

# Real-world, Hands-on, and Project-based

An Instructional Leader's Guide to Authentic Learning



**Authentic learning is a big term that can mean different things to different people. It's not new, but it is gaining popularity as digital tools break down the four walls of the classroom.**

In this ebook, we explain everything you need to know about authentic learning. You'll learn what authentic learning is and why schools are making the shift. We also include tips for what you can do as an instructional leader to drive the shift to authentic learning at your school.

## What is authentic learning?

In a recent survey, we asked educators from around the globe what authentic learning means to them and unsurprisingly, no two teachers gave the same answer. Authentic learning is a very broad term. How educators incorporate it into instruction depends a lot on the resources available to them and the demands of their curriculum. We were able to identify some key themes for what makes learning authentic: it is real-world, hands-on and project-based.

This definition of authentic learning was summed up nicely by Bonnie Caminiti, a grade 3 teacher from Ontario, Canada, who described it as, "providing students with hands-on learning, [allowing] them to investigate real-world issues while investigating possible solutions."

### Real-world

This was the most consistent response in our survey. Learning is authentic when it has applications outside of the classroom.

Students are more engaged and more interested when learning is grounded in real-world examples. Bringing the outside world into the classroom (or students out into the world!) allows learners to see the why of what they are learning. They can engage with topics and movements that are relevant to their interests, and build critical skills like problem-solving, researching and collaborating.

Real-world learning creates opportunities for real audiences. Instead of completing projects just for their teachers, students can show their learning by writing letters to politicians, submitting proposals to relevant organizations, or engaging with online communities. As Larissa Pahomov points out in *Authentic Learning in the Digital Age: Engaging Students Through Inquiry*, "leveraging the Internet as a showcase space, especially by plugging into existing venues for written and multimedia work, students experience the pride of being 'professional' and get the benefit of outside feedback". With an authentic audience, learners

feel more agency over their work and can extend their exploration of topics indefinitely, without the time constraints of the classroom.

### Educator Example:

## Choosing the right cellular plan

We had a neat cross-discipline project where a math teacher and a language arts teacher decided to co-plan and create something engaging for their students. The math teacher had her students research different wireless plans and figure out what would best fit the needs of their family and peers. Then in language arts class, they had to create a persuasive commercial to convince peers which plan would be best. They then shared those commercials with peers from another school, and those peers picked the best plan and gave feedback to these students. They used Hapara Workspace to coordinate between the language arts and math class. You can [view the Workspace here](#).

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### Hands-on

Describing the real-world applications of a lesson does not qualify instruction as authentic. Learners must be able to apply the skill themselves and learn by doing.

Instead of memorizing facts in isolation, learning should be hands on, enabling students to “translate what they have learned into the practical skills, applications, and habits of mind that would be useful in life outside of school” (Great Schools Partnership).

Making learning hands-on can be difficult. It requires time, room for failure and recovery, and often, access to resources beyond textbooks and traditional school supplies.

## Educator Example:

# Solving a real-world problem

One project we completed was investigating solutions to food production in different parts of the world. We connected this learning to the UN Sustainable Goal #2 of Zero Hunger. We linked this experience to our science expectations around plants and soils in the environment. Our class connected with a Vermicompost expert in Texas and began our own vermicompost bins to make nutrient rich compost for our indoor garden. We researched lands in Bangladesh which are flooded and lands in Somalia which are dry. The students created prototypes of floating gardens and irrigation systems. The project was created in Workspace and you can [view it here](#).

**Bonnie Caminiti**

Grade 3 Teacher  
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## Project-based

Projects that are problem- or inquiry-based are the best way to implement authentic learning because they most resemble how we actually work. You don't sit down to practice skills like communication or collaboration - they come up when you're solving a problem or reaching a goal.

Authentic learning projects take a multidisciplinary approach to solving real problems. They allow learners to make meaning out of their learning and recognize the connections between different learning experiences (Pearce). They are about building learners up as problem solvers and creative, critical thinkers.

Not all project-based instruction is authentic, and projects can vary in how authentic they are. The Buck Institute suggests a few ways to make a project authentic that educators can use in any combination.

A project can have:

- **an authentic context** (a real-world problem that needs to be solved);
- **real-world processes, task and tools** (scientific method, research, or using digital tools to share knowledge);
- **a real impact** (helping the community);
- **personal authenticity** that speaks to students' interests.

Each of these elements can increase learners' interest in the project and help them build transferable skills.

### Educator Example:

## Learning about the local environment

We ran a "Water" inquiry - looking at our local waterways, supplies and city systems in order to build greater awareness by our students of the need to look after, and take action to protect our water resources. There was a lot of small group collaboration and across-class sharing and learning. We brought in contacts in the local community. Kids loved this type of learning and used the community as much as possible.

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## Why lead the shift to authentic learning?

The short answer? The internet.

The slightly longer answer? The world is quickly changing and we should be preparing learners for success in a digital, global economy.

We have access to an endless amount of information, facts and news. According to Pew Research Center, 77% of American adults own a smartphone that can access the internet. That number jumps significantly for younger Americans - 92% of 18 - 29 year olds. Success in the

real-world depends less on how much we know and more on how easily we can access and act on information.

Research shows that authentic, project-based learning leads to better problem-solving, improved critical thinking, and improved abilities to collaborate and resolve conflicts (Buck Institute, *Research Summary*). These skills, along with curiosity, creativity and adaptability are some of the key 21st century competencies that learners will need to keep up with the rapidly changing workforce (Pew Research Center).

### Educator Example:

## Making global connections

We had the most amazing experience with our children as part of our school wide focus on Chinese language and culture week. One of our parents set up a WeChat session with a kindergarten in Zhengzhou, Henan in China.

The point of all this you may ask? The authentic use of a language. The chance to share our learning in Mandarin even though it is really basic. The opportunity to make connections with children in another country who are the same age as our little ones. To show our teachers that there are new ways of learning. Rather than using photos or videos of another country, culture and language, we can be doing so much more.

Children love this learning and the feedback from families is it generates talk around the dinner table. When children leave our school they come back and share how they carry on with this learning.

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## Authentic learning and digital tools

Digital tools make it easier create authentic learning experiences by connecting students to the world around them and by helping educators manage complex projects.

## Sharing learning

One of the best ways to make learning authentic is to provide learners with a real audience. When learners share their work with the world, it becomes infinitely more meaningful, especially when the audience includes experts on the topic. Digital tools like Google Hangouts, Skype and Twitter allow learners to connect with experts from around the world. Learners can quickly get feedback on their ideas and share their learning without ever leaving the classroom.

## Collaboration

Nothing beats face-to-face collaboration between learners, but digital tools allow them to collaborate in new, more flexible ways. This is especially true for schools that have adopted Google Suite for Education. Learners can use Hangouts to chat outside of class. With tracked changes and commenting in Google Docs, learners can work together from anywhere and teachers can see who contributed what to a project. Drive makes sharing information simple.

For schools that use [Hapara](#), this is even easier. Educators can use Hapara Workspace to manage full projects and separate learners into groups. From the Workspace, learners can easily access information specific to their groups, including collaborative Google Docs, Slides, and Sheets that they can use to co-construct and share learning.

## Formative assessment

Continuous feedback is critical for successful authentic learning projects. Learners should not just be handing in a final project, they should be hearing from their teachers and peers throughout the process, iterating and learning as they go.

[Digital tools make giving and receiving feedback much easier.](#) Polling tools like Socrative and Kahoot are great for quick check-ins, while commenting in a Google Doc allows you to provide more robust feedback. There are even Google Doc add-ons that allow you to leave voice comments, making feedback more personal.

When an entire class is working through complex authentic learning projects, giving everyone the feedback they need can be daunting. Tools like [Hapara Dashboard](#) make it easy to access learner work in Google Drive, so you can offer feedback more quickly. For even more immediate feedback, use Hapara Highlights to send instant messages to individuals, groups or the whole class as they work online.

## Educator Example:

# Blending digital and hands-on learning

Middle school students learn how to build a campfire. This is a project within their outdoor adventure unit. Students worked in groups of 3-4. Before building a fire outside, they learned about the purposes of different types of fires from video clips. A Google form guided them to the important aspects that they would need to build their fire: types of tinder, kindling and fuel; safety precautions, and the building structures of fires. They were put into groups within Hapara Workspace. As a teacher, I was able to see where students were at in watching the videos and completing tasks. Next time, the music dept and PE dept will be collaborating on teaching video taping skills and learning the software. So this will become an additional learning outcome.

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## New artifacts of learning

Technology allows students to share their learning in ways that were previously unimaginable. From animated videos to podcasts, to 3D printed objects and models - the possibilities are endless. One way to make learning truly authentic is to let learners choose the final outcome of their projects. Learners could choose from a list of suggestions, or you could ask them to decide the best way to show their learning.



## Educator Example:

# Bringing calculus to life

I worked with a calculus teacher who wanted students to understand how the subject material could be applied to real-world careers. Students used the math to graph various calculations and then convert these to 3D models that we then printed using a 3D printer. This year we printed, in parts, a replica of Stitch from Lilo and Stitch. Each student was in charge of a different part of his body.

## Chad Fisher

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## Differentiation and personalization

Authentic learning tasks often lead students down different paths, depending on their interests and skill levels. This can be **a lot** to manage and is often what scares people the most. When you have four classes of 30 students, how do you create learning experiences that are authentic for all of them?

Moving things to the cloud is one way to handle this. When all of the work is analog and everyone is doing different things, it's a recipe for important papers getting lost. In G Suite on the other hand, everything is saved automatically and searchable!

Many of the teachers surveyed use Hapara tools to manage and personalize learning. They build authentic learning projects in Workspace and divide learners into different groups. This lets them easily share resources that are relevant to each learner and provide additional supports to subsets of students. They track where everyone is in their projects from the Activity Summary, so they can see which learners they need to check in with, who needs encouragement and who is ready for feedback.

## What you can do to lead the way

### Share your "why"

One of the most powerful things you can do when leading the shift to authentic learning

is to identify your why. Don't just follow the latest education trend. You should have deeply compelling reasons for making an instructional shift that serves your school community.

We shared some of our reasons for shifting to authentic learning above. Your why may look different based on the needs of your community. If you need help identifying your why, check out some of the research cited at the end of this ebook. You can also try working through some of the exercises suggested by Simon Sinek in [Start With Why](#). Bring students and teachers into this process to help you develop a "why" that is compelling for everyone.

Once you have your "why", *share it*. Just because you understand why authentic learning is the right choice for your school community, doesn't mean everyone does. As you roll out new practices, explain your why at every step. Very few educators will jump on board just because you told them to. Make sure they understand how authentic learning benefits their students.

## Find a framework

There's no set model for authentic learning, which can make it difficult to get started. There are, however, a few frameworks available that can be a good starting point. Here are a few sources that may help you find a framework:

- [Authentic learning: what, why and how?](#)
- [Authentic Learning for the 21st Century: An Overview](#)
- [Gold Standard PBL: Essential Project Design Elements](#)

As you consider frameworks, keep in mind that authentic learning looks different in different contexts. You will need to customize your authentic learning framework based on the needs of your school community and your available resources.

## Choose the right systems and tools

The tools you choose will depend on your specific goals as a school. Take the time to research all of your options and to have discussions with classroom teachers about what tools they would like to use.

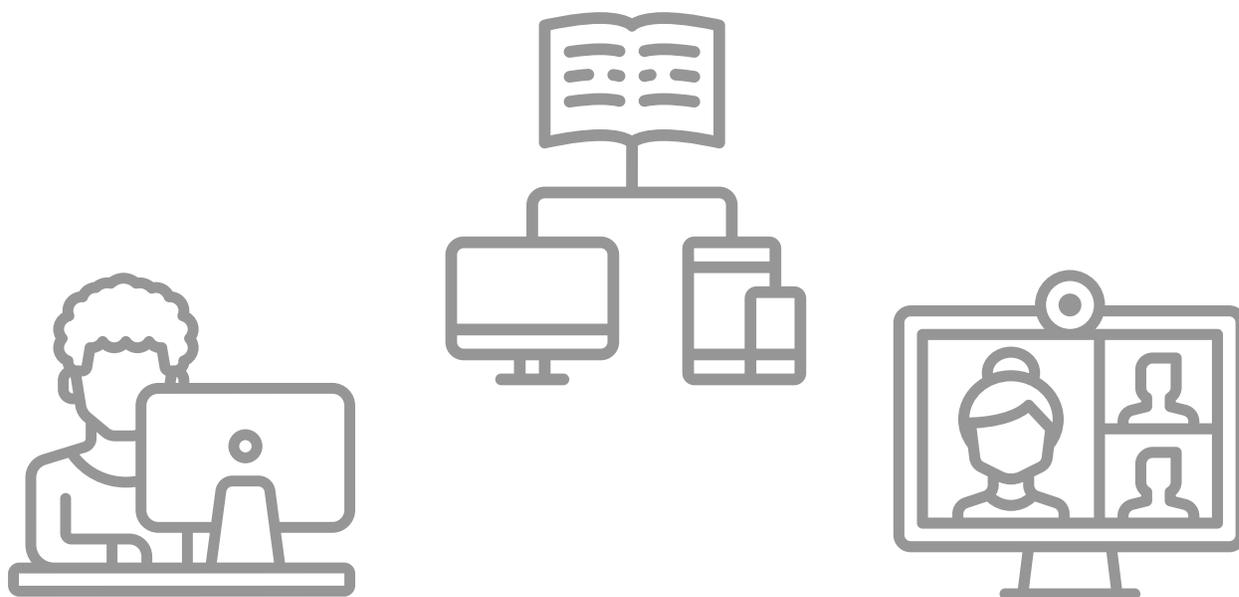
Just as there is no one authentic learning framework, there's also no singular toolset. You will need a combination of digital and analog tools that allow students to research, collaborate and create. As you select tools and systems, try to choose those that are flexible enough for a variety of projects. Consider setting up an ecosystem of tools that work well together. [App-smashing](#) is essential when it comes to authentic learning.

If you're not already using G Suite for Education, now may be the time. Because all work is stored in the cloud, G Suite allows for greater flexibility, collaboration and communication. G Suite has the added benefit of working with hundreds of add-ons and extensions that give learners access to additional tools and resources.

G Suite has some limits. There are a lot of components and it can be easy to lose track of assignments in the Google Classroom timeline. When you're starting out with authentic learning, this can cause a lot of headaches.

This is where [Hapara](#) comes in. For educators who are overwhelmed by giving learners increased independence, Hapara provides visibility into learning that would otherwise be lost. As learners work online, educators can use Highlights to keep track of learner browsing and provide feedback and interventions as needed. Dashboard also gives teachers access to students' Google Drives - so work doesn't get lost and feedback can be shared easily.

For authentic learning projects big and small, Hapara Workspace allows you to create collaborative assignments that pull in resources and tools from across the web in a layout that makes sense for learners. With Workspace, teachers can have all of their authentic learning resources - no matter how personalized and specific they are to each student - all in one organized location.



## Educator Example:

# Becoming global citizens

My French Immersion students just completed a project on citizenship and how they are able to affect positive change anywhere in the world with some thought and understanding of what is going on outside of their community. [I set up a Workspace](#) in French with sources on “what is citizenship?” and how students, maybe even without realizing, have already had an impact on their surroundings (ie, participation, volunteering, etc). Then we looked at videos of some natural disasters and talked about the effects. We also read news stories about some recent devastations.

I am completely paperless using Hapara. We used Youtube for videos, Padlet to discuss the meaning of citizenship, Google Docs to create success criteria and then students used Google Slides and Prezi to deliver their presentations. They also created GoFundMe accounts. One group found a company that makes suckers with a logo you create. They deliver them right to you and you can sell them with your message as a fundraiser. It was incredible how resourceful they were!

**Cindy Chamberlain**

Grade 9 and 10 French Immersion Teacher  
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## Listen to your teachers

We’ve mentioned this a few times, but it’s important to state on its own. You cannot lead a shift like this if you don’t take the time to listen.

Your teachers are the ones on the ground putting these methods into practice. Listen to what they have to say. Listen to what they think is working and what isn’t. Just like learners need constant feedback during an authentic learning project, so do you when rolling out a big pedagogical shift.

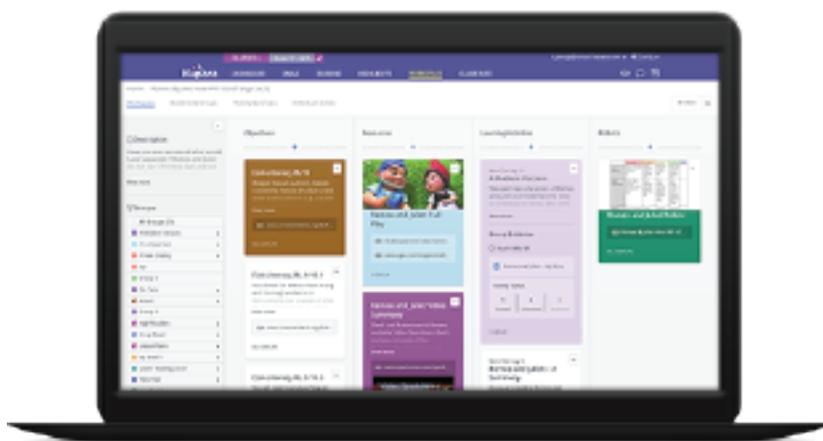
Be sure to consider the voices of your most innovative teachers as well as those who are more resistant to change. The resistant ones may have very good reasons. As you share your why along the way, take the time to ask about their whys as well.

## Offer authentic PD

Authentic learning is a very new way of teaching for many educators. To help teachers make the shift, set up inquiry- or problem-based professional development sessions. This gives teachers a model for authentic learning that helps them understand it from both the educator and learner perspectives. There are some great examples of authentic PD in [this blog post](#).

You also need to give teachers opportunities to try things out and apply new methods in low pressure situations. This could be by having them teach each other, or by ensuring that there is space for failure when they are working with students.

Teachers also need lots of feedback and time for reflection and adjustment when they are learning something new. You can offer this support through informal observations and by making yourself available for questions and discussions.



If you'd like to find out more about how Hapara can support authentic learning in your school, reach out to us at:

[Hapara.com/contact](https://www.hapara.com/contact)

## Sources:

Buck Institute for Education. "Gold Standard PBL: Essential Project Design Elements (by BIE)." BIE.org, Buck Institute for Education, 2015, [www.bie.org/object/document/gold\\_standard\\_pbl\\_essential\\_project\\_design\\_elements](http://www.bie.org/object/document/gold_standard_pbl_essential_project_design_elements).

Buck Institute for Education. "Research Summary on the Benefits of PBL." BIE.org, Buck Institute for Education, 2013, [www.bie.org/object/document/research\\_summary\\_on\\_the\\_benefits\\_of\\_pbl](http://www.bie.org/object/document/research_summary_on_the_benefits_of_pbl).

Couros, George. "Inquiry Based Professional Learning." The Principal of Change, 4 Apr. 2015, [www.georgecouros.ca/blog/archives/5182](http://www.georgecouros.ca/blog/archives/5182).

Cruz, Jennifer, and Rody Boonchouy. "PBL Lead Webinar." BIE.org, Buck Institute for Education, [www.bie.org/object/webinars\\_archived/pbl\\_lead](http://www.bie.org/object/webinars_archived/pbl_lead).

Fairfield, Randy. "Tips and Tricks for Providing Formative Feedback in Your Digital Classroom." Hapara, 21 Mar. 2018, [www.hapara.com/blog/tips-tricks-providing-formative-feedback-digital-classroom/](http://www.hapara.com/blog/tips-tricks-providing-formative-feedback-digital-classroom/).

Great Schools Partnership. "Authentic Learning Definition." The Glossary of Education Reform, Great Schools Partnership, 16 Sept. 2013, [www.edglossary.org/authentic-learning/](http://www.edglossary.org/authentic-learning/).

Pahomov, Larissa. Authentic Learning in the Digital Age: Engaging Students through Inquiry. ASCD, 2014.

Pearce, Sarah. "Authentic Learning: What, Why and How?" e-Teaching: Management Strategies for the Classroom, no. 10, Apr. 2016.

Rainie, Lee, and Janna Anderson. "The Future of Jobs and Jobs Training." Pew Research Center: Internet, Science & Tech, 3 May 2017, [www.pewinternet.org/2017/05/03/the-future-of-jobs-and-jobs-training/](http://www.pewinternet.org/2017/05/03/the-future-of-jobs-and-jobs-training/).

Saysana, Vonglaxay. "Collaborative professional development with Hapara Workspace." Hapara, 26 Apr. 2018, [www.hapara.com/blog/tips-tricks-providing-formative-feedback-digital-classroom/](http://www.hapara.com/blog/tips-tricks-providing-formative-feedback-digital-classroom/).

Sinek, Simon. Start with Why: How Great Leaders Inspire Everyone to Take Action. Portfolio/Penguin, 2013.

Smith, Aaron. "Record Shares of Americans Now Own Smartphones, Have Home Broadband." Pew Research Center, Pew Research Center, 12 Jan. 2017, [www.pewresearch.org/fact-tank/2017/01/12/evolution-of-technology/](http://www.pewresearch.org/fact-tank/2017/01/12/evolution-of-technology/).

Van Schaijik, Sonya. "Connections Are the Beginning of Collaboration." Sonya Van Schaijik, 13 Oct. 2016, [www.sonyavanschaijik.com/2016/09/13/connections-are-the-beginning-of-collaboration/](http://www.sonyavanschaijik.com/2016/09/13/connections-are-the-beginning-of-collaboration/).