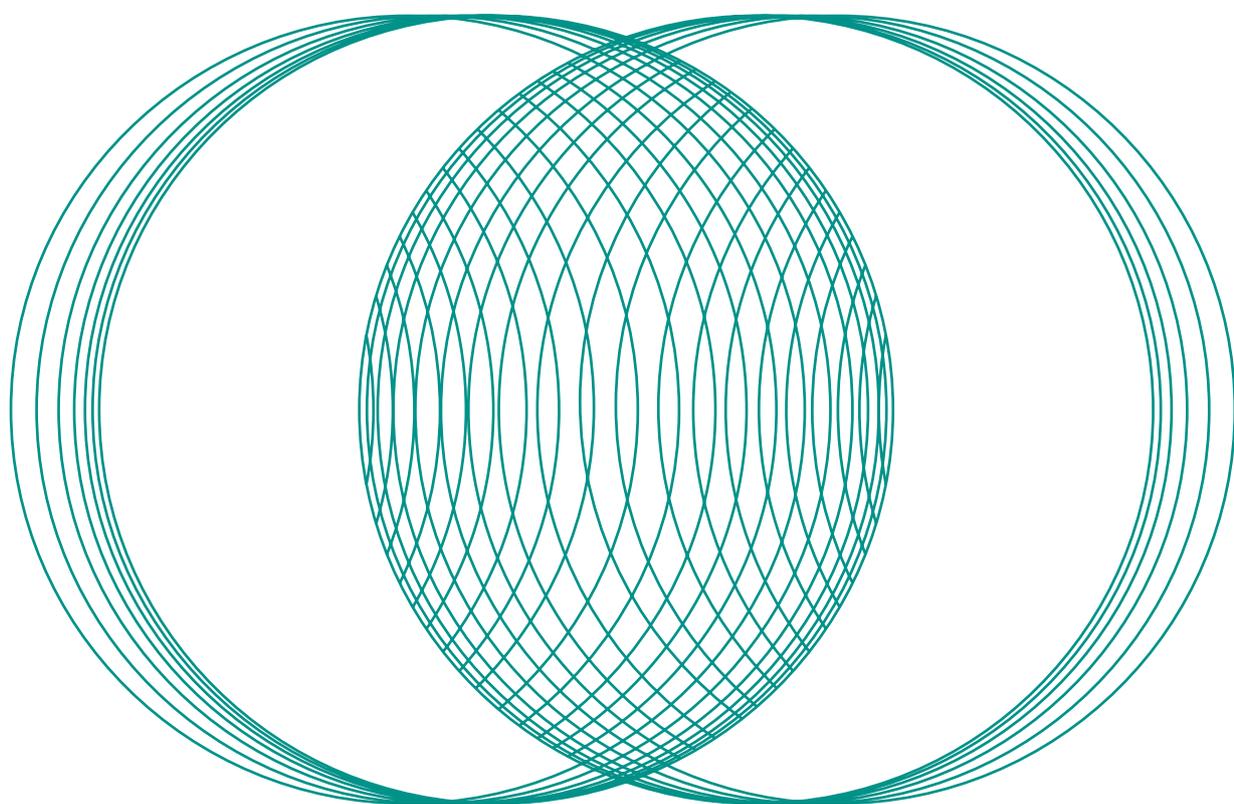


2015 WISE EDUCATION SURVEY: CONNECTING EDUCATION TO THE REAL WORLD



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EXECUTIVE SUMMARY

Three quarters of WISE education experts around the world are dissatisfied with the educational system in their respective countries and barely one third believe their country's educational system has improved in the past decade. Further, just 12% consider their educational system to be innovative, including a mere 1% rating it "extremely innovative." In the context of an ever-changing global job market, educational systems that lack innovation are most likely moving backward, not forward.

The situation in education contrasts with the rapid acceleration of numerous other fields in recent decades due to the Digital Revolution, transforming the way people shop, invest, read, socialize, work and generally communicate. Yet, at the same time, economic stagnation in much of the world, including persistently high unemployment in places, is creating critical challenges for today's young people, and indeed for the stability of nations.

While the picture for education may seem grim, it is clear that no country is alone in facing these challenges. The majority of WISE experts in most major regions of the world are dissatisfied with their educational systems and, almost everywhere, few rate their system high on innovation. However, there is considerable consensus within the WISE community on what education needs to do to remedy the situation:

- Foster more collaboration between schools and employers.
- Strengthen the teaching profession, both from within and without.
- Harness technology to supplement and support, not replace, high quality teachers.

These findings are from the **2015 WISE Education Survey: *Connecting education to the real world***, conducted by Gallup via the Web, August 6-31, 2015. The survey is based on responses from 1,550 members of the WISE global community: teachers, students, recent graduates, education policy makers and members of the private sector who have connected with WISE over the years on education reform issues. The results reflect the views of this unique global community of education experts who have made a demonstrated commitment to improving education in partnership with WISE.

Refocus education on work readiness

WISE education experts have high hopes for what education can and should be. Seven in 10 (69%) say it is a university's job, not that of employers, to ensure students are successful in their first job. However, 39% believe universities in their country are adequately preparing students for the workplace, and even fewer (23%) say this about their primary and secondary schools.

The good news is that the global WISE community sees a positive way forward for education. The survey finds WISE experts envisioning more collaboration between schools and employers to ensure students thrive in today's workplace. Such a system would not only benefit students and schools, but also employers in the public and private sectors who require a well-trained, well-prepared workforce.

WISE experts still value the importance of a university degree, but they believe what is most lacking at the postsecondary level is internships, apprenticeships, mentoring and dynamic curricula that provide students with ample opportunities to practice the knowledge they are acquiring. Far more WISE experts identify these as the key areas for higher education to focus on than cite the need for greater access to technology, lower costs, increased funding, or better career counseling.

- 62% cite lack of work/internships that prepare students for jobs as the top postsecondary challenge.
- 52% cite lack of project-based learning (students applying their academics to real-world problems).
- 38% cite ineffective career counseling.
- 31% cite the quality of teachers.
- 18% cite lack of access to current technology.
- 14% cite lack of school funding.

At the primary and secondary levels, WISE experts see teacher quality and lack of project-based learning as the primary challenges facing their educational systems. The percentages of respondents picking these challenges far exceed those identifying access to current technology, the need for more rigorous curricula or improved standardized testing.

- 60% say the quality of teachers is the biggest challenge facing their country's primary and secondary schools.

- 58% cite project-based learning.
- 32% cite school funding.
- 30% cite lack of access to current technology.
- 29% choose the need for more rigorous content or curriculum.

Two questions summarize the dual importance WISE experts place on formal education and practical experiences. On the one hand, the majority (57%) would encourage a child to enroll at a university even if it meant forgoing a dream job with a highly respected company; 35% would encourage the child to take the dream job. On the other hand, when given the choice between two types of recent university graduates, 80% say they would rather hire a B- student with a relevant internship than an A+ student with no relevant internship.

More investments needed in teaching

WISE experts point to a multi-pronged approach to raising the quality of teachers, one that involves more professional development for existing teachers, more funding to attract top people into the teaching field and a concerted effort to increase society's respect for teachers.

- About one-third (36%) believes teachers in their country are treated with respect; 59% disagree.
- Three-quarters identify more professional development opportunities as a key strategy for attracting and retaining high-quality teachers.
- A majority, 57%, identify higher salaries as a key teacher retention/attraction strategy.

Technology helpful, but not a cure-all

WISE education experts offer a clear preference for investing new education dollars in recruiting and retaining high-quality teachers (78%) rather than on improving technology in schools (19%). That is not to say they don't value technology. Eighty-eight percent say technology-based solutions can improve education in disadvantaged areas, and 74% say technology helps all students learn better. But 71% say a high-quality teacher without technology is more effective than a low-quality teacher with access to technology in the classroom. Also, just 29% say online learning is as effective as classroom learning.

WISE experts are supportive of computer education but do not fully embrace the idea that teaching students programming skills should be part of the core curriculum. While 74% rate teaching basic computer literacy skills, such as typing and word processing, as “very important,” far fewer, though still a majority at 57%, consider introductory computer programming classes very important.

WISE experts call for innovation through collaboration

The overall message of the **2015 WISE Education Survey: *Connecting education to the real world***, is that the failure of education to keep pace with changing workplaces is a global problem. And the response is a major commitment to collaborative solutions. Given the realities of limited government funding, only by engaging employers in the task of educating succeeding generations of workers will education achieve its full potential. Indeed, what employers don't invest in the system now will cost them later in lost productivity and training expenses. In combination with more investment in teachers and school funding, deeper connections between schools and workplaces will ensure tomorrow's students will move seamlessly from the classroom into productive jobs.



INTRODUCTION

INTRODUCTION

The **2015 WISE Education Survey: *Connecting education to the real world*** focuses on how well education systems around the world are preparing students for work and what can be done to support this vital task.

It represents the views of the WISE global community of education experts – teachers, students, recent graduates, policy makers, non-profit workers and members of the private sector – who connect with WISE on education reform issues. Numbering over 20,000 worldwide, WISE education experts are people with direct exposure to today’s education environment who have made a demonstrated commitment to improving education in partnership with WISE.

Gallup conducted the survey online from August 6-31, 2015, and it was completed by 1,550 WISE education experts representing 149 countries in nine major global regions. While the data are not projectable to any larger population, the results provide valuable insights from this globally and professionally diverse group of experts into how the education systems in their countries are performing in a variety of ways.

In some cases, the report includes results based on the views of experts in the nine global regions, as defined in the appendix. These regional-level findings reflect only the views of the WISE members from those regions who participated in the survey and are not necessarily reflective of other education stakeholders in those areas.

The survey’s key finding is that three in four WISE education experts are dissatisfied with education in their respective countries. The majority also believes their nation’s educational system has not improved in the past decade, and few give their system high marks (rating of “4” or “5” on five-point scale) on innovation. WISE experts believe the failure to provide students with opportunities to apply what they know while they are still on their educational journey is a leading flaw in modern-day education.

The challenges facing education systems around the world are numerous and vary greatly from region to region. In the world’s poorest regions, such as Sub-Saharan Africa, huge progress has been made in primary school enrollment, but secondary school participation remains uneven and higher education opportunities are rare. Many Middle Eastern/ North African countries face huge challenges in reforming educational

curricula to promote job growth, particularly in the private sector. In Latin America – and increasingly in the U.S. – differences in access to higher education have promoted rising levels of income inequality.

At the same time, the survey reveals a surprising amount of consensus among experts worldwide on several dynamic solutions that, collectively, could transform education and therefore have dramatic implications for the world's economic performance. There is broad support for reimagining education as a partnership between schools and employers in order to provide students with meaningful, real-world experience in their field before they graduate. Further, many WISE experts believe such partnerships are not only needed at the university level, but also at the primary/secondary levels. Experts also favor making greater investments in teachers, both in terms of pay and enhanced professional development opportunities. While WISE experts consider technology to be a valuable educational tool, they are clear that technology has the most to offer when it is incorporated in the classroom by a high-quality teacher.



DETAILED FINDINGS

DETAILED FINDINGS

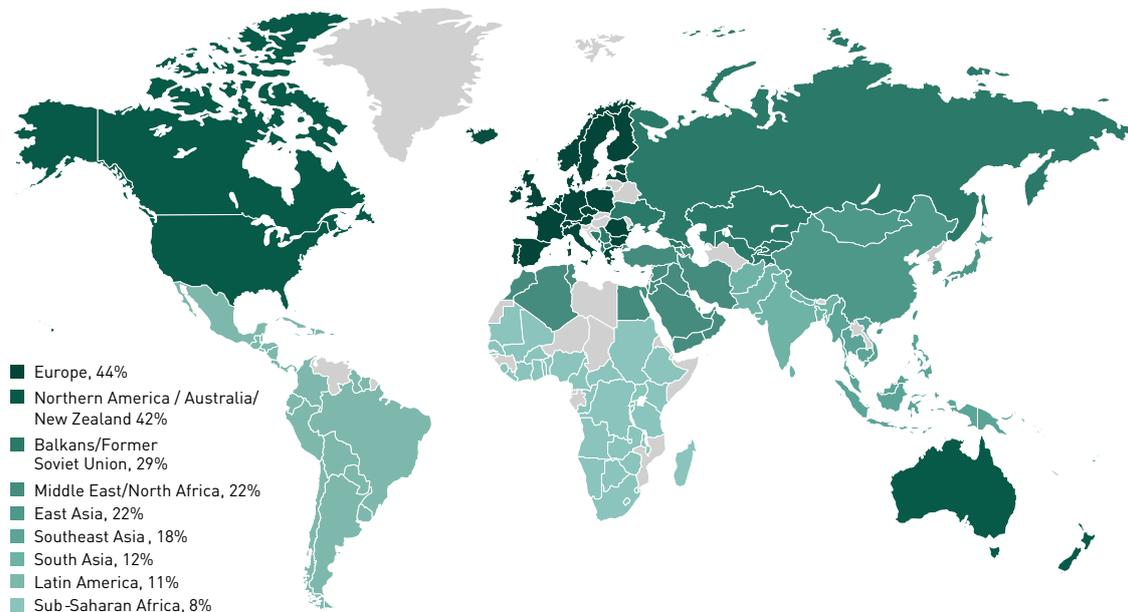
I. OVERALL SATISFACTION WITH EDUCATIONAL SYSTEM EXTREMELY LOW

Three-quarters of WISE education experts are dissatisfied with the educational system in their own country. Just 23% are satisfied.

While most regions lean overwhelmingly negative on this question, attitudes are a bit more positive in the two most economically developed regions, Europe and Northern America/Australia/New Zealand, where more than four in 10 experts are satisfied. This contrasts with closer to 20% satisfaction in the Balkans/Former Soviet Union, Middle East/North Africa, East Asia and Southeast Asia. Satisfaction drops to 12% or less in South Asia, Latin America and Sub-Saharan Africa.

In the country where you live, are you satisfied or dissatisfied with your country's overall education system?

Percentage of WISE experts from each region who are satisfied



In terms of the global average, dissatisfaction with the educational system in one's country is particularly high among students and young graduates and is lowest among education policymakers.

	% Satisfied	% Dissatisfied
Policymakers	31	65
Corporate sector/Employers	28	69
Education provider	25	73
Student/Recent graduate	16	81

Primary/secondary schooling earns particularly low marks

WISE education experts have particularly strong concerns about the quality of primary and secondary education in their countries, with 67% rating it “only fair” or “poor.” Just one in three rate it “excellent” or “good.” They are more positive about the quality of education at the post-secondary or university level, but even here the slight majority (51%) consider it only fair or poor.

Overall, how would you rate the quality of primary/secondary; post-secondary or university education in the country where you live: as excellent, good, only fair or poor?

	Primary/Secondary	Post-Secondary/University
% Excellent	4	12
% Good	29	37
% Only fair	41	35
% Poor	26	16
% Excellent/Good	33	49
% Only fair/Poor	67	51

II. PROGRESS AND INNOVATION BOTH SEEN AS LACKING

Perhaps even more troubling in a world where technology is constantly improving, only 34% of WISE education experts believe the educational system in their country has gotten better in the last 10 years. Nearly as many – 29% – say it has gotten worse. But even the 36% saying their education systems are standing still is cause for concern; in a world where globalization is in many countries changing the skills required to be economically successful, a system that is not moving forward is moving backward.

Over the last 10 years, do you think the educational system in your country has gotten better, gotten worse or stayed about the same?

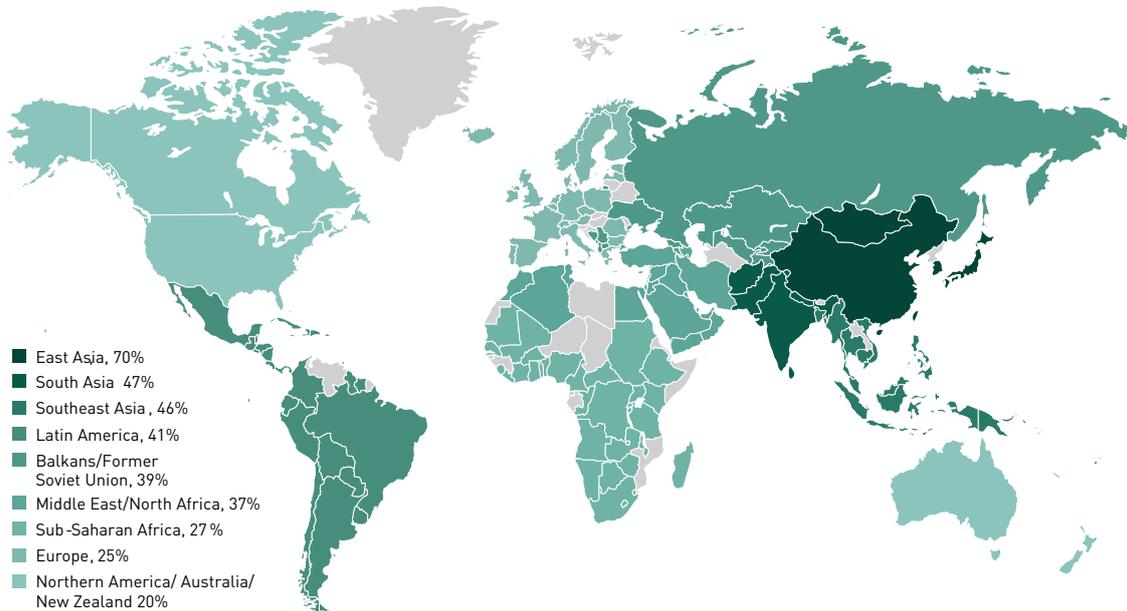
	Total
% Gotten better	34
% Gotten worse	29
% Stayed about the same	36
% Not sure	1

There is, however, a tremendous range of responses on this question, as the belief education has gotten better registers an extraordinary 72% in East Asia, and registers near 50% in South and Southeast Asia, but comes in at only 20% in Northern America/Australia/New Zealand and 25% in Europe.

It should be noted that education systems in less economically advanced regions have typically had much more room for improvement, but the consensus regarding lack of progress among experts in more affluent regions is troubling nonetheless. In the U.S., for example, just 16% of WISE experts interviewed said the country's education system had improved over the past 10 years, despite a huge investment in reform efforts during that time.

Over the last 10 years, do you think the educational system in your country has gotten better, gotten worse, or stayed about the same?

Percentage of WISE experts from each region who say "gotten better"



In a related finding, a mere 12% of respondents believe the educational system in their country is highly innovative - rating it a "4" or "5" on a five point scale. This includes just 1% giving their system a "5" for being "extremely innovative." The majority, 53%, tend to think the system is not innovative (rating it a "1" or "2").

On a scale of one-to-five, where 1 is not at all innovative and 5 is extremely innovative, how innovative would you say the educational system is in your country?

	Total %
Five (Extremely innovative)	1
Four	11
Three	35
Two	37
One (Not at all innovative)	16
Not sure	1

This too is a global problem, with no more than 27% in any region (Northern America/Australia/New Zealand) believing their educational system is innovative (a score of "4 "or "5"). However, in some regions – including the Balkans and former Soviet countries, Latin America, Sub-Saharan Africa, and South Asia – the figure is below 10%.

	East Asia	South Asia	Southern Asia	Balkans/ former Soviet Union	Europe	Latin America	MENA	US/Canada/ Australia/ New Zealand	Sub- Saharan Africa
Innovation rating:	%	%	%	%	%	%	%	%	%
5-4	21	4	16	6	16	6	11	27	5
3	46	31	36	43	39	28	30	43	33
1-2	33	64	48	51	45	66	57	29	61

Muna AbuSulayman - prominent media personality in Saudi Arabia and director of multiple philanthropic efforts aimed at helping women and children - advocates one educational innovation that does not rely on expensive technology: *“One of the things I think is most important is that we develop lists of the most important books that should be read. They could be developed separately by region or by culture, but they should give everyone a similar foundation of critical knowledge. These books should be widely disseminated and easily accessible so that people – especially those involved in making or informing public policy – can have a common base of knowledge and be talking about the same things.”*

III. TEACHERS, INTEGRATED LEARNING ARE KEY PRIMARY/SECONDARY CHALLENGES

In terms of the biggest perceived challenges at the primary and secondary levels, two issues rise above all others, among eight choices provided in the survey: 1) the quality of teachers, and 2) project-based learning that allows students to apply what they are learning to real world problems. Each is selected by roughly six in 10 WISE education experts as a top challenge.

These issues are twice as likely to be selected as the next biggest challenges: school funding, access to state-of-the-art technology and the rigor of the curriculum, each mentioned by about 30%. Even fewer mention class size (24%), parental involvement (23%) or standardized testing (18%).

Asmaa Al-Fadala, Director of Research, WISE, comments: *“Globalization and technology have dramatically changed how students learn, and what they will need to learn in order to thrive in tomorrow’s world. Young people today bring a wide range of technology skills and talents to school. So teachers face new challenges in actively managing student learning, as well as developing and assessing learning objectives that are more closely aligned with the requirements of real life. As key facilitators of student success, teachers need to be supported in bringing effective strategies and practices - such as project-based learning- to their students, and to build the aptitudes and skills that will allow them to flourish. We know that project-based learning can provide the dynamic, cross-curricular environment that engages and inspires students more deeply, and develops self-confidence. The collaborative, teamwork focus on real-world problems and challenges can produce better outcomes than conventional approaches.”*

Which of the following are the biggest challenges for primary and secondary schools in your country? Please select up to three challenges.

	Total %
Quality of teachers	60
Project-based learning (applying learning to real-world problems)	58
School funding	32
Lack of access to or outdated technology	30
Need for more rigorous content or curriculum	29
Need for smaller class sizes	24
Lack of parental involvement	23
Standardized testing	18

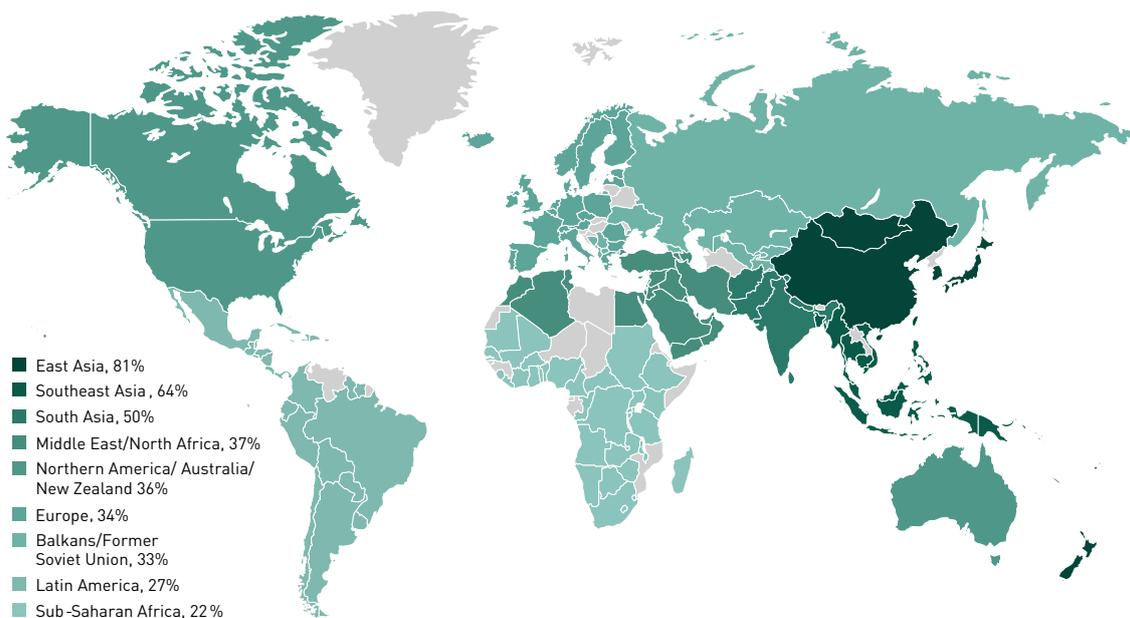
Teaching deserves more respect

Relatedly, 59% of all WISE education experts believe teachers are not treated with sufficient respect and dignity in their country. Asia is a notable exception to this with at least half of WISE experts in each Asian region, including 81% in East Asia, saying teachers are respected. Respect for authority figures has strong cultural roots in much of East and Southeast Asia, and this is often reflected in classrooms as well as teacher/parent relations in these regions. However, these figures drop to roughly a quarter or less in the Balkans/Former Soviet Union, Latin America and Sub-Saharan Africa.

Sarah Brown, Executive Chair of the Global Business Coalition for Education and President of children's charity Theirworld remarks, *"We must invest more in our teachers so that they have the best preparation, support and professional development needed to succeed in the classroom. In the most successful education systems, teachers are well-supported and held in high esteem in communities. It is essential that we continue to improve the investment in our teachers."*

Do you believe that teachers in your country are treated with respect and dignity, or not?

Percentage of WISE experts from each region who say teachers are treated with respect



1 <http://www.theirworld.org/project/global-business-coalition-for-education/>

Professional development is key to cultivating great teachers

WISE experts are unambiguous in their advice on how to attract and retain high quality teachers, and that is to offer more professional development. Great teachers are first and foremost learners, and excel when treated as respected professionals whose jobs require training that continually improves their ability to promote student success and allows them to advance in their careers. No less than doctors and software engineers, teachers need to stay on top of their field, and WISE experts believe helping them do this can help attract and retain better teachers.

- 75% of WISE education experts say offering more professional development is the best strategy for attracting and retaining high-quality teachers in their country.

Secondarily, 57% see offering higher salaries as a successful strategy. No other strategy is chosen by a majority, including performance-based salaries (42%), better technology in the classrooms (37%), smaller class sizes (34%), and a reduction in standardized testing (17%).

Which of the following are the most successful strategies for attracting and retaining high-quality teachers in your country? Please select up to three strategies.

	Total %
More professional development opportunities	75
Higher salaries	57
Performance-based salaries	42
Better technology in the classroom	37
Smaller class sizes	34
Less standardized assessments	17

"I think the number-one priority is to reflect on how we think of teaching, to make it a more prestigious profession that attracts the best and brightest. We have to make sure that they can earn a good salary and that they have an adequate schedule for doing their jobs. So teachers are number-one, how we look at them and treat them. Then you can look at how we need to change the curricula." – Muna AbuSulayman

IV. LACK OF PRACTICAL EXPERIENCE IS KEY POST-SECONDARY CHALLENGE

WISE experts identify lack of connection between education and work (co-op programs, internships, mentoring, etc.) as the biggest challenge faced at the post-secondary/university level in their country relative to preparing students for success in employment. This is chosen by 62%, while lack of project-based learning is a close second, at 52%.

Ineffective career counseling (38%), the cost of education to students and families (35%), the quality of teachers (31%), curriculum (21%), outdated technology (18%), school funding (14%) and standardized testing (8%) all lag far behind as concerns to the WISE community regarding post-secondary and university schooling.

Which of the following are the biggest challenges for post-secondary schools or universities in preparing students for success in the world of work? Please select up to three challenges.

	Total %
Lack of work, internship or apprenticeship opportunities that prepare students for jobs	62
Project-based learning (applying learning to real-world problems)	52
Ineffective career counseling	38
Cost of education for students and their families	35
Quality of teachers	31
Need for more rigorous content or curriculum	21
Lack of access to/outdated technology	18
School funding	14
Standardized testing	8

Programs directly linking employers to students most favored solution

When asked how schools would ideally collaborate with private companies, 63% of WISE experts say they would like to see co-op programs, internships and mentoring – all programs requiring strong collaborative connections between students and employers.

Secondarily, 33% say they would like private companies to provide input on the skills needed in the workforce and direction on curricular content. Smaller numbers cite funding, grants, loan or technical support (15%) or collaboration between faculty and company staff (14%).

In an ideal world, how would schools collaborate with private companies? (Open-ended)

	Total %
Co-op programs / internships / training / collaboration / mentoring	63
Input from private companies on skills needed/Curriculum/ goals of education	33
Funding / grants / loans / technical support	15
Communication / seminars / workshops / career counseling	14
Collaboration between faculty and company staff	7
Work with / leverage community resources / community service	4
Collaboration at early age / before high school / college	3
Feedback from alumni / company	1
Proactive / responsive government	1
Encouraging lifelong / continuous learning	1
Other	2
None	2
Don't know	1

Adds to more than 100% due to multiple responses

Julia Gillard, former Prime Minister of Australia and now chair of the Global Partnership for Education², is enthusiastic when asked if it is realistic to expect employers to invest significant time and funding in their home country’s educational system: “Yes, it is realistic, because I know it happens to great effect right now! A well run internship provides employers with enthusiastic, fresh thinking workers, and can give the intern invaluable experience and training to prepare them for their first job. Whilst formal higher education will always demand government funding, these types of partnerships will be essential in producing balanced and well equipped graduates for the jobs of the future.”

Investment in education could offset worker training costs

In weighing the costs and benefits of ramping up their collaborative efforts with schools, employers must consider the long-term benefit of contributing to a better-prepared workforce. Already, many employers invest in expensive training and professional development programs, and the need could only become greater as jobs become more technical and specialized.

The slight majority of WISE experts – 53% – report that in their own experience, employers encourage ongoing education and training for their employees. Looking ahead, 56% predict that private companies will be spending more in 10 years on training programs for their employees than they are today.

In 10 years, do you think private companies will be spending more, less, or about the same amount as they are today on training programs for their employees?

	Total %
Spending more on employee training programs	56
Spending less on employee training programs	18
Spending about the same amount on employee training programs	19
No opinion	7

² <https://www.globalpartnership.org/users/jgillard>

The incentive for greater participation by private-sector companies in a given country is clear: a well-trained, well-prepared workforce. What they don't invest now in the education and professional development of students, they may have to invest later in the form of training when young people enter the workforce.

"Partnerships are essential to preparing young people for post-university employment. Education cannot work in isolation of the economies and societies in which it is situated, and employers cannot be disconnected from the institutions preparing the next generation of the workforce. Mentorship, internships, guest lecturers and finding innovative ways for the employment sector and education institutions to share experiences are all crucial to building this strong partnership." – [Sarah Brown](#)

V. ONUS IS ON UNIVERSITIES TO PREPARE STUDENTS FOR WORK

Seven in 10 WISE education experts say it is mainly universities' responsibility, not employers', to prepare students to be successful in their first post-university job. Majorities in all regions except Northern America/Australia/New Zealand assign primary responsibility to universities, and the rate is particularly high in Sub-Saharan Africa (85%), the Middle East/North Africa (73%), Latin America (70%) and throughout Asia (ranging from 73% to 84%).

Which statement do you agree with more strongly? It is primarily universities' responsibility to prepare students to be successful in their first post-university job. (or) It is primarily the employer's responsibility to train recent graduates to be successful in their first post-university job.

	East Asia	South Asia	Southern Asia	Balkans/ former Soviet Union	Europe	Latin America	MENA	US/Canada/ Australia/ New Zealand	Sub-Saharan Africa
% Universities' responsibility	73	74	84	65	56	70	73	49	85
% Employers' responsibility	27	20	15	29	35	24	22	39	12
% Not sure	•	5	1	6	9	6	5	13	2

According to **Julia Gillard**, “A student’s success in their first job depends on many factors, and yes, both employers and universities play a part. In getting students ready it is best if employers and universities work together to ensure courses incorporate real world content and problem solving.”

Within the European Union, WISE experts from the UK lean the other way, with 53% saying that primary responsibility for preparing students to succeed in their first job rests with the employer. This contrasts with 66% in France and 65% in Spain assigning responsibility to universities.

On average throughout the WISE community, students/recent graduates (76%) are a bit more likely than education policymakers (67%) and experts working in education (66%) or the corporate sector (69%) to believe it is universities’ responsibility to prepare students in their first post-university job.

VI. WORKPLACE EXPERIENCE IS CRITICAL TO SUCCESS

Separately, WISE education experts believe preparation for work is a paramount educational goal. Twice as many say that success in the workplace relies more on obtaining job-related knowledge and skills than on earning a well-respected degree, 67% vs. 30%. And, by more than six-to-one – 80% vs. 13% - WISE experts say they would rather hire a B- student with a relevant internship than an A+ student with no such experience.

But a college degree still important

At the same time, large majorities of WISE experts generally agree (giving a “5” or “4” response on a five point agreement scale) that not having a university degree limits the job opportunities and income available to people in their country.

- Roughly two-thirds, 68% agree that not having a degree limits people’s job options.
- Nearly as many, 63%, agree that not having a degree limits people’s income potential.

Using a five-point scale, where 1 means strongly disagree and 5 means strongly agree, how strongly do you agree or disagree with the following statements?

% Agree with each:	Strongly agree (5)	4	3	2	Strongly disagree (1)
Not having a university degree limits the job options available to people in my country	41	27	18	8	5
Not having a university degree limits the income potential of people in my country	34	29	21	9	6

Also, when asked what they would advise their child to do if he or she was offered his or her dream job after graduating from secondary school, just 35% would encourage that child to take the job. The majority – 57% - would encourage the child to forget the job and attend college.

The proportion of experts who say they would advise a child to attend college rather than take a dream job right out of secondary school is higher among those who believe success at work depends mainly on having a good degree than among those who emphasize job-related knowledge: 42% vs. 21%, respectively. However, large majorities of both groups say they would prefer a B- student with an internship to an A+ student without one.

	Total	Believe work success depends on acquired knowledge/skills	Believe work success depends on a well-respected degree
<u>Career Advice</u>			
% Take dream job	35	74	49
% Attend college	57	21	42
<u>Hiring Preference</u>			
% Hire A+ student with no internship	13	10	20
% Hire B- student with internship	80	84	74

In summary, most experts see the ideal situation as one in which students obtain a university degree in a program that provides ample opportunity for them to use what they are learning in the real world through internships and other partnerships with employers.

VII. LESS THAN HALF BELIEVE SCHOOLS ARE ADEQUATELY PREPARING STUDENTS FOR WORK

Post-secondary preparation for work falls short

Even as WISE experts believe the primary responsibility for setting students up for success at work lies with post-secondary schools/universities, a slight majority, 54%, believe these institutions are failing at this assignment. Just 39% of WISE experts believe post-secondary schools or universities are preparing students to succeed at work.

These results vary somewhat by region. Six in 10 WISE experts in the U.S./Canada/Australia/New Zealand region are positive about the preparation universities provide. At the same time, no more than four in 10 believe this in Sub-Saharan Africa, the former Soviet Union (CIS), the Middle East/North Africa (MENA), the European Union (EU), East Asia and South Asia.

Do you believe the post-secondary schools or universities in your country prepare students for success in the world of work?

	East Asia	South Asia	Southern Asia	Balkans/ former Soviet Union	Europe	Latin America	MENA	US/Canada/ Australia/ New Zealand	Sub-Saharan Africa
% Yes	36	40	45	28	40	41	31	59	31
% No	55	57	43	64	55	52	59	35	64
% Not sure	9	4	12	9	6	7	10	7	4

U.S. economist [Alan Krueger](#), Bendheim Professor of Economics and Public Affairs at Princeton University, and former Chairman of President Barack Obama's Council of Economic Advisers, reacts to these findings saying, "*The 2015 WISE education survey provides clear evidence that education systems around the world are not doing enough to prepare students for the workplace. Experts from around the world voice clear concerns that the education systems in their countries are insufficiently innovative. The irony is that at a time when technological change is rapidly changing the world of work, the education systems in many countries are failing to innovate and take full advantage of the opportunities offered by new technologies.*"

Even less confidence in primary/secondary preparation for work

Even fewer WISE education experts (23%) believe primary and secondary schools are preparing students for success in work than say this about post-secondary institutions. Fully 70% say primary and secondary schools in their countries are not adequately preparing students.

This finding speaks to the need for greater focus at the secondary level on preparation for vocational/technical careers, because not every student can or wants to go to college.

Relatively few WISE experts in any region believe their primary/secondary schools are preparing students for success at work, ranging from 33% in Southeast Asia and a combined 31% in the U.S./Canada/Australia/New Zealand, down to 13% in Latin America and 19% in MENA.

VIII. SCHOOLS RATED BETTER FOR TEACHING ACADEMIC THAN COGNITIVE AND BEHAVIORAL SKILLS

By and large, WISE education experts believe their country's educational systems do a better job teaching students core academic subjects than teaching basic cognitive skills that are essential to workplace success.

Among 11 academic and life skills included in the survey, WISE experts think their schools are doing best at teaching math and reading/writing, with 49% rating the instruction in each as excellent or good. Science as well as technology and computer skills are close behind at 43% and 40%, respectively. Still, none of these subjects receives high marks from a majority of WISE experts globally.

WISE experts have the least confidence in their schools' teaching of broader thinking skills that are critical to success in work and in life more generally: innovation and creativity, entrepreneurship and business skills and critical thinking. Such skills are often seen as increasingly important in regions where many agricultural and manufacturing jobs are automated or sent overseas, and the service and information technology sectors account for a rising proportion of available jobs.

Based on what you have experienced, read about or know, how well is the overall educational system in your country performing in teaching students the following?

	% Excellent/Good	% Only fair/Poor
Math	49	51
Reading and writing	49	49
Science	43	56
Technology and computer skills	40	60
Teamwork	35	64
The arts (music, art, drama)	31	67
Physical and mental well-being	29	68
Environmental responsibility	26	72
Critical thinking	25	74
Entrepreneurship and business skills	24	74
Innovation and creativity	24	75

There is considerable variation in these results by region, including a 94%-22% range in the percentage rating their country excellent or good in teaching math, a 71%-20% range for reading/writing, a 49% -9% range for innovation/creativity, and a 66%-20% range for teaching technology/computer skills.

Additionally, experts from different regions perceive different strengths and weaknesses in their countries' educational systems. For instance, those in East Asia and the Balkans/former Soviet Union rate their systems

very high for teaching math, but low for innovation and creativity. And while experts in most regions rate their countries' performance more highly on math than on technology/computer skills, the opposite pattern is seen among WISE experts in the U.S./Canada Australia/ New Zealand region.

Percentage Rating Educational System Excellent / Good in Teaching Each Area

	East Asia	South Asia	Southern Asia	Balkans/ former Soviet Union	Europe	Latin America	MENA	US/Canada/ Australia/ New Zealand	Sub-Saharan Africa
Math	94	50	58	73	62	22	51	44	42
Reading/ writing	67	43	48	71	69	20	45	59	51
Innovation/ creativity	9	18	24	14	33	15	23	49	13
Technology/ computer	55	40	42	45	48	20	42	66	21

IX. MORE FUNDING IS NEEDED

There is broad consensus among WISE education experts that their countries do not invest enough in education. Just 27% say they do, while 70% disagree, including the majority in all major regions.

Do you think your country's government invests enough in education?

	East Asia	South Asia	Southern Asia	Balkans/ former Soviet Union	Europe	Latin America	MENA	US/Canada/ Australia/ New Zealand	Sub-Saharan Africa
% Yes	30	17	30	20	29	26	39	26	21
% No	64	79	68	80	68	74	56	73	77
% No opinion	6	4	2	•	4	1	5	2	2

But when asked whether increasing teacher pay or funding for instructional tools should have the higher priority, **Julia Gillard** responds, “I do not believe this to be a case of ‘either/or’. Our teachers are incredibly hard working and play an extremely important role in our communities; they should be well remunerated for this, and their level of remuneration should be such that good teachers aren’t deterred from choosing the profession. That said, it is irresponsible to employ teachers if we do not allow them the support they need to do their job well. One of the challenges we saw with the implementation of the education access goal of the Millennium Development Goals was countries investing in employing teachers, but then not giving them the support they required to actually teach. This presents huge challenges, and ultimately disadvantages the children who have the most to gain from a quality education.”

Sarah Brown echoes this sentiment, saying “Investment must be made in both teachers and the tools teachers need - these investments cannot be seen as a zero sum scenario. Only when the proper investment is made in the teachers themselves and the tools necessary to delivering high-quality education, can we expect improvements in education.”

At the same time, two-thirds of WISE experts, 66%, say education should not be funded exclusively by the government, suggesting they want stakeholders in the private sector to step in and contribute.

Additionally, just under half (49%) of WISE experts think all primary/secondary schools should be exclusively non-profit based, and this drops to 33% for post-secondary institutions. Instead, most of the rest favor a combination of for-profit and not-for-profit schools. Half of WISE experts favor relying on such a combination at the primary and secondary level, and 64% favor this at the post-secondary and university levels.

**In an ideal world, would you prefer primary and secondary schools be :
In an ideal world, would you prefer post-secondary schools and universities be :**

	Primary & Secondary	Post-secondary & University
% A combination of not-for-profit and for-profit	50	64
% Not-for-profit only	49	33
% For-profit only	1	3

Expanded private education and more public-private partnerships with private companies funding specific educational programs could help elevate education without putting all of the burden on government coffers.

X. TECHNOLOGY IN THE CLASSROOM HELPFUL – TO A POINT

WISE experts have moderate expectations for how much technology, by itself, can transform education. The vast majority – 88% - say technology-based solutions can be effective in disadvantaged areas. And three-quarters (74%) believe technology helps students learn better. At the same time, most dispute the idea that online learning is as effective as classroom learning. Just 29% say it is, while 63% disagree.

Additionally, 78% of WISE experts believe schools would be better off putting more money and effort into recruiting and retraining high-quality teachers than on improving technology in schools. In other words, technology is only worth the high investment if paired with an effective teacher.

Do you think school systems in your country would be better off if they spent more money and effort on recruiting and retaining high-quality teachers (or) spent more money and effort on improving technology in schools?

	Total %
Recruiting and retaining high-quality teachers	78
Improving technology in schools	19
Don't know	3

Also, 71% agree with the statement that a high-quality teacher without access to technology in the classroom is more effective than a low-quality teacher with technology; just 22% disagree.

There is an opportunity here that dovetails with offering teachers more professional development. Only 23% of WISE experts believe teachers know how to effectively integrate technology into the classroom, meaning that training targeted to this would not only improve classroom instruction, but also increase engagement among teachers.

The overall message is that combining technology with high-quality teachers packs a powerful educational punch. Technology can be useful in reaching places where no other options exist, but the goal should not be to replace classroom-based learning with new computer-based learning models, but to supplement it.

More favor teaching handwriting than computer skills

Reflecting the global advance of new information and communication technologies, a majority of WISE experts worldwide (57%) say it is very important that primary and secondary schools offer introductory classes in computer programming. But more (74%) see the value in offering basic typing and word processing as critical.

Despite the growing importance of computers in education, 87% say handwriting should continue to be taught – a finding that researchers who connect early handwriting skills to students' cognitive and broader educational development, particularly reading, would applaud.

IMPLICATIONS

According to the **2015 WISE Education Survey: *Connecting education to the real world***, failure to provide students with enough opportunity to apply what they know while they are still on their educational journey is a leading flaw in modern-day education.

Recognizing this, the global community of WISE education experts calls for broadening the understanding of “education” from something schools do to impart knowledge, to something communities do to create well-rounded and capable individuals able to quickly transition from secondary or post-secondary school into the workforce. More can and should be done to elevate the core curriculum, put greater emphasis on critical thinking and other so-called “soft” skills, increase cultural and financial support for teachers and expand students’ access to computers and other technology. But operating in isolation is no longer an option. Schools must aggressively partner with employers to bring a holistic experience to the learning environment, providing students immediate and tangible feedback on what they know, what they don’t know, and why they need to learn it.

Sarah Brown perfectly encapsulates the message, saying *“To ensure the relevancy of education to the creation of livelihoods and employment, a strong partnership is needed between schools, education institutions, governments, communities and employers. Strengthening these partnerships will help young people have transferrable skills that can apply to a variety of employment and livelihood scenarios, keep pace with the types of skills in demand from employers and also ensure young people have a broad set of common competencies necessary to build prosperous and respectful societies.”*

METHODOLOGY

The **2015 WISE Education Survey: *Connecting education to the real world*** was conducted via the Web with WISE education experts -- a global network of teachers, university students, recent college graduates, education policymakers and members of private industry who are connected with WISE on education matters.

In early August, WISE emailed survey invitations to approximately 20,000 education experts who had previously provided WISE with an email address. The survey was completed by 1,550 respondents from Aug. 6-31, 2015, representing 149 countries across nine major global regions, closely reflecting the international composition of the entire WISE community of experts.

While these results can be viewed as reflective of the broader WISE community of education experts from which they were polled, they are not representative of any broader education stakeholder groups, either globally or within the nine reported regions.

APPENDIX

Description of nine regions used in this report.

Asia-East (33 WISE experts): China, Hong Kong, Japan, Mongolia, South Korea

Asia: South (156 WISE experts): Afghanistan, Bangladesh, India, Nepal, Pakistan, Sri Lanka

Asia-Southeast (91 WISE experts): Brunei, Cambodia, Fiji, Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Thailand, Vietnam

Australia-New Zealand/U.S.-Canada (215 WISE experts): Australia, Canada, New Zealand, United States

Balkans/Former Soviet Union (50 WISE experts): Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Moldova, Russia, Serbia, Tajikistan, Ukraine, Uzbekistan

Europe (224 WISE experts): Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom

Latin America (199 WISE experts): Argentina, Bahamas, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Vincent & the Grenadines, Suriname, Trinidad & Tobago, Uruguay

Middle East/Near East (302 WISE experts): Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen

Sub-Saharan Africa (280 WISE experts): Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Congo (Kinshasa), Congo Brazzaville, Ethiopia, Ghana, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius,

Namibia, Nigeria, Reunion Island, Rwanda, Senegal, Seychelles,
Sierra Leone, South Africa, South Sudan, Sudan, Swaziland,
Tanzania, The Gambia, Togo, Uganda, Zambia, Zimbabwe

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