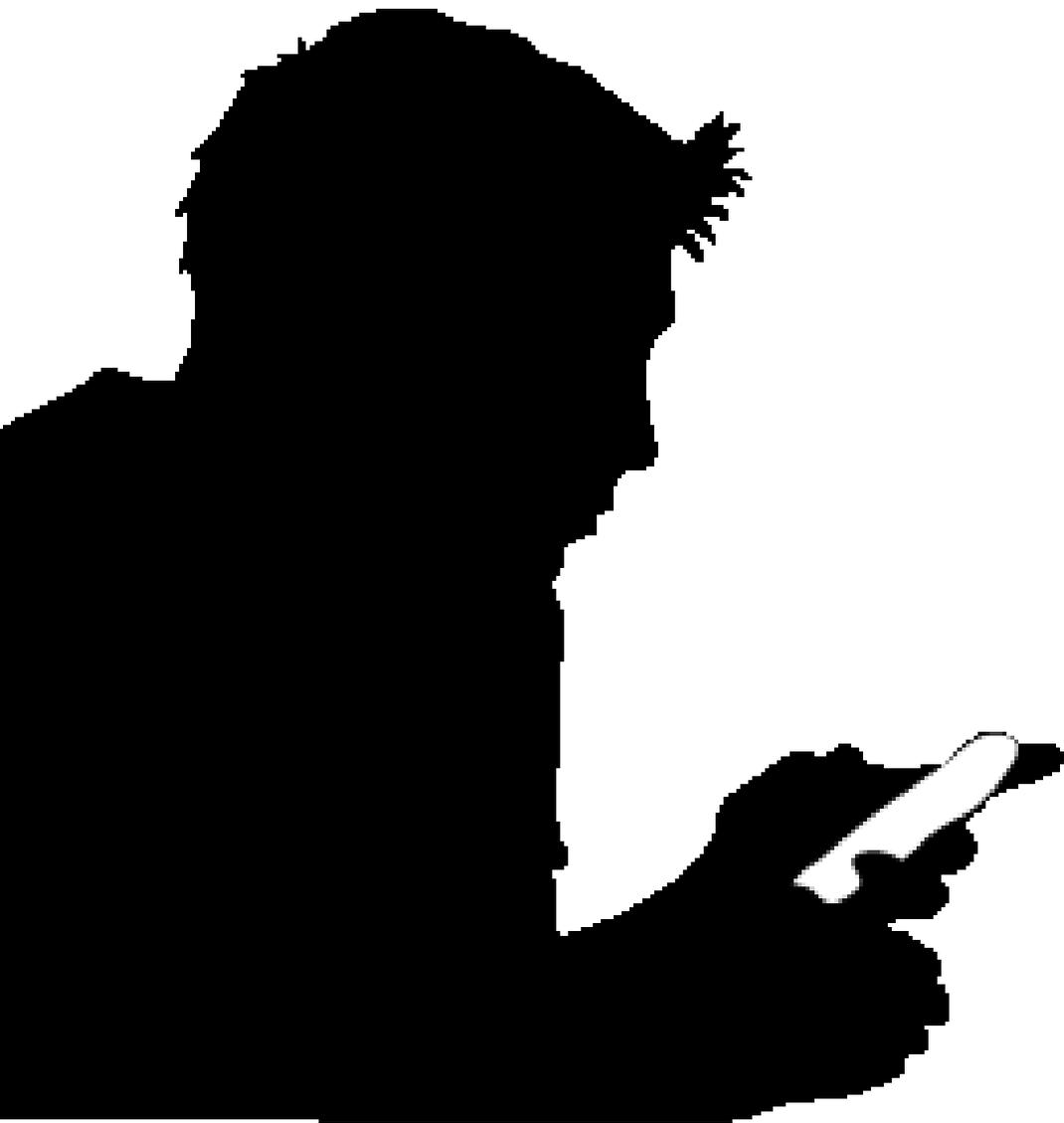




**Middle Schooling:  
People, Practices and Places**



# The middle years

People, practices and places

---

**PROFESSOR DONNA PENDERGAST**



# Why an intentional approach to middle years?

<https://www.youtube.com/watch?v=wNvCfOv5UFg>

## **Middle years**

Early adolescence  
11–15 years of age

## **Middle schooling**

Intentional approach to teaching & learning in the middle years that meets the unique developmental & educational imperatives of students within the context of contemporary society

## **Junior secondary**

- Queensland response
- Guiding Principles
- Years 7–9

# The middle years

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- **students make the least progress**
- **the gap between the low and high performing students increases**
- **students are less engaged with education**

# **Middle years plunge or dip**

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- **Year 7 stock take year**
- **Estimated drop in academic achievement can represent a loss of between 10 - 14 months of learning achievement**
- **Effects are widespread and typical, rather than the exception**
- **The impact on academic achievement is most significant in students who lack literacy and numeracy capacity, especially reading and spelling**
- **Literacy skills are the key to academic success**

# Factors causing academic decline

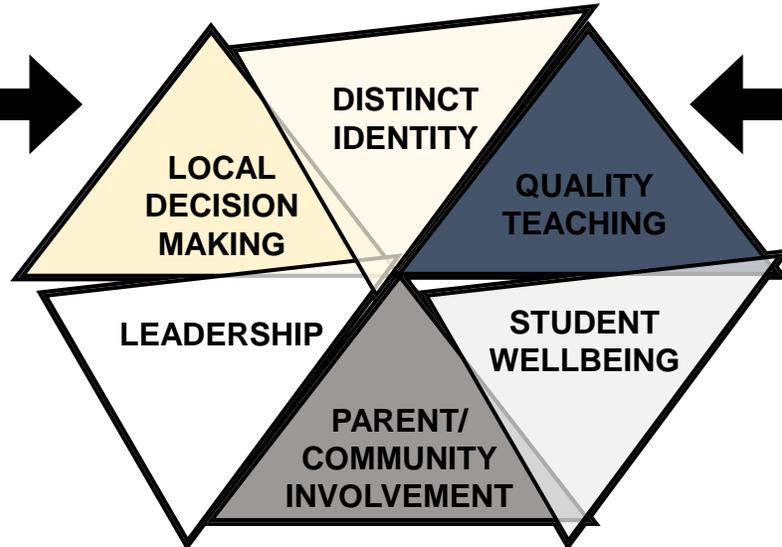
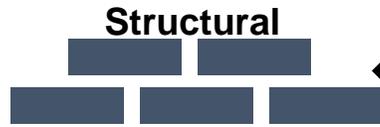
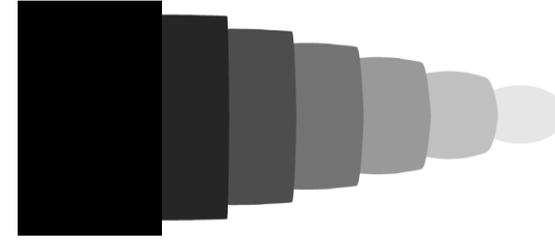
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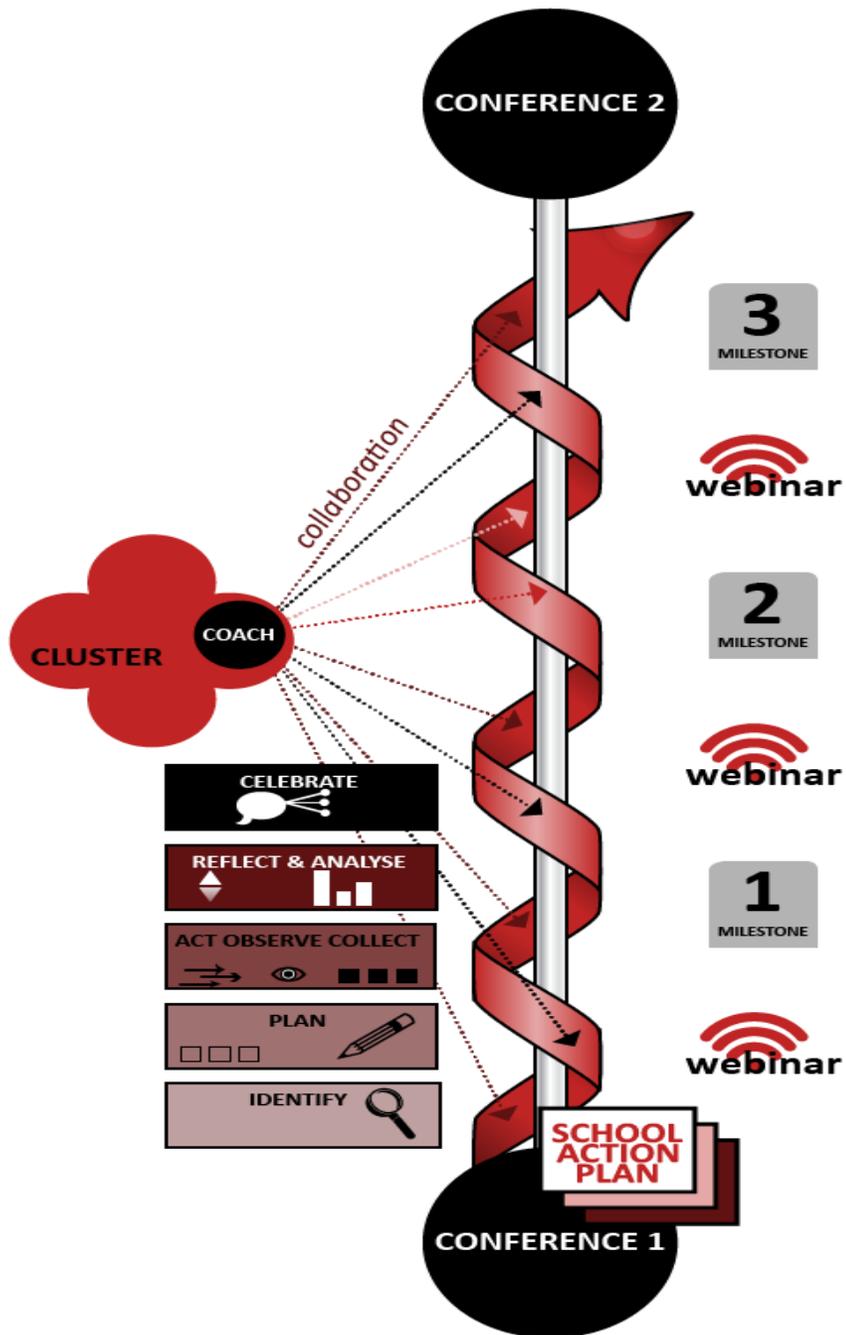
- Onset of adolescence
- Social adjustment
- Student perceptions of secondary school
- Socio-economic status; cultural factors; family support
- Organizational factors – Structure, time and routine
- Linkages between schools
- Curriculum & pedagogy
- Teaching to the middle – 5 year range
- Teacher perceptions of transition

Nature of young adolescents



Transition





# Junior Secondary Leading Change Development Program

265 schools

785 school leaders

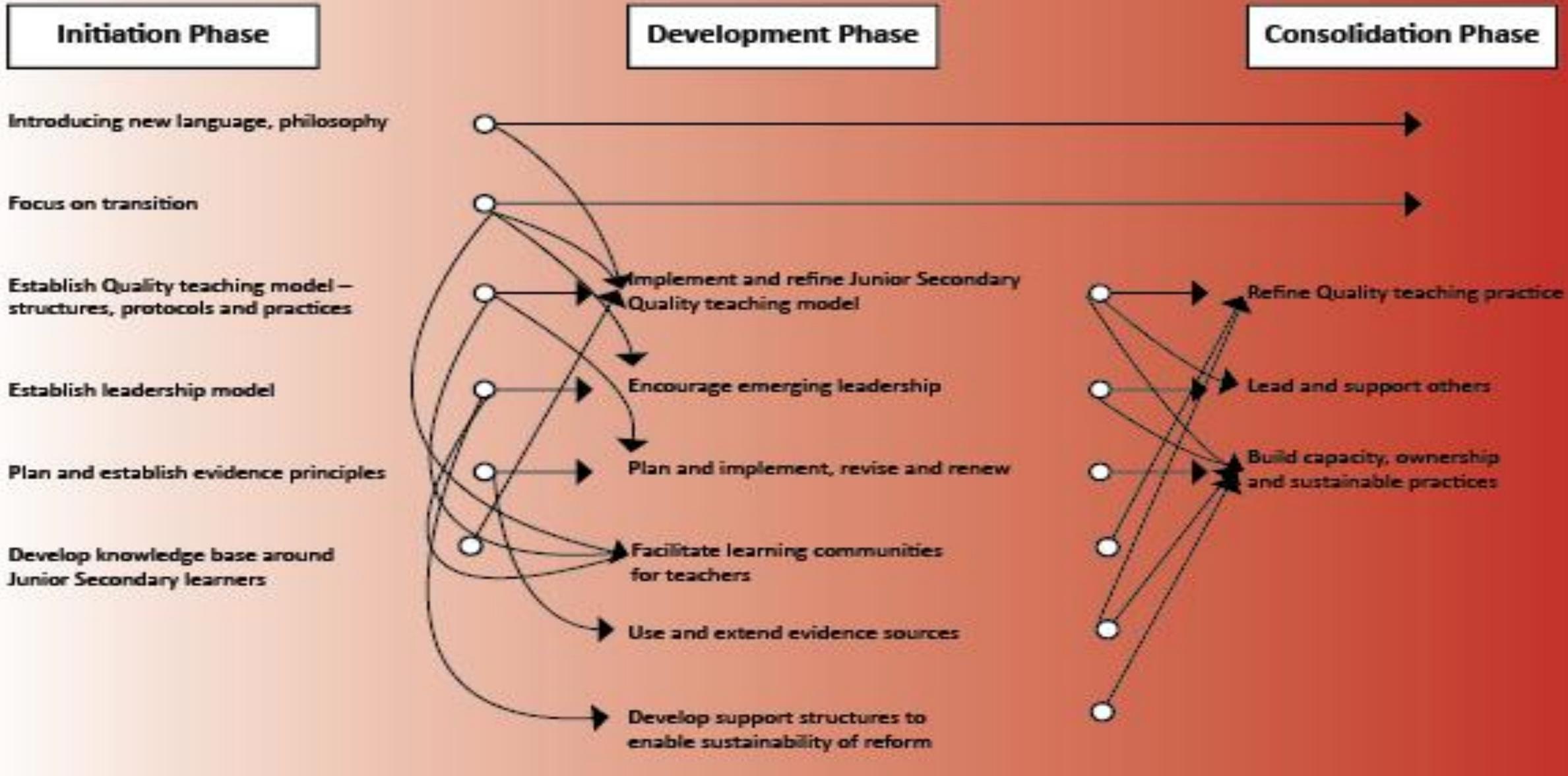
7 regions

## Online Learning Modules

22 hours

1200 Year 7 teachers

1400 Years 8+ teachers



Pendergast, D., Flanagan, R., Land, R., Bahr, M., Mitchell, J., Weir, K., Noblett, G., Cain, M., Misich, T., Carrington, V., Smith, J. (2005). *Developing Lifelong Learners in the Middle Years of Schooling*. Brisbane: The University of Queensland.

# OVERVIEW OF PRESENTATION

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**Part 1:** New work mindset – the role of schools and learning

**Part 2:** How are we going in the middle years?

**Part 3:** Some possibilities, with a focus on adolescent learners



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**Part 1: New work mindset – the role of schools and learning**

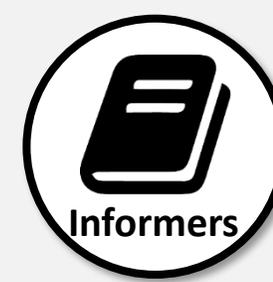
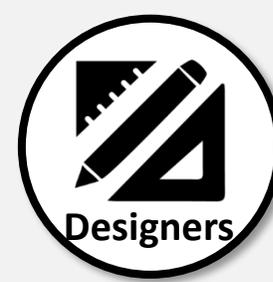
**Part 2:** How are we going in the middle years?

**Part 3:** Some possibilities, with a focus on adolescent learners

# 7 NEW JOB CLUSTERS



Total occupations in cluster						
65	118	131	170	142	10	
interpersonal interaction	manual skills: construction & production	medium-level personal services	creative & cognitive	knowledge of science, maths & design	information, education, business	understanding of digital technology
<ul style="list-style-type: none"> <li>sales reps</li> <li>retail super's</li> <li>cafe/hotel managers</li> <li>bank managers</li> <li>entertainers</li> <li>interpreters</li> <li>arts &amp; recreation services</li> </ul>	<ul style="list-style-type: none"> <li>machinery operators</li> <li>landscapers</li> <li>gardeners</li> <li>electricians</li> <li>farm workers</li> <li>plumbers</li> <li>carpenters</li> </ul>	<ul style="list-style-type: none"> <li>GPS</li> <li>social workers</li> <li>financial counsellors</li> <li>childcare workers</li> <li>fitness instructors</li> <li>beauty therapists</li> </ul>	<ul style="list-style-type: none"> <li>bookkeepers</li> <li>printers</li> <li>fast food workers</li> <li>bus drivers</li> <li>removals</li> <li>law clerks</li> <li>receptionists</li> <li>car park attendants</li> </ul>	<ul style="list-style-type: none"> <li>electrical engineers</li> <li>food technologists</li> <li>building inspectors</li> <li>product testers</li> <li>industrial engineers</li> <li>geologists</li> <li>draftspersons</li> </ul>	<ul style="list-style-type: none"> <li>teachers &amp; economists</li> <li>spies</li> <li>accountants</li> <li>policy analysts</li> <li>solicitors</li> <li>org' psych's</li> <li>museum curators</li> <li>HR advisers.</li> </ul>	<ul style="list-style-type: none"> <li>programmers</li> <li>software engineers</li> <li>database administrators</li> <li>web designers</li> <li>ICT business analysts</li> </ul>
<b>Tourism</b>	<b>Construction</b>	<b>Health &amp; Social Assistance</b>	<b>Administrative Services</b>	<b>Engineering</b>	<b>Technical services</b>	<b>Computer System Design</b>
<b>Retail &amp; Wholesale Trade</b>	<b>Agriculture</b>	<b>Education &amp; Training</b>	<b>Logistics</b>	<b>Manufacturing</b>	<b>Education &amp; Training</b>	<b>Information Media</b>
<b>Accommodation &amp; Food Services</b>	<b>Mining</b>	<b>Utilities</b>	<b>Carers</b>	<b>Technical Services</b>	<b>Education &amp; Training</b>	<b>Telecommunications Services</b>
<b>Arts &amp; Recreation Services</b>	<b>Manufacturing</b>	<b>Utilities</b>		<b>Technologists</b>	<b>Education &amp; Training</b>	<b>Telecommunications Services</b>
	<b>Logistics</b>			<b>Artisans</b>	<b>Designers</b>	
		<b>Coordinators</b>	<b>Informers</b>	<b>Technologists</b>		
				<b>Carers</b>		



### Job growth 2010-2015

**7.4%**

**5.6%**

**18%**

**3%**

**13.1%**

**7.6%**

**19%**

### Affected by automation/digitisation/AI

**45%**

**77%**

**26%**

**71%**

**43%**

**36%**

**50%**

### Future prospects

**moderate**

**weak**

**strong**

**weak**

**moderate**

**strong**

**strong**

# EMPLOYMENT BY SKILL TYPE



Routine manual

Non-routine cognitive

Routine cognitive

Non-routine manual

50%  
40%  
30%  
20%  
10%

1986 1991 1996 2001 2006 2011 2016

Job Cluster		Cluster skills	Enterprise skills
Generators		customer service	Communication skills, building effective relationships, customer service
		organisational skills	Planning, time management, digital literacy
Artisans		organisational skills	Detail-orientation, planning, problem solving, digital literacy
		interaction skills	Capacity to train others, communication skills, team work
Carers		interaction skills	Communication skills, team work, teaching, customer service
		problem solving skills	Problem solving, research
		organisational skills	Planning, time management, detail-orientation
Coordinators		organisational skills	Time management, detail-orientation, digital literacy
		customer service	Communication skills, team work, customer service
Designers		problem solving skills	Problem solving, digital literacy
		project management skills	Planning, Quality assurance, project management, time management
Informers		interaction skills	Communications skills, written communication, teaching
		problem solving skills	Problem solving, creativity, research
		detail orientation skills	Detail-orientation, project management, digital literacy
Technologists		interaction skills	Communication skills, customer services, team work,
		detail orientation skills	Detail-orientation, planning, quality assurance, project management

# ENTERPRISE SKILLS

are **transferable skills** required in many jobs. They include:



-  Problem solving
-  Creativity
-  Communications
-  Teamwork
-  Financial literacy
-  Digital literacy
-  Critical thinking
-  Presentation skills

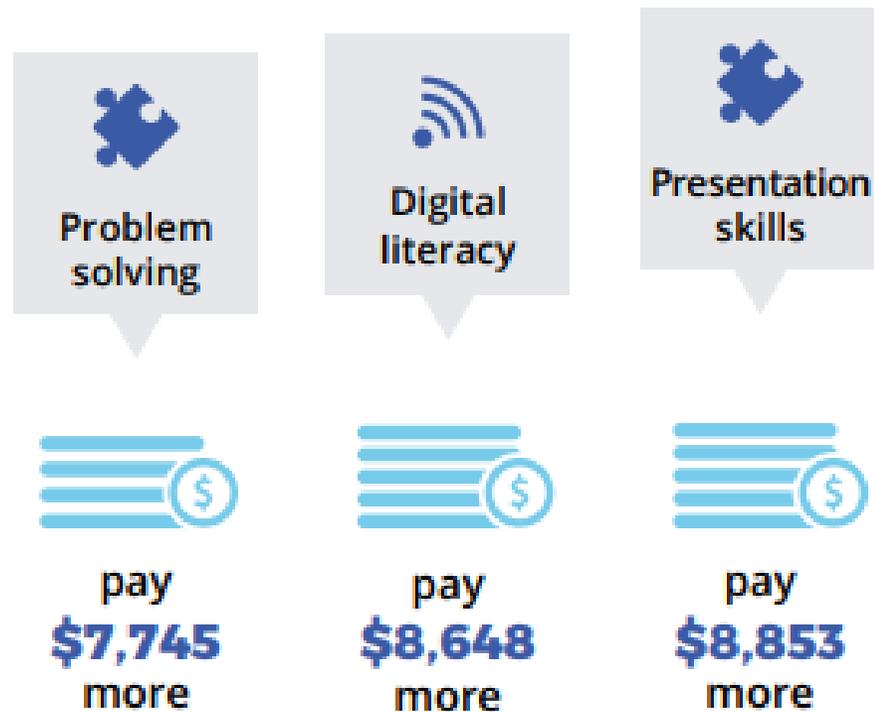
# THE MOST VALUED ATTRIBUTES OF FUTURE WORKERS?

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“ ... attributes which rely on well-developed emotional intelligence are needed to make sense of global megatrends and navigate through rapidly changing times.

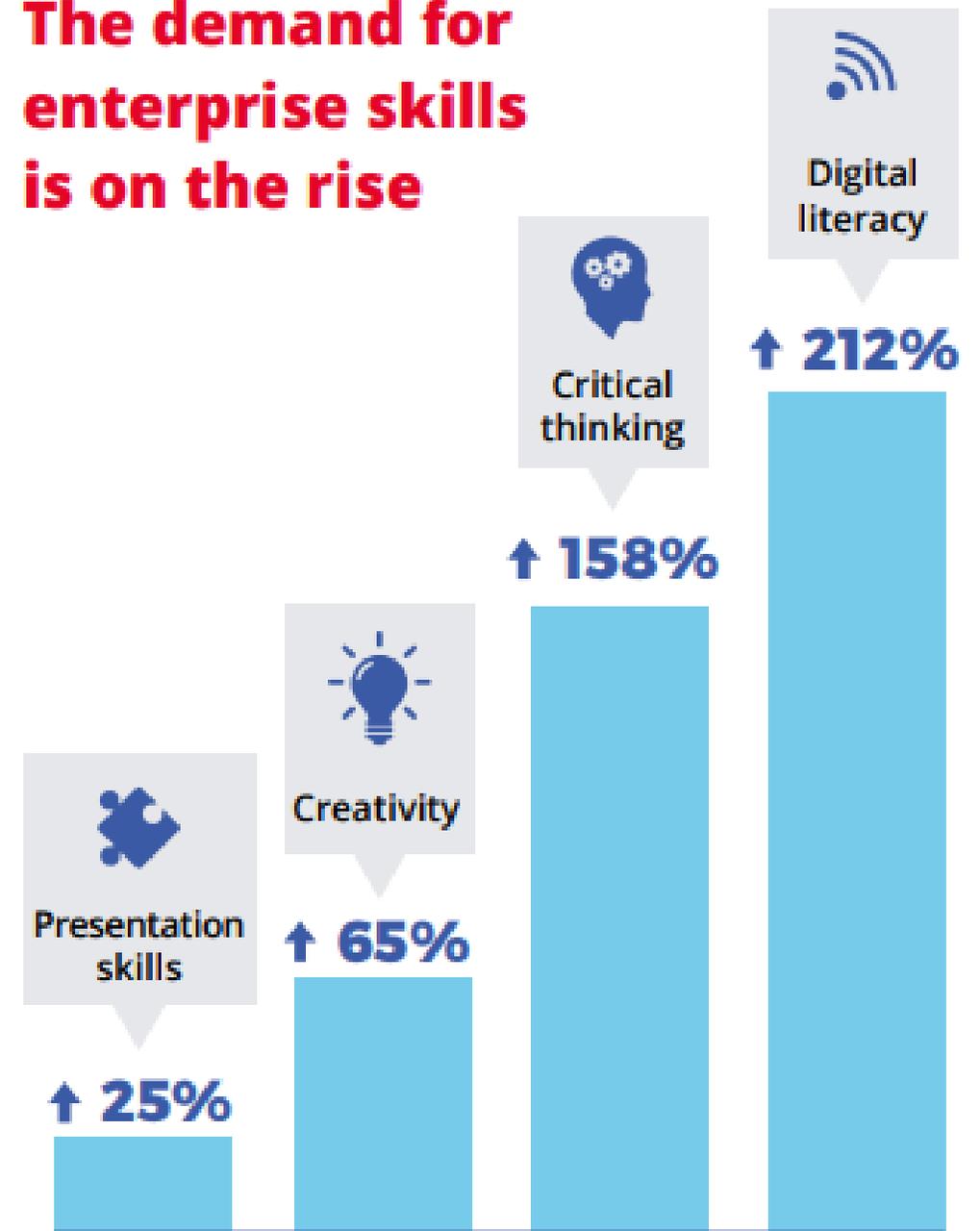
”

## Wages are higher for young job-seekers with enterprising skills

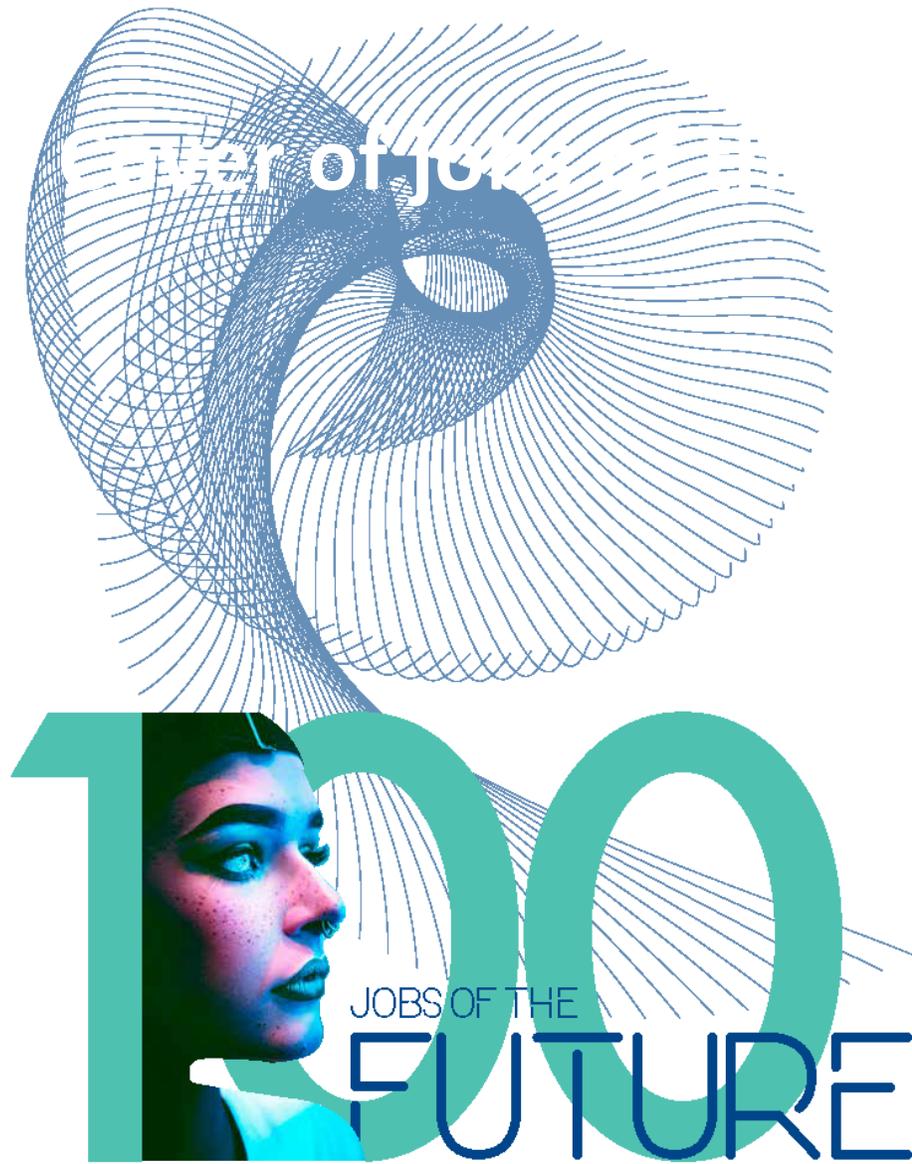


...as compared with similar earlycareer job ads that don't request these skills.

## The demand for enterprise skills is on the rise



...as observed in earlycareer job ads over the past 3 years



15 year old

- 5 careers
- 17 jobs





The *100 Jobs of the Future* report offers a diverse sample of potential jobs, including titles, descriptions and skills required, across numerous sectors. The report was developed through comprehensive analysis of existing literature on work futures, as well as in-depth interviews with 11 experts representing industries critical to future work: health, agriculture, engineering and materials science, transport and mobility, computing and artificial intelligence, commerce, and education.

*“Through our research for the 100 Jobs of the Future report, we predict a more complex and changing world of work, but one where young people will be able to find or create exciting work opportunities that make the most of their interests and skills.”*

Future workers will have many jobs over a lifetime, and people who can adapt and stay ahead of the needs of the workplace, rather than waiting to be shown, will prosper. **The capacity to learn, and to be strategic about learning, will increasingly become the key to success.**

## The three key forces that will shape the future of work are:

- **Automation** – ever smarter machines performing ever more human tasks
- **Globalisation** – our workforce going global and the global workforce coming to us
- **Collaboration** – many jobs, with many employers, often at the same time

## Skills that will be increasingly valued in the new work order

- **Entrepreneurial** – involving adaptability, autonomy and self-direction where have to sell skills
- **Digital and STEM/STEAM** – as the basis of the economy
- **Interpersonal** – a need for people to work creatively at the human-computer interface
- **Transdisciplinary** – a strong disciplinary base combined with breadth in other areas with technology skills and creativity

“ The fusion of these skills will create new, multidisciplinary fields that advance what is possible, trigger new drivers of change and redefine the jobs of the future ”  
(Ford Motor Company of Australia, 2019).

# JOB EXPLORER TOOL

Everyone has characteristics that make them unique. Different people have different combinations of interests, aptitudes, and skills. The [job explorer tool](#) is an online quiz that has been designed to help participants identify some of their career interests and aptitudes.

On the basis of their answers, the job explorer will recommend some of the '100 Jobs of the Future' that may be a fit for them. **This is a great way to inspire students to think about their future career directions.**

[Access the tool](#)

# 100jobsofthefuture.com/quiz

## What will future work look like for you?

In the future, could you be a robot ethicist? An offworld habitat designer? A personal brand manager? A biofilm plumber? A smart dust wrangler?

Everyone has characteristics that make them unique. Different people have different combinations of interests, aptitudes, and skills.

This job explorer tool has been designed to identify some of your career interests and aptitudes. It is not a fully detailed assessment — while you may have stronger interests in some areas than in others, you may also find that you can relate to more than one.

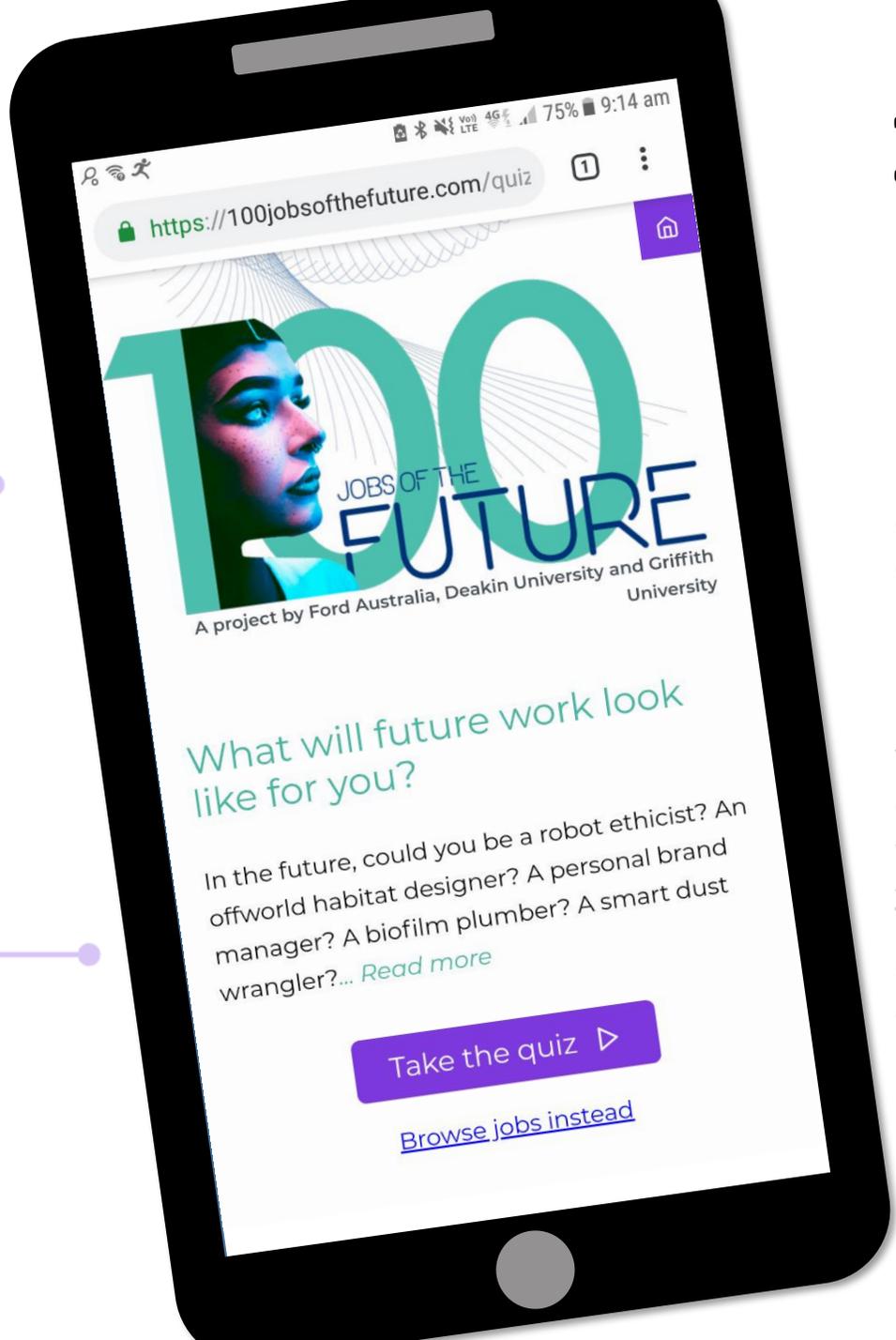
On the basis of your answers, the job explorer will recommend some of the '100 Jobs of the Future' that may be a fit for you.

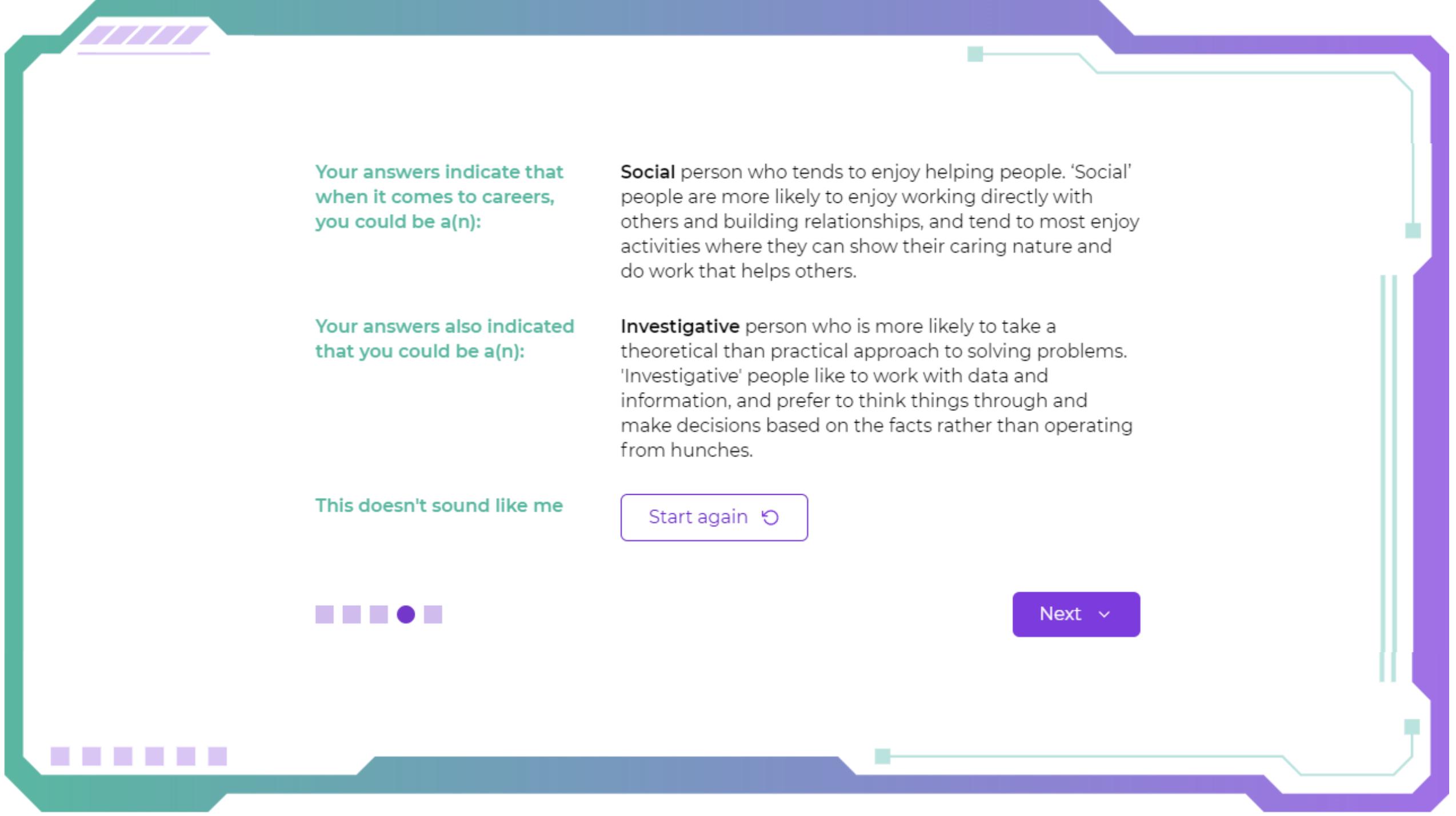
Take the quiz ▶

[Browse jobs instead](#)

Take the quiz ▶

[Browse jobs instead](#)





Your answers indicate that when it comes to careers, you could be a(n):

**Social** person who tends to enjoy helping people. 'Social' people are more likely to enjoy working directly with others and building relationships, and tend to most enjoy activities where they can show their caring nature and do work that helps others.

Your answers also indicated that you could be a(n):

**Investigative** person who is more likely to take a theoretical than practical approach to solving problems. 'Investigative' people like to work with data and information, and prefer to think things through and make decisions based on the facts rather than operating from hunches.

This doesn't sound like me

Start again ↻



Next ▾



Here is a list of areas of future work.

**Select 2 to 3** to explore examples of future jobs in those areas

<input type="checkbox"/> Strengthening local communities and neighbourhoods	?	<input type="checkbox"/> Personalising information and communication	?	<input type="checkbox"/> Advanced farming and food production	?
<input type="checkbox"/> Leisure and entertainment	?	<input type="checkbox"/> Extended lifespans	?	<input type="checkbox"/> Education and lifelong learning	?
<input type="checkbox"/> Law and ethics	?	<input type="checkbox"/> Health and wellbeing	?	<input type="checkbox"/> Scientific discovery	?
<input type="checkbox"/> Environmental restoration and renewal	?	<input type="checkbox"/> Advanced city design	?	<input type="checkbox"/> Business innovation	?
<input type="checkbox"/> Space exploration	?	<input type="checkbox"/> Micro- and nano-technology	?	<input type="checkbox"/> Virtual and augmented reality	?
<input type="checkbox"/> Robotics and drones	?	<input type="checkbox"/> Artificial intelligence	?	<input type="checkbox"/> Digital networks	?



[See results](#) 



# 100 JOBS OF THE FUTURE

\* Pink text indicates future job

## Technology jobs

1. Additive Manufacturing Engineer
2. Automation Anomaly Analyst
3. Biomimicry Innovator
4. Bioprinting Engineer
5. Child Assistant Bot Programmer
6. Digital Augmentation Officer
7. Digital Implant Designer
8. DigiTech Troubleshooter
9. Energy and Data Systems Installer
10. Ethical Hacker
11. Gamification Designer
12. Integrated Home Technology Brokers
13. Machine-Learning Developer
14. Mechatronics Engineer

# RESOURCES FOR EDUCATORS

Three activities have been developed that educators can use to scaffold students through the 100 Jobs of the Future – Job Explorer.

## Activity 1

[Understanding Our Self and Our Interests for Future Jobs](#)

## Activity 2

[Exploring and Investigating Career Paths of Interest](#)

## Activity 3

[Exploring Jobs of the future](#)

Access the resources



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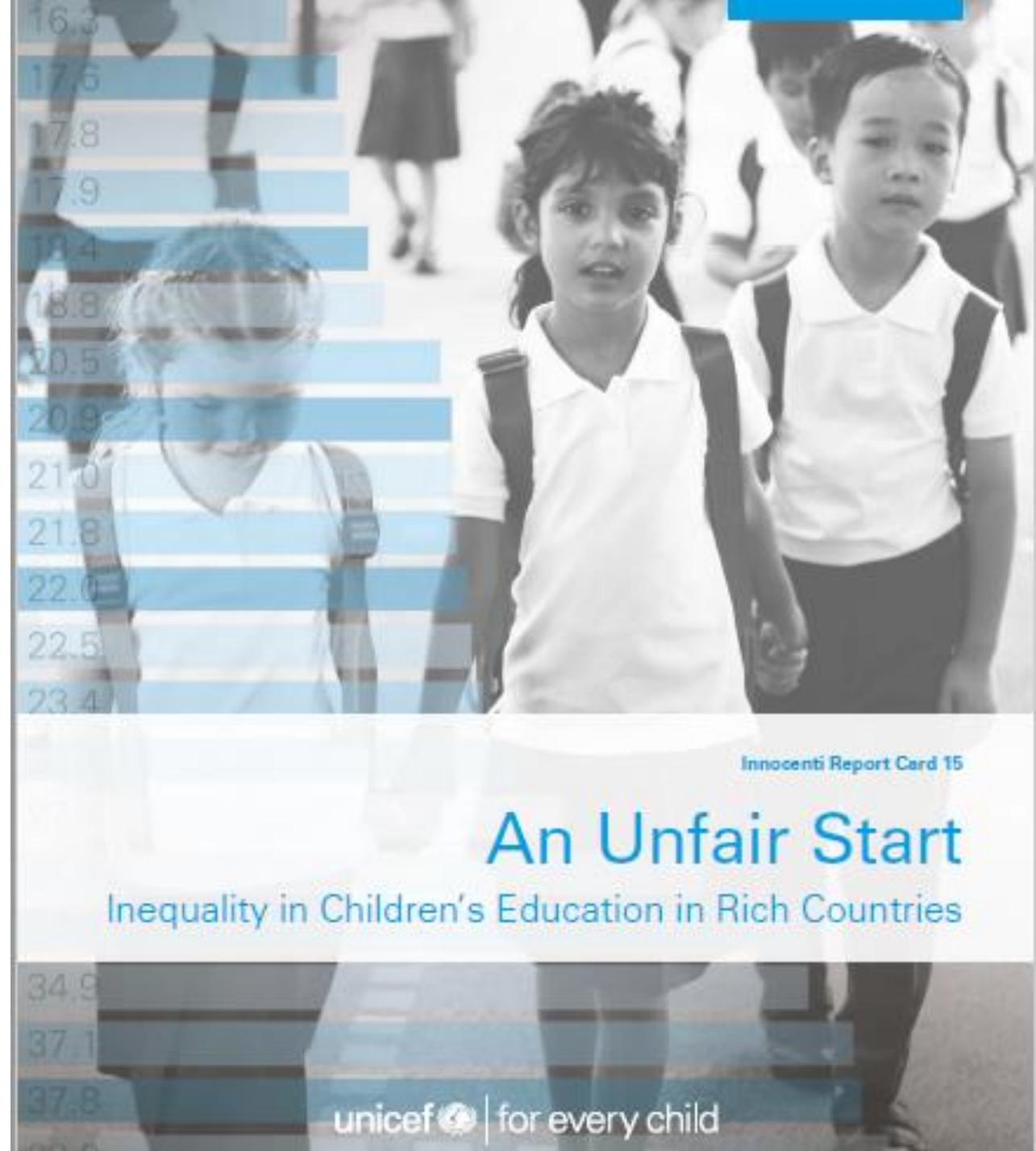
**Part 1:** New work mindset – the role of schools and learning

**Part 2: How are we going in the middle years?**

**Part 3:** Some possibilities, with a focus on adolescent learners

# AN UNFAIR START 2018

- 41 high income EU and OECD countries
- link between student achievement and factors such as gender, school, parents occupations
- drew on independent evidence, e.g. TALLIS data
- evaluated 3 school stages – early childhood, primary and secondary

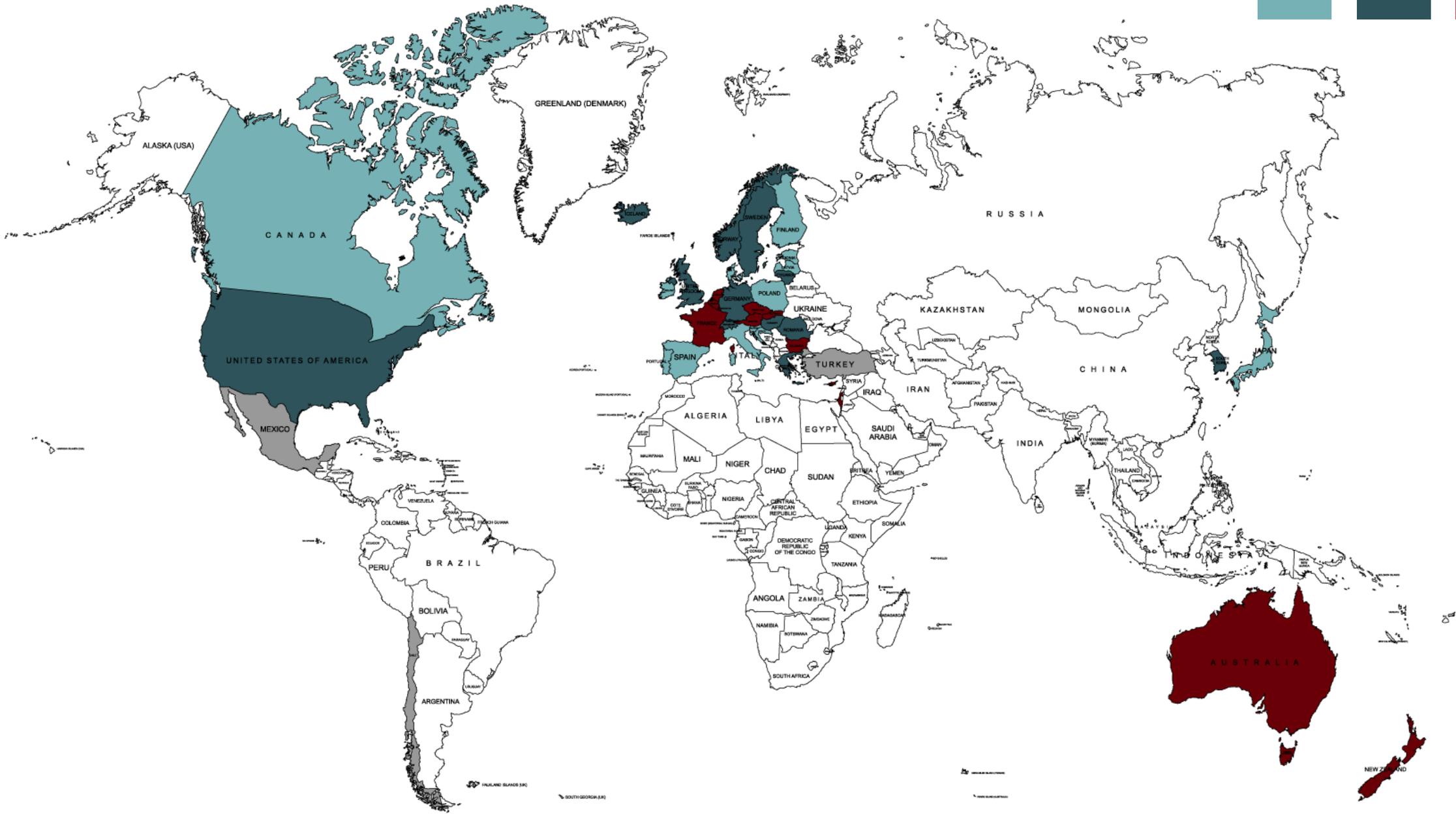


1

2

3

No data



1	Rank	Country	Preschool (rank)	Primary School (rank)	Secondary School (rank)
	...	...	...	...	...
2	18	Switzerland	4=		18
	19	Hungary	32	19	19
	20	Norway	17=	7	20
	21	Greece	29		21
	22	Iceland	2=		22
	23	Germany	23	20	23
	24	United States	40	22	24
	25	Sweden	16	11	25
3	26	Netherlands	10=	1	26
	27	Czech Republic	38	10	27
	28	Belgium	10=	9	28
	29	Austria	10=	5	29
	30	Australia	36	25	30
	31	Cyprus	26		31
	32	Slovakia	37	21	32
	33	New Zealand	30	28	33
	34	Luxembourg	13		34
	35	France	2=	14	35
No data	36	Israel	4=	27	36
	37	Bulgaria	24=	26	37
	38	Malta	17=	29	38
		Chile	21	24	
	Mexico	9			
	Turkey	41			

Source: UNICEF Office of Research (2018). *'An Unfair Start: Inequality in Children's Education in Rich Countries'*, Innocenti Report Card 15, UNICEF Office of Research – Innocenti, Florence.

# WHAT DO AUSTRALIAN MIDDLE YEARS STUDENTS TELL US?

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Wanted to understand the factors contributing to Australia's declining educational outcomes & poor international ranking

**1001 students: 14-16 years old**

**TEACHERS**

Students want skilled teachers who inspire them and are driven

**CURRICULUM**

Students want more “practical skills” from high school for later life

**ASSESSMENT**

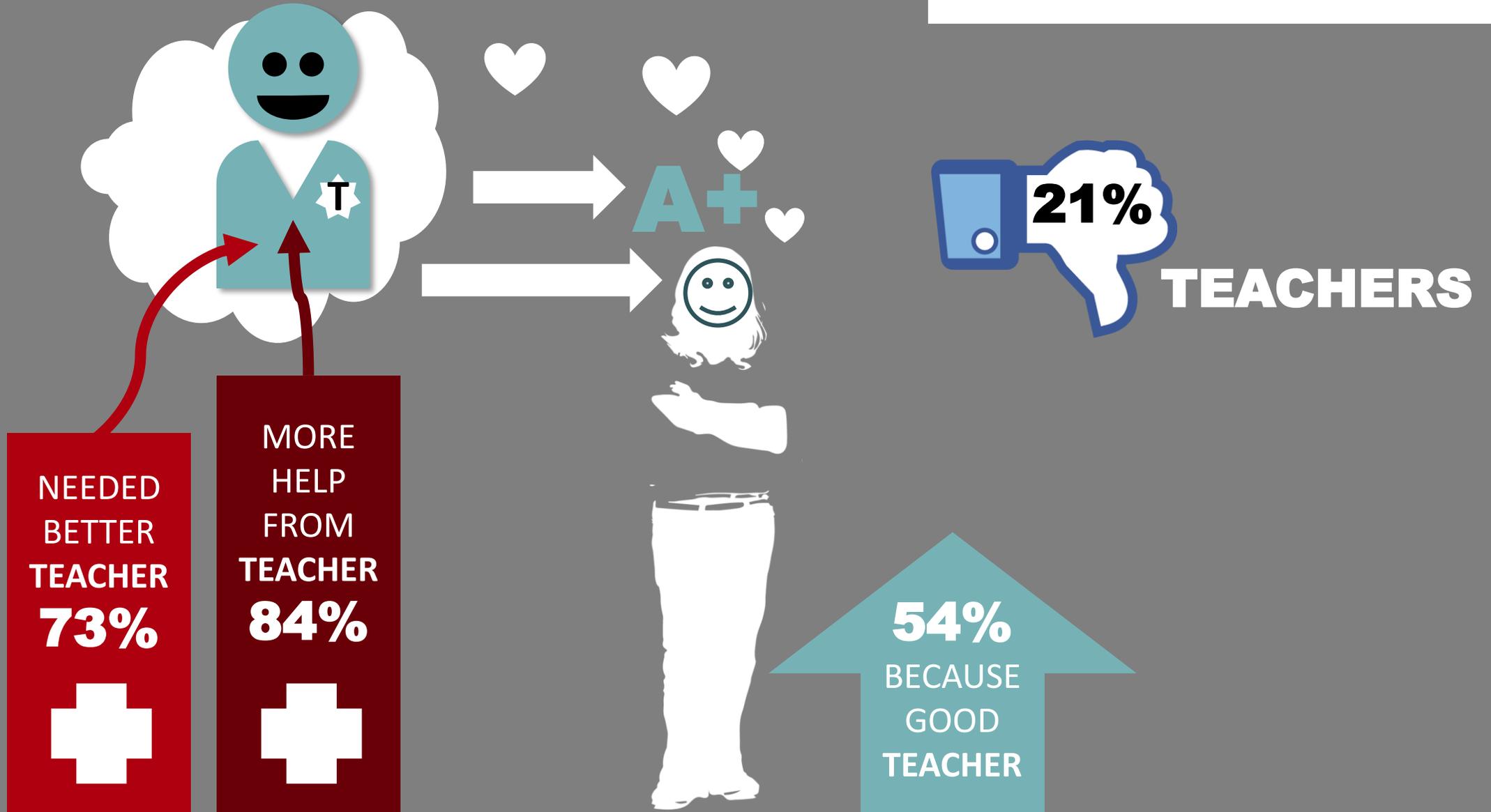
Students feel the education system is training them or pass exams instead of retaining useful knowledge and life skills

**HOME SUPPORT**

High correlation between academic achievement and encouragement and involvement at home.

# TEACHER RELATIONSHIP

---



“

# STUDENTS SAID:

Can you please hire teachers that really want to inspire us?

...teachers who are more understanding and approachable, less homework assigned so that students aren't constantly stressed and having daily mental breakdowns.

Collaborating with teachers is a crucial element of learning. Some teachers do not have the drive to ensure each individual reaches their full potential.

Teachers appear to not put much thought in lessons ... They appear to be preparing lessons ten minutes before classes.

Teachers that help you.

Teachers care more about uniforms than our learning.

Not only do teachers play a crucial role in the academic performance of their students, but in their attitude towards work. It's important to hire skilled teachers who present content well, encourage learning, and show an interest in improvement.

Teachers lack of effort

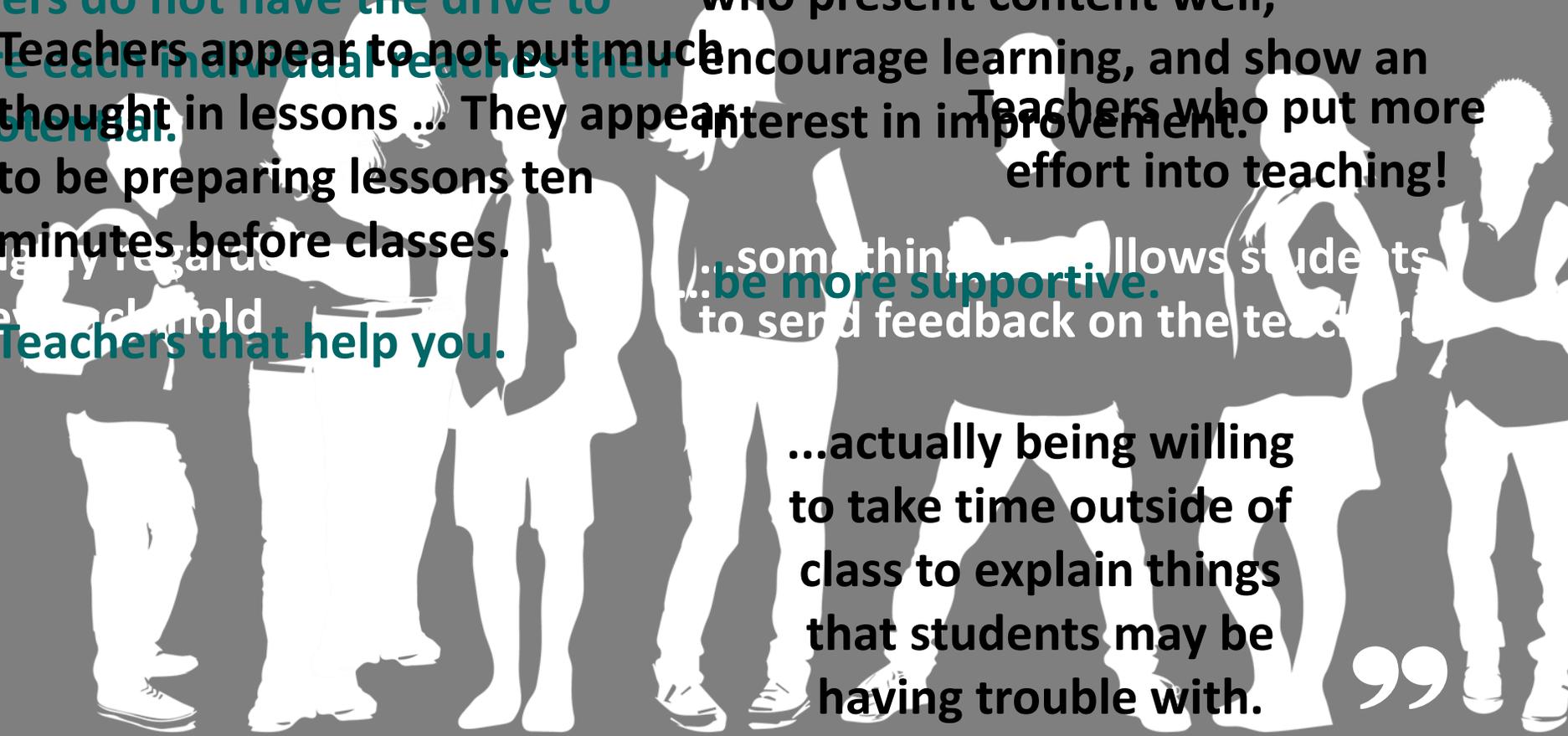
Lack of helpful teachers.

Teachers who put more effort into teaching!

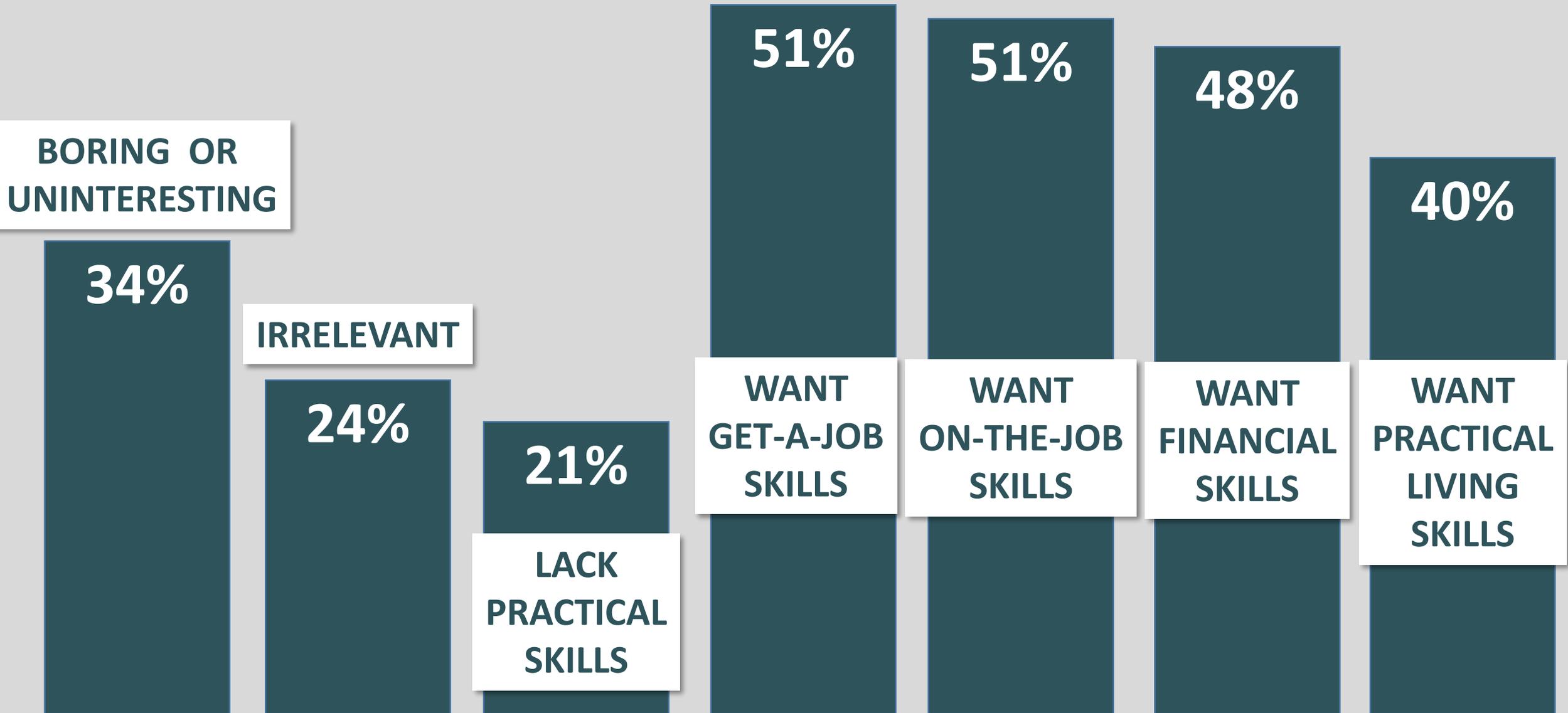
...something that allows students to send feedback on the teachers ... be more supportive.

...actually being willing to take time outside of class to explain things that students may be having trouble with.

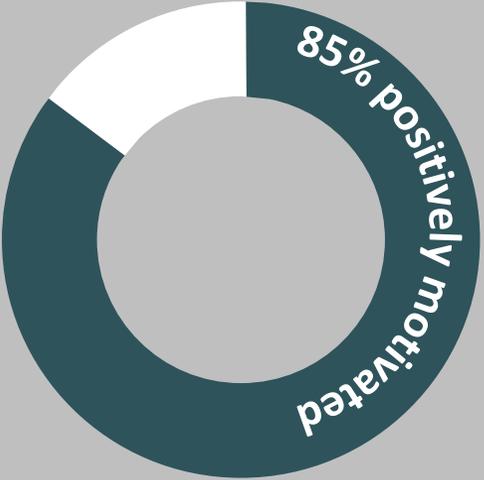
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# CURRICULUM DESIGN AND CONTENT



# STUDENT MOTIVATION IN SCHOOLING



65% university



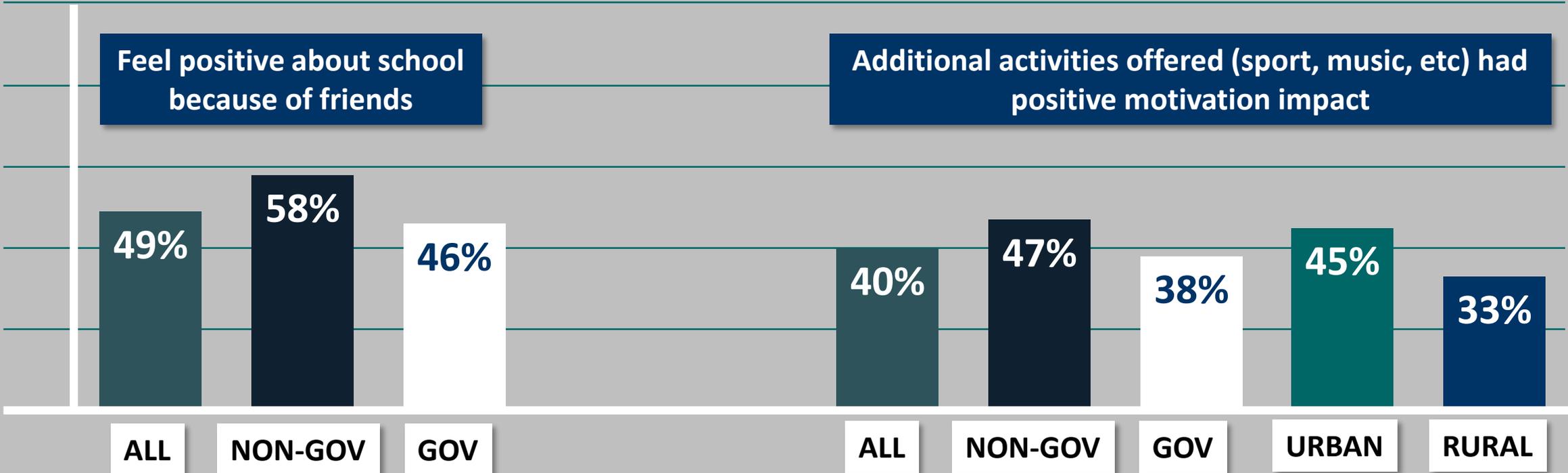
63% proud parents



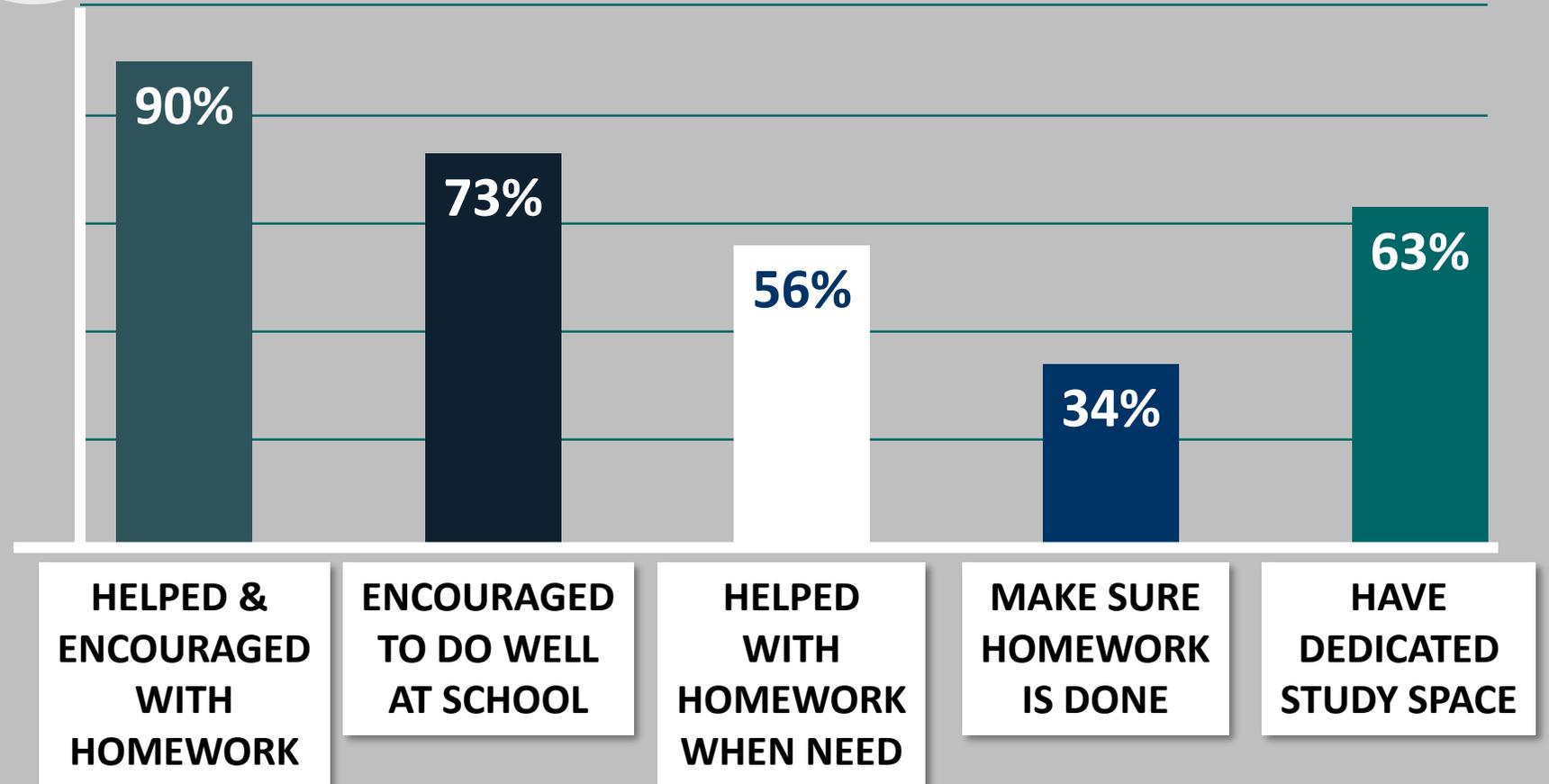
62% good job



58% work hard



# HOME SUPPORT





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**Part 1:** New work mindset – the role of schools and learning

**Part 2:** How are we going in the middle years?

**Part 3:** Some possibilities, with a focus on adolescent learners

# HUMAN BRAIN



Last 5 years



Greeks: location of mind / intelligence

First surgical treatments of head injuries

Electrical impulses in frog brains observed

Cerebral cortex mapped

**1937**

3000 BC

1700 BC

5<sup>th</sup>-4<sup>th</sup> BC

1000 AD

1780s

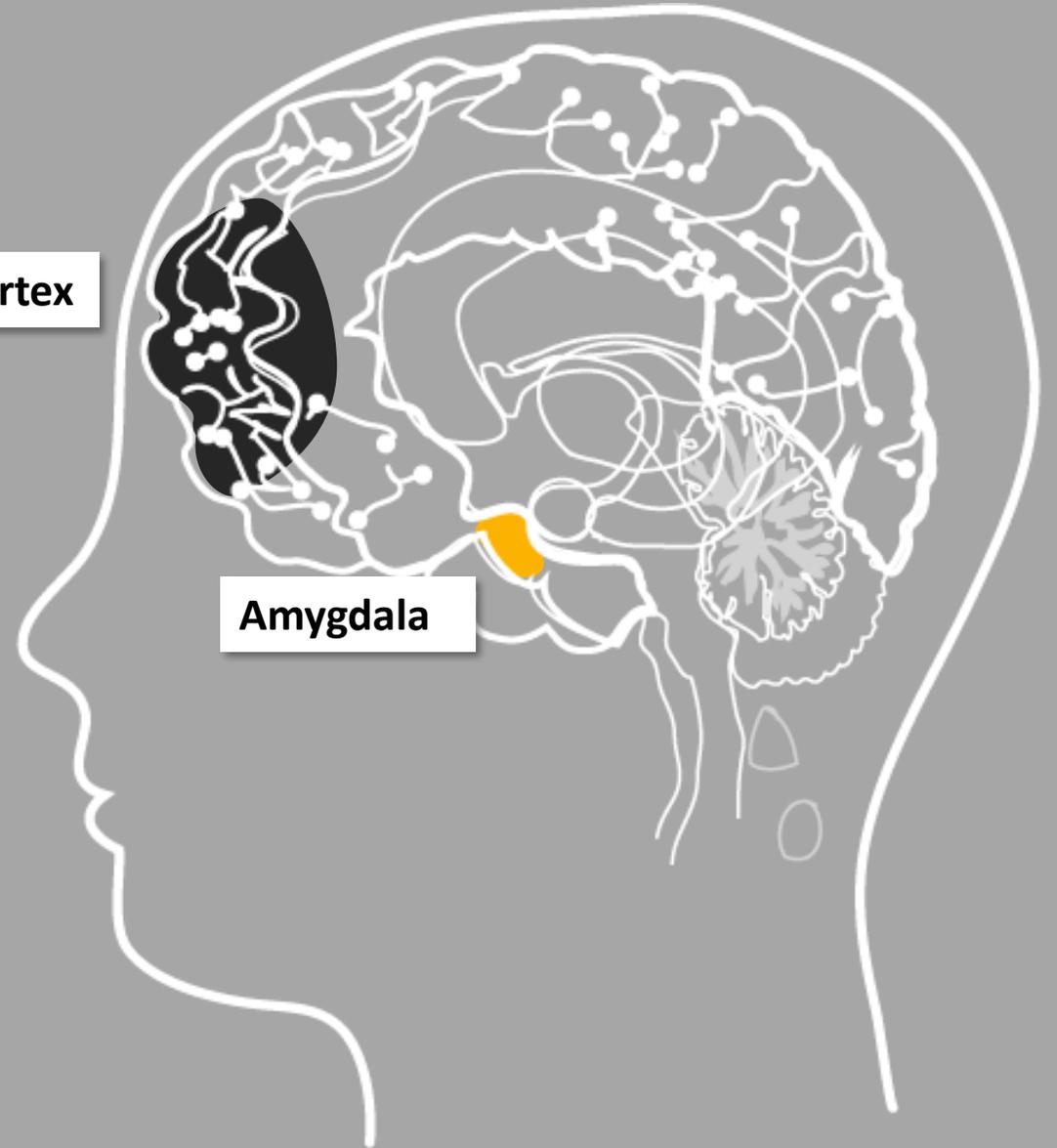
1937

# BRAIN GROWTH

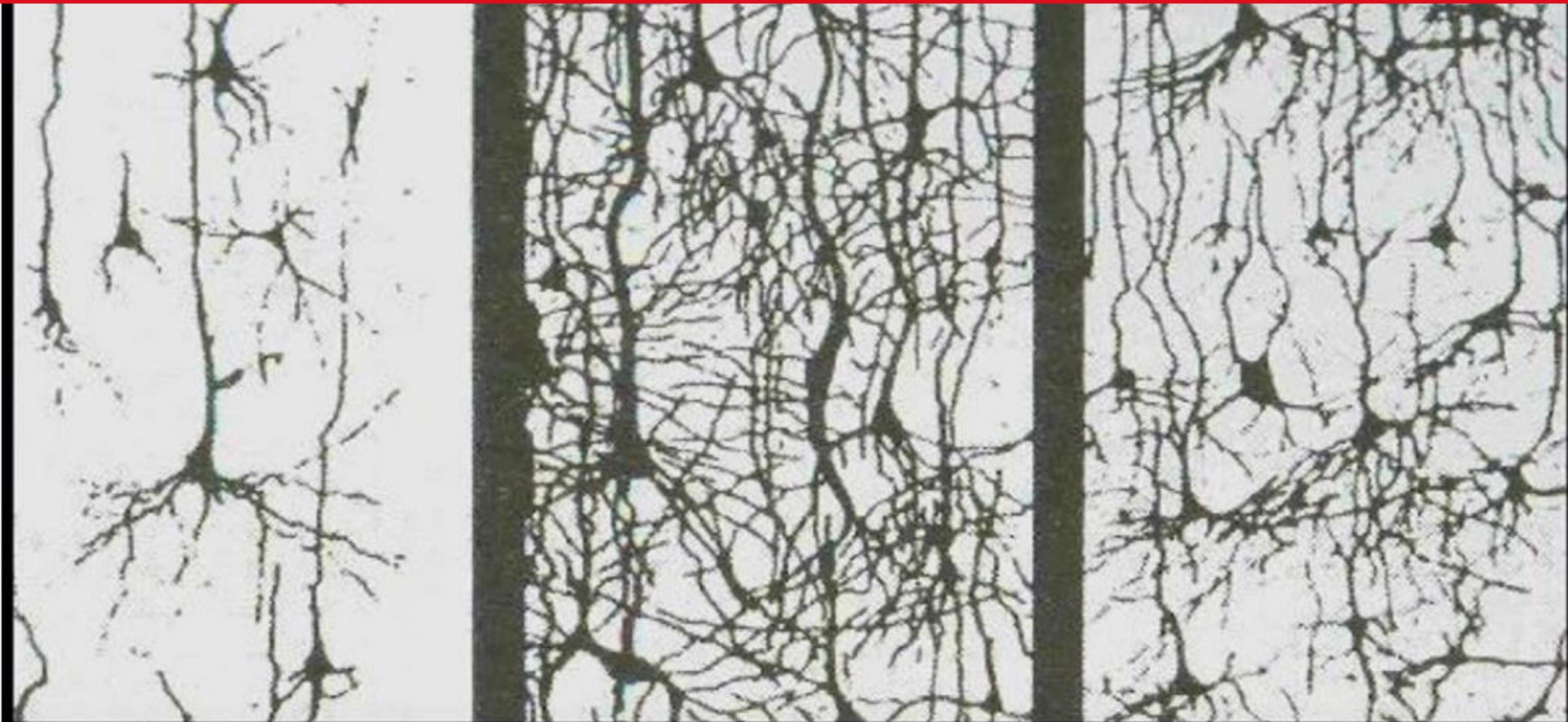
- 93% of the human brain developed by the age of six.
- Greatest spurts of growth after infancy occur during adolescence.
- What teens do during their adolescent years can affect how their brains develop.
- Brain is more *elastic/flexible* than previously thought.

Prefrontal Cortex

Amygdala



# SYNAPTIC PRUNING



At birth

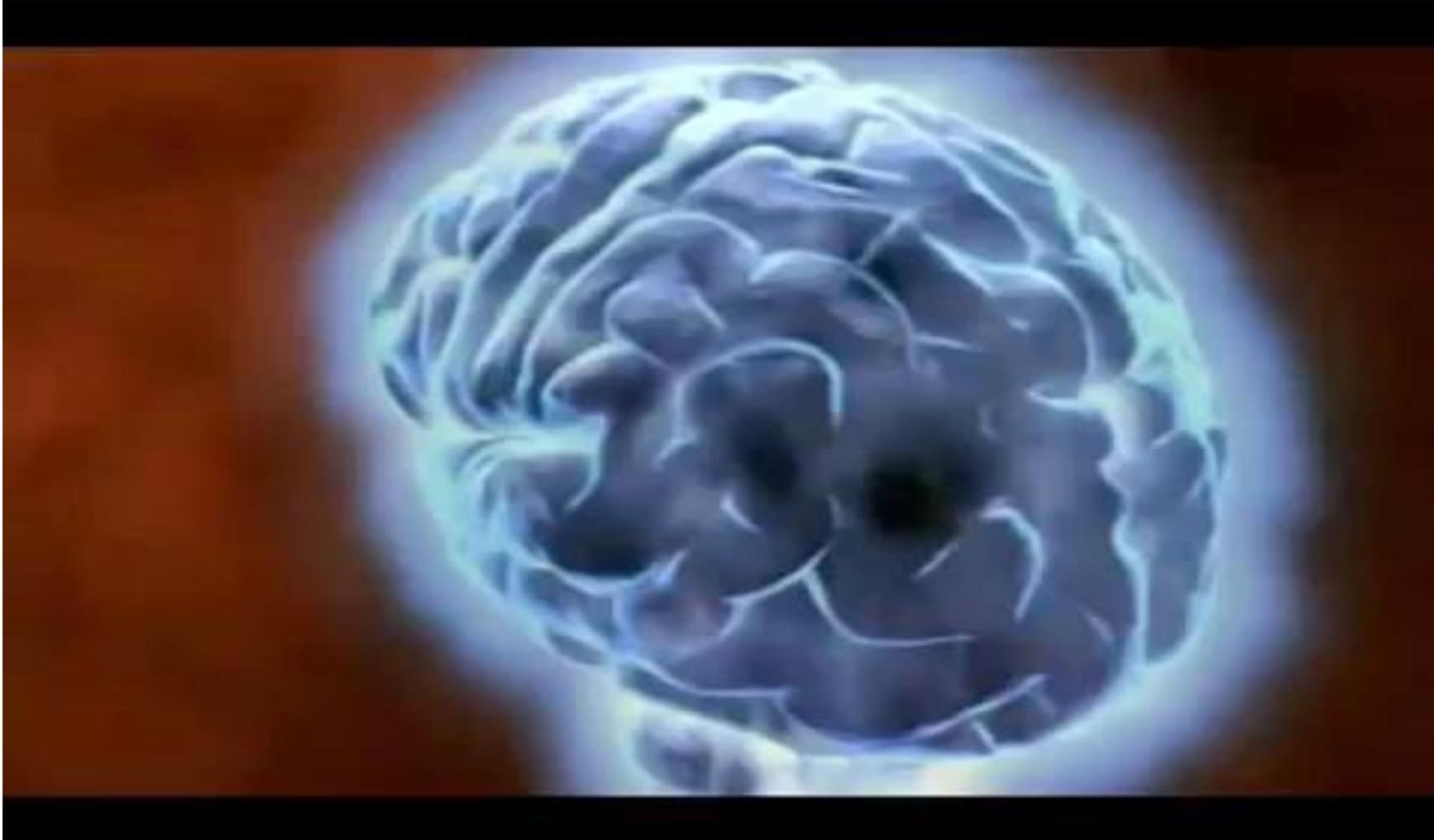
6 years

14 years

# ADOLESCENCE: SENSITIVE PERIOD OF BRAIN DEVELOPMENT



# How our brain works...



# BRAIN DEVELOPMENT, COGNITION AND LEARNING

**Develops abstract thinking**

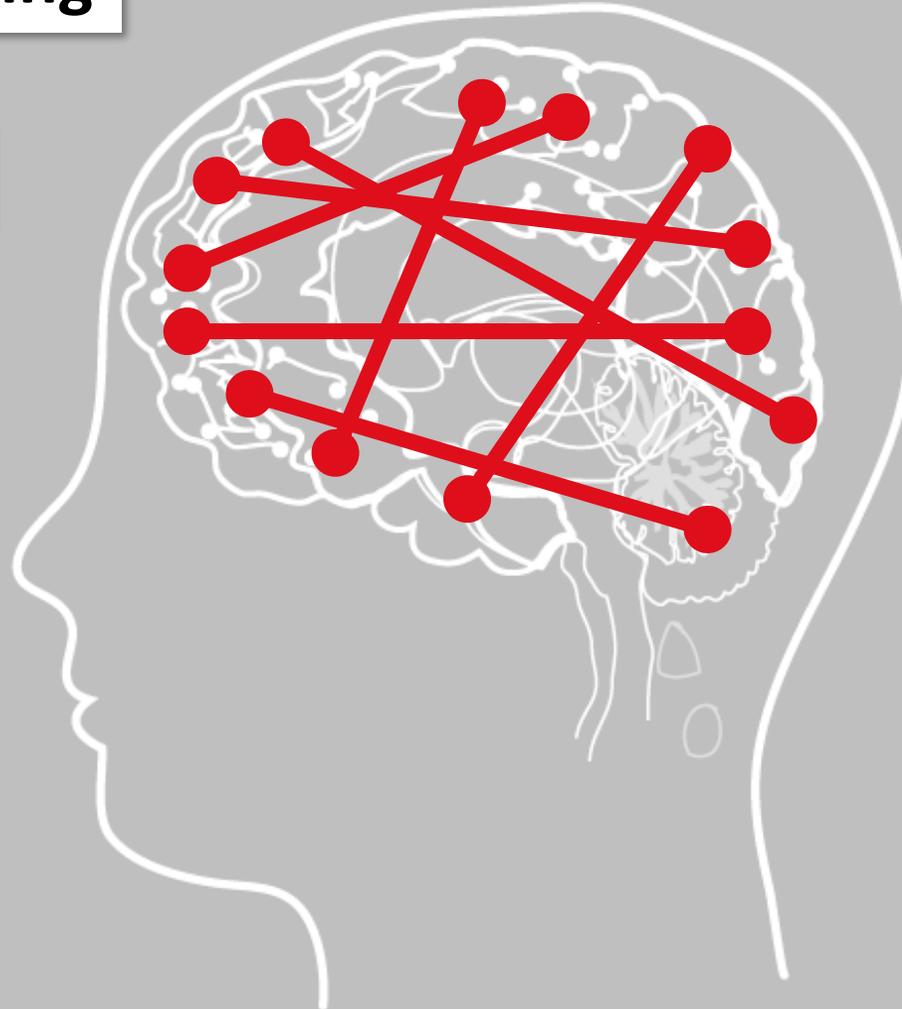
**Prefers active learning**

**Prefers useful topics**

**Curiosity & interests**

**Independent thought**

**Metacognition**



**Reflect on learning**

**Link old/new knowledge**

**Identify truth & accuracy**

**Question untruths**

# ENGAGEMENT DIMENSIONS

EXEMPLIFIED IN THE FOLLOWING ELEMENTS

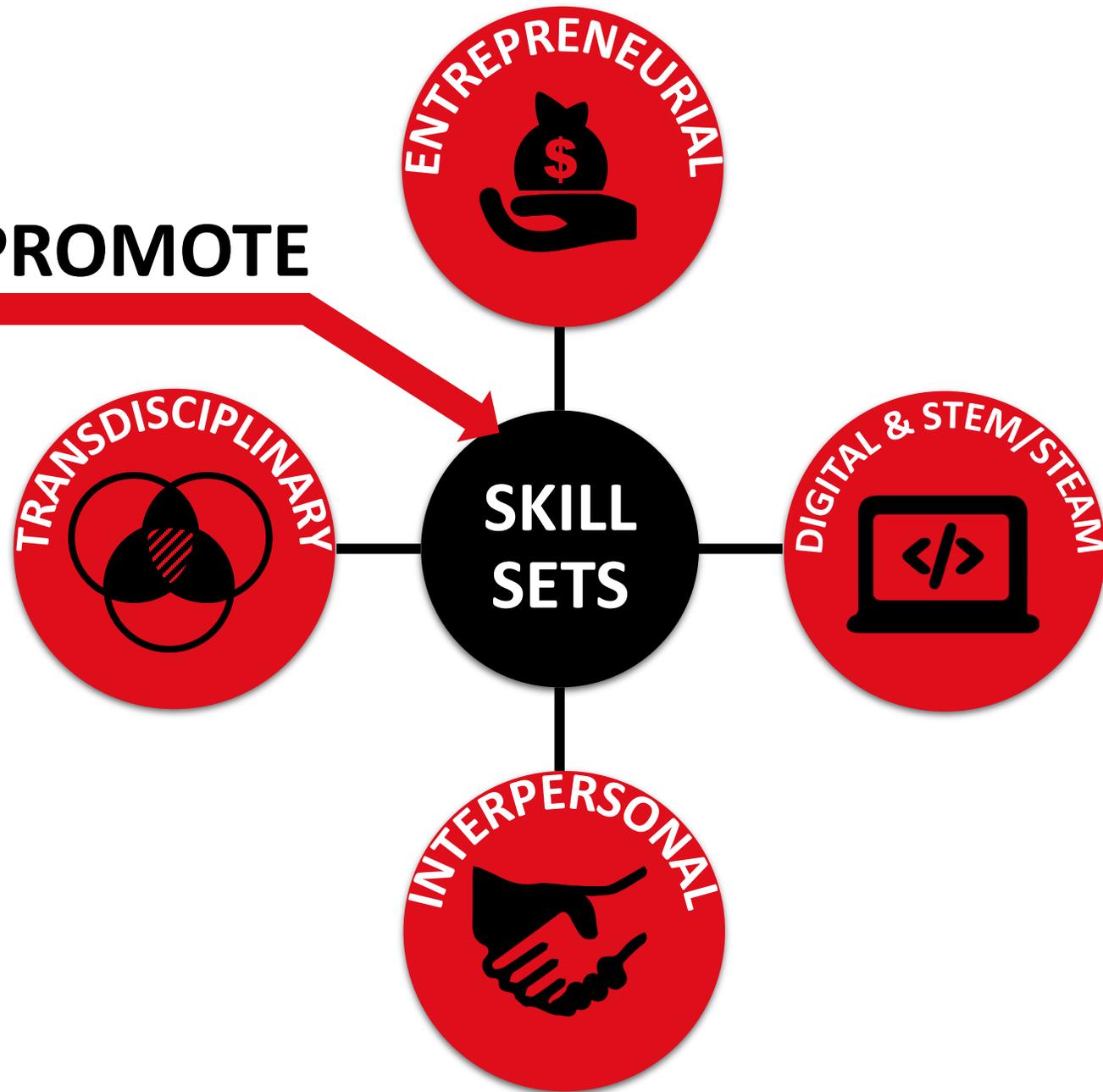
- Participation
  - Presence
  - On task
  - Behaviour
  - Compliance with rules
  - Effort, persistence, concentration, attention, rates of quality contribution
  - Involvement in school related activities
- BEHAVIOURAL**

- Positive and negative reactions to teachers, classmates, academic activity
  - Student attitude
  - Perception of the value of learning
- EMOTIONAL**

- Happiness
- Identification with school
- Sense of belonging within a school

- Volition learning (learning by choice)
  - Investment and willingness to exert effort
  - Thoughtfulness (applying the processes of deep thinking)
  - Self-regulation
  - Goal setting
  - Use of meta-cognitive strategies
  - Preference for challenge
  - Resiliency and persistence
  - Mastery orientation
  - A sense of agency
- COGNITIVE**
- 

# STRATEGIES TO PROMOTE





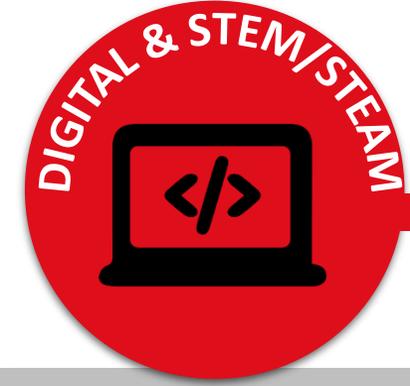
# ENTREPRENEURIAL SKILLS

## What

- Communication
- Project management
- Financial literacy
- Digital literacy
- Critical analysis
- Creativity
- Innovation
- Presentation skills
- Resilience

## How

- Growth mindset
- Project based challenges
- Authentic problems
- Volunteering
- Managing money
- Mentoring
- Risk tolerance
- Negotiating curriculum choices
- Fun!



# DIGITAL & STEM/STEAM

## What

- Digital tools, coding
- Science, technology, humanities, the arts
- Creativity

## How

- Curiosity, divergent questioning
- Inquiry based learning
- Makerspace
- Play with shapes and tech toys
- Transdisciplinary projects
- Fun!



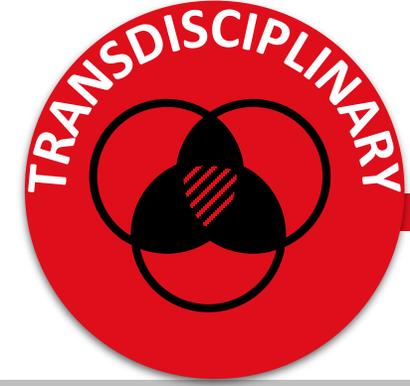
# INTERPERSONAL SKILLS

## What

- Emotional intelligence – self awareness, self regulation, empathy
- Personal Growth Mindset
- Planning for Success
- Social Awareness
- Verbal Communication
- Collaboration
- Problem solving
- Resilience, self-regulation

## How

- Team building, collaborative tasks
- Heterogeneous student groupings around interests and tasks
- Goal setting
- Presentations and public speaking
- Leadership development programs
- Mentoring
- Fun!



# TRANSDISCIPLINARY SKILLS

## What

- Tools that can be used across all subject areas to be successful
  - Metacognition
  - Social and emotional wellbeing
  - Communication
  - Self management and self regulation
  - Research
  - Creativity

## How

- Inquiry based learning
- Cross curricular projects
- Themes
- Creativity
- Problem solving
- Authentic challenges
- Global and local challenges
- Holding complexity
- Fun!

	Education 1.0	Education 2.0	Education 3.0
Learners	<ul style="list-style-type: none"> <li>Receivers of knowledge</li> <li>Taught</li> <li>Reflecting on received knowledge</li> <li>All the same</li> <li>Evaluated by 'what' they know</li> <li>Assessed for streaming</li> </ul>	<ul style="list-style-type: none"> <li>Evaluators of knowledge</li> <li>Facilitated</li> <li>Reflecting on learning needs</li> <li>Individuals</li> <li>Evaluated by 'what' &amp; 'how' they know</li> <li>Assessed for differentiation</li> </ul>	<ul style="list-style-type: none"> <li>Co-constructors</li> <li>Self-directing</li> <li>Reflecting on learning designs</li> <li>Collaborators</li> <li>Evaluated by 'what', 'how' and 'why'</li> <li>Assessed for growth</li> </ul>
Classroom	<ul style="list-style-type: none"> <li>Safe spaces for learning</li> <li>Places for transmission</li> <li>A room</li> <li>Teacher-centric</li> <li>Accommodating</li> <li>Data producers</li> </ul>	<ul style="list-style-type: none"> <li>Places for taking risks</li> <li>Places for discovery</li> <li>Set of resources for learning</li> <li>Learner-centric</li> <li>Inclusive</li> <li>Data users</li> </ul>	<ul style="list-style-type: none"> <li>Home base for learning</li> <li>Places for innovation</li> <li>Are anywhere</li> <li>Problem-centric</li> <li>Emancipatory</li> <li>Data designers</li> </ul>
Schools	<ul style="list-style-type: none"> <li>Separate from other aspects of life</li> <li>Led through hierarchies</li> <li>Dependent on support</li> <li>Using data for reporting</li> <li>Silos of practice</li> </ul>	<ul style="list-style-type: none"> <li>Linked to every day life</li> <li>Led through networks of teachers</li> <li>Self-maintenance</li> <li>Using data as a source of insight</li> </ul>	<ul style="list-style-type: none"> <li>Community learning hubs</li> <li>Led through networks of stakeholders</li> <li>Self-transforming</li> <li>Using data for design</li> <li>Networked improvement communities</li> </ul>
Communities	<ul style="list-style-type: none"> <li>Support school vision</li> <li>Attend school functions</li> <li>Focus on exam outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Engage in developing school vision</li> <li>Meaningfully engage in supporting school activities</li> <li>Focus on learning</li> </ul>	<ul style="list-style-type: none"> <li>Engage in delivering school vision</li> <li>Are a source of authentic learning</li> <li>Focus on the whole person</li> </ul>
Systems	<ul style="list-style-type: none"> <li>An administrator</li> <li>Fragmented</li> </ul>	<ul style="list-style-type: none"> <li>A partner</li> <li>Engaged</li> </ul>	<ul style="list-style-type: none"> <li>A facilitator</li> <li>Aligned</li> </ul>

National Research Council (2008, 2011) as cited in Goldspink, C., & Kay, R. (2018). *Towards Education 3.0: The Changing Goalposts for Education*. (p. 15) Australia: Corwin.

# Specific practices with great impact

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- higher order thinking strategies
- integrated and disciplinary curricula that are negotiated, relevant and challenging
- heterogeneous and flexible student groupings - differentiation
- cooperative learning and collaborative teaching
- small learning communities for sustained individual attention in a safe environment
- emphasis on strong teacher–student relationships
- authentic and reflective assessment with high expectations
- democratic governance and shared leadership
- parental and community involvement in student learning

# Implications for Quality Teaching - Curriculum

Elements	<b>Primary Years 4-6 Child centred</b>	<b>Middle Years 7-9 Young adolescent centred</b>	<b>Senior Years 10-12 Subject centred</b>
Knowledge	<p>Commonsense knowledge reshaped into schooled knowledge. Comprehensive and structured, but flexible enough to address individual learning needs. Holistic approach. Explicit teaching in order to gain high level learning outcomes.</p>	<p><b>School knowledge increasingly differentiated into curriculum areas, becoming more abstract as attitudes and expression expands. Content with rigour and practical application, explained in terms of the overall subject discipline knowledge. Tasks are significant and meaningful outside of school</b></p>	<p>Curriculum-specific knowledge characterised by increasing abstraction, generalisation, value judgement and opinion. Knowledge development is often focused on assessment/matriculation but needs to be connected to life and citizenship. Learning the conventions of the discipline.</p>
Higher order thinking	<p>More concrete operational than abstract although setting discrete tasks where students find solutions to problems is recommended. Learners are developing more abstract thinking skills by the end of primary. Clear examples provided to assist students to understand complex concepts.</p>	<p><b>Engagement of young adolescents in relevant, meaningful and challenging learning through higher order thinking processes. These still require scaffolding throughout Junior Secondary.</b></p>	<p>Development of skills in critical and creative thinking that is informed by knowledge of discourses within a discipline. Focus on skilled evaluation of concepts and own work.</p>
Relevance	<p>Relevance relies on curriculum expectations as well as relating to children’s own experience through use of everyday language. However, learners are beginning to relate personal experiences to broader contexts</p>	<p><b>Relevant curriculum, drawing from students’ background, interests and academic needs. Value of the learning to their lives is explicit. Learning experiences are taken into the wider community</b></p>	<p>Relevance ideally linked to a developing global perspective on issues and ideas. Connecting disciplinary knowledge with students’ developing world views.</p>
Connectedness	<p>Connections made between information and child’s own experience particularly in regard to family life and community connections.</p>	<p><b>Connections made between information taught and real life, especially everyday concerns of the age group of students. Social awareness is developing.</b></p>	<p>Connections between and within domains of disciplinary knowledge (school subjects). Links to ethical, moral and social issues</p>

# Implications for Quality Teaching - Pedagogical response to student characteristics

Elements	Primary Years 4-6 Child centred	Middle Years 7-9 Young adolescent centred	Senior Years 10-12 Subject centred
<b>Physical</b>	Varied activities often with clear learning expectations are provided. These include: group tasks, hands-on activities	<b>Focus on active learning, such as interactive group tasks, hands-on activities, differentiated instruction, and opportunity for discussion</b>	Hands-on, engaging activities and collaborative tasks still important but students also developing skills in long periods of focused work alone
<b>Social</b>	Supportive grouping structures designed, with children of similar age and interests	<b>Strong emphasis on collaborative, cooperative and peer-assisted learning. Most adolescents learn well in a mixture of patterns-sometimes alone, sometimes with a partner, in a small group of peers, in a team, or in a teacher directed activity</b>	Increased emphasis on individual results and achievement, albeit often in the context of group tasks. Ideally a wide range of learning activities rather than a single mode
<b>Emotional</b>	Supportive and safe environment, building self-worth and self-confidence	<b>Safe and supportive environment where students feel safe, valued and listened to and are encouraged to experiment and take risks with their own learning and express own ideas and challenge ideas of others</b>	Safe environment in which students feel able to actively participate and free to share ideas
<b>Intellectual</b>	Learning provides opportunities to be curious and accept differences eg. compare and contrast, imagine, opportunities for experimentation	<b>Learning provides challenge and differentiation to cater for the wide range of intellectual development in the class. Students encouraged to set goals, make choices in their learning, experiment with new ideas, and self-regulate their learning</b>	Trends from middle years continue with an increased focus on individual learning, responsibility and autonomy. Challenging activities and differentiation remain important

# Implications for Quality Teaching - Teacher characteristics

Elements	<b>Primary Years 4-6 Child centred</b>	<b>Middle Years 7-9 Young adolescent centred</b>	<b>Senior Years 10-12 Subject centred</b>
<b>Subject approach</b>	Integrated approaches to content knowledge – making connections between subject areas and focusing on big ideas	<b>Subject/ generalist role (flexible and adaptable and prepared to teach outside their subject specialisation), making links between discipline areas</b>	Strong emphasis on subject specialisation, teaching in isolation from other subjects, lecture style is a more frequent but ideally not universal tool
<b>Teaching style</b>	Explicit approaches enhance learning outcomes in general. Constructivist approaches with strong support and structured scaffolding. Model appropriate behaviour, learning attitudes and language	<b>Focus on constructivist learning through active learning and hands-on activities. Recognised as requiring a unique teaching style</b>	Focus on high level engagement with concepts that requires building on existing knowledge. New learning experiences challenge assumptions and develop understanding
<b>Teacher focus</b>	Generalist	<b>Generalist with subject specialist knowledge</b>	Subject specialist role with deep content knowledge as well as pedagogical content knowledge of how students engage with content
<b>Relationship with students</b>	Supportive, encouraging and nurturing, where students feel valued. A strong pastoral care role	<b>Encouraging and supportive to students, maintaining a meaningful pastoral care role. Students value and seek authentic interactions with teachers outside of the classroom environment</b>	Encouraging and supportive to students. Senior students wish to feel that they are ‘known’ by the teacher as individuals

# Implications for Quality Teaching - Teacher characteristics

Elements	Primary Years 4-6 Child centred	Middle Years 7-9 Young adolescent centred	Senior Years 10-12 Subject centred
<b>Teacher learner knowledge</b>	Expertly prepared to teach children	<b>Expertly prepared to teach young adolescents</b>	Expertly prepared to teach subject specialisation, with deep content knowledge and skills to teach young adults
<b>Teachers working together</b>	Teachers plan together but are mostly responsible for the majority of one class teaching. Team teaching in some contexts	<b>Strong emphasis on teacher collaboration / teacher teaming</b>	Teachers plan together and are usually responsible for separate subject delivery
<b>Teacher expectations</b>	Students are expected to do their best. All students should be expected to experience learning as high-skills/high-challenge, where they experience flow of learning.	<b>Students are expected to do their best and to increasingly take responsibility for their own learning. All students should be expected to experience learning as high-skills/high-challenge, where they experience flow of learning.</b>	Students are expected to do their best, and to increasingly take responsibility for their own learning. All students should be expected to experience learning as high-skills/high-challenge, where they experience flow of learning.
<b>Assessment practices</b>	Clear and directed setting of tasks that can also allow for flexibility in introducing student choice. Comprehensive feedback.	<b>Formative feedback is given on a range of tasks to help students with their current learning. Authentic assessment used to ensure relevance and to focus on engagement. Opportunity to negotiate assessment when appropriate.</b>	Determined by the nature of the discipline and government/system requirements. Individual performance focus.
<b>Working with data</b>	Teachers are data literate and work with data beyond classroom assessment. Deep knowledge of individual student achievement for a class across all learning areas.	<b>Teachers are data literate and work with data beyond classroom assessment. Deep knowledge of student achievement across a number of learning areas.</b>	Teachers are data literate and work with data beyond classroom assessment. Deep knowledge of individual student achievement limited to discipline area for many classes and year levels of students.

## Implications for Quality Teaching - Physical teaching space

Elements	<b>Primary Years 4-6 Child centred</b>	<b>Middle Years 7-9 Young adolescent centred</b>	<b>Senior Years 10-12 Subject centred</b>
<b>Feeling of belonging</b>	Safe and supportive environment created for all children, with designated space (classroom) as 'theirs'.	<b>Ownership of the learning space promoted by the provision of designated learning areas; display of student work.</b>	Space tends to be more functional: it is appropriate if it is effective and efficient for learning.
<b>Flexibility</b>	Guided flexibility so that students are aware of expectations, learning outcomes to be met and consequences.	<b>Flexible space created that can be easily adapted to suit different learning experiences, e.g. lecture style, cooperative learning.</b>	Spaces are designed to reflect the subject specific requirements.
<b>Cater for learning styles</b>	Differentiated approaches are required for optimal learning outcomes for all children.	<b>Learning styles identified with learning spaces catering for the differentiation. e.g. quiet individual work, small group work.</b>	Space reflects the dominant learning style associated with the subject
<b>Movement around the classroom</b>	Cooperative learning groups in the classroom. Flexible options during the school week also recommended.	<b>Learning pedagogies varied to allow and facilitate movement around the classroom.</b>	Little movement around the classroom, although students may be asked to present or complete work to the whole class.
<b>Resources</b>	High quality resources that enhance educational content and focus.	<b>Access to practical resources for relevant application of learning.</b>	Reflect the subject requirements. Ideally include additional textbooks and other complementary information sources in addition to ICTs.
<b>Technology</b>	Technology embedded in learning and access enabled.	<b>Technology resources provided and access to mobile technology facilitated.</b>	ICT tools include workstations or laptops in classrooms, can use 'bring your own device' to give students access. ICTs may be used for composition.

# The role of teachers ... ask yourself

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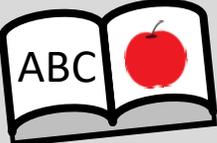
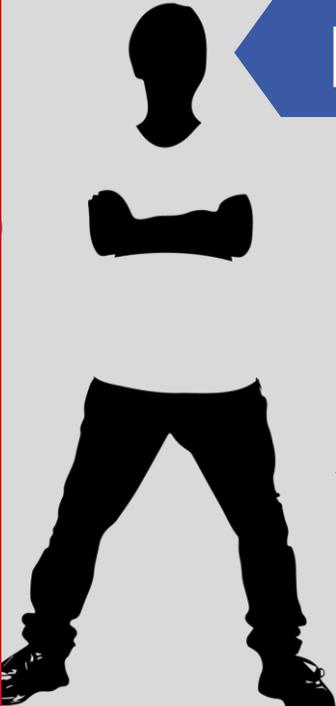
- Do I deliver interactive, varied and relevant lessons?
- Am I encouraging and supportive of students?
- Do I have classrooms:
  - in which students feel comfortable asking questions
  - where students are expected to do their best
  - where instruction is challenging
  - where specific feedback is given to help students with their current learning
- Are my lessons paced and with varied learning tasks - not continuously listening to the teacher or note taking?
- Do I focus on active learning, such as interactive group tasks, hands-on activities, differentiated instruction?
- Do I deliver a relevant curriculum, drawing from students' background, interests and academic needs?
- Do I make connections between information taught and real life, especially everyday concerns of the age group of students?
- Do I encourage students to set goals, make choices in their learning, experiment with new ideas, and self regulate their learning?

# KEY MILESTONES



**FUTURE**

**NEET**



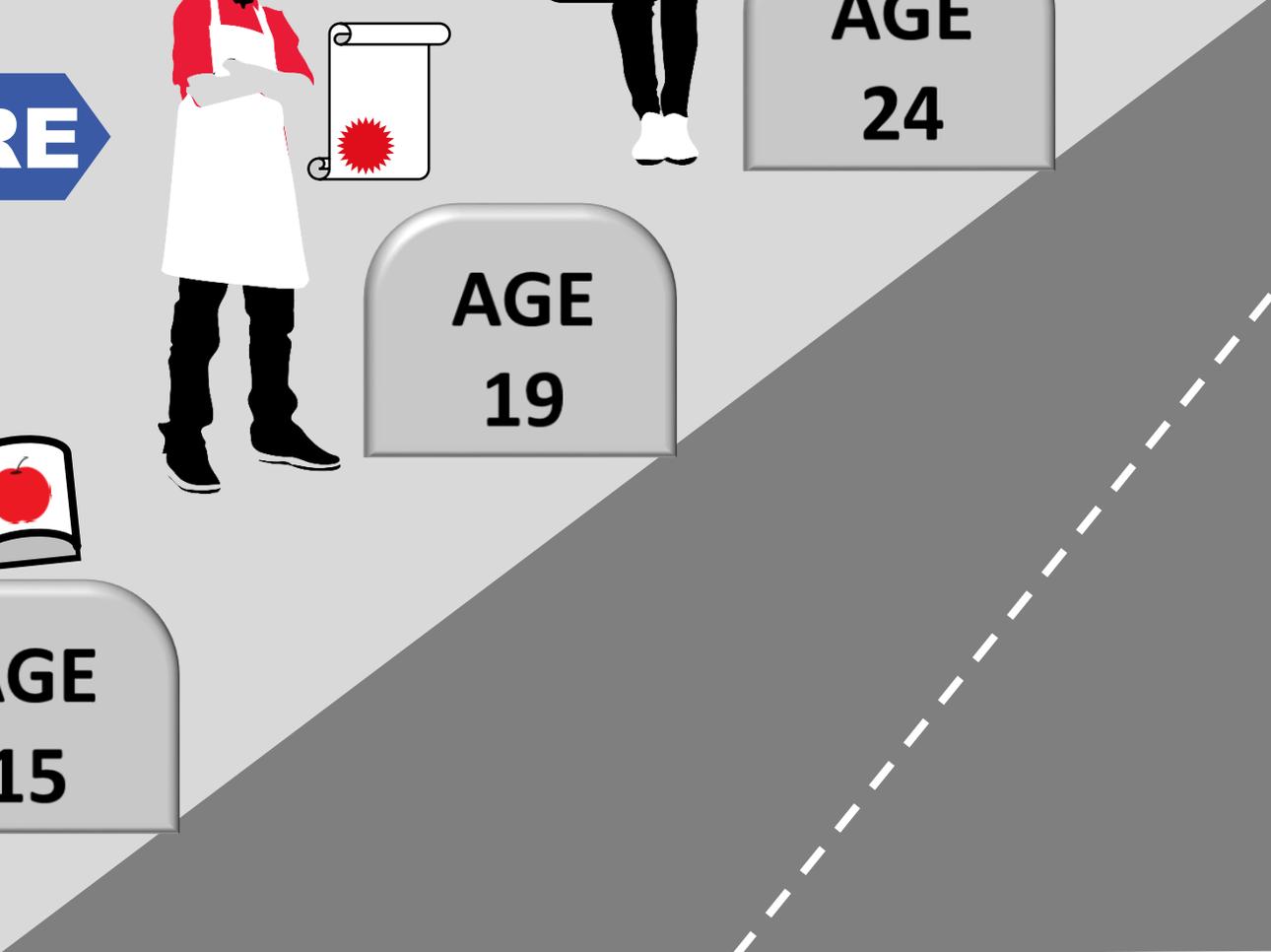
**AGE  
15**



**AGE  
19**



**AGE  
24**



An illustration from a top-down perspective showing a person with black hair, wearing a bright green short-sleeved shirt and blue jeans, lying on their back on a bed with white sheets. The person's arms are raised, and their legs are bent. The room is cluttered with various items: a desk with a laptop, papers, and a printer is on the left; a desk with a computer monitor and keyboard is on the right; and a desk with a laptop and papers is at the bottom. The floor is red, and there are several small objects scattered around. The overall scene suggests a person who is isolated and has withdrawn from the world.

Not in Education, Employment, or Training

**Hikikomori**

Conti, A. (2019, 17 Feb 2019). Meet the NEETS. When 'Going Outside Is Prison': The World of American Hikikomori. *Intelligencer*. Retrieved from <http://nymag.com/intelligencer/2019/02/the-world-of-american-hikikomori.html>