

# 21<sup>st</sup> Century Study Group



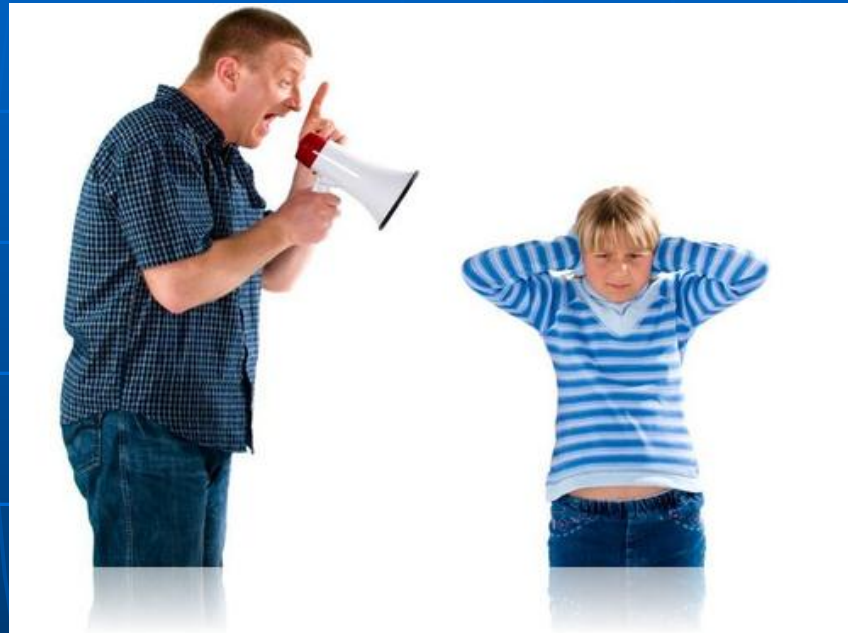
What skills should students have to be college and career ready?

# *Higher Education Requirements*



- Effective Written Expression

# *Higher Education Requirements Cont'd*



- **Effective Oral Communication Skills**

# *Higher Education Requirements Cont'd*



- Effective Listening Skills

# *Higher Education Requirements Cont'd*



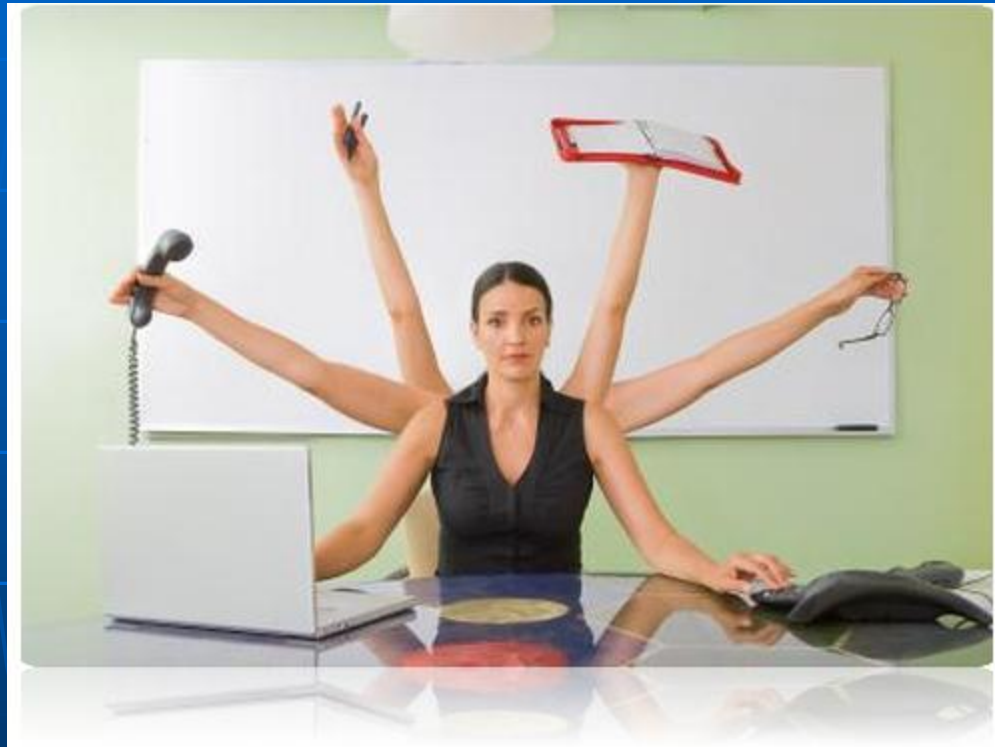
- Effective Note Taking Skills

# *Higher Education Requirements Cont'd*



- Ability to Ask Good Questions

# *Higher Education Requirements Cont'd*



- Time Management Skills, Organizational Skills, and Work Ethic

# *Higher Education Requirements Cont'd*



- Effective Interpersonal Communication



# *Higher Education Requirements Cont'd*



- Critical Thinking and Problem Solving Skills

# Career Readiness Skills

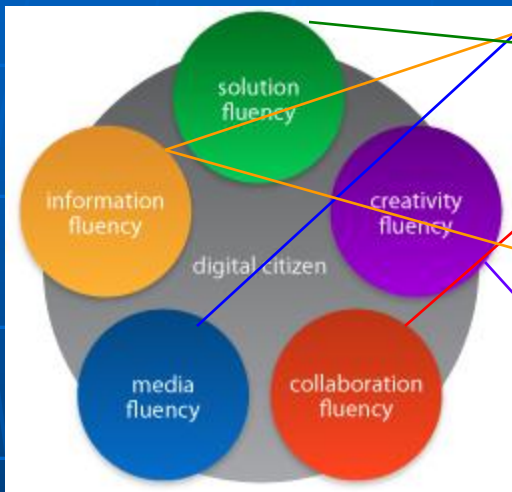


- Industry Reports The Skills Needed To Be College Ready are The Same Skills Needed To Be Career Ready.



## Response from Cornell University: Associate Dean of Students

- Regardless of the type of higher education institution, a core set of skills are necessary for a student to be successful in their pursuit of a degree or certificate beyond K - 12.
  - o Effective written expression skills
    - Too often students are unable to express their thoughts in a succinct, yet sufficient manner to get their point across.
    - In this age of text and email abbreviations, we see students struggle to use proper grammar and writing style, which remain important.
  - o Effective reading skills
  - o Interpersonal communication
    - This applies to adequate social interactions, leadership/followership abilities, the thoughtful discourse of ideas and opinions, etc.
  - o Study skills, time management, organizational skills
    - Working with some of the brightest students in the world our experience is that many of them never had to learn these skills as high school, or prep-school, academic work came easy to them. Furthermore, high school days are rigidly structured, with little time for them to practice the management of their days for themselves. Work is needed to help both high achieving students, and moderate achievers alike as these are skills that one must practice.
  - o Critical thinking skills
    - We cannot teach to tests. Students must be engaged in a learning process, not a simple exercise in memorization. Once a student embarks on a higher education, they are immersed in a learning experience. It is of the utmost importance that they understand how to decipher information so they can make decisions, form opinions, and create new ideas. If they accept the information presented to them at face value, instead of understanding the difference between a simple survey versus a scientifically supported set of findings, they are unlikely to truly succeed in college, or professional life.
  - o Life Skills, including the ability to make mature decisions and succeed as an independent individual
    - While I recognize it is largely the responsibility of the students family to instill these skills in their child, I would suggest that there may be ways that school can contribute to the development of these skills. Students show up on campuses all over the country having had the bulk of their lives planned out and prepared for them, with little experience making decisions for themselves, or having to rely on their abilities to provide for themselves.
    - I am sure you are familiar with the term "helicopter parents". It is unfortunate, but we have to find ways to allow high school aged students the



# The Digital Citizen



- *All the 21st Century fluencies are learned within the context of the Digital Citizen, using the guiding principles of leadership, ethics, accountability, fiscal responsibility, environmental awareness, global citizenship and personal responsibility.*



## Information Fluency

Information fluency is the ability to unconsciously and intuitively interpret information in all forms and formats in order to extract the essential knowledge, authenticate it, and perceive its meaning and significance.

There are 5 steps in this process, which we call the 5 A's:

**Ask** good questions, in order to get good answers.

**Access and acquire** the material from the appropriate digital information sources, which are mostly graphical and audiovisual.

**Analyze** and authenticate and arrange these materials, and distinguish between good and bad, fact and opinion. Understand bias and determine what is incomplete to turn the raw data into usable knowledge.

**Apply** the knowledge within a real world problem or simulation using a VIP action (vision into practice).

**Assess** both the product and the process, which is both a teacher and a student practice.



## Solution Fluency

Solution fluency is the ability to think creatively to solve problems in real time by clearly defining the problem, designing an appropriate solution, applying the solution then evaluating the process and the outcome.

This is about whole-brain thinking - creativity and problem solving applied in real time. There are 6 essential steps, which we call the Six D's:

**Define** the problem, because you need to know exactly what you're doing before you start doing anything.

**Discover** the history of the problem which provides context.

**Dream** Envision a future with the problem solved.

**Design** your solution in stages through gap analysis from Define to Dream.

**Deliver** the goods. Complete and publish your solution.

**Debrief** and foster ownership, by getting involved in the evaluation of the problem- solving process.



## Media Fluency

There are two components of Media Fluency. Firstly, the ability to look analytically at any communication media to interpret the real message, how the chosen media is being used to shape thinking, and evaluate the efficacy of the message. Secondly, to create and publish original digital products, matching the media to the intended message by determining the most appropriate and effective media for that message.

We live in a multimedia world, and in this interactive visual world, our children must be able to create and publish original digital products that they can use to communicate with just as effectively as they can with text.

The idea is to challenge learners to create digital products that reflects their understanding of the content, develops technical skills and provides them with the empowering principles of graphic design.





## Collaboration Fluency

Collaboration fluency is team working proficiency that has reached the unconscious ability to work cooperatively with virtual and real partners in an online environment to create original digital products.

Virtual interaction through social networking sites and online gaming domains has become a part of the Digital Generation's and our daily lives. We are interacting with people all over the world with electronic and wireless communication technology. This has literally meant the "death of distance", which has tremendous potential for education.

For example, students learning about civil war could be talking to kids in Kosovo or Iraq or Afghanistan. Students learning a foreign language could work with native speakers of that language who are learning English. Students could work in virtual partnerships on projects with kids from across town or across the world.



## **Creativity Fluency**

Creative Fluency is the process by which artistic proficiency adds meaning through design, art and storytelling. It regards form in addition to function, and the principles of innovative design combined with a quality functioning product.

Creative Fluency extends beyond visual creative skills, to using the imagination to create stories, a practice which is in demand in many facets of today's economy. It is widely regarded by many successful industries that creative minds come up with creative solutions.

There is tremendous value in the artistic creation of items in order that they may transcend mere functionality.



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Thank You Ian Jukes