REFLECTIONS ON TEACHING AND LEARNING

JOANNE GRIMA
“SO WHAT SHOULD WE SAY WHEN CHILDREN COMPLETE A TASK—SAY, MATH PROBLEMS—QUICKLY AND PERFECTLY?

Should we deny them the praise they have earned?

Yes. When this happens, I say, “Whoops. I guess that was too easy. I apologize for wasting your time. Let’s do something you can really learn from!” (Dweck, 2008)

https://www.youtube.com/watch?v=TTXrV0_3UjY
The world as we have created it is a **process of our thinking**. It cannot be changed without changing our thinking.”

Albert Einstein
THE HEATH ROBINSON EFFECT
SABRE-TOOTH TIGER EFFECT
VASA EFFECT
UNDERSTANDING THE **PARTS** TELLS US LITTLE OR NOTHING ABOUT THE PROPERTIES OF THE **WHOLE**.
<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>Education/Workforce Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5 year old</td>
<td>Entering formal education</td>
</tr>
<tr>
<td>2026</td>
<td>16 year old</td>
<td>Entering the unskilled workforce / post-secondary</td>
</tr>
<tr>
<td>2028</td>
<td>18 year old</td>
<td>Entering tertiary education</td>
</tr>
<tr>
<td>2033</td>
<td>23 year old</td>
<td>Entering professional workforce</td>
</tr>
<tr>
<td>2040</td>
<td>30 + years</td>
<td>Their 5 year olds in turn enter formal education</td>
</tr>
</tbody>
</table>
LOF AND KEY COMPETENCES

LOF

Learning Areas
Languages; Mathematics; Science, Technology; Health and Physical Education; Religious and Ethics Education; Humanities, Education for Democracy; and Visual and Performing Arts.

Cross Curricular Themes
Literacy, Digital Literacy; Learning to Learn and Co-operative Learning; Education for Sustainable Development; Education for Entrepreneurship, Creativity and Innovation and Education for Diversity.

KEY COMPETENCES

- Communication in mother tongue
- Communication in foreign languages
- Mathematical competence and basic competences in Science and Technology
- Digital competence
- Learning to learn
- Social and Civic Competence
- Sense of Initiative and Entrepreneurship
- Creativity and Cultural Expression
“THE GLOBAL ACHIEVEMENT GAP”

Our teens leave school equipped to work only in the kinds of jobs that are fast disappearing from the American economy.

Why even our best schools don’t teach the new survival skills our children need – and what we can do about it.

-Tony Wagner, 2008

Harvard Graduate School of Education
SEVEN SURVIVAL SKILLS FOR TEENS TODAY
(GLOBAL ACHIEVEMENT GAP, 2008 BY TONY WAGNER)

✓ Critical thinking and problem-solving
✓ Collaboration
✓ Agility and adaptability
✓ Initiative and entrepreneurialism
✓ Effective oral and written communication
✓ Accessing and analyzing information
✓ Curiosity and imagination
MESSAGES ABOUT CURRICULUM (DONALDSON, 2014)

• Purposes of curriculum need to be clear
• It needs to have a sense of agility & flexibility
• It needs to avoid false dichotomies
• It shows relevance locally, nationally & be forward focused
  
  • It needs to delineate from romantic conservatism
  • It needs to avoid clutter of content
  • Learner & outcome oriented not teacher and content based

GIVE ME SIX HOURS TO CHOP DOWN A TREE AND I WILL SPEND THE FIRST FOUR SHARPENING THE AXE.  ABRAHAM LINCOLN
Freedom consists not in doing what we like, but in having the right to do what we ought.  

Pope John Paul II
EDUCATION NEEDS TO PREPARE LEARNERS

• To deal with more rapid change than ever before
• For jobs that have not yet been created
• To use technologies that have not yet been invented
• To solve problems that we do not yet know will arise

http://www.imls.gov/about/21st-century_skills_list.aspx
https://www.coursera.org/course/atc21s
REFLECTION

What implications would this have on initial teacher training and on continuous professional development?
GOOD TEACHING IS MORE A GIVING OF RIGHT QUESTIONS THAN A GIVING OF RIGHT ANSWERS. JOSEF ALBERS
INSTRUCTION FOR 21ST CENTURY SKILLS

✓ Relevant to student outside the classroom
✓ Student is highly engaged
✓ Student has a choice and voice in his/her learning
✓ Student takes ownership for own learning
✓ Includes higher order thinking - creativity and innovation
✓ Learning tasks elicit evidence of learning
SUPPORTING INSTRUCTION OF 21ST CENTURY SKILLS

• Educator professional development
  • 21st century instruction
  • Authentic assessments
• Collaboration
  • Among teachers and students
  • Community
• High expectations
  • Each and every student
  • Educators
  • Community
SUPPORTING INSTRUCTION OF 21ST CENTURY SKILLS

- Expect a changing school environment
  - Project-based learning
  - Time allocation
  - Student ownership of learning

- Technology
  - Tool for learning
  - Breadth of options
  - Community connections
What we want is to see the **CHILD** in pursuit of **knowledge**, and not **knowledge** in pursuit of the **child**.

G. B. Shaw
CRITICAL THINKING OR CONDITIONING?

https://www.youtube.com/watch?v=teLoNYvOf90
Strengths and weaknesses across all three networks (what, how and why) interact with the teaching and learning environment in ways that can either bring about progress or frustration. Sometimes a problem in one area can receive so much attention that other issues are missed. In this sense, learners need to be challenged at the right level so that their zone of proximal development is sparked to the right level. Vygotsky, L. (1962/1996).
OUTCOME IS THE CULMINATING DEMONSTRATION OF LEARNING. IT IS A DEMONSTRATION: WHAT IT IS THE KIDS WILL ACTUALLY DO... OUTCOMES ARE NOT CONTENT, THEY’RE PERFORMANCES. (BRANDT, 1992)

(i) Clarity of focus, meaning that all activities (teaching, assessment ...) are geared towards what we want learners to demonstrate;
(ii) Expanded opportunity, meaning "expanding the ways and number of times learners get a chance to learn and demonstrate" a particular outcome;
(iii) High expectations, "which means getting rid of the bell-curve", all learners should achieve at the highest level;
(iv) Design down, meaning designing the curriculum from the point at which you want your learners to end up.
Outcomes are clear learning results that learners have to demonstrate at the end of significant learning experiences: what learners can actually do with what they know and have learned.

<table>
<thead>
<tr>
<th>Content Based Learning System</th>
<th>Outcomes Based Learning System</th>
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</thead>
<tbody>
<tr>
<td>Passive learners</td>
<td>Active learners</td>
</tr>
<tr>
<td>Rote learning</td>
<td>Critical thinking, reasoning, reflection &amp; action</td>
</tr>
<tr>
<td>Content based/broken into subjects</td>
<td>Integration knowledge, learning relevant/ connected real life situations</td>
</tr>
<tr>
<td>Drill/exercises focused &amp; teacher-centred</td>
<td>Learner centred &amp; educator / facilitator uses teamwork</td>
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<tr>
<td>See lessons as rigid &amp; non-negotiable</td>
<td>Learning is seen as a guide that allows teachers to be innovative &amp; creative in designing programmes / activities</td>
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<tr>
<td>Teachers/trainers responsible for learning - motivated by personality of teacher</td>
<td>Learners take responsibility for their learning, learners motivated by constant feedback/ affirmation of worth</td>
</tr>
<tr>
<td>Emphasis what teacher hopes to achieve</td>
<td>Emphasis outcomes – what learner becomes &amp; understands</td>
</tr>
<tr>
<td>Content placed in rigid time frames</td>
<td>Flexible time frames - learners work at own pace</td>
</tr>
<tr>
<td>Previous knowledge &amp; experience in is ignored</td>
<td>Recognition of prior learning: after pre-assessment, learners credited outcomes demonstrated or transfer credits elsewhere</td>
</tr>
</tbody>
</table>

OUTCOME BASED LEARNING
Assessment for school and national reporting

Assessment for learning & individual reporting
PROMOTERS AND DRIVERS

• Clear and agreed purposes and building blocks
• Teacher training
• Leadership accountability

• Assessment and reporting qualifications in line
• Support for all stakeholders through use of media
Habits of Mind

Using Knowledge Meaningfully

Extending & Refining Knowledge

Acquiring & Integrating Knowledge

Attitudes and Perceptions
THANK YOU

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