Innovation in Education:

Public opinion poll of parents, teachers and students

We have a history at Dell of listening to our customers, and this dedication and mission is even deeper in education. We believe that technology gives people the power to do more and has the ability to make learning real and tangible. But, we wanted to hear directly from students and their parents and teachers about technology's role in education.

The following is a summary from 1,575 interviews with students, teachers and parents in the U.S., Germany and China. What we found is that students, teachers and parents agree that technology is critical to learning, but have differing opinions about how best to use it in the classroom.

We are using these results to work with our customers and partners to create learning environments where teachers, students and parents are connected to each other and have access to the resources that enable them to succeed. Our commitment is to help our customers do more and achieve more, whether they are a teacher, student or parent, a small business or large global organization.

Methodology

1,575 interviews with students, teachers and parents in the U.S., China and Germany regarding their options about the role of technology in education and learning, including practices, preferences and priorities.

Commissioned by Dell and conducted by Penn Schoen Berland, Aug. 13-Aug. 26, 2012

Countries	All		Students		Teachers		Parents	
	N-size	MOE	N-size	MOE	N-size	MOE	N-size	MOE
Global	1,575	±2.47%	600	±4.00%	375	±5.06%	600	±4.00%
U.S.	525	±4.28%	200	±6.93%	125	±8.77%	200	±6.93%
Germany	525	±4.28%	200	±6.93%	125	±8.77%	200	±6.93%
China	525	±4.28%	200	±6.93%	125	±8.77%	200	±6.93%

Students: Mix of students attending state or privately funded high schools (secondary school) or colleges (community college, technical school or university)

Teachers: Mix of educators at state or privately funded high schools (secondary school) or colleges (community college, technical school or university)

Parents: Mix of parents with children attending state or privately funded high schools (secondary school) or colleges (community college, technical school or university)

Respondents in China came from predominantly major cities and are mostly urban respondents

Key findings

Most respondents say technology plays a vital role in learning

- 9 in 10 respondents say technology helps students' ability to learn
- 88% agree technology helps prepare students for the jobs of the future
- More than 8 in 10 agree that technology makes learning easier, makes teachers more accessible and gives students a personalized learning experience

However, most say technology needs are not being met in schools today and findings suggest it can be better used inside and outside the classroom

- 71% say students have access to more advanced technology at home than they do at school
- 53% say that we use too much technology in our daily lives; however, only 29% say there is too much technology in the classroom
- 82% agree there should be more technology in the classroom
- 51% of U.S. students see technology in the classroom as a distraction, but 63% say the benefits outweigh any potential distractions

Key findings

Opinions suggest Chinese students use technology more expansively than U.S. students for learning at school and home

- Globally, most students say they spend less than 2 hours/day using technology at school
- Chinese students say they spend more time using it at school and majority (53%) report using it across all curriculum areas for collaboration between students (50%) and for training (57%)
- U.S. students say they use technology at school for research/search (61%) and special assignments (53%)
- Chinese students say they are the most likely to use it for summer enrichment (80%)
- 73% of students say they use home devices primarily for school work, but only half of all students interact with their school online

Students and teachers say they want Blended Learning and value personalization that technology can help enable

- Approaches are valued because they mix traditional and online learning
- 83% percent of respondents globally believe technology gives students a more personalized learning experience
- Most (71% of global respondents, 86% of U.S. teachers, 76% of U.S. students and 83% of U.S. parents) say learning outside the classroom and beyond the school year is important

Many teachers in the U.S. and Germany say they don't receive enough technology training

- Most teachers say their students know how to use technology better than they do, including 63% in the U.S.
- Students agree, with only 40% in the U.S. and 26% in Germany saying their teacher knows how to use technology better than they do
- Teachers say core training focuses more on teaching practices (77%) and technology (55%) than on integration of technology in curriculum (55%) where it can make a greater impact

Key findings

Social media is playing an increasing role in the classroom

- 1 in 4 students say they access social media in the classroom on at least a daily basis
- Most teachers in the U.S. and Germany say they never access social media in the classroom

Chinese respondents say they are more positive about the use of social media in the classroom

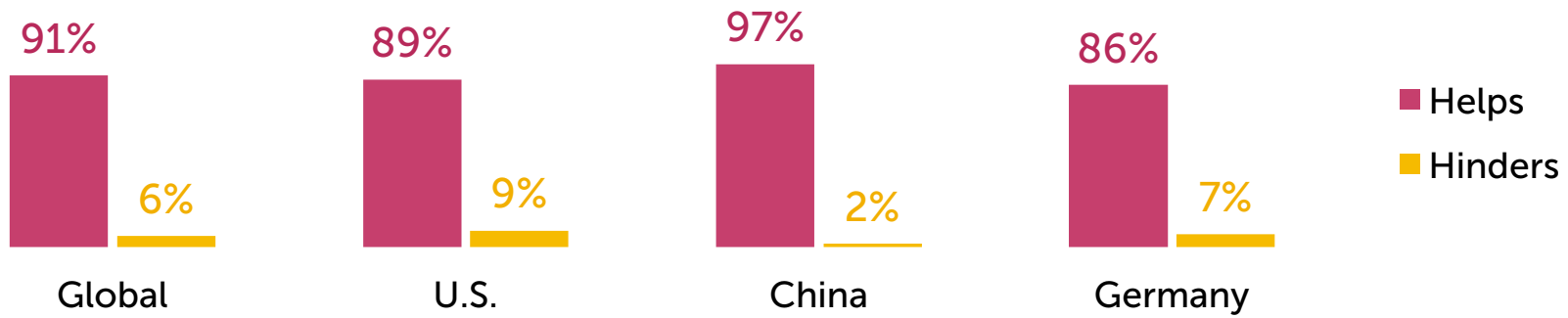
- About 6 in 10 U.S. respondents say they disapprove of students using social media in the classroom to share what they are learning, while most respondents in China say they approve of social media for this purpose

Technology matters

Technology is critical to learning

Across countries and audiences, technology is overwhelmingly viewed as helping students' ability to learn

Generally speaking, do you think technology helps or hinders students' ability to learn?



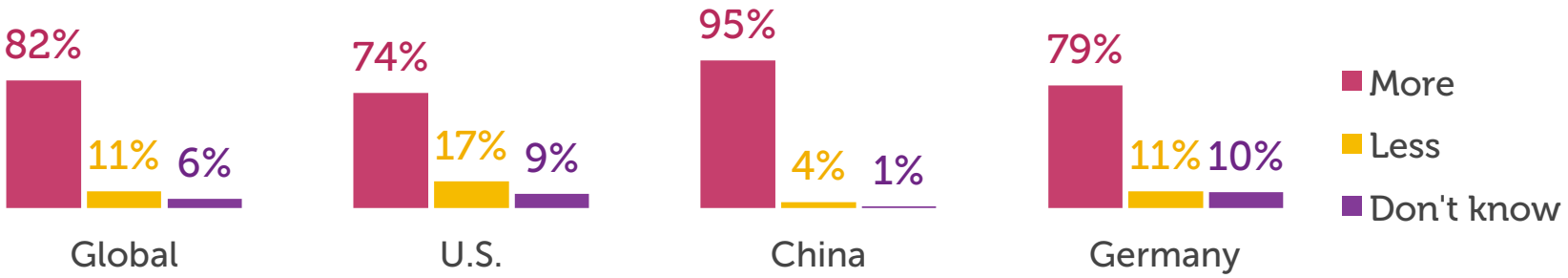
Generally speaking, do you think technology helps or hinders students' ability to learn?	U.S.			China			Germany		
	Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Helps	88	87	91	98	98	96	81	88	91
Hinders	10	7	8	1	2	4	8	9	5

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

And students, teachers and parents favor more technology in the classroom

1 in 5 U.S. students say there should be less technology in the classroom, perhaps **because it is not integrated effectively across all curriculum areas**

Do you think there should be more or less technology in the classroom?



Do you think there should be more or less technology in the classroom?	U.S.			China			Germany		
	Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
More	69	81	75	95	94	95	79	78	78
Less	21	13	16	4	5	4	11	13	10
Don't know	10	6	9	1	1	0	10	8	11

MOE Global ±2.47%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Because technology helps students prepare for the jobs of tomorrow and helps students learn

Respondents also say it gives more access to teachers and supports a more personalized learning experience

How much do you agree or disagree with this statement (Showing % agree/ disagree)	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Technology in school helps students prepare for the jobs of tomorrow	88/10	90/7	90/8	92/5	91/7	95/1	90/8	77/21	79/18	90/7
Technology makes learning easier	85/13	82/15	76/20	82/11	94/5	89/10	95/5	72/21	78/18	83/12
Technology helps students learn	84/13	77/18	79/17	81/13	94/7	97/1	91/8	71/22	73/23	86/8
Technology makes teachers more accessible to students and their parents	83/14	90/8	93/5	87/10	85/11	93/5	88/12	65/27	67/29	80/15
Technology gives students a personalized learning experience	83/14	75/22	76/20	78/18	94/5	98/2	95/5	70/25	80/18	84/11

MOE Global ±2.47%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Who is using technology at school and for what?

Students in the U.S. and Chinese respondents are the most likely to say we use too much technology in our daily lives

But not enough at school

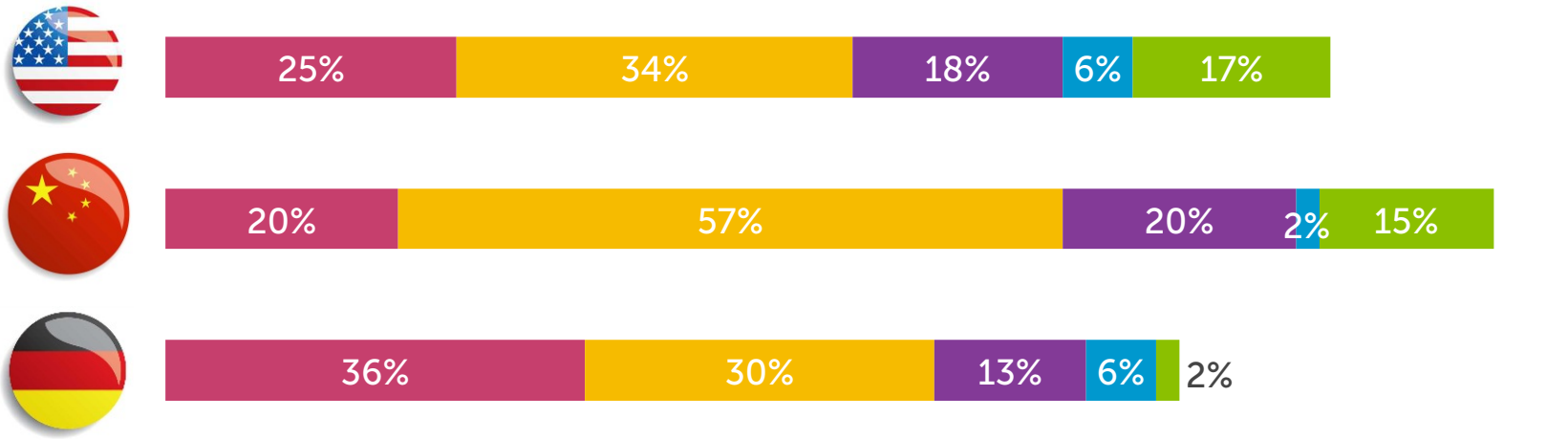
How much do you agree or disagree with this statement (Showing % agree/ disagree)	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
We use **too much technology** in our everyday lives	53/42	65/31	52/44	42/52	63/36	76/23	65/34	48/46	38/55	40/53
We use **too much technology** in schools	29/65	24/71	31/64	18/71	47/51	46/52	46/52	21/71	22/68	16/78

MOE Global ±2.47%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Today, most students say they spend less than **2 hours/day** using technology at school

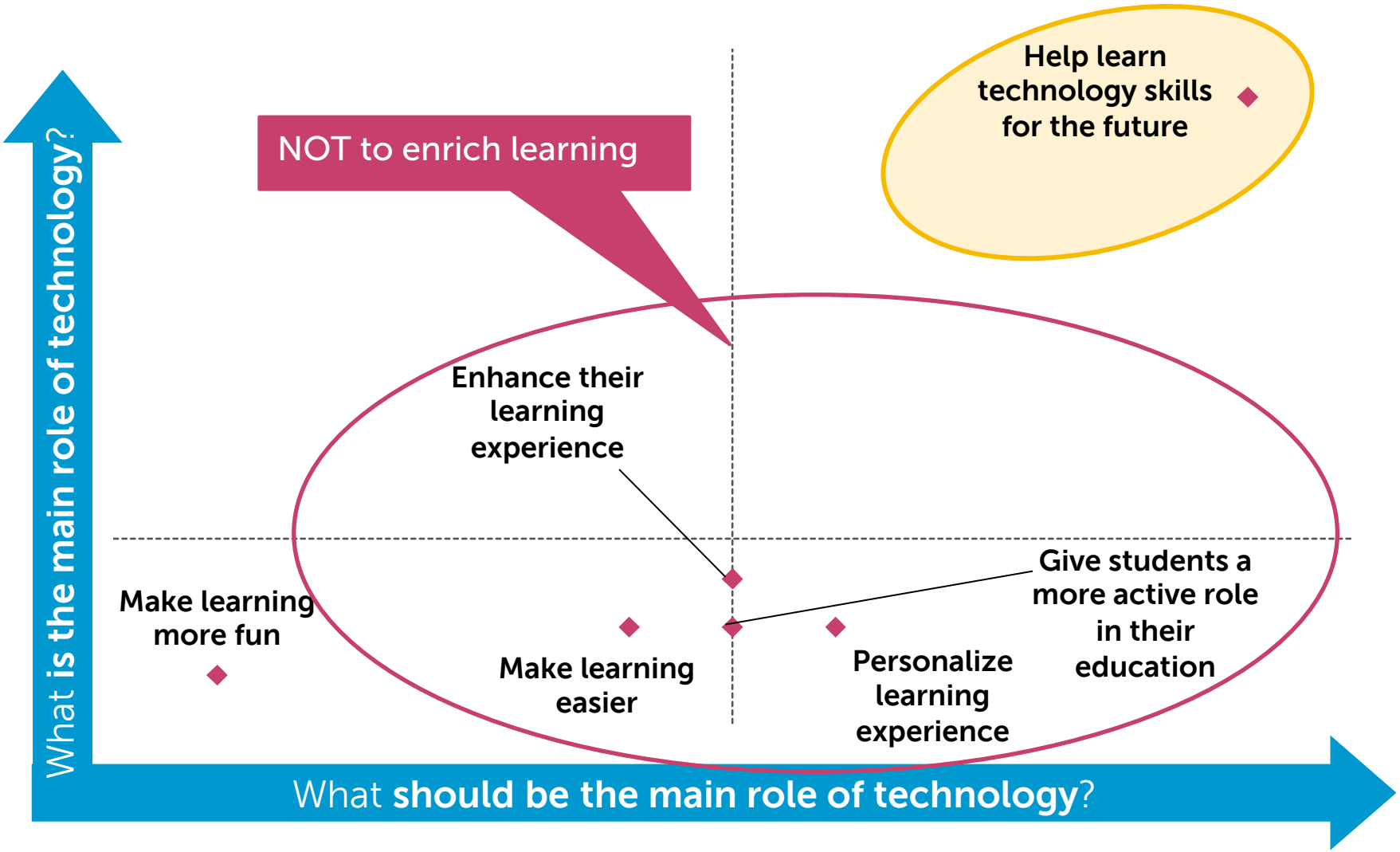
Chinese students say they spend more time using technology in school than American and German counterparts

At school, how many hours per day do students spend on a computer or device?



MOE for each country ±4.28

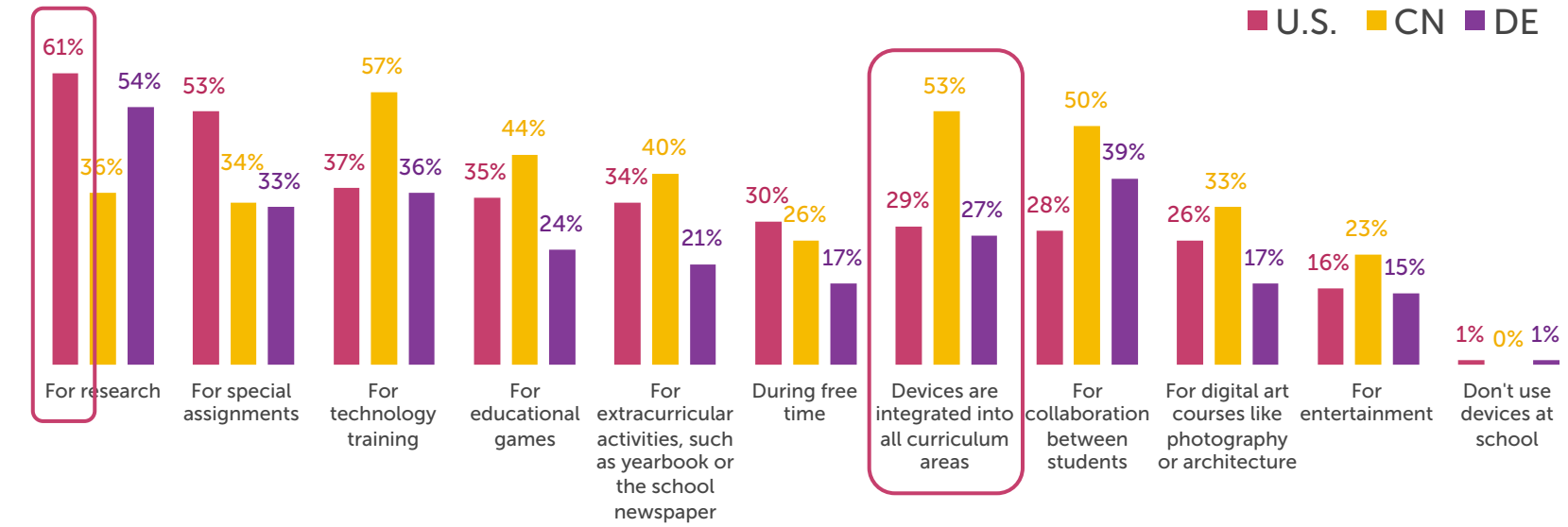
They also say technology is used primarily to help learn **technology skills**



In fact, China is the most likely to integrate technology into all curriculum areas, according to respondents

U.S. students say they use it primarily for research and special assignments

How are devices used in the classroom?



MOE for each country ±4.28

Today, most say technology needs are not met in schools …

More critically, opinions suggest that **learning needs are not being fully met by technology**

Students in the U.S. say they are the most likely to say their technology needs are currently being met

Despite being the heaviest users of technology in the classroom, most Chinese respondents still feel needs are not being met

Do you think technology needs are currently being met in schools today?	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Yes	33	45	32	36	34	26	39	35	28	18
No	60	44	58	50	65	74	58	59	67	73
Don't know	7	10	10	14	1	0	2	6	4	9

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Are teachers knowledgeable about technology?

Teachers say their students are more tech savvy than they are

Teachers in the U.S. and Germany do not feel they get enough training on how to use technology in the classroom

Only students in China agree their teachers know how to use technology better than they do

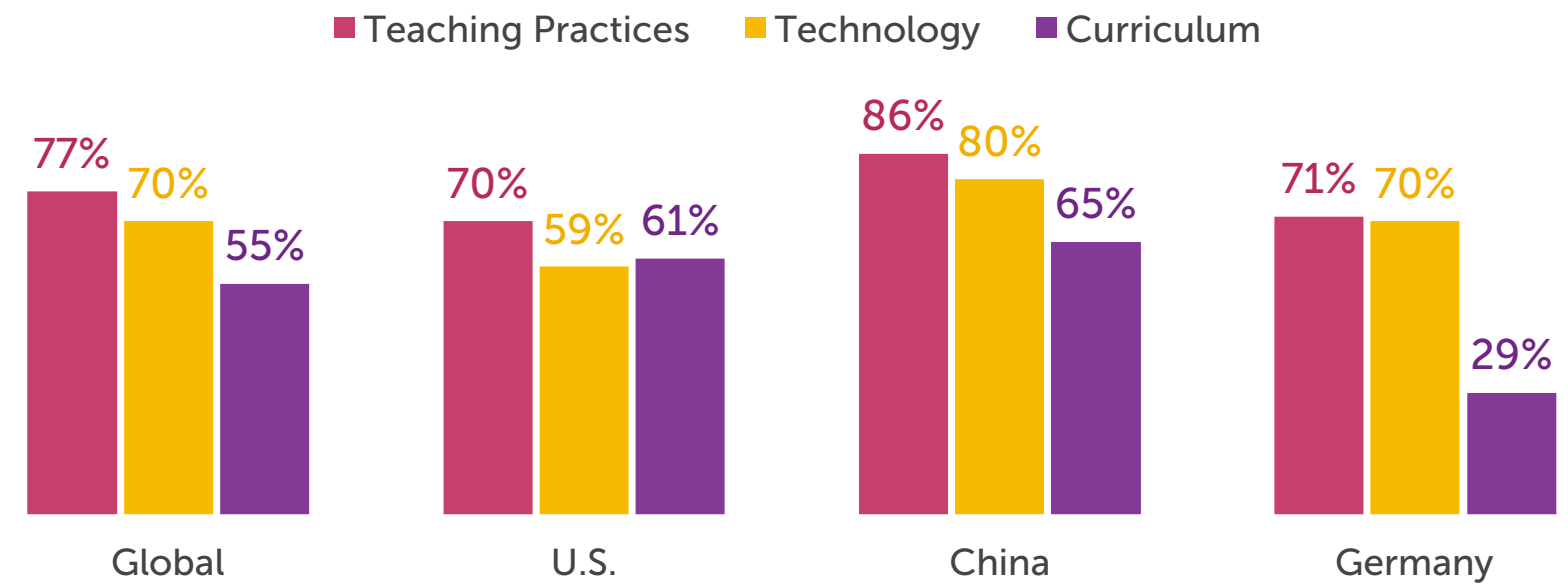
How much do you agree or disagree with this statement (Showing % agree/ disagree)	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
My students know how to use technology better than I do	57/41	-	63/34	-	-	54/46	-	-	51/43	-
Teachers get enough training on how to use technology in the classroom	53/42	41/51	34/60	35/53	79/20	90/9	83/16	40/49	35/60	36/56
My teacher knows how to use technology better than I do	45/48	40/53	-	-	70/28	-	-	26/64	-	-

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Globally, respondents say training focuses on teaching practices and technology

Less on integration of technology in the curriculum where it can make a greater impact

AMONG TEACHERS WHO RECEIVE TRAINING:
What does the training focus on?



MOE for trained teachers ±6.29%
MOE for trained teachers U.S. ±10.89%; CN ±9.56%; DE ±12.87%;

How is technology bridging home, school and life?

Students say they have more advanced technology at home than at school

And parents would **like stipends** to ensure they keep home technology up-to-date for educational purposes

Most parents would be **willing to pay** for the technology their child uses in the classroom

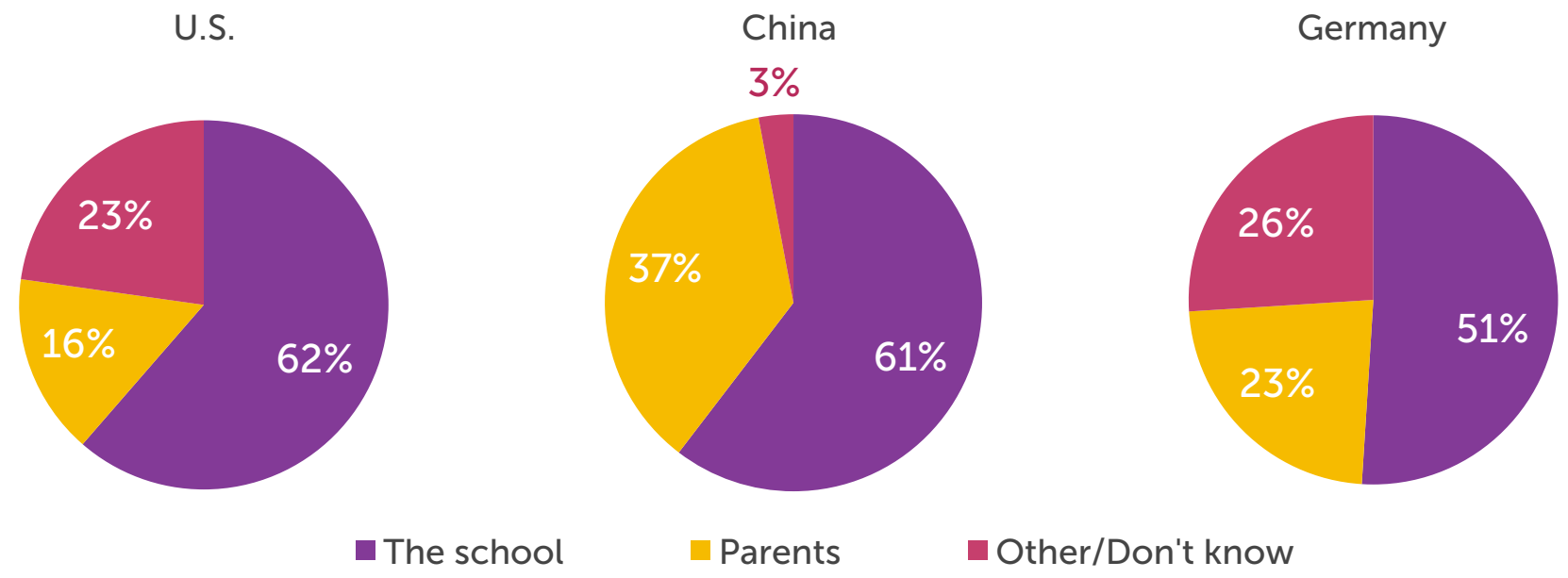
How much do you agree or disagree with this statement (Showing % agree/ disagree)	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Parents should receive stipends to ensure their children have up to date technology for educational purposes	75/19	49/36	52/37	69/24	87/11	92/4	96/4	69/25	72/22	81/13
Students have access to more advanced technology at home than they do at school	71/24	58/34	71/23	64/26	70/28	64/32	77/21	77/16	73/24	84/10
I would be willing to pay for the technology my child uses in the classroom	68/26	-	-	54/38	-	-	92/8	-	-	60/35

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Respondents say schools provide most of the funding for technology students use in the classroom

Parents in China say they are **more likely** to provide funding for technology than parents in the U.S. or Germany

Who provides funding for the technology students use at school?

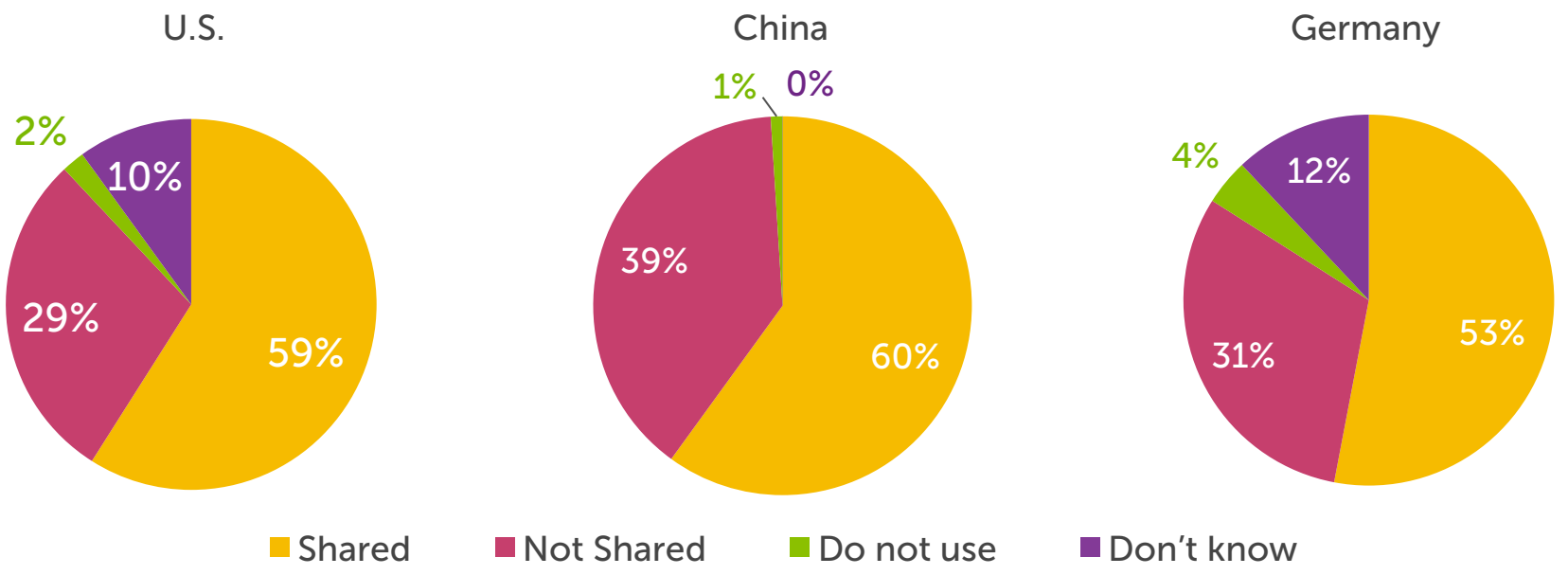


MOE for each country ±4.28%

And most students say they share devices at school

Chinese students say they are **more likely** to bring their own technology to school

At school, do students share a computer or device or do they have their own device?



MOE for each country ±4.28%

Most say learning outside the classroom and beyond the school year are important

Parents and teachers in the U.S. are most likely to say it is important for students to continue learning outside of the classroom and beyond the school year

Is it important for students to continue learning outside of the classroom and beyond the school year?	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Yes	71	76	86	83	75	74	76	52	67	59
No	22	17	9	12	22	23	20	36	27	29

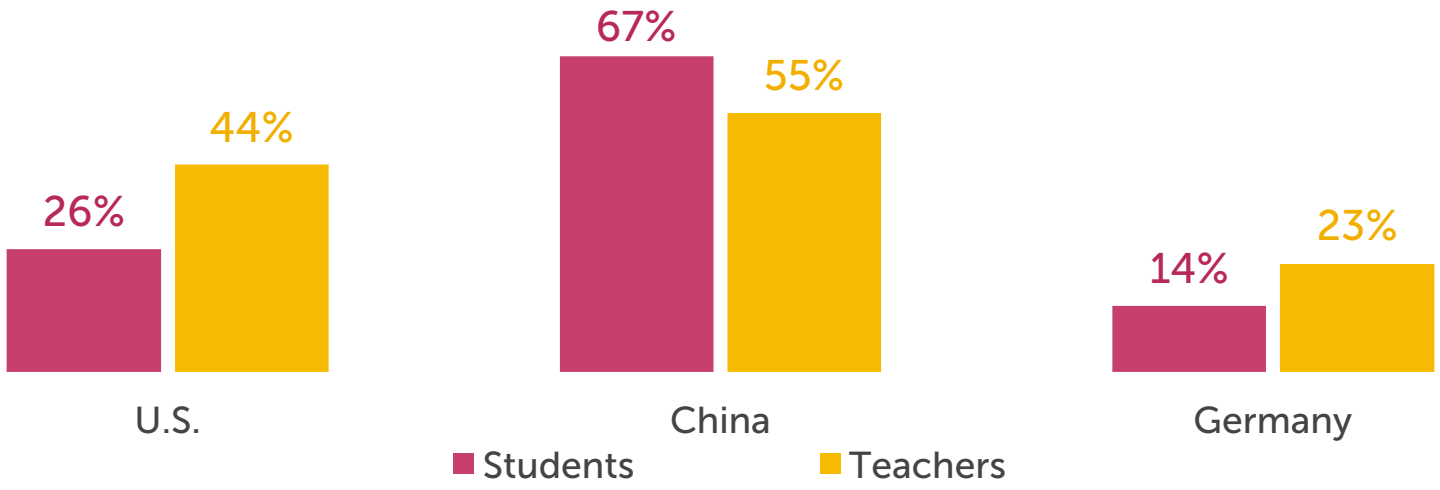
MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

But students and teachers in China say they are most likely to participate in summer enrichment

44% of **U.S. teachers** say they assign summer enrichment

Only 26% of **U.S. students** say they do summer enrichment

STUDENTS/TEACHERS: Are you participating in or have you assigned summer enrichment? *(Showing % Yes)*



MOE for Students ±4.00%
MOE for Students by country ±6.93%

China is most likely to use technology for summer enrichment, according to respondents

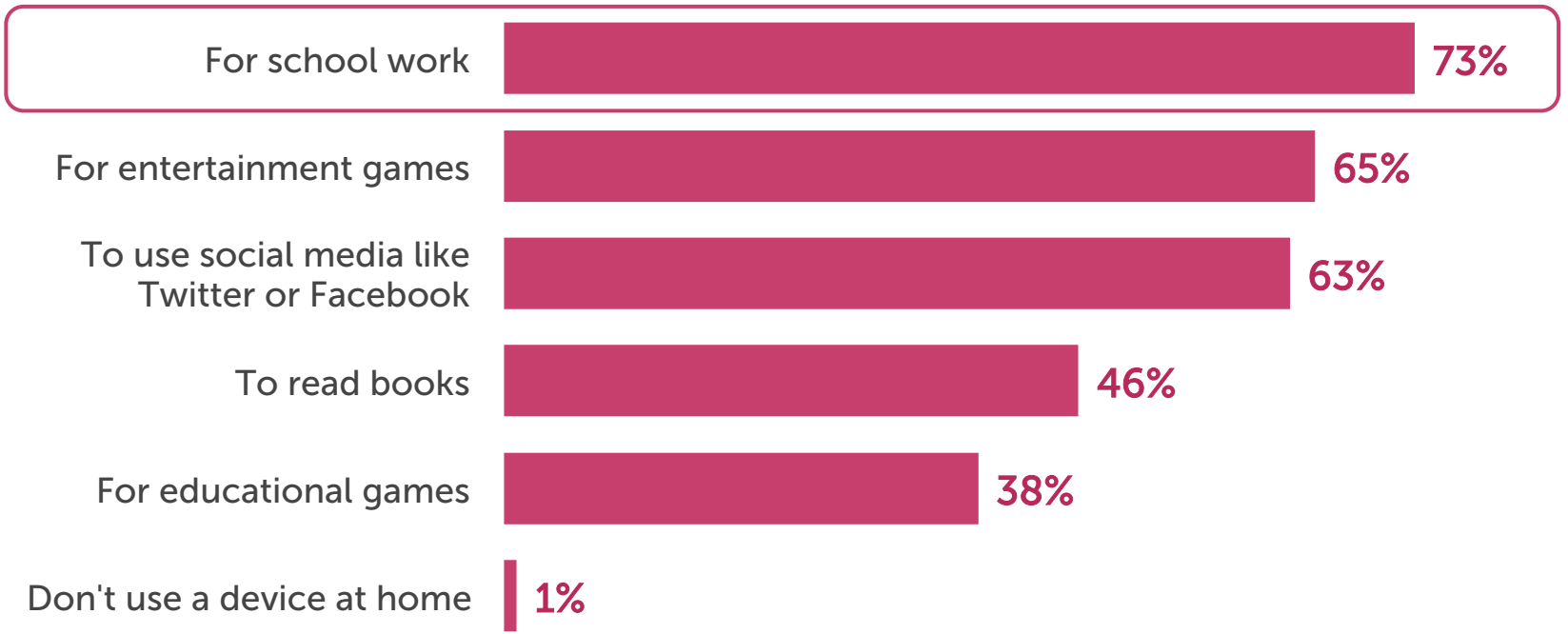
AMONG THOSE TAKING PART IN SUMMER ENRISHMENT: Is technology being used for summer enrichment?	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Yes	76	62	71	67	80	84	81	61	82	71
No	19	33	16	25	17	13	15	25	18	26

MOE for summer enrichment Global ±4.00%; U.S. Students ±13.59%; U.S. Teachers ±13.21%; U.S. Parents ±13.46%; CN Students ±8.47%; CN Teachers ±11.71%; CN Parents ±7.95%; DE Students ±18.52%; DE Teachers ±18.2%; DE Parents ±18.86%

Interestingly, home devices are used primarily for school work

Globally, students say they use devices for school work more than any other activity

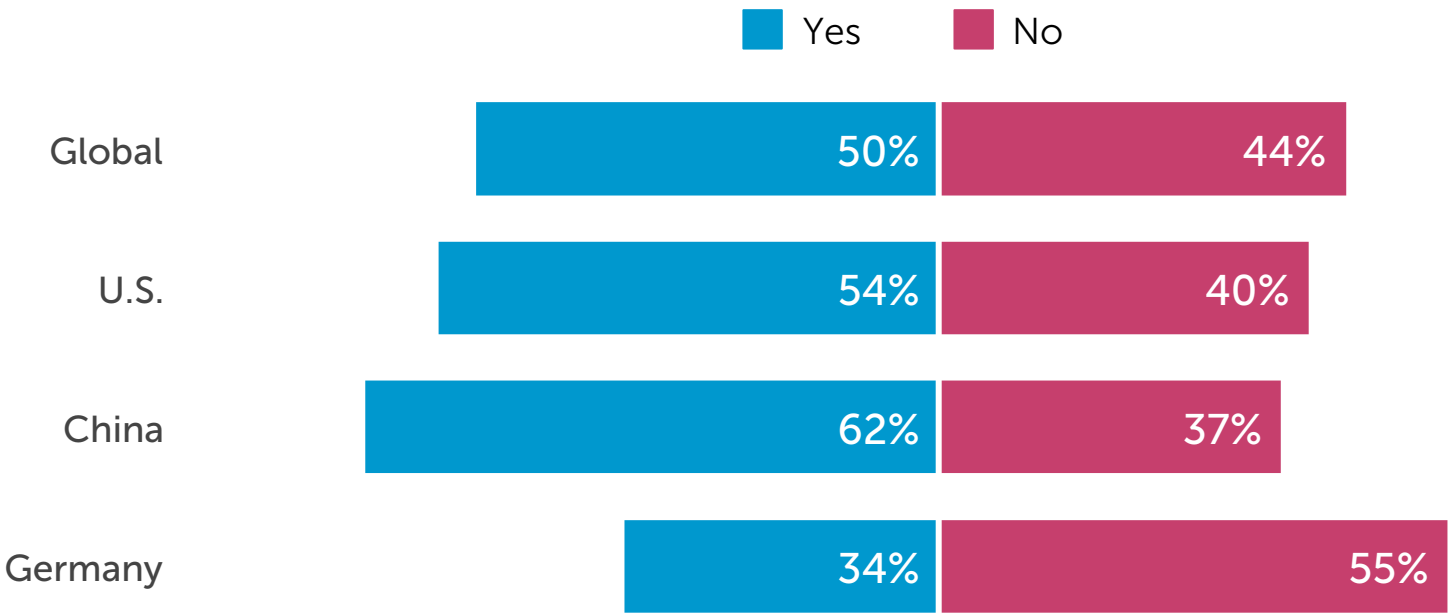
STUDENTS: How are devices used at home?



MOE students ± 4.00%

But **only half** of all students say they interact with their school online

STUDENTS: Do you and the school you attend interact online?

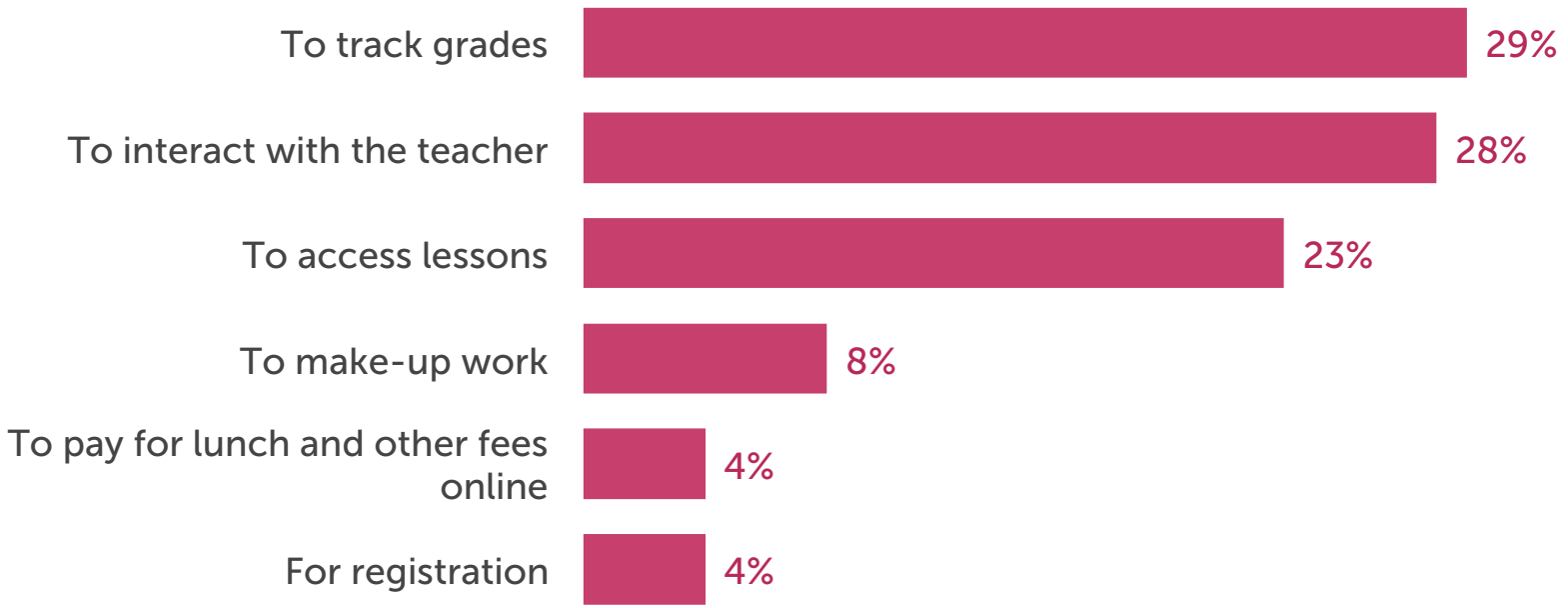


MOE for students ±4.00%
MOE for students in each country ±6.93%

Mostly to track grades or interact with teachers

This could be a **door-opener to blended learning** and enrichment beyond the classroom and school year

STUDENTS: Why do you interact with the school online?



MOE for students ±4.00%

Is there a place for social media in the classroom?

1 in 4 students say they access social media in the classroom daily

While most U.S. and German **teachers say they never access social media** in the classroom

How frequently do you access social media such as Facebook or Twitter in the classroom?	Global All	U.S.		China		Germany	
		Students	Teachers	Students	Teachers	Students	Teachers
Multiple times a day	10	12	8	9	7	12	7
Daily	13	14	8	16	14	13	10
A few times a week	11	8	10	16	20	7	8
Rarely	19	19	14	18	22	25	10
Never	44	44	59	39	37	34	63

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Slight majority disapprove of social media in the classroom to share learning

More than 6 in 10 Chinese respondents approve of using social media as a learning tool

This is flipped in the U.S., where 60% disapprove of students using social media sites for schoolwork

Do you approve or disapprove of students using social media such as Facebook or Twitter in the classroom to share what they are learning with their friends?	Global All	U.S.			China			Germany		
		Students	Teachers	Parents	Students	Teachers	Parents	Students	Teachers	Parents
Approve	40	25	23	19	64	62	62	39	30	32
Disapprove	47	61	66	65	26	30	28	40	62	49
Don't know	14	14	10	16	10	9	10	21	8	19

MOE Global ±2.47%; Country ±4.28%; Students ± 6.93%; Teachers ±8.77%; Parents ±6.93%

Call to action

Action plan

Eliminate access & skill barriers

Innovate from the inside out

- Advance new student ideas through new Education Innovation Challenge
- Convene Town Halls and Think Tanks to discuss solutions and create action plans
- Publish follow-up report with clear and actionable next steps

Adopt flexible, blended and personalized learning models

Explore a role for social media in learning

Invest in technical infrastructure that will adapt and scale as emerging technology-enabled models evolve

Use student and learning model performance data to modify learning approach as necessary

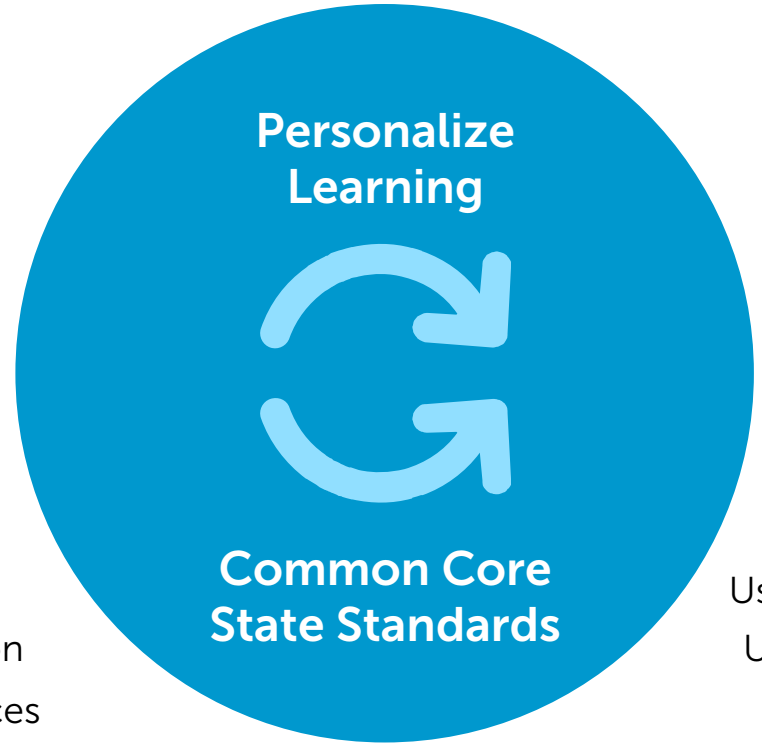
Future vision – personalized learning

Learner

Personal Learner Profile
Has Voice and Choice
Chooses Resources
Owns Learning

Teacher

Is Facilitator and Guide
Understands Learners
Redesigns Classroom
Addresses CCSS



Learning Environment

Flexible and Blended
Multiple Ways of Expression
Access to Tools & Resources
Community Built on Trust

Change Model/ Pedagogy

Use UDL Lens to Personalize
Unpack Standards Together
Learners Design Goals
Co-Design Lessons / Classroom