



Augmented Reality in Education 2022

Educator and Parent Perspectives

We surveyed teachers, administrators, and parents to better understand their perspectives on augmented reality and its use in education.

What is Augmented Reality?

Augmented reality (AR) superimposes digital images, text, or animation onto the real world. AR apps typically use a camera on a tablet, smartphone, or laptop to capture the real world on the camera screen. Then, using digital overlays, the apps “augment” reality by depicting both the real world and the superimposed objects for an interactive experience. This differs from virtual reality, which is a fully immersive experience that

replaces the real-world environment and requires a special headset.

About this report

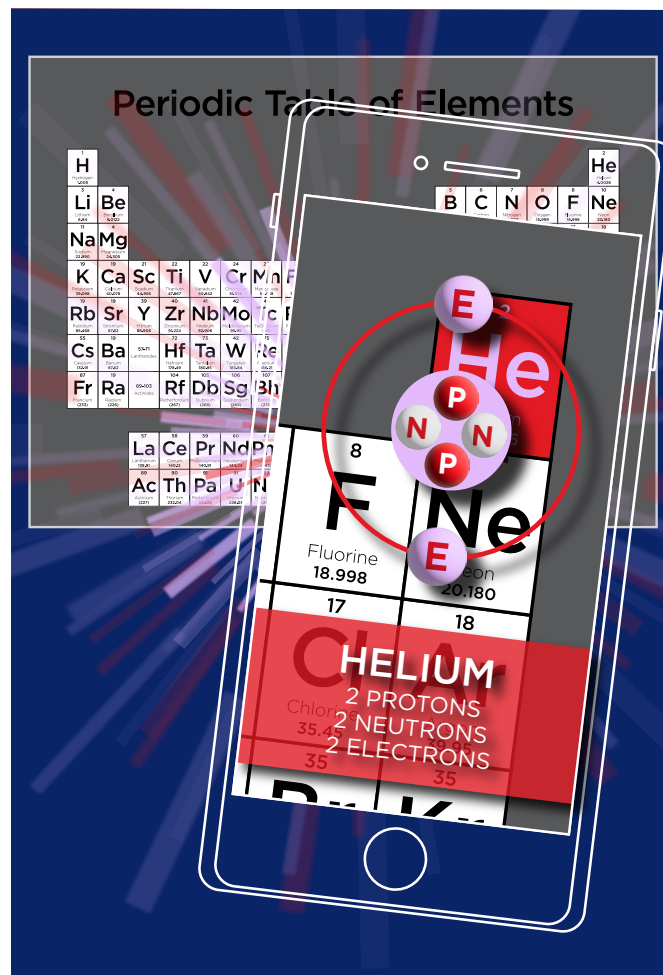
The findings in this report are based on responses to two online surveys conducted by Hanover Research. In January 2022, approximately 500 K-12 teachers and administrators were surveyed. Results from the full survey have a margin of error of plus or minus 5%. In March 2022, approximately 1000 parents of K-12 children were surveyed. Results from that survey also have a margin of error of plus or minus 5%.

Familiarity with AR

- Overall, educators are not familiar with the use of AR for education. One quarter (24%) indicate they are familiar, compared to over half (53%) “not at all” or “slightly” familiar.
- Parents are becoming familiar with the use of AR. Over a third (35%) indicate they are familiar while 40% are “not at all” or “slightly” familiar”.

AR Users and Frequency of Use

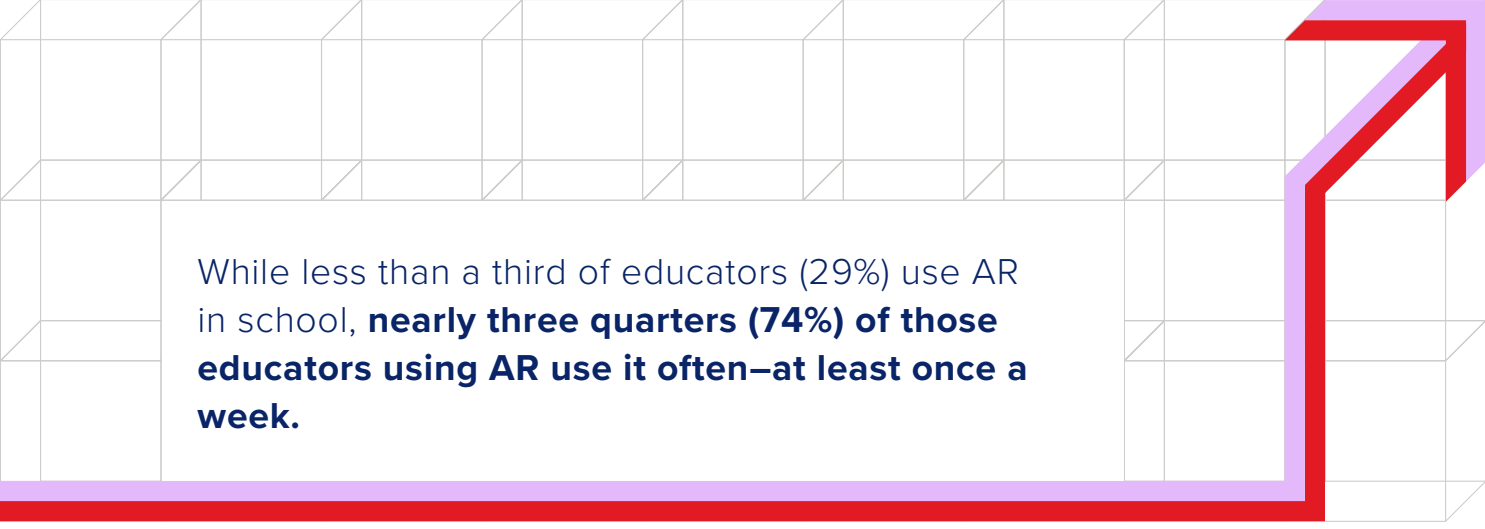
- Just one quarter (29%) of educators currently use AR technology in school. However, nearly three-quarters (74%) of those using AR use it at least once a week.
- More than one-third (38%) of parents report that their children currently use AR technology. Children that use AR use it very frequently, from multiple times a week (40%) to everyday (38%).



Generally, most educators are not familiar with the use of AR for education

Extremely familiar	6%
Very familiar	18%
Somewhat familiar	24%
Slightly familiar	29%
Not familiar at all	24%

Q. What is your level of familiarity with the use of AR for educational purposes? (n=506)



While less than a third of educators (29%) use AR in school, **nearly three quarters (74%) of those educators using AR use it often—at least once a week.**

Technology Used for AR

- At school, students most commonly use AR on their laptops (66%) or tablets (52%).
- At home, children primarily use AR via their smartphones (52%) and personal tablets (43%) and laptops (42%). AR glasses are used by just over a third (39%).

Purposes of AR Use in Schools

- In-class instruction (77%) is the most common use case of AR technology in schools. Educators also use AR for virtual labs/experiments (64%) and virtual field trips (51%).

In-class instruction is the most common use case of AR technology in school

In-class instruction or learning	77%
Virtual field trips	51%
Virtual labs / experiments	64%
Assigned homework	41%
Other	1%

Q: How do students in your school/district currently use AR for K-12 educational purposes? Select all that apply. (n=146)

Because AR does not need to be used with special glasses or headsets, **educators report that students most commonly use AR with their laptops (66%) and tablets (55%).** Likewise, parents report that their children most commonly use smartphones (53%), personal tablets, (43%) and personal laptops (42%).

Parents are becoming familiar with the use of AR technology

Extremely familiar	17%
Very familiar	18%
Somewhat familiar	25%
Slightly familiar	19%
Not at all familiar	21%

Q: What is your level of familiarity with the use of AR technology? (n=1026)

Most educators that use AR use it often—at least once a week

Every day	14%
2 to 3 days a week	44%
Once a week	16%
Once every 2 to 3 weeks	12%
Once a month	8%
Less often than once a month	5%

Q: How frequently do you use AR for educational purposes? (n=146)

Children who use AR use it very often—2-3 days a week or more

Every day	38%
2 to 3 days a week	40%
Once a week	13%
Once every 2 to 3 weeks	3%
Once a month	2%
Less often than once a month	4%

Q: How frequently does your child use AR? (n=387)



Subjects and Grades Using AR

- Educators most commonly use AR for science (67%), math (47%), English (47%), biology (45%), and social studies (45%).
- Older students are more likely to be using AR with close to 50% in grades 7-12.
- Parents believe science (36%) and math (34%) would most benefit from AR.

Educators report that older students are more likely to currently use AR

Educators most commonly use AR for science classes

Science	67%
Math	47%
English / Language Arts	47%
Biology	45%
Social Studies	45%
Chemistry	37%
Other	5%

Q: For which of the following subjects does your school currently use AR? Select all that apply. (n=146)

12th grade	43%
11th grade	44%
10th grade	43%
9th grade	47%
8th grade	44%
7th grade	40%
6th grade	36%
5th grade	37%
4th grade	36%
3rd grade	27%
2nd grade	21%
1st grade	18%
Kindergarten	12%

Q: Which of the following grade levels in your school/district currently use AR? Select all that apply. (n=146)

Student engagement is the greatest benefit of using AR in education according to both educators (78%) and parents (59%).

Parental Support of AR

- More than half (57%) of parents are very interested or extremely interested in their children using AR for educational purposes.
- Over two-thirds (68%) are somewhat or extremely likely to support regular access to AR for education.
- Half of parents (50%) are very likely or extremely likely to purchase AR technology for educational purposes for their child.

Concerns About AR Use

- Even though AR can be used with devices that exist in many classrooms, educators cite cost (68%) and maintenance of AR technology (48%) as the greatest concerns.
- For parents, cost (44%) is the top concern, as well as frequency of use (28%) and suitability for all learning (22%).

Benefits of AR Use

- Educators say the top benefits of AR are improving student engagement (86%), accommodating learning styles (75%), and increasing student motivation (72%).

Benefits from using AR technology according to educators

Improves student engagement	78%
Increases student motivation	65%
Accommodates different learning styles	65%
Improves student focus	54%
Helps students with learning disabilities	50%
Improves student achievement	34%
Decreases dependency on other learning materials	19%
I don't see any benefits	3%
Other	1%

Q: Which of the following are benefits from using AR for K-12 educational purposes? Select all that apply. (n=138)

- Parents say the top benefits of AR are improving child engagement (59%), motivation (56%), and focus (53%).

Conclusions

While AR may not have widespread use in classrooms today, our findings suggest that this is due to a lack of awareness rather than a lack of effectiveness. Most educators that do use AR use it regularly during instructional time. Though AR can be used with technology that many schools have already invested in, cost and maintenance are still cited as top concerns, suggesting that more education is needed on use cases of AR in the classroom. Be sure to follow us on social media as we explore this space further.