



Assessing Coding Projects

Jared O'Leary
BootUp PD

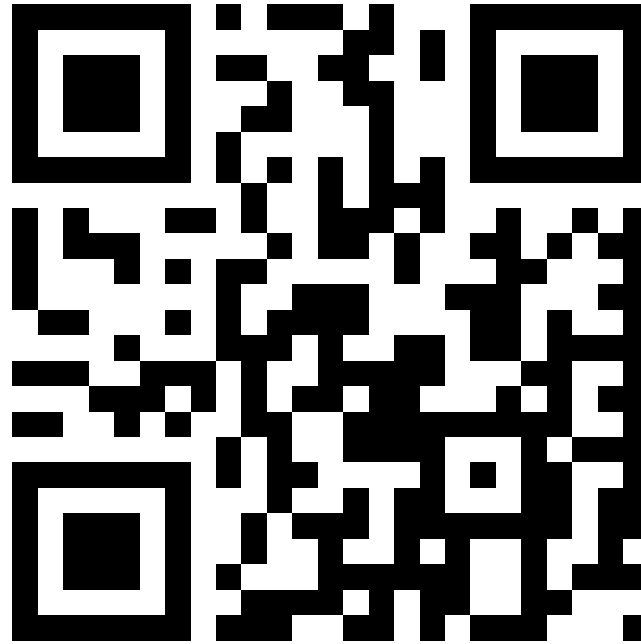


What's the plan?

- Assess an example project
- Assessment considerations and types
 - Summative
 - Formative
 - Ipsative
- Revisit our initial assessment
- Q&A

How to reach the resources

- ▶ www.JaredOLeary.com
 - ▶ Presentations
 - ▶ Assessing Coding Projects





Assess an example project



Outline X

Assessing Coding Projects

Khan Academy Example

Scratch Example

Formative Assessment Thoughts

Summative Assessment Thoughts

Ipsative Assessment Thoughts

General Assessment Thoughts

Assessing Coding Projects

Attendee Thoughts

[Khan Academy Example](#)

[Scratch Example](#)

[Formative Assessment Thoughts](#)

[Summative Assessment Thoughts](#)

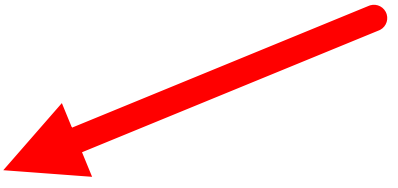
[Ipsative Assessment Thoughts](#)

[General Assessment Thoughts](#)

Khan Academy Example

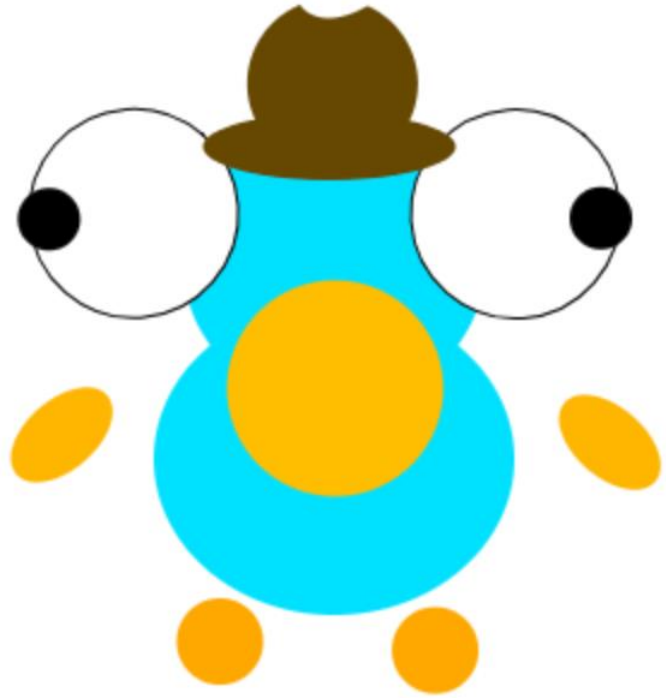
["Justice" project link](#)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.



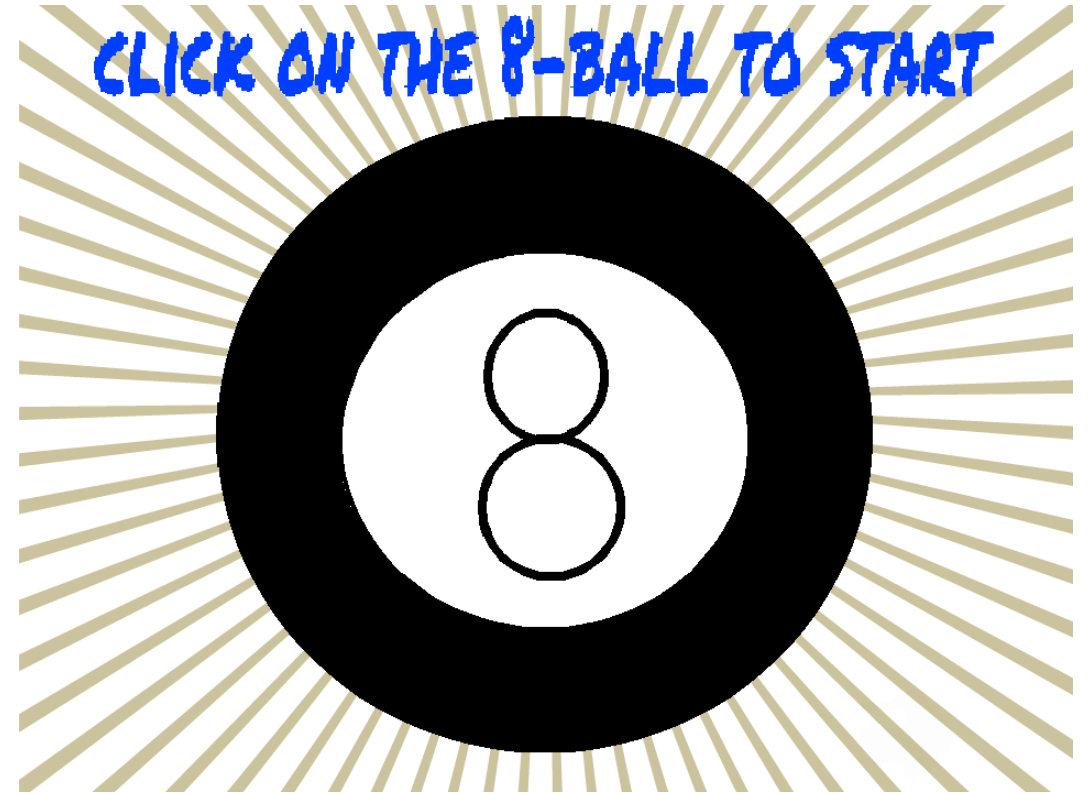
goo.gl/Q9UrZR
(case sensitive)





Khan Academy
(JavaScript)

goo.gl/wnNUUm



Scratch
(Block-based)

goo.gl/TGn9gs

Outline ×

Assessing Coding Projects

Khan Academy Example

Scratch Example

Formative Assessment Thoughts

Summative Assessment Thoughts

Ipsative Assessment Thoughts

General Assessment Thoughts

Assessing Coding Projects

Attendee Thoughts

[Khan Academy Example](#)

[Scratch Example](#)

[Formative Assessment Thoughts](#)

[Summative Assessment Thoughts](#)

[Ipsative Assessment Thoughts](#)

[General Assessment Thoughts](#)

Khan Academy Example

["Justuice" project link](#)

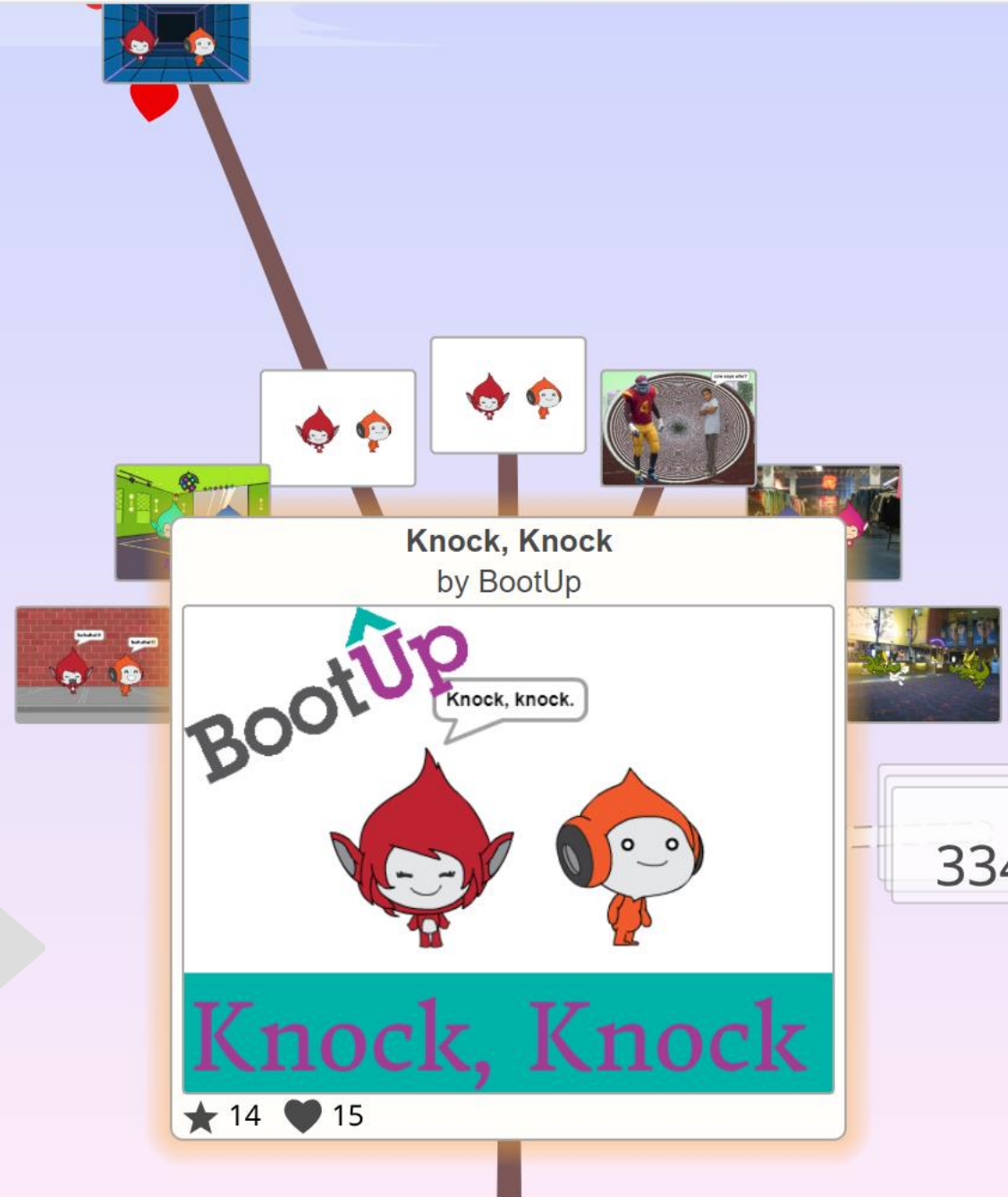
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.





Assessment considerations

100+ project variations a week



Desert Thunder

(6 Followers)

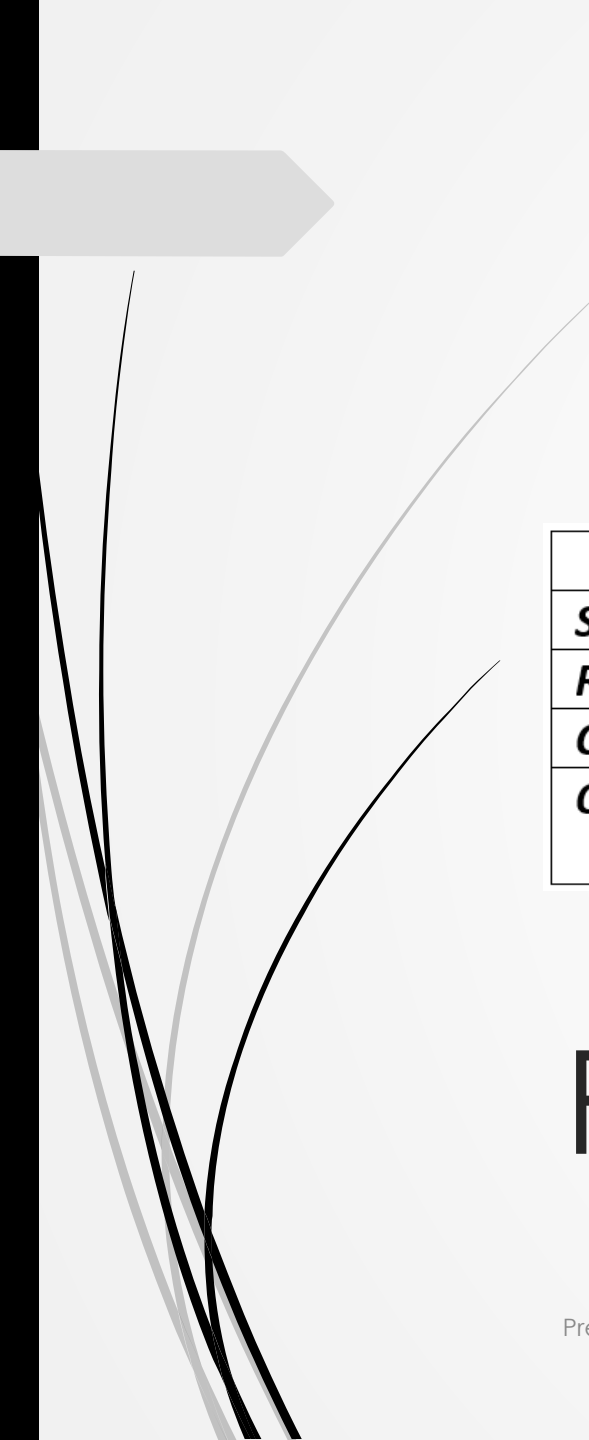
Projects (100+) Comments (2) Curators Activity

TO BE CONTINUED... Random Story- Randall... by prmass01	GAME OVER ROBERT FELL The Epic (Never-ending... by taevan01	??? by ivcast01	Trippy butterflys by tatafo01
The 4 watching Fail Army by resapp01	Trippy Stooof by JUNGUY01	Beauty And The Beast by pahenn01	THE END SUMMER TIME by SASEEL01
Pokemon battle water I... by owsmor01	Stay Hydrated! by shlamp01	Thanks for watching pistol by DAROBE01	guess the candy by ancar102
Guess That Breed!!!!!! by brdele01	Music for you by shpale01	disney by argonz01	Hardest Game of 2018: ... by cafost01
WELCOME TO THE EPIC ROBERT JUMPING GAME! (NEVER-ENDING) START! The Epic (Never-Endin... by taevan01	fruit ninja by kIhaas01	NO MORE MONKEYS JUMPING ON THE BED by adkeec01	At The Theaters by prmass01
Quotes			

t
er

om peers

100+ unique projects a week



Criteria	0	1	2	3
<i>Sprites</i>	Used no sprites	Used 1 sprite	Used 2 sprites	Used 3+ sprites
<i>Repeats</i>	Used no repeats	Used 1 repeat	Used 2 repeats	Used 3+ repeats
<i>Creativity</i>	No creativity	Very little creativity	Somewhat creative	Very creative
<i>Originality</i>	All ideas taken from another project	Most ideas taken from another project	Some ideas taken from another project	Completely original idea

Rubrics

Analyze your Scratch projects

Welcome to the Dr. Scratch website, an analytical tool that evaluates your Scratch projects in a variety of computational areas. This analyzer is a helpful tool to evaluate your own projects, or those of your Scratch students.

LEARN MORE

There are two options to analyze your Scratch project now!

1. Introduce the **url** of your Scratch project, you don't have to download it:

ANALYZE BY URL

2. If you have your **project** downloaded in the computer you can analyze it here:

Choose Project


ANALYZE MY PROJECT



Score: **8/21**  Tweet

The level of your project is...
DEVELOPING!

You're doing a great job. Keep it up!!!

 Come back to your Scratch project.

Best practice

 1 sprite attributes.

 2 sprite naming.



Project certificate

<https://scratch.mit.edu/projects/128534260/#editor>

Download

Level up

Level

 Flow control

2/3

 Data representation

1/3

 Abstraction

1/3

 User interactivity

2/3

 Synchronization

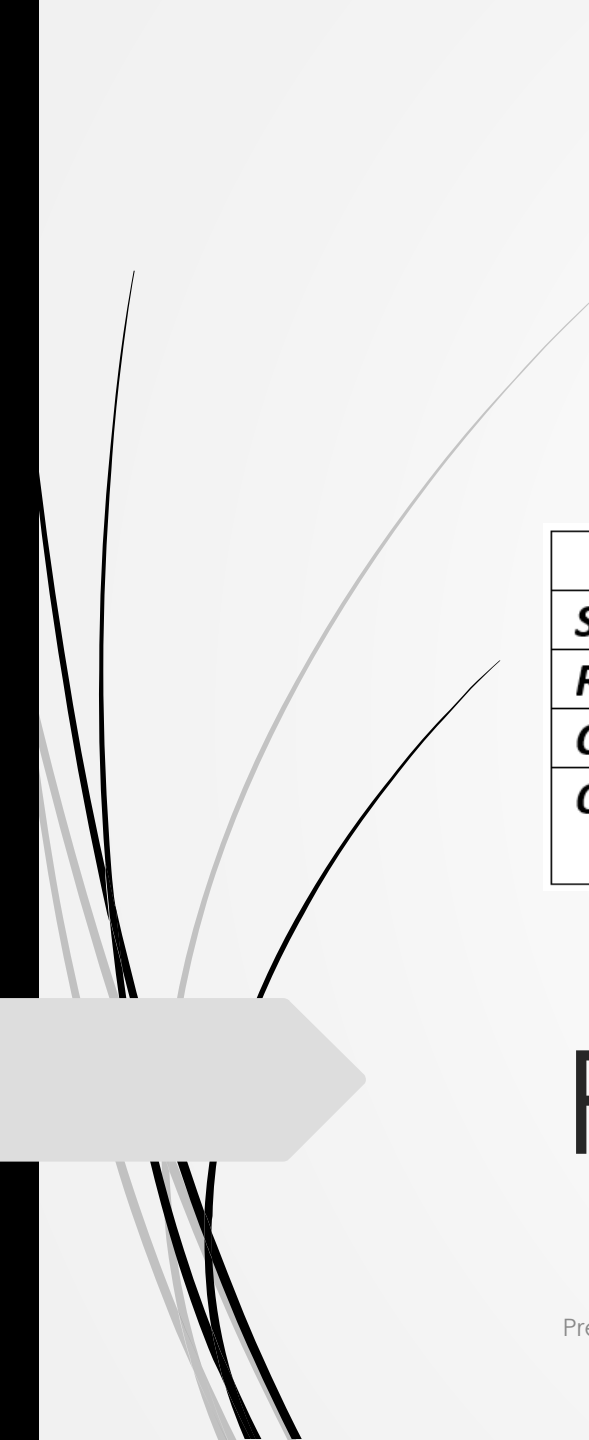
1/3

 Parallelism

1/3

 Logic

0/3



Criteria	0	1	2	3
<i>Sprites</i>	Used no sprites	Used 1 sprite	Used 2 sprites	Used 3+ sprites
<i>Repeats</i>	Used no repeats	Used 1 repeat	Used 2 repeats	Used 3+ repeats
<i>Creativity</i>	No creativity	Very little creativity	Somewhat creative	Very creative
<i>Originality</i>	All ideas taken from another project	Most ideas taken from another project	Some ideas taken from another project	Completely original idea

Rubrics



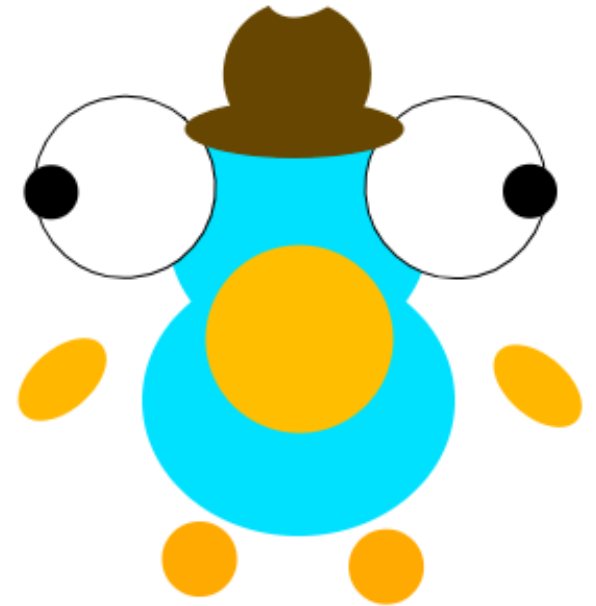
Assessment Ws

- Why?
- When?


```
when this sprite clicked
repeat 2
  glide 0.2 secs to x: 76 y: -18
  wait 0.2 secs
  glide 0.2 secs to x: -100 y: -18
  wait 0.2 secs
  glide 0.2 secs to x: -12 y: -18
wait 0.5 secs
switch costume to pick random 2 to 21
play sound crash cymbal
wait 0.1 secs
play sound cheer
wait 3 secs
switch costume to costume1
```

```
when this sprite clicked
glide 0.2 secs to x: 76 y: -18
wait 0.2 secs
glide 0.2 secs to x: -100 y: -18
wait 0.2 secs
glide 0.2 secs to x: -12 y: -18
glide 0.2 secs to x: 76 y: -18
wait 0.2 secs
glide 0.2 secs to x: -100 y: -18
wait 0.2 secs
glide 0.2 secs to x: -12 y: -18
wait 0.5 secs
switch costume to pick random 2 to 21
play sound crash cymbal
wait 0.1 secs
play sound cheer
wait 3 secs
switch costume to costume1
```

```
47 //pupil
48 fill(201, 99, 201);
49 fill(0, 0, 0);
50 ellipse(-60,160,26,26);
51
52 //pupil
53 ellipse(91,333,26,26);
54
55 //left foot
56 fill(255, 170, 0);
57 ellipse(-146,329,36,36);
58
59 //right arm
60 ellipse(-90,399,36,36);
61 fill(168, 62, 168);
```



Spin-off



Assessment Ws

- Why?
- What?
- When?
- Where?
- Who?
- How?



Summative Assessments: Assessment **of** Learning



Formative Assessments: Assessment **for** Learning



Ipsative Assessments: Assessment **as** Learning

Summative <i>Assessment of Learning</i>	Formative <i>Assessment for Learning</i>	Ipsative <i>Assessment as Learning</i>
“Done to” the coder	“Done for” the coder	“Done by” the coder
Traditional	Constructivist/constructionist	Self-reflective
Centered on a facilitator	Centered on the coding	Centered on the coder
Codere are passive learners	Codere are active learners	Codere are active learners
Occurs after instruction	Integrated with instruction	Integrated with instruction
Competitive	Collaborative	Personal
Helps facilitators assess perceived understanding of coding	Helps codere learn through feedback from others	Helps codere learn through self reflection
Limits communication between facilitator, codere, and peers	Increases communication between facilitator, codere, and peers	Increases communication between facilitator, codere, and peers
May create extrinsic rewards and does not accurately represent a coder’s understanding	May interrupt a coder’s active experiences with coding	Can lack focus without guidance (e.g., prompts) and feedback from a facilitator or peers
An example summative assessment might include a test or synthesis project that is graded by “correctness” or criteria	An example formative assessment might include questions asked by a facilitator during process or a synthesis project with reflection; possibly includes minimum criteria	An example ipsative assessment might include a reflection journal or reflective questions regarding understanding of coding concepts and practices in relation to prior projects, which may also be discussed with a peer or facilitator

Follow-up with more questions

- ▶ Can you walk me through each step of the algorithm?
- ▶ What happens if you change this (point) number to a larger or smaller number?
- ▶ When might you use code like this in another project?
- ▶ What happens if we change the order of the algorithm?
- ▶ What could you add or change to this algorithm and what do you think would happen?
- ▶ How might you use code like this in everyday life?

goo.gl/Q9UrZR
(case sensitive)



Upcoming
session I'm
presenting

► **Today**

► **Moving Beyond Puzzles:
Project-based Coding**

► *10:40-11:00 am in room 212*

Q&A

- ▶ www.JaredOLEary.com
 - ▶ Presentations
 - ▶ Assessing Coding Projects

