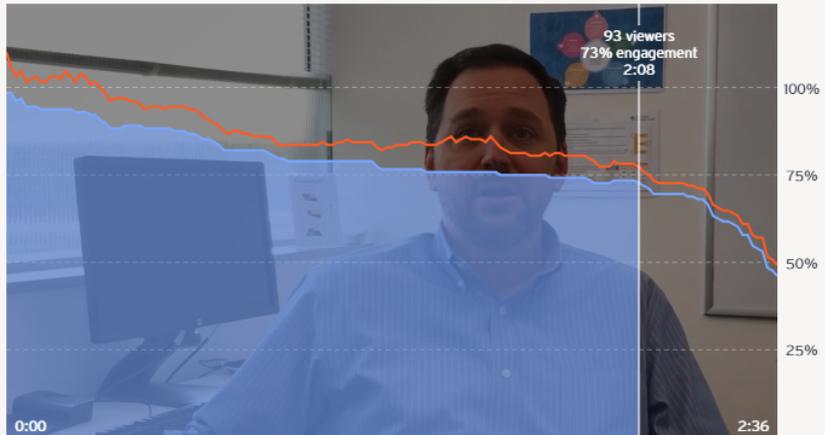
## Caregiver Engagement Toolkit #1: Enablement

78% Average Engagement

128 Total Plays

80% Play Rate

[Show Details](#)



The video was played 128 times, with 62 plays lasting the full duration of the 2½ minute video, with a marked decrease in viewership just after the 2 minute mark.

CREATED MAR 23, 5:42 AM | Johnny Hamilton

## Caregiver Engagement Toolkit #1: Enablement

<https://providence-health.wistia.com/medias/pk0cqmeb2y>

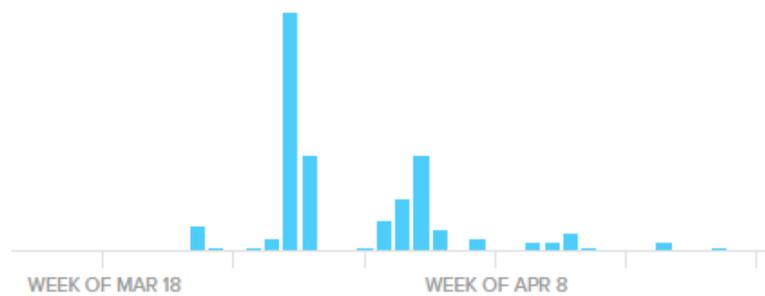
[bit.ly/psjh-cgx1](https://bit.ly/psjh-cgx1)

COPY

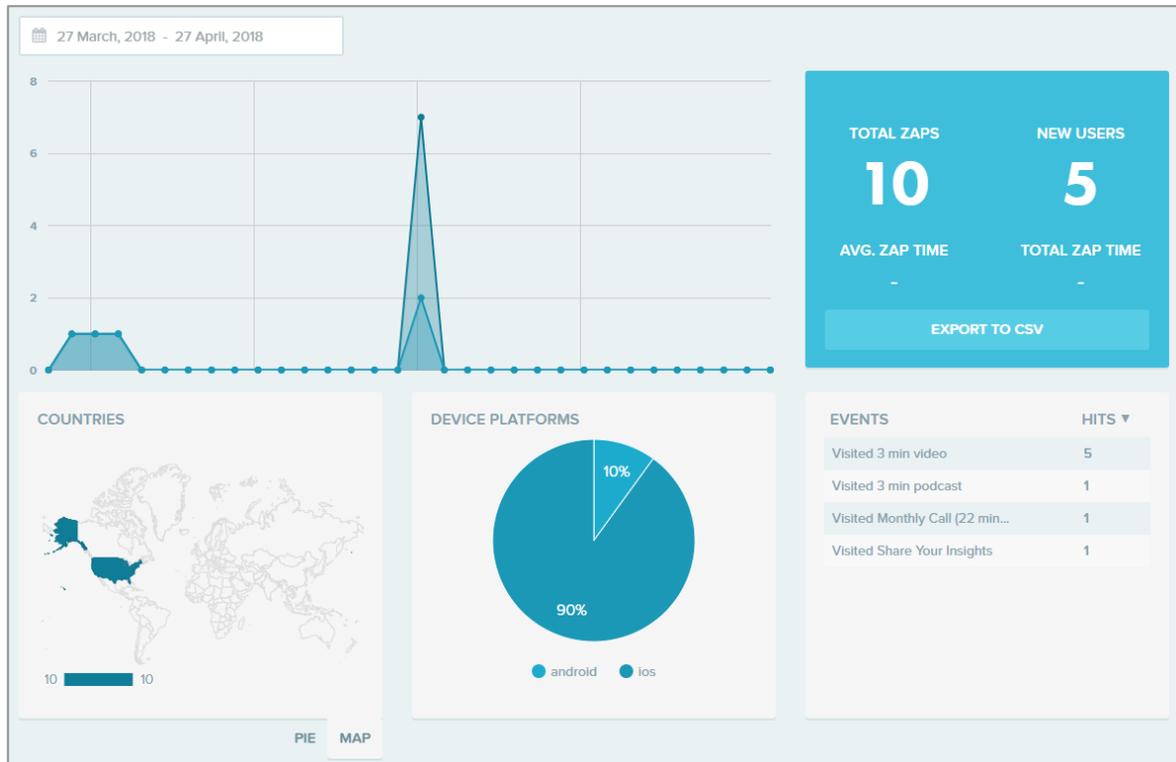
SHARE

EDIT

160 TOTAL CLICKS



Over 52% viewed the video within two days of the email communication, and highest overall day was Wednesdays, and there were no views on Fridays.



The Augmented Reality experience was accessed 10 times with the short video being accessed the most frequently.

### What Kind of Data Stories Can Be Inferred From This?

- Communication should not be confused with engagement. Just because information was emailed to all the core leaders, the data suggests it's a mistake to assume that all core leaders view the full message (in fact, less than 1% watched the full video).
- Future videos will be less than two minutes in length to ensure viewers hear the full message.
- The date of the communication is very important and that Wednesday is the best day to send it.
- Core leaders prefer to access information in traditional ways (such as links to videos) over 10 times as much as new ways (such as Augmented Reality). Continue to offer both modalities to ensure the broadest reach.

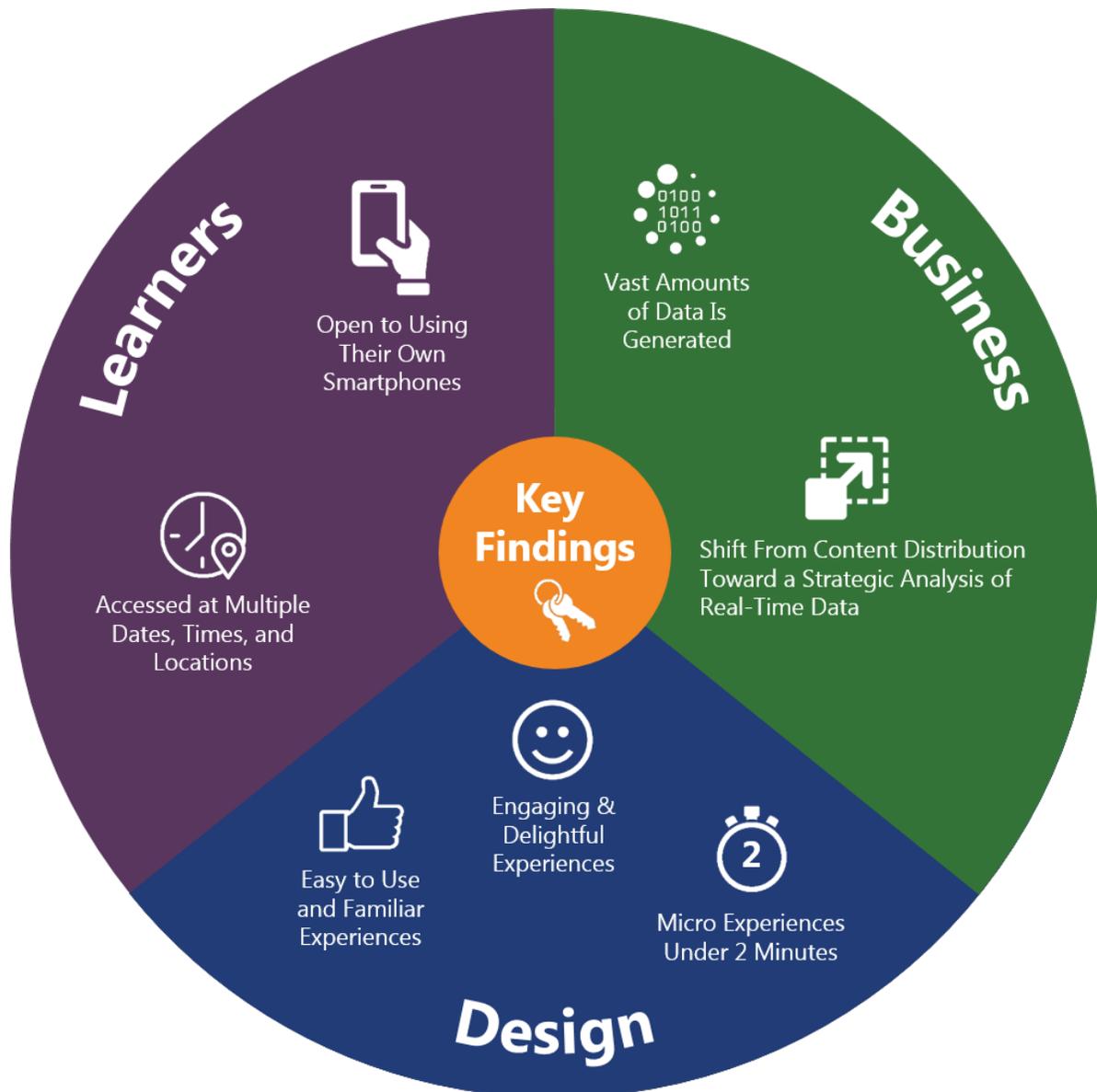
Zap to watch  
'The Power of  
Knowing' video



# Key Findings & Lessons Learned

## Key Findings

Augmented Reality MicroLearning design generates a lot of excitement among stakeholders (program owners, learners, and facilitators). This design is a low risk enhancement to existing programs that offers high rewards in the form of increased learning engagement, retention, and application to work efforts. In addition, this design can be implemented quickly, easily, and inexpensively.



## Lessons Learned

### It's Not About the Technology - It's About Value

The team knows they must first understand their clients' needs and then effectively communicate a better solution. The team is refining how to state the innovation value proposition to their clients in a way that first communicates value. The strategy they are using begins with the client's 'Why' and then focus on the 'How' of the design and then build the 'What' of the experience.

### Need for a Diverse Team

Exploring new designs in learning and technologies to solve business needs requires multiple perspectives that are beyond a single person. Our team includes a diversity of roles, all of who add value through their insights to enhance the design, delivery, and success of our efforts.

Role	Value
Executive Sponsor	Provides administrative support and organizational networking
Multimedia Developer	Develops and produces AR enhanced products
eLearning Designers	Designs learning experiences to be instructionally sound
Facilitators	Understands the needs of learners who attend in-person trainings
Principal Consultant	Provides strategy and direction
Internal Clients	Ensures business needs are served by the solutions created
Creative Director*	Although we do not have this role, it would provide great value by championing innovation, design, and branding alignment in this new area

---

“

Thank you!  
This was fun.  
Another way to  
stay engaged.

”

---

### Choose a Mindset for Success

Innovation is often a challenging journey, fraught with many setbacks and frustrations. It is critical for us to choose and keep a mindset for success – one that values:

- Being courageous
- Doing and making
- Focusing on providing value
- Seeking clients who are responsive
- Learning through successes as well as failures
- Constantly improving through iterative cycles
- Centering our design decisions on a person’s experience (human centered design)
- Staying curious, observing, and asking questions

### What’s Next

The team has been working with other colleagues to expand Augmented Reality MicroLearning design beyond AR Enhanced Scenarios and AR Enhanced Job Aids. Some of the prototypes that have already moved into demos and final products include:

#### Name Badge Card

This is a card that is added to the back of a name badge to provide core leaders who are part of the Clinical Values Improvement (CVI) program access to resources at any time, wherever they are.

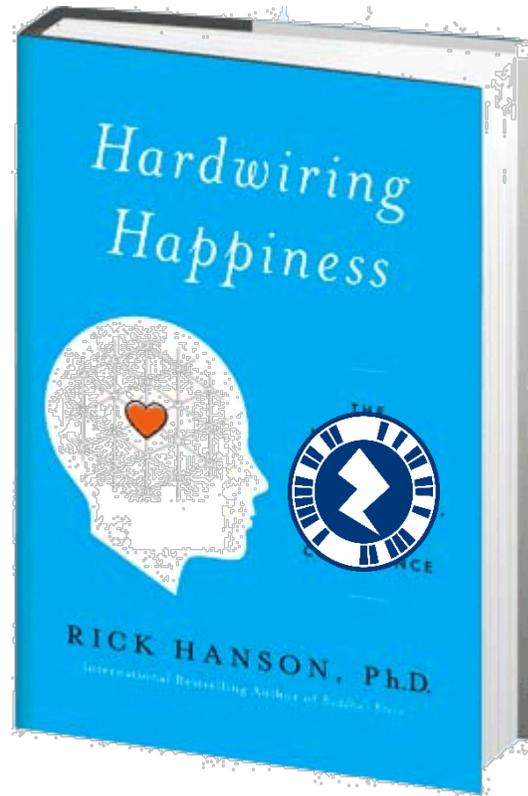
Zap this image



### Book Club

An Augmented Reality image trigger sticker is placed on a book cover so that readers can interact in varied ways such as watching videos of the author, reading a book summary, sharing insights with each other on the company's forum platform, and more.

Zap this image



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“

The interactiveness made me focus a little more. I was able to remember more of what I read when it came time for questions because I had to "work for it." I liked it.

”

---

## Video Postcards

A card quickly tells the story of why people support Providence Global Partnerships in a delightful and Harry Potter-inspired way (the printed picture comes to life as a video).

Zap this image



## Summary

Combining Augmented Reality with MicroLearning creates more options to design and deliver learning experiences that best meet both the learners' and the organizations' needs.

## Your Call to Action

**Join the conversation** by sharing your insights, questions, and successes with other learning professionals in this space in the LinkedIn group-

**MicroLearning with Augmented and Virtual Reality**

at [www.linkedin.com/groups/13574716](http://www.linkedin.com/groups/13574716).

**Read another whitepaper** of our case study which was recognized with the 2017 Brandon Hall Group Excellence in Technology silver award:

**A New Learning Design Using Alexa Voice User Interface**

at [www.bit.ly/alexa-whitepaper](http://www.bit.ly/alexa-whitepaper).

## About the Team

This endeavor has been a team effort and included significant participation from the following caregivers at Providence St. Joseph Health.

Name	Title
Darci Hall	Integrated Talent Management, Director of Operations and Delivery
Johnny Hamilton	Multimedia Developer eLearning Designer
Benicia Stein	Principal Consultant
Janet Backes Chandra Hodges	Facilitation Consultants
Cindy Vaughn	Director of Caregiver Experience
Matt Griffin	Program Manager
Joshua Ratliff Vicky Gelatt	Senior eLearning Designer



These AR experiences won the [2018 Brandon Hall Group Excellence in Learning Silver](#) award for:

**Best Approach to Human Capital Management Innovation**

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**What would you create when you combine Augmented Reality and MicroLearning design?**

