Go Digital With Formative Assessment and Critical Thinking

Content provided by MentoringMinds®
Critical Thinking for Life!
Go Digital with Formative Assessment and Critical Thinking

Critical Thinking
Formative Assessment
Digital Tools

Mentoring Minds®
Critical Thinking for Life!
"Children must be taught how to think not what to think."

– Margaret Mead
Go Digital with Formative Assessment and Critical Thinking

Powerful Learning

Formative Assessment

Critical Thinking

Digital Tools

MentoringMinds®
Critical Thinking for Life!
Critical Thinking

Teaching Students the Essential Skills for College and Life
Critical Thinking

WHY?

Rigor top identifier in global educational systems (Ripley, 2013)

Necessary for college and career readiness (Metlife, 2011)

Critical thinking more important than college major (Hart Research, 2013)
### Critical Thinking

**Question:** In which areas do you most wish US public high schools were doing a better job of preparing their students for the expectations of college/work world?

<table>
<thead>
<tr>
<th></th>
<th>College Instructors</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical Thinking</strong></td>
<td>46%</td>
<td>26%</td>
</tr>
<tr>
<td>Writing</td>
<td>31%</td>
<td>16%</td>
</tr>
<tr>
<td>Work and Study Habits</td>
<td>28%</td>
<td>29%</td>
</tr>
<tr>
<td>Written Communication</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Comprehension of Complicated Materials</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Problem Solving</strong></td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>Science</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Verbal Communication</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>Conducting Research</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Computer and Technology Skills</td>
<td>4%</td>
<td>13%</td>
</tr>
<tr>
<td>Working as Part of a Team</td>
<td>3%</td>
<td>12%</td>
</tr>
</tbody>
</table>

(Achieve 2015)
Formative Assessment

A Powerful Contributor to Student Success
Formative Assessment has shown to have a larger impact than most of the other educational interventions.”

– Paul Black & Dylan Wiliam, 1998
Formative Assessment

- Clarify Intended Learning
- Elicit Evidence
- Interpret the Feedback
- Act: Differentiation

Formative Assessment Process
Digital Tools

Effectively Integrating Technology and Education
Teachers collaborate to make instructional decisions based on a diverse data set, including student and teacher observations and reflections, student work, *formative* and summative assessment results, and *data from analytics embedded within learning activities and software* aided by real-time availability of data and visualizations, *such as information dashboards.*

— National Technology Plan, 2016
Kahoot!

A Game-Based Learning Platform
Explore a Kahoot! Lesson

1. Open a new browser window
2. Go to Kahoot.it
3. Enter PIN
Who is shown in this battle scene?

11

British soldiers

Patriot soldiers

French soldiers

0 Answers
Who is shown in this battle scene?

- British soldiers
- Patriot soldiers
- French soldiers
<table>
<thead>
<tr>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan</td>
<td>28,008</td>
</tr>
<tr>
<td>Susan</td>
<td>15,225</td>
</tr>
<tr>
<td>Marcus</td>
<td>12,100</td>
</tr>
<tr>
<td>James</td>
<td>9,001</td>
</tr>
<tr>
<td>User</td>
<td>7,677</td>
</tr>
</tbody>
</table>
Who is shown in this painting?

1. Patriot soldiers
2. French soldiers
3. Native Americans
4. British soldiers

12 Answers

Skip
<table>
<thead>
<tr>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>zac</td>
<td>9233</td>
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<tr>
<td>Amelia</td>
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</tr>
<tr>
<td>Livi</td>
<td>7216</td>
</tr>
<tr>
<td>Abi</td>
<td>6184</td>
</tr>
<tr>
<td>lew lew</td>
<td>5866</td>
</tr>
</tbody>
</table>
**Kahoot! Quick-Start Guide**

1. Create an account
2. Design multiple-choice questions **Optional:** embed video and images
3. Launch the game
4. Students link to Kahoot.it and sign in using game PIN
5. Review results on Excel
Zaption

A Video-Based Learning Platform with Interactive Content and Tools
Explore a Zaption Lesson

1. Open a new browser window
2. Go to zapt.io/t8y5eand
Tour Builder

- Search for and use an existing Zaption tour
- Create your own tour from scratch
- Add interactive elements

Resources:
Explanation: https://goo.gl/8Pzi6x
How-to tutorial: https://goo.gl/enQMVB
Tour Viewer

- View individually
- Experience with a Zaption presenter

Zaption Presenter Introduction:
https://goo.gl/NEZW2k
Digital Tools: Zaption

The Analytics Dashboard

1 Unique Viewer has started this lesson.
2m 51s Average viewing time
0 Completed all questions
0 completed none

Viewers by Date
- Number of viewers by date

Viewing Time
- Duration of viewing

Question Completion
- % of questions completed

33% Average Score
1 of 3 graded questions

2 Average skips forward

0 Stars
Average rating of this lesson
Multiple Choice

What is the wind speed that officially signals the formation of a Hurricane?

Context

Choices

A. 100 miles per hour
B. 39 miles per hour
C. 74 miles per hour
D. 50 miles per hour

Distribution of Answers

The Analytics Dashboard

NAME | CORRECT | RESPONSE
Stobaugh | ✔️ | C 74 miles per hour
Google Forms

An Efficient Way to Collect Formative Assessment Data
Explore a Google Form Quiz

1. Open a new browser window
2. Go to goo.gl/k863Zs
1. Create a free Google Account
2. In Google Drive, select Form
How to Create a Google Form

3. Select “Add Item”
   Multiple choice, open ended, etc.

4. View Live Form
How to Create a Google Form

5. Distribute link to participants

6. View response data

Summary

Which digital tool will you immediately implement in your classroom?

- Google Forms 16.7%
- Today's Meet 16.7%
- Zaption 0%

What is your favorite aspect about this digital tool?

- Student-friendly tool
- I only have one device in my classroom
- Because it is efficient
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timestamp</td>
<td>Which digital tool will you apply for classroom?</td>
<td>What is your favorite aspect about this digital tool?</td>
</tr>
<tr>
<td>1/28/2016 23:22:31</td>
<td>Kahoot</td>
<td></td>
</tr>
<tr>
<td>1/28/2016 23:22:37</td>
<td>Plickers</td>
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<tr>
<td>1/28/2016 23:22:55</td>
<td>Google Forms</td>
<td>Because it is efficient</td>
</tr>
<tr>
<td>1/28/2016 23:23:23</td>
<td>Plickers</td>
<td>I only have one device in my classroom</td>
</tr>
</tbody>
</table>

Digital Tools (Responses)
Online Survey Examples

- Students research and develop several viable solutions to address a local problem and then poll faculty, students, and community members about their opinions on the solutions. Students examine data, draw conclusions, and present findings to community leaders.

- Students replicate a national poll in their community and then compare the two datasets.
Other Digital Tools

Classroom Response Systems:
- Edulastic
- Formative
- GoSoapBox
- Poll Everywhere
- Plickers
- Socrative (App)
- Celly (App)

Mind Maps:
- Bubbl.us
- Popplet
- Mind Map

Digital Walls:
- Padlet
- Lino

Websites of Other Tools:
- 100+ Technology Tools: goo.gl/4Rw4eW
- 50 Digital Tools: goo.gl/u1036i
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QUESTIONS?

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Digital Tools

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THOUGHT LEADERSHIP

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That’s why our distinguished educators and authors dig deep into topics on the cutting edge of education, imparting the latest scholarship on subjects you can use to improve teaching and learning—and elevate student achievement.

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