

LITERACY IN THE DIGITAL AGE: SUPPORTING AND ENGAGING ADOLESCENTS WITH LEARNING DISABILITIES

Penelope Collins, Ph.D.

Adolescence, a time of ...

- Growing autonomy
- Exploration
- Creating identity
- Developing sense of competence



Adolescence, a time of ...

- Stress
- Challenge

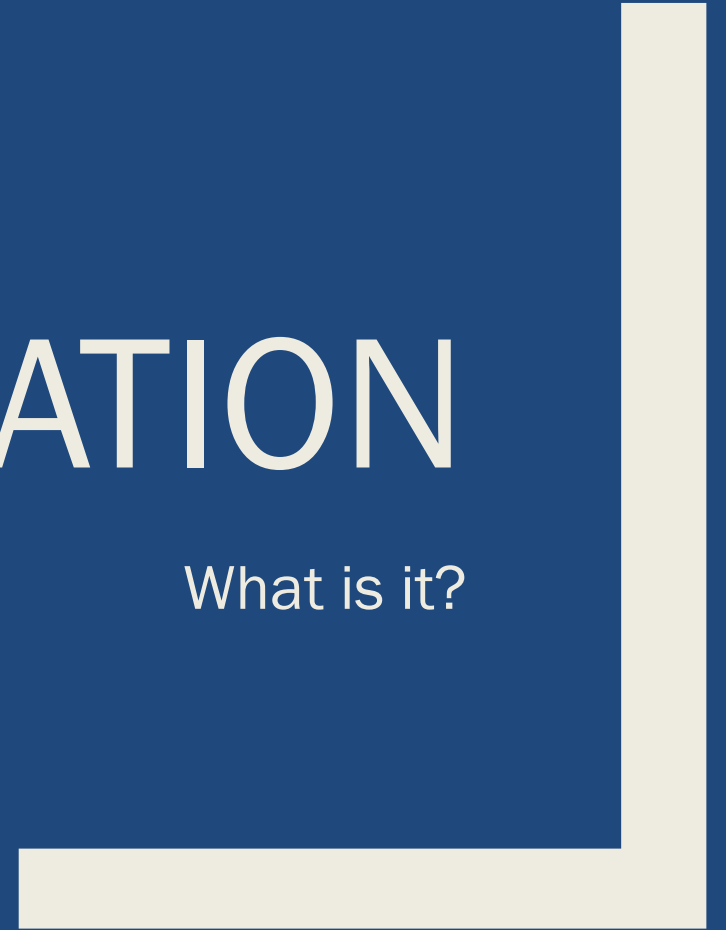


What about adolescents with learning disabilities?



MOTIVATION

What is it?



Attitude is a little thing that makes
a big difference.

- *Author Unknown*



**CARL, YOU'RE GOING
TO GET OUT THERE**

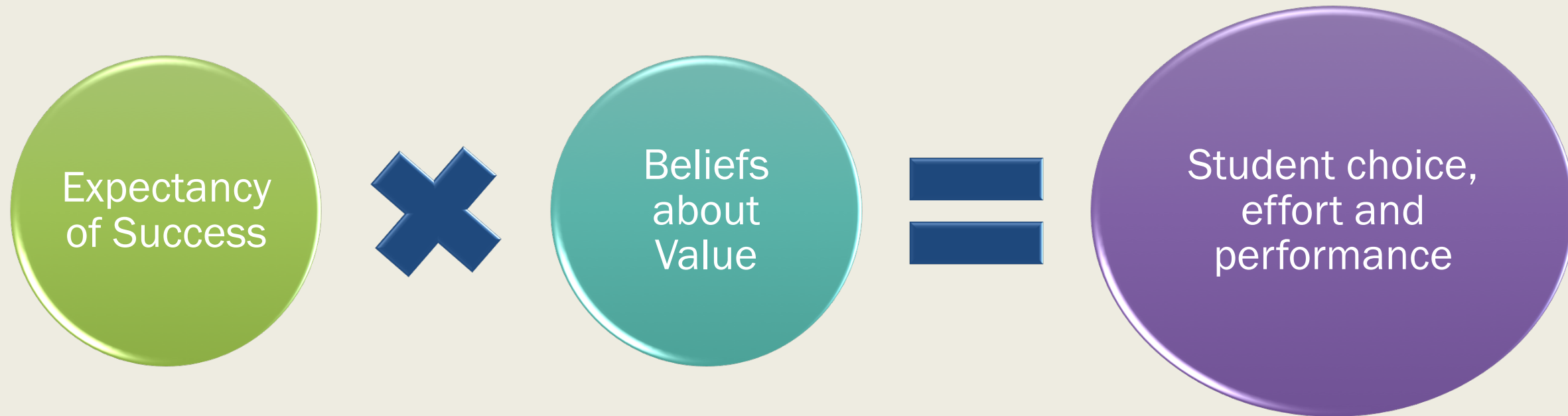


**AND YOU'RE GOING TO
CATCH THAT RED DOT**

Motivation

The process that initiates, guides,
and maintains goal-oriented
behavior

Expectancy Value Theory of Motivation

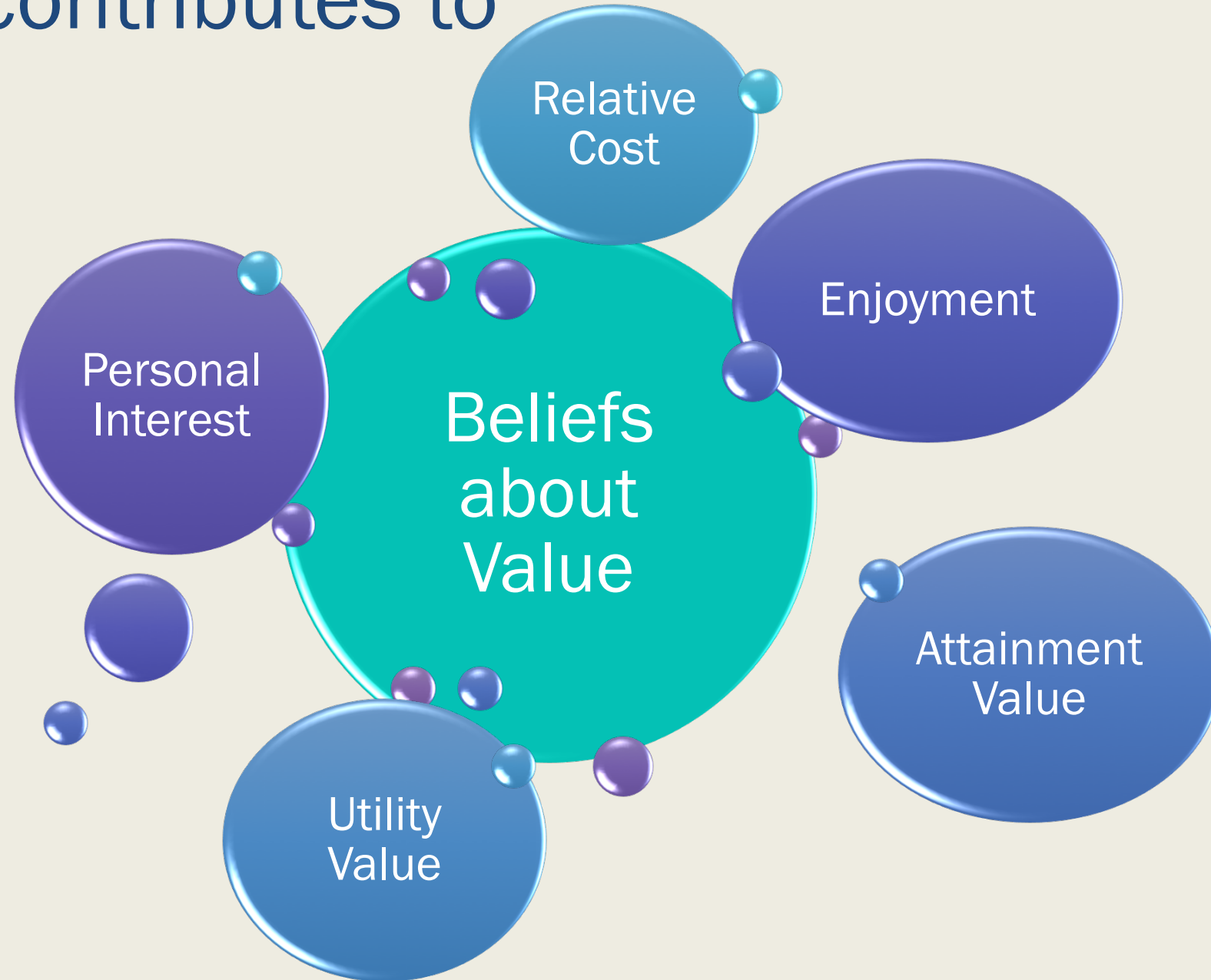


(Wigfield & Eccles, 2000)

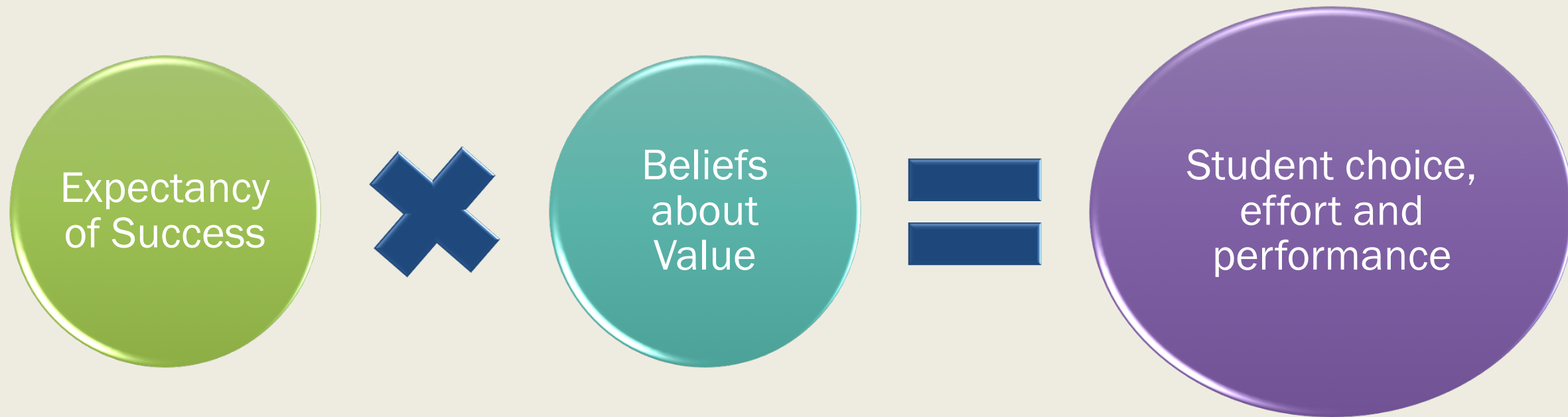
What contributes to



What contributes to



Expectancy Value Theory of Motivation: What does this mean for adolescents with learning disabilities?



(Wigfield & Eccles, 2000)

UNIVERSAL DESIGN FOR LEARNING

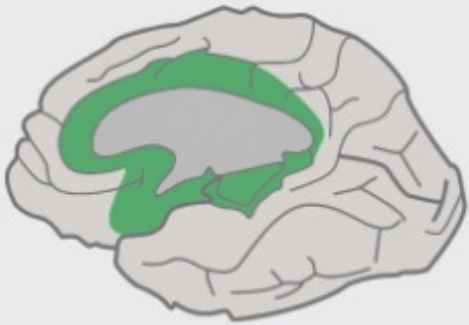
Building adolescents' expectancies of success and value for academics



“Universal design for learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.”

Center for Applied Special Technology
cast.org

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING



Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

Guidelines for Universal Design for Learning

Universal Design for Learning Guidelines



Provide Multiple Means of
Engagement

Purposeful, motivated learners



Provide Multiple Means of
Representation

Resourceful, knowledgeable learners



Provide Multiple Means of
Action & Expression

Strategic, goal-directed learners



DIGITAL TOOLS

Formatting Texts to Enhance Accessibility



Evolution of Speech and Text



Natural spoken language

50,000 years

Evolution of Speech and Text



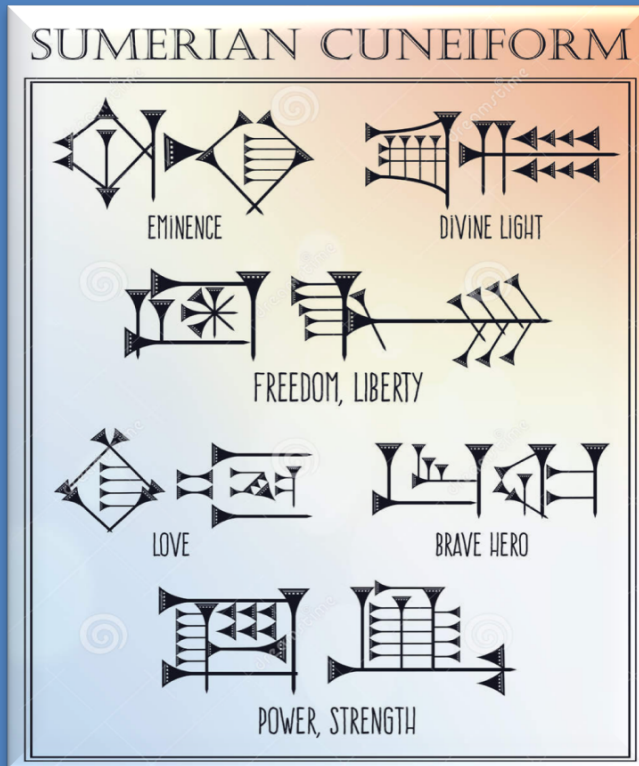
Natural spoken language

50,000 years

Text

5,000 years

Cuneiform 3500 BCE



2000 BCE – Phoenician alphabet contained consonants only.

SPKNWRDSRTHSMBLSFMNTLXPR
NCNDWRRTTNWRDSRTHSMBLSFSP
KNWRDS

1000 BCE – the Greeks added vowels

SPOKEN WORDS ARE THE SYMBOLS OF
MENTAL EXPERIENCE AND WRITTEN WORDS
ARE THE SYMBOLS OF SPOKEN WORDS.

700 AD– Emergence of lower case

Spoken words are the symbols of mental experience, and written words are the symbols of spoken words.

900 AD– Spaces between words

Spoken words are the symbols of mental experience, and written words are the symbols of spoken words.

When, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed. That whenever any form of government becomes destructive to these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience hath shown that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. --Such has been the patient sufferance of these colonies; and such is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these states. To prove this, let facts be submitted to a candid world.

When, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

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Fast Rode the Knight, by Stephen Crane

Fast rode the knight with spurs, hot and reeking, ever waving an eager sword, "To save my lady!" Fast rode the knight, and leaped from saddle to war. Men of steel flickered and gleamed like riot of silver lights, and the gold of the knight's good banner still waved on a castle wall.
. A horse, blowing, staggering, bloody thing, forgotten at foot of castle wall. A horse dead at foot of castle wall.

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```
program array Test(input, output); var m : array[1..5] of integer;
begin m[1] := 1; m[2] := 2; m[3] := 3; m[4] := 4; m[5] := 5;
write(m[1]); write(m[2]); write(m[3]); write(m[4]); write(m[5])
end.
```

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The importance of formatting



When, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

The importance of formatting



When in the Course
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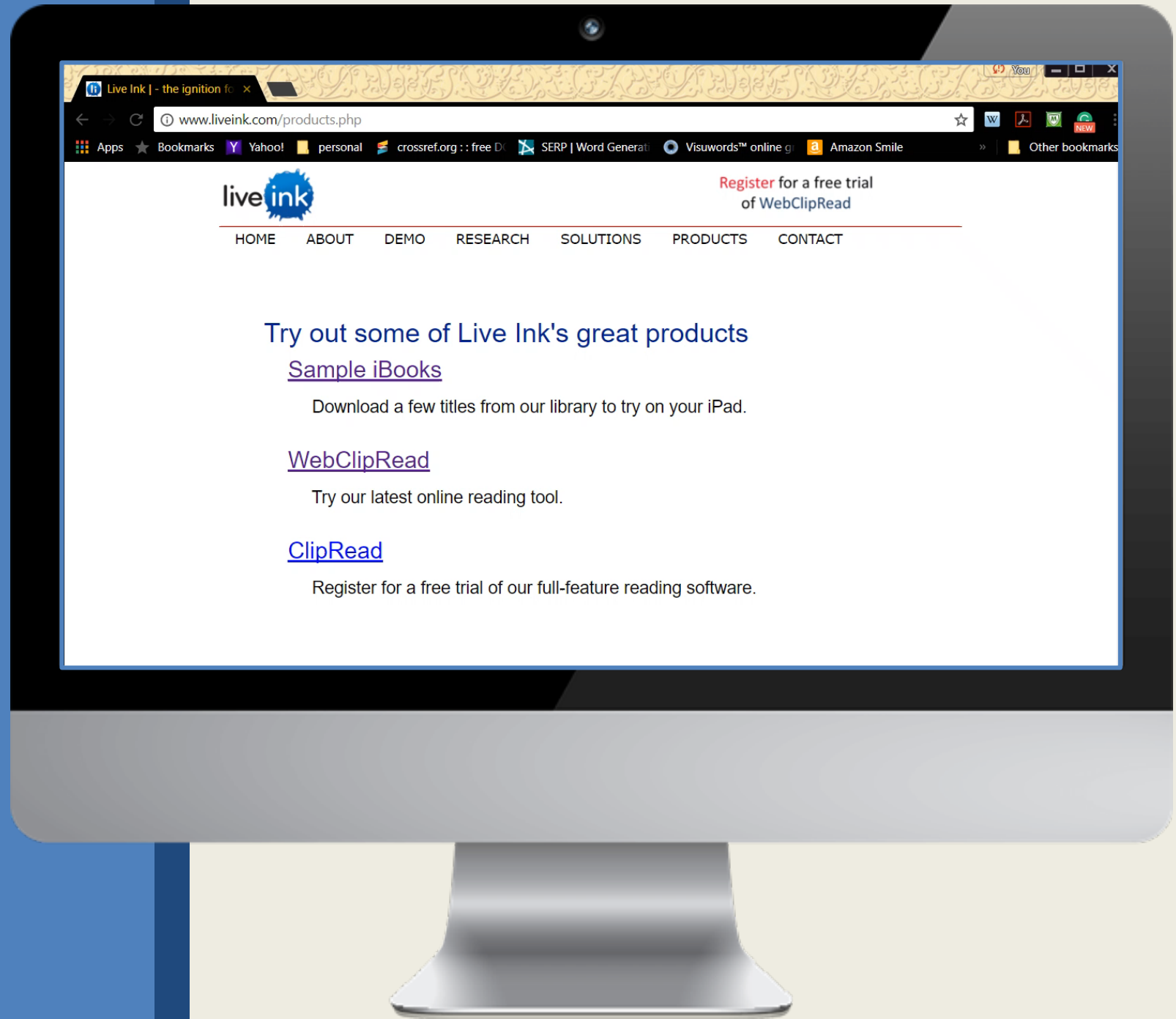
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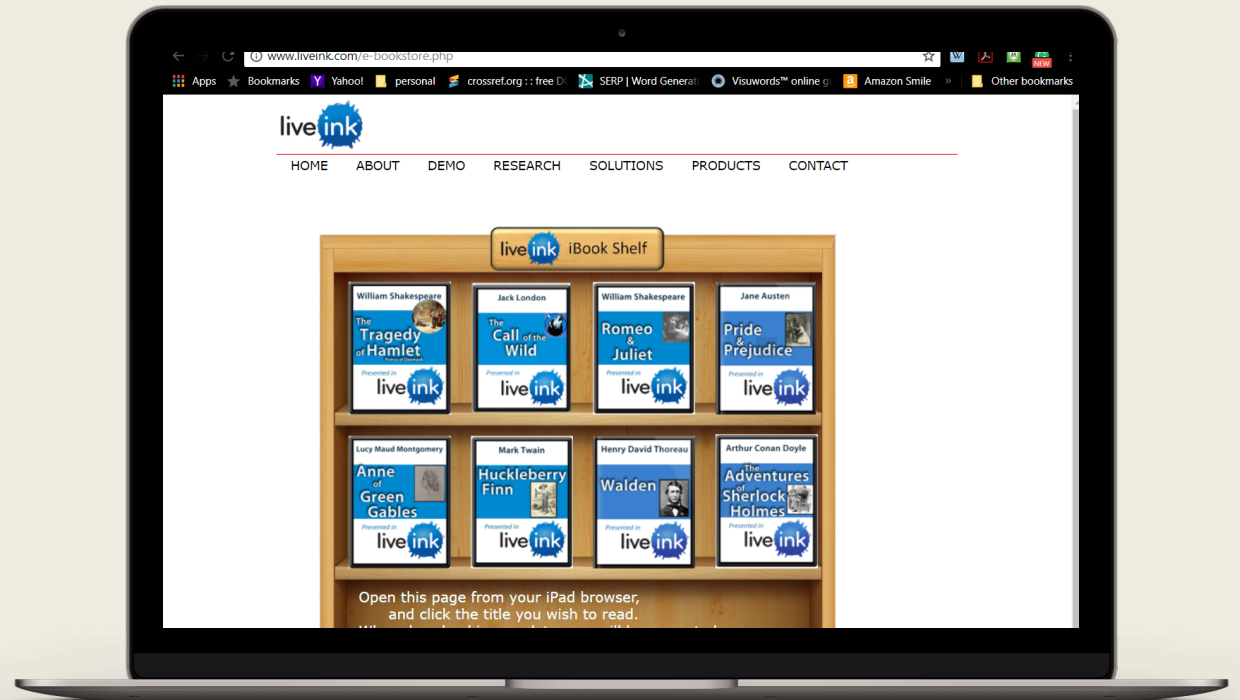
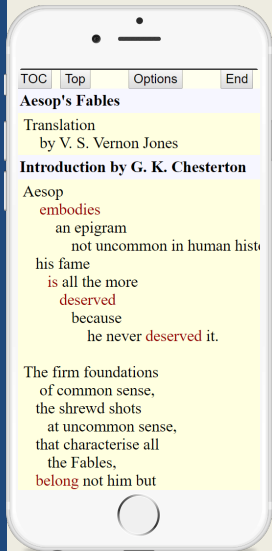


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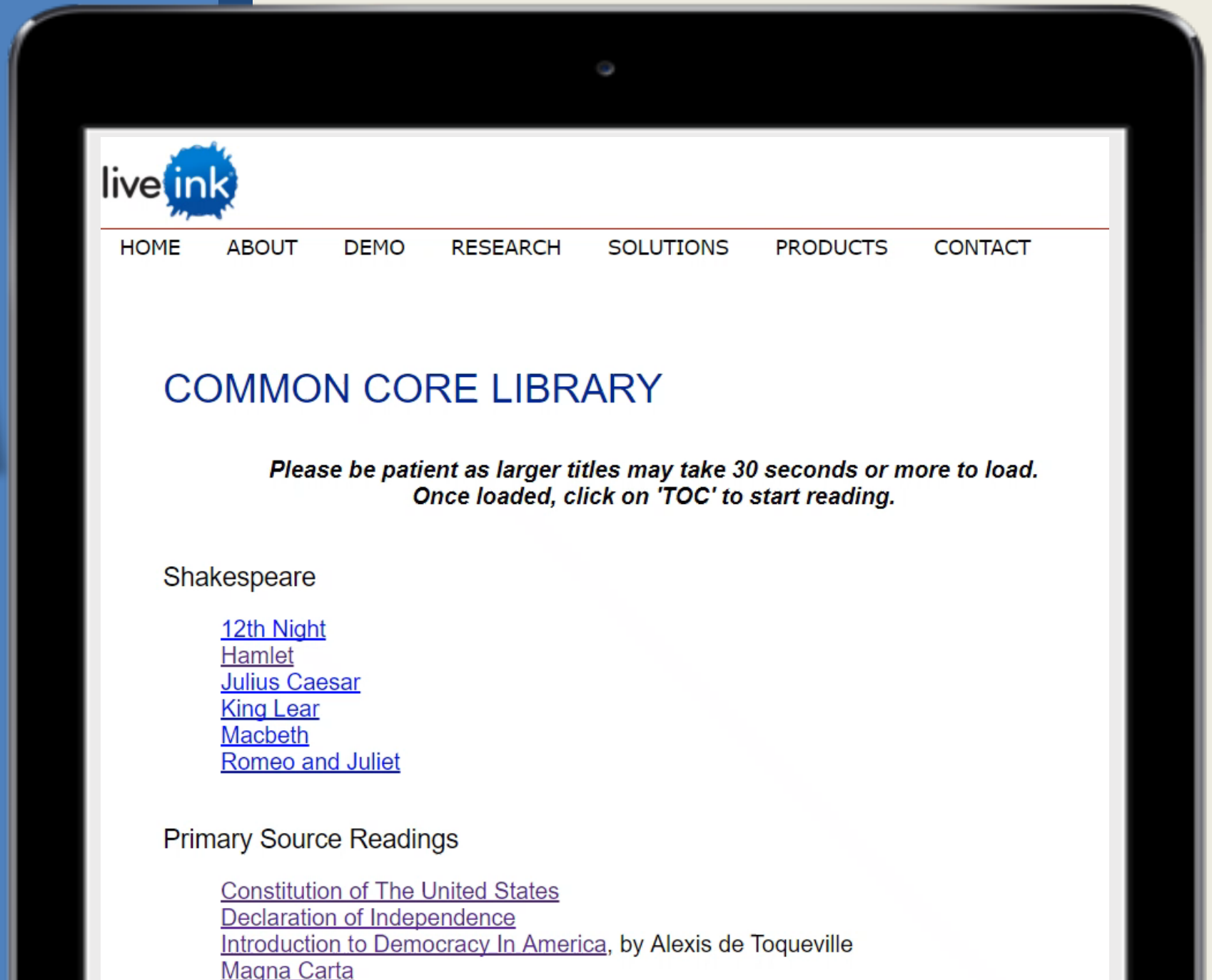
- Ready-to-read books and informational texts
- Format your own texts







- Adjust the appearance of the texts, with different fonts, sizes and colors



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Once loaded, click on 'TOC' to start reading.*

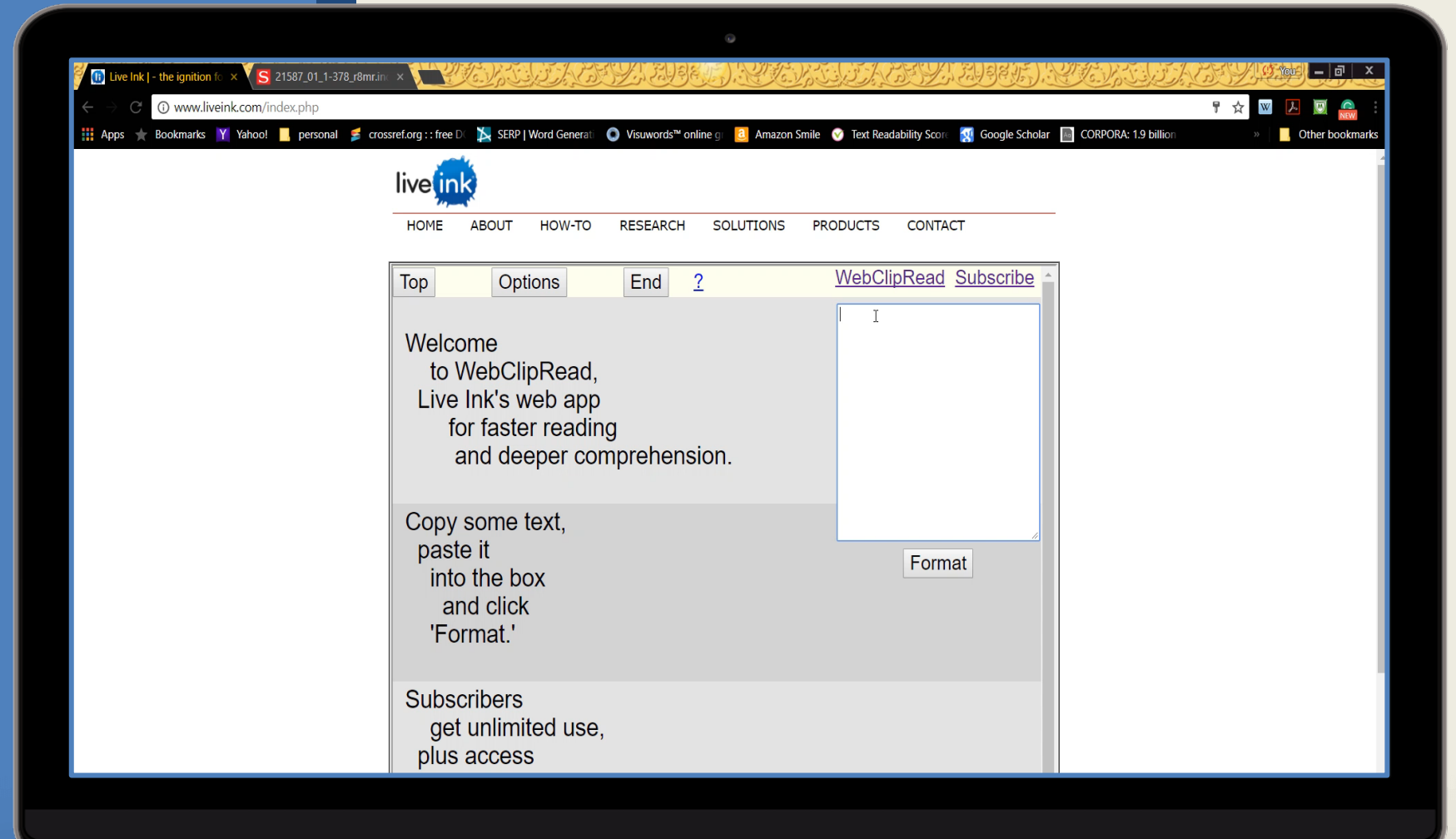
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[Hamlet](#)
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[Introduction to Democracy In America](#), by Alexis de Toqueville
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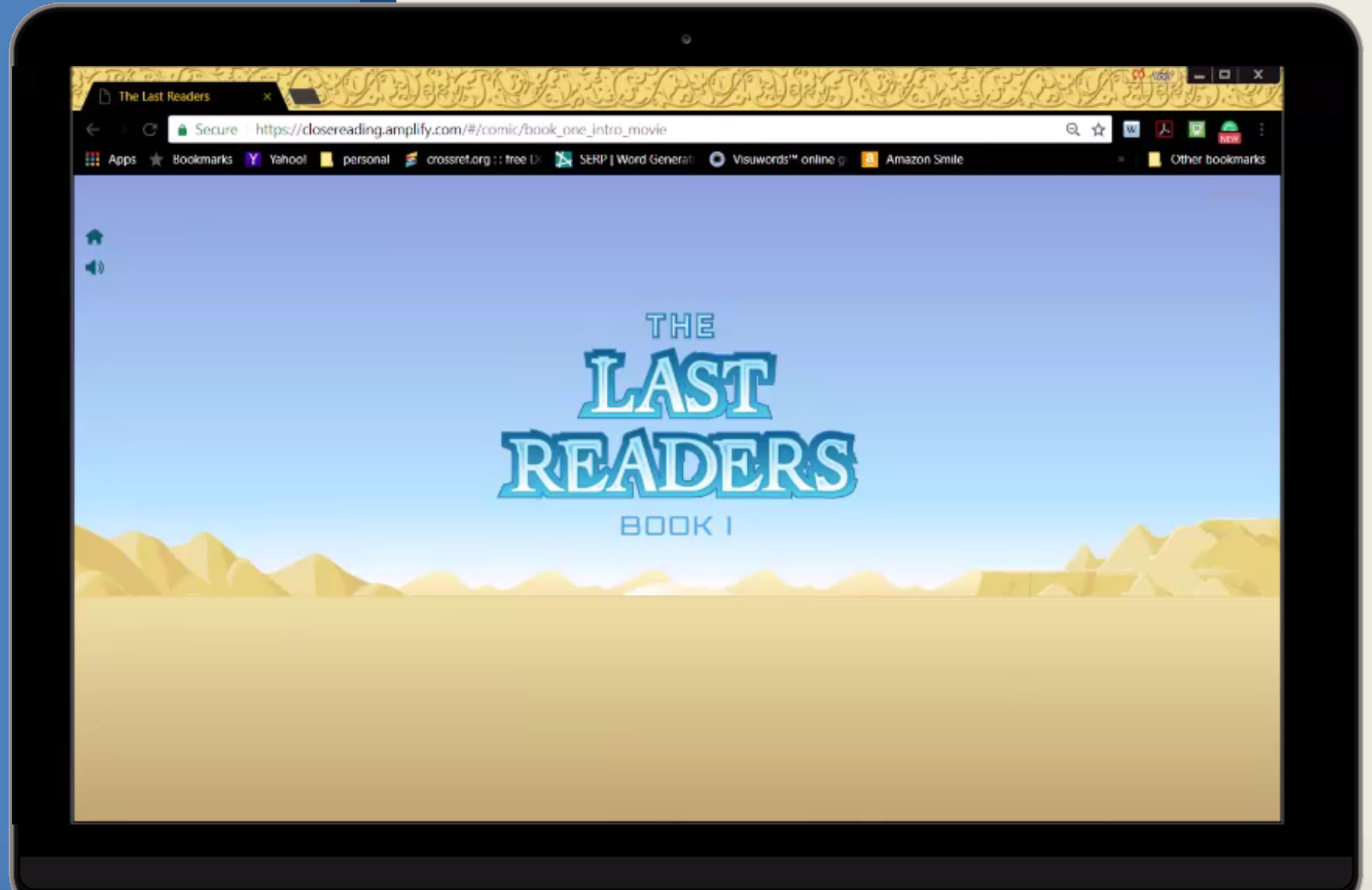
Supporting Student Beliefs About Value

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

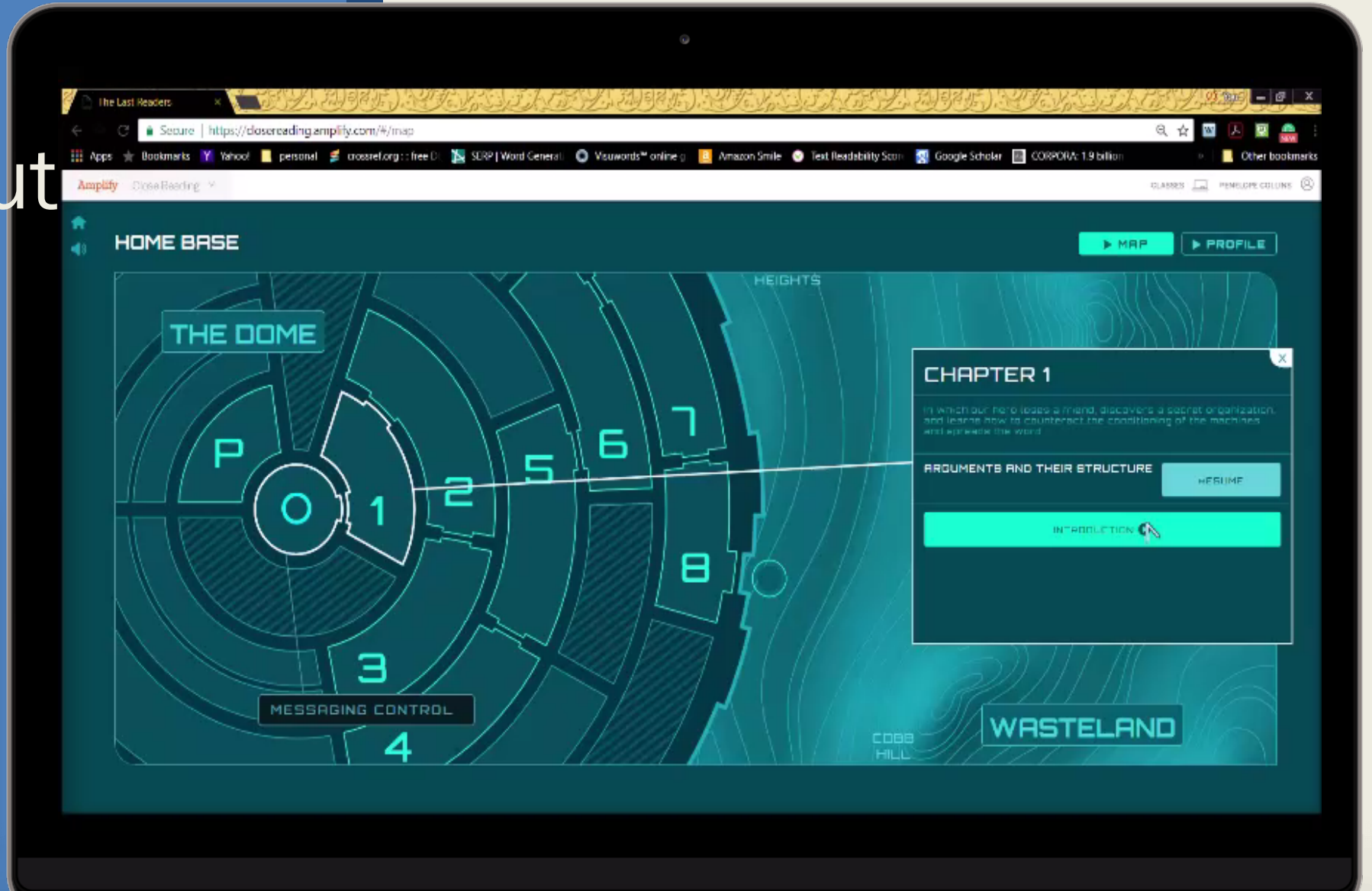
For purposeful, motivated learners, stimulate interest and motivation for learning.



Supporting Student Beliefs About Value and Expectancy of Success



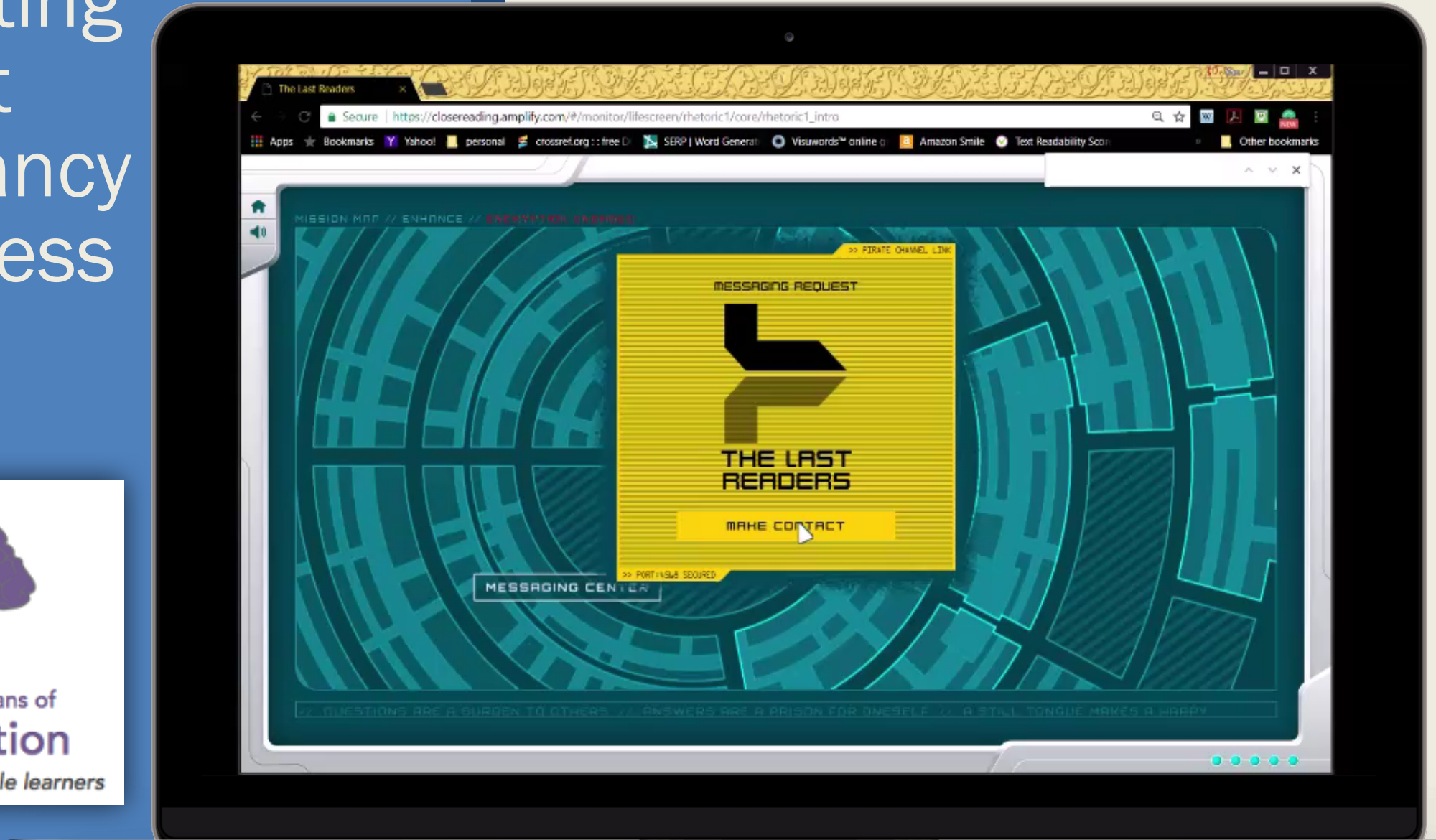
Provide Multiple Means of
Representation
Resourceful, knowledgeable learners



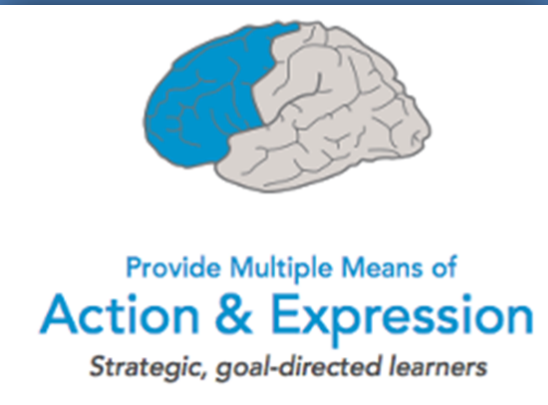
Supporting Student Expectancy of Success



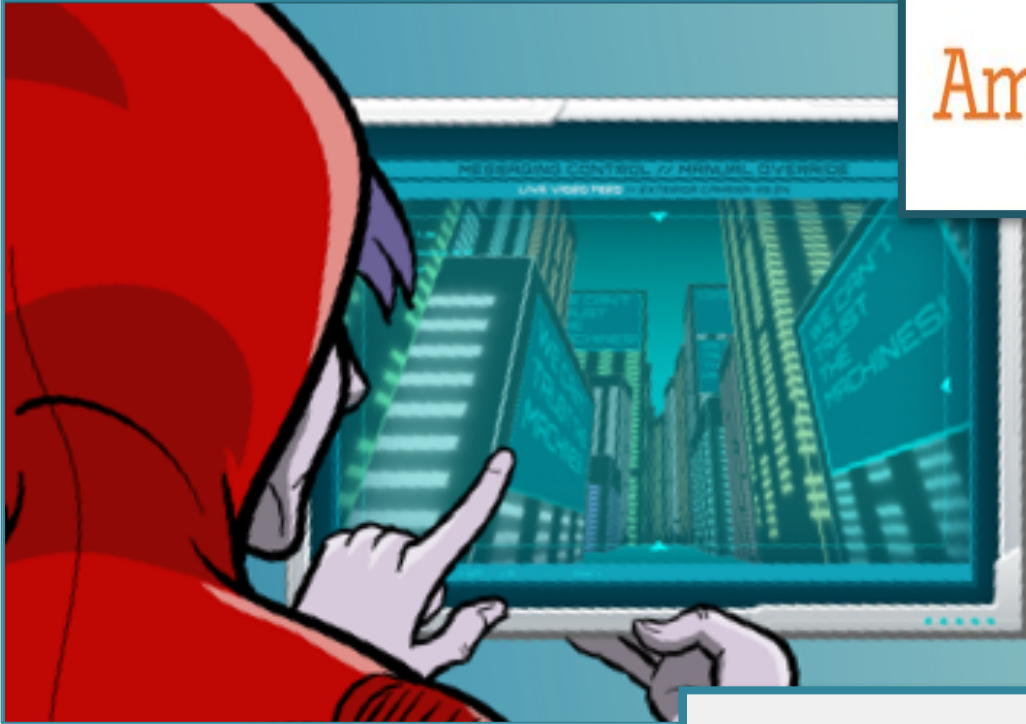
Provide Multiple Means of
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Resourceful, knowledgeable learners



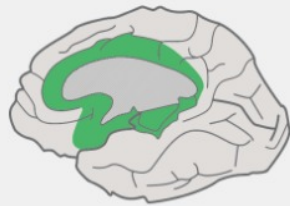
Supporting Student Expectancy of Success



Amplify Close Reading



AFFECTIVE NETWORKS: THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

RECOGNITION NETWORKS: THE **WHAT** OF LEARNING



Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS: THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

DIGITAL TOOLS

Universal Design for Learning to Support
Reading, Research and Writing



Supporting Student Beliefs About Value

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

The screenshot shows the Udio website interface. At the top, there is a navigation bar with the Udio logo, links for 'dashboard', 'explore', and 'create', and a user profile 'HMH-Student1'. Below the navigation bar is a search bar and a 'Medium' dropdown menu. The main content area is titled 'Explore ... Find it - Read it - Collect it' and features three tabs: 'top picks for you', 'trending', and 'teacher recommended'. Below these tabs are five article cards with images and titles: 'The Science of Fireworks', 'Should Marijuana Be Allowed as a Medical Treatment?', 'Legendary Rock Drummers', 'Airplane of the Future?', and 'Taylor Swift Tops Kim Kardashian and Beyoncé With 50 Million Instagram Followers'. At the bottom, there are filters for 'show only: topic', 'stories', 'projects', and 'sort by: newly discussed', 'most discussed', 'newly added', 'title'. The view is set to 'grid' and 'list' options are available. Below the filters are four article cards: 'Alien Art', 'All About the Sun', 'Changes Coming to Cuba', and 'Motocross Against All Odds'. Each card has a title, a featured image, and a list of tags below it.

Supporting Student Beliefs About Value

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

Udio

dashboard | explore | create



Medium



HMH-Student1

Social Media: Parents Not Allowed

By Precious Nuñez



Credit: Shutterstock.com

Social media has been known as a way to communicate with friends, family, and even strangers. But some teens wouldn't agree with social media being mixed with parents.

Teenagers have their own reasons why they would block their parents on Twitter, Facebook, Instagram, and other sites.

Well, Kevin Lewis, 17, from the John D. O'Bryant School of Math & Science, says he would feel very uncomfortable if his mother was aware of his tweets. Although they are friends on Facebook, Lewis



Discuss It (0)

Start a new discussion.

write

draw

record

Supporting Student Expectancy of Success



Provide Multiple Means of
Representation

Resourceful, knowledgeable learners

A laptop screen showing a web browser with the Udio website. The article title is "The Science of Fireworks" by Mariel Emrich. The main image shows a vibrant display of fireworks exploding in the night sky. Below the image is a paragraph of text explaining the history of fireworks, mentioning their origin in the Han dynasty in 200 B.C. and their use for New Year's Eve. On the right side of the screen, there is a "Discuss It" sidebar with a "Start a new discussion" section and three buttons: "write", "draw", and "record". The browser's address bar shows the URL: https://udio.cast.org/articleview?149&articleId=1248&source=recent-story-box-minipanel. The Udio logo and navigation links are visible at the top of the page.

Supporting Student Expectancy of Success



Provide Multiple Means of
Action & Expression
Strategic, goal-directed learners

A screenshot of a laptop displaying the Udio website's 'Create a Project' page. The browser's address bar shows the URL 'https://udio.cast.org/create?195&source=nav'. The page features a navigation bar with 'Udio', 'dashboard', 'explore', and 'create' options. Below the navigation, there are tabs for 'create a project' and 'my projects'. The main content area is divided into four numbered steps: 1. 'Choose a style:' with a carousel of seven different project style icons; 2. 'Project type:' with two buttons, 'review it' and 'debate it'; 3. 'Stories to use in my project:' with a grid of four story cards, each with a 'Use this story' checkbox and a 'Read' button; 4. 'Get started' with a large arrow button. The user's name 'HMH-Student1' is visible in the top right corner of the page.

Udlio

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING



Representation

STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Action & Expression

Expectancy
of Success



Beliefs
about
Value



Student choice,
effort and
performance

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Thank you.

For more information:

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p.collins@uci.edu

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