

Engaging Students in Learning Economics with Digital Content

Findings from a National Study
with History & Social Studies Teachers

certell



National Report on Leveraging Digital Content within Economics Certell Economics Teacher Feedback Study

I think technology has the potential to facilitate collaborative problem-solving, which is what I believe social studies courses are all about! I think it also has the potential to integrate relevant and current real-world situations so that students can see the implications of what they're learning specifically in economics. Any technology that was utilized in these ways would have students more interested and invested in the content and allow them to see that their knowledge has the potential to literally change their world.

AP Economics and Government High School Teacher (Texas)

Introduction

Many factors in American society today are contributing to an increased interest in students developing a strong foundation in financial literacy and economics concepts and principles. The ongoing fallout of the pandemic on the global economy has kept topics such as the ups and downs of the stock market, inflation rates, supply chain disruptions and the efforts of the Federal Reserve in the headlines. For many Americans, the escalating costs of college education and their concerns about higher education debt are top issues as well. Given this focus on the economy and the impact of economics on personal finance, it makes sense that 73% of parents of school-aged children say that financial literacy is a top life skill that they believe their child needs to acquire to be successful in the future. This parental view on the importance of their child being financially literate is not the purview of only certain demographic groups, however. Based upon feedback collected from a diverse sampling of nearly 5,000 parents nationwide as part of research conducted by Project Tomorrow® during the 2021-22 school year, the percentage of parents holding this view is consistent whether their child is in first grade or tenth grade, they live in an urban center or a rural town, or if their family income is under \$75,000 per year or over \$150,000. Financial literacy is now almost as important a life skill, per the view of parents, as critical thinking, and problem-solving skills (valued by 84% of parents), time management and organization (79%), and effective communication skills (79%). Consequently, parents are looking to their child's school district to ensure that a comprehensive understanding of economics and personal finance is part of their child's education in school.

Appreciating the increased importance of students developing financial literacy, Certell partnered with Project Tomorrow to collect feedback from teachers nationwide about the classroom environment for Economics and Personal Finance instruction and the attitudes and aspirations of the teachers facilitating those courses for more effective and engaging instructional materials. Of particular interest was the potential of high-quality digital tools, content, and resources to support classroom instruction in these critical content areas. Thus, a primary goal of the research study was to understand how technology, when used effectively could improve student engagement in economics course content by providing a real-world context for the learning process. Economics and Personal Finance teachers were recruited from across the nation to share their views and perspectives in an online survey during the late spring and early fall of 2022. This report documents the key findings from this research study and provides insights into the state of the state in terms of economics instruction in high schools today. Key findings from this year's Certell Economics Teacher Feedback Study include:

1. Students' financial literacy levels prior to taking a high school economics or personal finance course are very low according to their teachers. 53% of Economics and Personal Finance teachers identify their students' financial literacy at the start of the semester as below basic proficiency.
2. Teachers' comfort with teaching economics or personal finance is related to their years of experience with the content. Teachers with 11 or more years of experience say they are very comfortable with economics while only 11% of teachers with less than 3 years of experience feel the same.
3. Teachers consider the inclusion of online and digital content to be valuable for their course in helping to establish context for economics concepts and principles. In particular, pop culture media content is especially valued.
4. Economics and Personal Finance teachers report that using Certell e-books and supporting content enhances their effectiveness as a teacher (76%) and engages their students in learning their course content (41%).

About the Certell Economics Teacher Feedback Study

In total, 257 classroom teachers representing schools in 34 states participated in the research study. The online survey tool consisted of a mix of multiple-choice questions, Likert scale items and narrative response questions. The data from this year's Certell Economics Teacher Feedback Study was analyzed using descriptive statistics. Additionally, Project Tomorrow examined the data results from the general population of teachers that responded to the survey prompt as well as two sub-audiences of survey respondents: 1) teachers that only teach Economics and Personal Finance and 2) teachers who are currently using Certell's Poptential™ e-book and support materials. Where appropriate in the analysis, we reviewed the findings using various variables such as teachers' years of experience teaching Economics and/or Personal Finance. Additionally, comparative research findings from Project Tomorrow's Speak Up® Research Project from the 2021-22 school year are included in this year's report to provide context.¹

Key defining characteristics of the sampling of teachers include:

- 85% classroom teachers: 5% identified as special education teachers, 4% as instructional coaches and 3% as the department chair.
- The breakdown of the teaching assignments by content area:
 - Economics – 79% of the respondents
 - Personal Finance – 44%
 - Government – 44%
 - American History – 37%
 - World History – 33%

¹ The Speak Up Research Project is an annual, large-scale data collection and reporting effort facilitated by Project Tomorrow nationally to understand the impact of new learning models and interventions in K-12 education.

- Among the participant sampling, 29% report using Certell Poptential e-books and supporting content within their courses.
- Nearly two-thirds of the teachers (62%) have a master's degree. Within that group, 42% have a master's degree in education, 14% in a content area other than economics, 6% in economics.
- The teachers in the sampling are highly experienced. When asked about years of teaching experience, 3% have 1 to 3 years of experience, 32% have 4 to 10 years of experience, 16% have 11 to 15 years of experience and 49% have over 16 years of teaching experience.
- For the respondents who self-identify as teaching primarily economics or personal finance, the depth of their experience in those content areas is also deep. 81% have at least 4 years of experience teaching economics and/or personal finance.

Table 1: Economics teachers report on their years of experience with economics/personal finance content

Years of experience teaching economics or personal finance	% of survey respondents
First year	4%
1-3 years	15%
4-10 years	45%
11-15 years	7%
16+ years	29%

The Economics Teacher Feedback Study Findings

Background context for the study findings

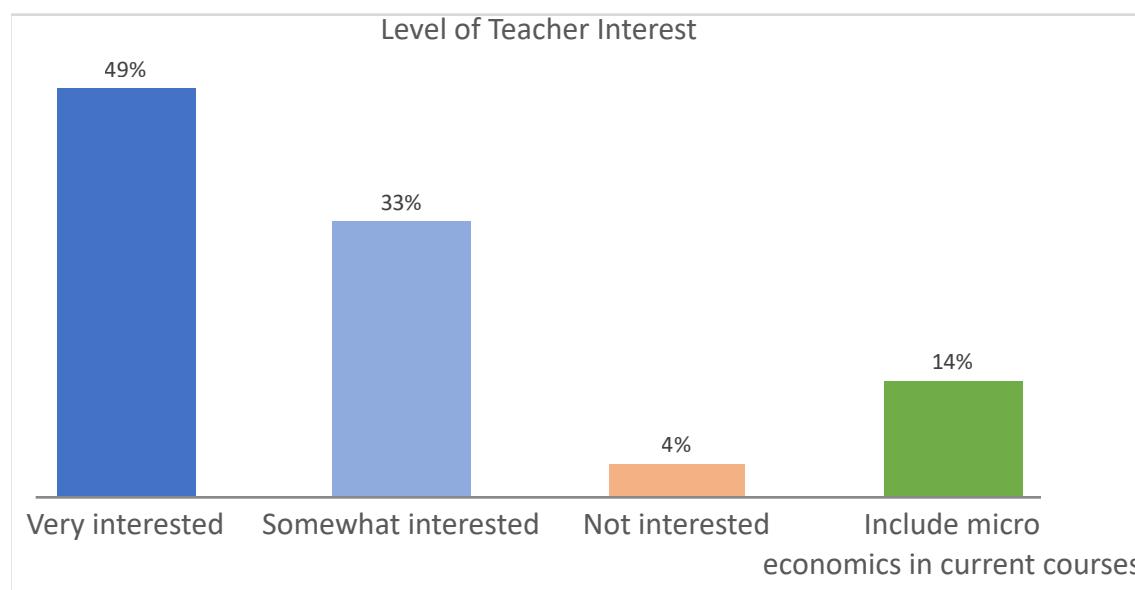
Economics course content

With a focus in this year's Certell Teacher Feedback Study on teaching economics with digital content, it was important to first understand how the responding teachers characterize their courses. Teachers report that within their courses the two primary focus areas are either 1) basic economics identified by 63% of the teachers as the best representation of their course content, or 2) awareness of personal finance concepts and processes named by 56% of the teachers. In many cases the teachers' assignments include some economics classes and some personal finance classes. It is also common for the teachers to teach a few sections of other social studies courses as well including government, American History and/or World History in addition to their economics assignments.

Specific to economics, nearly one-quarter of teachers (23%) say that their course content is focused on integrated micro-macroeconomics and 14% say the emphasis in their instruction is on global economics. Understanding that most high school courses cover the two foremost strands in economics, only 12% of the teachers in the sampling say that their course is primarily macroeconomics and only 8% say their focus is almost exclusively on microeconomics. For the most part, the high school courses taught by the responding teachers are not Advanced Placement (AP) courses; only 15% of the respondents identified their course as an AP-qualifying class.

However, despite the general orientation to basic economics, Economics teachers are very interested in including more microeconomics concepts and principles within their current courses. As depicted in Chart A, 82% of the teachers expressed this interest, with 49% saying that they are very interested.

Chart A: Teacher interest in including microeconomics in their courses



In the survey, the Economics and Personal Finance teachers were also asked to imagine a new e-book or online support materials to support microeconomics in a high school class. The teachers' input includes both conceptual elements for the e-book as well as recommendations for content. The most popular e-book elements are simulations and connecting to the real world. Within the recommendations for content, the most frequently noted suggestions included expanded topics around personal finance, supply and demand, and budgets and budgeting.

Instructional practices in the Economics and Personal Finance classrooms

In terms of teaching practices in their classrooms, Economics and Personal Finance teachers employ very similar strategies within their everyday instruction. The top five instructional methodologies used by the responding teachers regardless of content focus are lecture, whole class discussion, quizzes and tests, small group work and using digital or online simulations. The use of simulations within Economics and Personal Finance courses is very interesting to note as that is a tool that is used less often in other social studies courses. Whereas 79% of the

Economics and Personal Finance teachers say there are regularly using digital or online simulations to support instruction in their courses, only 35% of History teachers reported the same level of usage within their courses on the Speak Up Research surveys from the same period. Interest in using more simulations within instruction is growing, however. In 2016, only 26% of teachers said that they believed that the use of simulations within instruction could benefit students. Based upon the latest Speak Up data findings, 44% of high school teachers are now recommending the use of simulations across all content areas.

Technology use cases within instruction

Beyond online and digital simulations, Economics and Personal Finance teachers are using many other digital tools and resources to support instruction in their classrooms. The expanded list of their technology use cases includes:

- Integrating digital content or online resources within most lessons (81%)
- Using digital, video or online games within instruction (77%)
- Customizing digital content to meet classroom needs (76%)
- Keeping class information on a class or school portal current (69%)
- Using an online curriculum with students (68%)
- Using pop culture or multi-media references or content within instruction (63%)
- Providing opportunities for students to create media projects (61%)
- Facilitating student collaborative projects with online tools (59%)

The high percentages of Economics and Personal Finance teachers using technology to support learning indicate a deep appreciation for the value of these tools and a comfort level with their usage. But the teachers in this year's study also report that they continue to face challenges in using technology effectively to support teaching and learning goals. The most frequently cited challenges include the following:

1. Lack of time to find appropriate content for my class (59%)
2. Do not have authority to license or purchase digital content (48%)
3. Cannot find content that meets the different ability levels in my class (43%)
4. Too many products and resources to choose from (37%)
5. Products do not provide a trial period or sample set of content for me to use (32%)

These challenges are the same for the general population of the feedback study which included teachers who taught Economics or Personal Finance in addition to other social studies courses. They also are echoed by high school teachers across all content areas as documented in the Speak Up Research Project findings.

Review of key study findings

Study Finding 1: Students' financial literacy levels prior to taking a high school economics or personal finance course according to their teachers are very low.

Teachers report a very low level of student financial literacy or proficiency at the beginning of the school year or before their students take an Economics or Personal Finance course. 53% of the teachers in this study say that their students' financial literacy is below basic proficiency levels (Table 2). Only 10% of the teachers say that their students are coming into their course with a level of proficiency higher than basic.

Table 2: Students' financial literacy as evaluated by their Economics or Personal Finance teachers

Levels of Financial Literacy or Proficiency	Percentage of teachers with this response
Very proficient	4%
Somewhat proficient	6%
Basic proficiency	37%
Below basic proficiency	53%

This reality about students' lack of financial literacy or understanding of even the basics of economic systems and concepts has been reported by other research organizations as well. In many cases, the situation is exacerbated by a lack of student access to classes such as economics and personal finance while they are in high school. Recent data on the limitations that students have to such courses underscore the importance for more attention to be paid to supporting high-quality high school instruction.

While all 50 states plus the District of Columbia include economics education in their state standards, only 25 require students to take an economics course to graduate high school, according to Council for Economic Education.² The number of states with an economic course requirement has only increased by three states since 2011. According to the College Board, only 5% of the total number of students who took Advanced Placement (AP) exams in May 2021 took the AP Macroeconomics test and only 3% took the AP Microeconomics exam.³ This further supports the limitations that students have to these types of advanced courses in high school.

The same appears to be true for personal finance courses as well. According to a recent report in *US News* in December 2022, only fifteen states require or are in the process of mandating that high school students take a stand-alone personal financial course of at least one semester to graduate, according to a study conducted by Next Gen Personal Finance.⁴ While the percentage of high school graduates who have taken a personal finance course has increased from 16% in 2018 to 22% in 2022, the reality is that too few students have opportunities to take these types of courses prior to graduation. This may help explain why 53% of college students say that they are not knowledgeable enough about financial matters to manage their own money.⁵

² <https://www.councilforeconed.org/wp-content/uploads/2022/03/2022-SURVEY-OF-THE-STATES.pdf>

³ https://reports.collegeboard.org/media/pdf/2021-ap-student-score-distributions_1.pdf

⁴ <https://www.usnews.com/education/best-colleges/paying-for-college/articles/financial-literacy-what-college-students-need-to-know>

⁵ <https://everfi.com/wp-content/uploads/2019/05/MoneyMatters-2019.pdf>

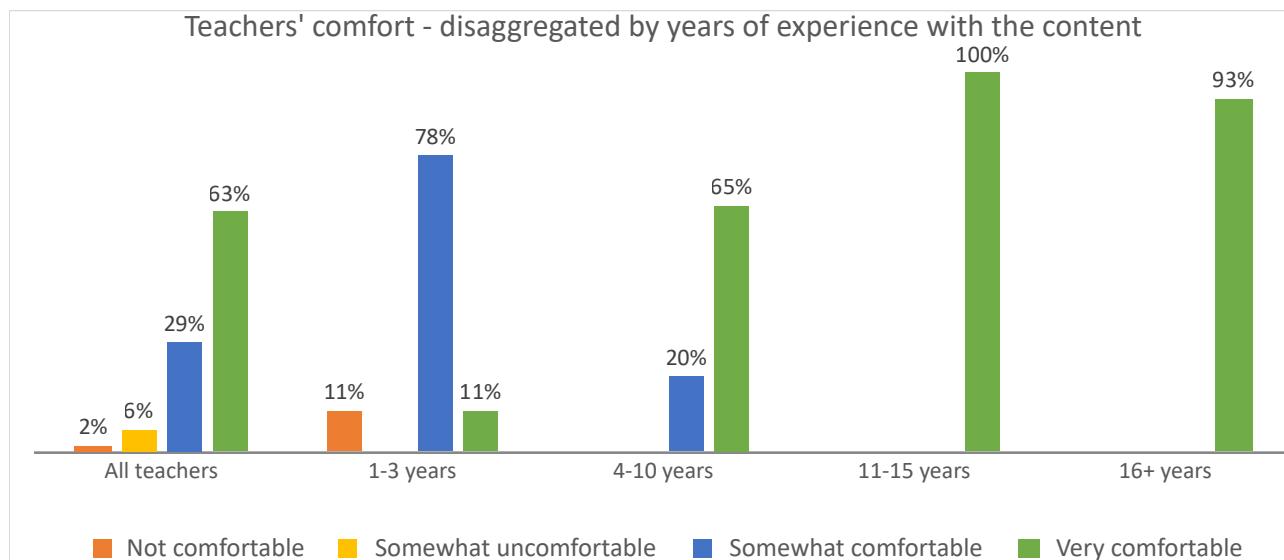
Where students do have access to economics or personal finance courses, it is critically important that the instruction is high quality, and that the teacher is effective in delivering the content. Keeping that in mind, this year's Certell Economics Teacher Feedback Study examined teachers' overall comfort with teaching economics or personal finance, especially to students who lack foundational skills or knowledge in these content areas.

Study Finding 2: Teachers' comfort with teaching economics or personal finance is related to their years of experience with the content.

Teachers' comfort with their academic content area is often an indicator of overall teacher effectiveness in the classroom. Overall, 64% of the responding teachers in this study say they are *very comfortable* teaching economics or personal finance. An additional 26% say they are *somewhat comfortable*. Only 10% indicate a lack of comfort with the content material.

However, further analysis based on the teachers' years of experience teaching Economics or Personal Finance indicates that increased familiarity with the subject matter is a defining variable. As noted in Chart B, teachers with 11 or more years of teaching Economics and/or Personal Finance identify their comfort level almost universally as very comfortable. Conversely, only 11% of teachers with less than 3 years of experience with this content consider themselves very comfortable, and an additional 11% note that they are not comfortable at all.

Chart B: Teachers' comfort with teaching Economics and/or Personal Finance



This is generally not a surprising finding that teachers' comfort increases with additional time teaching a particular content. This is true for most teaching positions. However, the finding has increased relevancy today given the current teacher shortages experienced in nearly all states and the decrease in the number of new teachers entering the workforce. This is also relevant given the increases in teacher retirements since the pandemic. According to EdSource, 25% more California teachers for example retired in 2021 than in the previous

5 years.⁶ Given that we know that our Economics and Personal Finance teachers with less than 3 years of experience need the most support with their content to be effective, it is essential that schools and districts seek out the use of additional high-quality instructional resources, including digital tools and content, to bolster teacher effectiveness in the Economics and Personal Finance classrooms.

Study Finding 3: Teachers consider the inclusion of online and digital content to be valuable for their course in helping to establish context for economics concepts and principles.

School site principals see the effective use of technology within learning as a driver to both changing the learning experience for students and helping teachers become more effective. Per Speak Up Research findings from the 2021-22 school year, principals identified four key classroom outcomes when online and digital content is used effectively in the classroom to support learning. Those four key outcomes from the effective use of technology are:

1. Creates learning experiences that are interactive and participatory (67% of school principals)
2. Develops students' skills for life-long, self-directed learning (65%)
3. Prepares students with skills for college or workplace success (61%)
4. Increases student engagement in learning (56%)

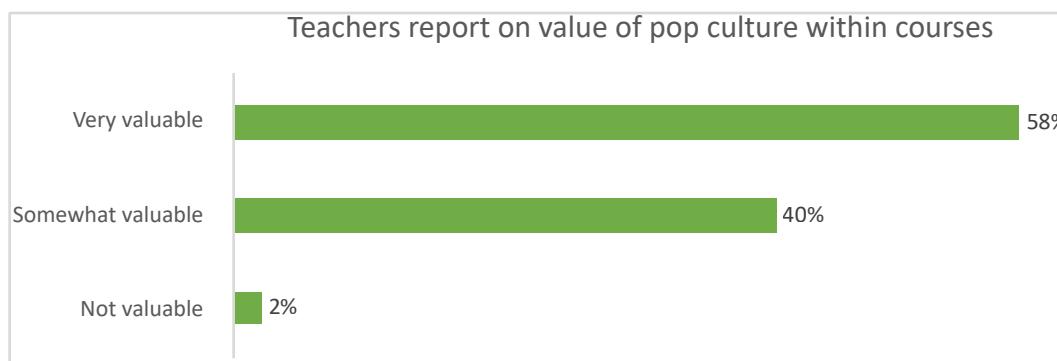
In the Economics classroom, teachers are particularly interested in understanding how to use digital tools to engage their students in the course content through interactive and participatory class activities. Additionally, the teachers want to “connect the dots” for their students to demonstrate how learning the Economics and Personal Finance content will help students be better prepared with skills and knowledge for future success in life. In this year’s Certell Teacher Feedback Study we specifically polled teachers on their use of three specific types of digital content to better understand how those tools are supporting teachers’ goals of engagement and context-making in their courses as well as teachers’ aspirations for additional use cases. The featured digital tools include pop culture references in multi-media, simulations, and discussion boards.

Pop culture

As noted earlier, nearly two-thirds of the teachers (63%) say they are using pop culture or multi-media references or content within instruction. The Economics and Personal Finance teachers especially highly value the use of pop culture and/or media references to engage students in learning as noted in Chart C. Overall, 98% of the teachers consider the inclusion of pop culture references or content to be valuable for their course with 58% indicating that it is very valuable.

⁶ <https://edsource.org/updates/25-more-teachers-projected-to-retire-this-year>

Chart C: Value of pop culture for Economics and Personal Finance courses



In an open-ended response, teachers identified that they use pop culture and media content to provide their students with real-world context, to engage their students in the learning process and to add relevancy to their content or units of study. The most used pop culture-oriented content includes videos, music, TV episodes, and social media including TikTok videos. The teachers also identify barriers or challenges to using pop culture more effectively. The most common barriers or challenges are school filters that block their desired media content. Teachers also indicate that they would like to use media content in their classroom that demonstrates more diversity and avoided political or potentially insensitive or offensive content. Additionally, teachers would like to see references or citations provided with the pop culture content to support stronger information and media literacy development for their students. The following sample narrative comments from the teachers represent the varied ways that Economics and Personal Finance teachers are using pop culture and media content within their courses today.

Pop culture media is often something students already know about. When I can connect information, they already have, with new content, they retain this new information more easily.

Personal Finance and History High School Teacher (Tennessee)

I believe that the curriculum we engage with is outdated. Our students definitely feel the same way. I think current events should be a huge focus when it comes to bringing relevance to our curriculum.

Pop culture is part of the current events spectrum and linking these with past events can give our students a connection to the past. Humans haven't changed much over time, so being able to make those connections can help our future leaders have some context when making decisions.

Economics, Personal Finance and Government High School Teacher (California)

The use of pop culture media helps bring the lesson to life for my students. If you can't make a connection to modern times, the students are not as interested in the subject matter. The lack of interest leads to poor engagement and retention of the material.

Economics and Personal Finance Special Education High School Teacher (Georgia)

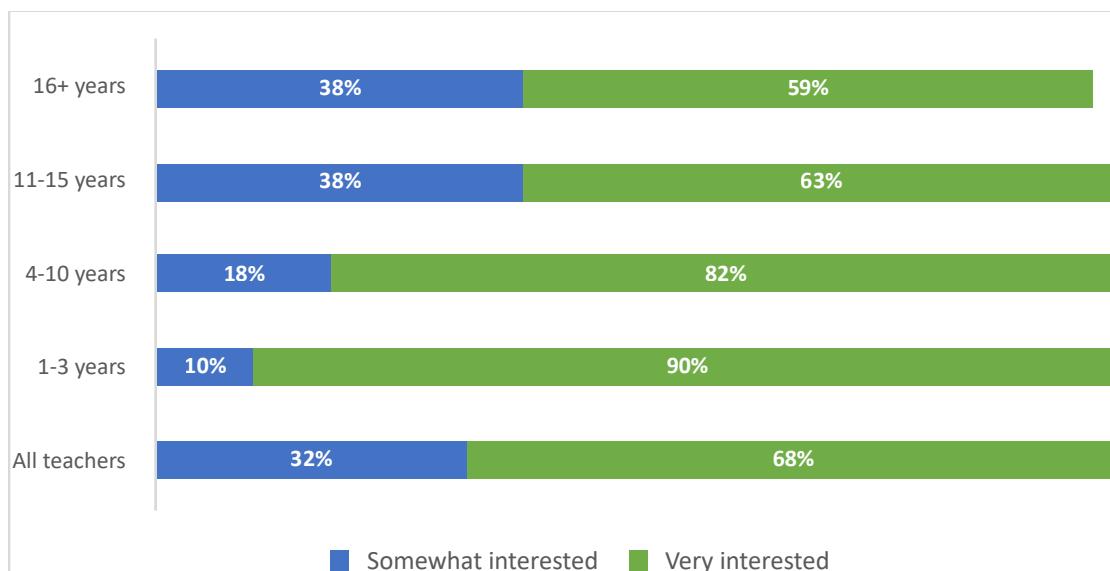
It is my goal to incorporate pop culture as much as possible through video or images. It helps to connect the language of economics to what they already know. I would love to use more cultural references because my class population is very diverse in culture and learning abilities.

Economics and Government High School Teacher (Pennsylvania)

Simulations

This year's feedback study asked teachers about their use of and their interest in using digital or online-based simulations within their classroom. Nearly all the responding teachers expressed an interest in using simulations within instruction (98% of the entire sampling). However, teachers who identified as having less experience teaching Economics and/or Personal Finance were more likely than their colleagues with more experience to support the use of simulations. This may be a factor of age and familiarity. The younger or less experienced teachers may simply have more familiarity with simulations in general from other environments. That external exposure may be stimulating their interest to use these tools in their Economics or Personal Finance courses. As depicted in Chart D, 90% of the teachers with 1-3 years of experience say they are *very interested* in using digital or online simulations in their classrooms. Among their colleagues with 16+ years of experience, 59% identified their interest level as *very interested*.

Chart D: Teachers' interest in using digital or online simulations in their classroom



This high interest may also correlate to increased familiarity due to existing usage. Teachers identified a wide range of different types of simulations and game-type activities that they were already using in their classrooms.

The following narrative response from an Economics and Personal Finance teacher is representative of how many teachers say they are using simulations to support their course content.

Knowledge Matters, which is a simulation of real-world application tying in with how to manage a budget, invest for retirement, apply for a job, manage workers as supervisors, read and write resumes, shop for food and furniture, manage their health, etc... in a work /home environment. Students are assigned modules that must be read that introduces the topic being learned and then they complete a math assignment that is associated with.

Economics and Personal Finance High School Teacher (Virginia)

Teachers were also asked about different course topics or concepts that could benefit from a simulation or game-type activity. The Economics and Personal Finance teachers have lots of ideas about simulations that could support their course content. Here is an abridged list of the Economics or Personal Finance topics or concepts that teachers believe would be well-suited for a digital or online simulation activity with students.

- Budgeting
- Buying a home
- Externalities
- Inflation
- Investing
- Monetary policy – fiscal policy
- Stock market
- Sunk cost
- Taxes

I think that having a simulation of a working economy would be amazing to use throughout the year. It would give the students the opportunity to see how economic factors can change the market.

Economics and Personal Finance High School Teacher (Iowa)

Discussion Boards

Whereas 75% of the study responding teachers say that they are using digital, video or online games and/or simulations within instruction, only 17% note that they are currently using a discussion board with their students. This lack of familiarity with student discussion boards is evident in the overall teachers' articulation of the ways they think that discussion boards could be used effectively in their classrooms. Among the teachers who self-identified as using a student discussion board, their top use cases are as follows:

1. Facilitate ways for students to express their views on open-ended questions (39%)
2. To support whole class discussions (26%)
3. Students reply or comment on other students' comments or work (26%)
4. Facilitate student collaborations (25%)

As noted, only about one-third of teachers (39%) are using discussion boards to facilitate student discourse within instruction. And only one-quarter are using an online board to support class discussions or facilitate ways for students to provide feedback to classmates or support project collaborations. This low level of usage indicates that some significant barriers may be stifling or limiting the potential of discussion boards to either support increased student engagement or help students develop a contextualized understanding of Economics or Personal Finance. Teachers noted several key obstacles or barriers to the increased usage of discussion boards in their classes. The primary obstacle noted is that the Economics and Personal Finance teachers admitted a lack of knowledge about student discussion boards including not knowing how to set up, manage or monitor a student discussion board. Additionally, teachers noted two other obstacles: 1) their belief that students have too much digital/screen time already and thus their reluctance to add in another new digital platform for student usage, and 2) that their school districts are blocking certain discussion boards or related solutions for classroom usage. These last two obstacles are increasingly common sentiments about technology use in general in the classroom post-pandemic or school disruptions.

Most teachers are familiar with the research-based connections between student engagement and academic achievement. As reported for many years on the Speak Up Research reports, teachers have identified increased student engagement as a byproduct or benefit of using technology within the learning process. To inform this discussion about the future of classroom instruction in Economics and Personal Finance as well as other social studies subjects, teachers that participated in this study were asked to provide their ideas on how technology could be better used in Economics, Personal Finance, History and Government courses to engage students in learning. The teachers' open-ended responses provide an insightful glimpse into the aspirations of teachers about the most effective uses of digital content, tools and resources in the classroom. The most popular responses from teachers about the types of digital tools and content they would like to see in their future classrooms include:

- Digital or online simulations
- Gamification of the academic content
- Using digital content and notably pop culture media to connect academic content to real-world events and references
- Bringing virtual reality apps and infrastructure into classroom learning
- Providing students with access to tools so that they can create their own multi-media content

Every task, lesson, and/or skill has a real world connection to something happening currently or that students will have to do/deal with regularly in their adult lives. If all lessons were connected in that way, students would automatically be more engaged in learning because they would KNOW why it's relevant or important to learn. Authentic engagement by all students is the goal, not just task completion.

Economics and American History High School Teacher (Texas)

Study Finding 4: Economics and Personal Finance teachers report that using Certell e-books and supporting content enhances their effectiveness as a teacher and engages their students in learning their course content.

Approximately one in three study respondents (29%) indicated that they are using Certell Potential digital products within their Economics and/or Personal Finance courses. To further explore the relationship between digital content and tools and their effective usage within Economics and Personal Finance courses, the views of Certell using teachers were analyzed separately from the larger sampling to inform this discussion.

Within the cohort of teachers, 60% of the respondents said that they use Certell's e-book, Common Sense Economics, weekly with 43% saying they use those materials daily or almost daily. In addition, the Economics and Personal Finance teachers also note weekly usage of Certell readings (54%) and pop culture videos (53%). As we have seen in our Speak Up Research, teachers are reporting greater usage of digital products compared to the past few years. The Certell using teachers are following that trend also with 47% of the Economics and Personal Finance teachers say that they are using the Certell e-book and supporting resources more often now than over the past three years.

In terms of the valuation that teachers place on Certell products, we captured the views of teachers relative to both their own teaching effectiveness and student outcomes. In terms of their effectiveness as a teacher, two outcomes stand out predominantly:

1. 66% of the teachers say that their use of Certell products allows them to create more interactive and relevant lessons.
2. 50% of the teachers say that their use of Certell products helps them facilitate greater collaboration opportunities for their students.

These findings support what school site principals are seeking in terms of outcomes evident from the effective use of technology. As noted earlier under Study Finding 3, principals say that the effective use of digital content and tools results in teachers creating more interactive and participatory learning experiences for students. Economics and Personal Finance teachers using the Certell Potential solutions are already realizing those benefits in their own usage of the products to transform their classroom learning environments. Additionally, the school principals are interested in the relationship between the effective use of technology and helping students develop skills to be successful in the future. Having learning experiences that facilitate student collaborations provides new opportunities for students to develop teamwork and communication skills, both of which are highly valued for college and the workplace.

To add more context to this finding, we compare the responses from the sampling of Certell teachers with the Speak Up Research Project findings from a similar population of high school teachers. On the Speak Up Research survey the question is a generalized question about the teachers' perceptions about the impact of digital content, tools and resources on their effectiveness as an educator. However, the response options on the Speak Up teacher survey and the Certell teacher feedback survey are the same. Since longstanding research documents the connections between teacher efficacy and student achievement, this information about the impact of Certell product usage is highly valuable for administrators.

On the Speak Up teacher survey, only 57% of high school teachers saw a relationship between the digital content they were using in their classroom and their own capacity to create more interactive and relevant lessons. As noted above, two-thirds of the Certell teachers (66%) identified the creation of more interactive lessons as a key outcome of their usage of the Certell products to support learning in their Economics and Personal Finance courses. Additionally, only 1/3 of the national Speak Up sampling of high school teachers correlated their digital content usage with their facilitation of more collaborative learning experiences for their students while 50% of the Certell teachers report that connection.

The teachers also shared with us their perceptions on the types of outcomes they are observing with their students when using the Certell products. The question used within this study project is also closely aligned with the Speak Up Research survey question for teachers nationwide. By comparing the two sets of data from high school teachers exclusively we gain a greater understanding of the role and value of Certell products in supporting important student outcomes (Table 2).

For example, 53% of Economics and Personal Finance teachers who are using Certell solutions attribute that usage to their students having a better understanding of class materials; only one-third of 35% of high school teachers nationwide feel the same way about the digital content they are using within their classroom. Certell-using teachers are also more likely to see a connection between increased student engagement in learning with Certell solutions compared to high school teachers in general using a wide range of different digital products.

Table 2: Teachers' perceptions of the student outcomes from digital content usage

Student outcomes when using digital content	% of teachers who agree	
	Speak Up national sampling of high school teachers	Economics and Personal Finance teachers using Certell products
Students demonstrate a better understanding of the class materials	35%	53%
Students are applying knowledge to practical problems	34%	44%
Students show greater engagement and interest in learning	25%	41%

It follows therefore that 76% of the teachers agree that their use of the Certell e-books and supporting content within their Economics and Personal Finance courses enhances their overall effectiveness as a teacher with 44% of the teachers strongly agreeing with that premise.

Given the high valuation that the Certell using teachers give to their use of the Poptential e-book and supporting resources, both to support their increased effectiveness as an educator and student outcomes, it is not surprising that 85% of the Economics and Personal Finance teachers said that it is likely that they would recommend the Certell products to other teachers or colleagues.

There is no shortage of digital content and resources available to teachers today to use to support instruction. However, the plethora of products does not mean that all those solutions are highly efficacious or yield tangible evidence to support student outcomes valued by school leaders and teachers. Specific to Economics and Personal Finance courses, teachers want digital tools and resources that will help engage their students in learning what is often brand new and/or challenging content for today's youth. Additionally, they want to use tools that will help to provide a contextual understanding of the content and draw connections between classroom learning and real-world experiences. Given those goals, it is significant that the Economics and Personal Finance teachers in this study see the Certell Poptential solutions as being exemplars for addressing both of those critical goals.

It really helps us as teachers to have the materials to help us create and implement material that interests students today rather than trying to go and find it all on our own. Other disciplines have had this and it is great that we have the capability now. In the past years that I have been using the Certell material, I have seen the bell ringers and mini-lessons encourage my students to think about what we have been discussing and that has led to more discussions. Sometimes those discussions have led to us going over everything that we did the day before just so that a point could be made. I love it when my students are that engaged.

Keep bringing out more of these critical thinking pieces.

Economics High School Teacher (Indiana)
Uses Certell Poptential resources exclusively in their courses

Appendix

About Project Tomorrow

Project Tomorrow is a nationally recognized, education nonprofit organization with a focus on understanding the impact of new learning models and interventions on student outcomes and teacher effectiveness. Our mission is to help education, business and policy leaders make the best decisions for education through the effective use of research-based insights that highly leverage the authentic views and perspectives of K-12 stakeholders, notably students, parents, teachers, and administrators. Our work includes the highly regarded Speak Up Research Project and an annual series of customized evaluation, feedback and efficacy studies that examine key trends in education. Learn more at www.tomorrow.org.

About Certell, Inc.

Certell is a 501(c)3 nonprofit whose mission is to create informed and engaged citizens by supporting innovative teachers who are disrupting the traditional civic education system. Certell is the creator of Poptential, a family of free social studies courses that pair pop culture media with engaging digital storytelling for effective, dynamic learning. Poptential is used by teachers in all 50 states. For more information, go to certell.org or on Twitter @CertellOrg.