5 Steps for Effective Education at Hackathons

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I AM

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How should teaching be done?

Education matters.

EDUCATION MATTERS

- Welcomes beginners

- Nurtures technical growth

- Creates mentorship structures in the community

WHY AT HACKATHONS?

- Tap the existing energy of the environment

- Immediate implementation and reward

- Abundance of resources

DEVFES✈

A week of learning followed by a hackathon

2015   1 lecture each night

DEVFEST

A week of learning followed by a hackathon

2015   1 lecture each night

2016   Self-paced collaborative space

DEVFEST

A week of learning followed by a hackathon

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2017 ???

Your hackathon is not DevFest.

YOUR HACKATHON IS NOT DEVFEST

DevFest
4 evenings for learning
Values dedicated to education
Columbia audience

YOUR HACKATHON IS NOT DEVFEST

DevFest	Your Hackathon
4 evenings for learning	
Values dedicated to education	
Columbia audience	

YOUR HACKATHON IS NOT DEVFEST

DevFest	Your Hackathon
4 evenings for learning	18 to 48 hours for everything
Values dedicated to education	[your values]
Columbia audience	[your audience]

WHAT THIS MEANS

I can't tell you what is best for *your* hackathon.

It depends on your:
- values
- resources
- scale

2 Driving Points

Be thoughtful.

2 DRIVING POINTS

Be thoughtful.

and

Be intentional.

THE 5 STEPS

these should guide your educational model

THE 5 STEPS

THE 5 STEPS

1. <u>Identify Audience</u>

IDENTIFY AUDIENCE

Who is your hackathon targeted towards?

and

Who comes to your hackathon?

Which subset of that is your educational audience?

educational audience ⊆ total audience

IDENTIFY AUDIENCE

Identifying your educational audience should also be informed by your resources and scale.

THE 5 STEPS

1. Identify Audience

2. <u>Scope Content</u>

Now that you have identified your educational audience, **what would be the most valuable thing for them to learn?**

How do you scope content?

1. Audience fit

2. Practicality

SCOPE CONTENT

1. Think about your audience.

SCOPE CONTENT

1. Think about your audience.

What do they already know?

What do they want to learn?

2. Practical first.

2. Practical first.

App Development (APIs, UI) > Computer Science (OOP, Algorithms)

Web development is practical, expansive, and flexible:

- Personal website

- Front-end

- Back-end

- APIs

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. <u>Determine Format</u>

What educational format is best for the given audience and content scope?

e.g. lecture, self-paced, hybrid

DETERMINE FORMAT

Lecture

+ familiar

+ scalable

- too slow/fast

- too easy/hard

DETERMINE FORMAT

Self-paced

+ solves slow/fast problem

+ solves easy/hard problem

- not engaging

- requires a lot of TA support

Hybrid

> microlectures interspersed with self-paced time

+ best of both worlds?

- timing of weaving?

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. Determine Format

4. <u>Create Curriculum</u>

CREATE CURRICULUM

Write or curate high-quality curriculum.

Curriculum should be bug-free and unambiguous.

Case Study:

DEVFEST✈

http://learn.devfe.st

CREATE CURRICULUM

Resources

Online Interactive Sites (e.g. Codecademy)

Official Tutorials (e.g. Flask Tutorial)

Community Tutorials (e.g. DevFest Tracks)

Books (e.g. Eloquent JavaScript)

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. Determine Format

4. Create Curriculum

5. Execute and Iterate

Do it.

EXECUTE AND ITERATE

It won't be perfect the first time.

EXECUTE AND ITERATE

It won't be perfect the first time.

In fact, it will never be perfect.

EXECUTE AND ITERATE

Learn from what went well, what went wrong, and what could have been better.

EXECUTE AND ITERATE

Incorporate data from observations and surveys into your planning process for next year.

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. Determine Format

4. Create Curriculum

5. Execute and Iterate

Take a few minutes to think about the 5 steps in the context of your hackathon. Write down your thoughts to build version 0 of your educational model.

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. Determine Format

4. Create Curriculum

5. Execute and Iterate

Turn to a neighbor and present your educational models to each other. Challenge and interrogate each assumption and point.

ITERATE

Think about possible improvements to your educational model. Quickly jot down some questions you want to better answer. This will help you iterate to version 1.

TAKEAWAYS

summary and closing remarks

Education matters.

Every hackathon is different.

THE 5 STEPS

1. Identify Audience

2. Scope Content

3. Determine Format

4. Create Curriculum

5. Execute and Iterate

Don't stop thoughtfully and intentionally iterating.

HREFS AND RESOURCES

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raymondxu.io/hackcon16.pdf

Rethinking Education at DevFest: bit.ly/1OxPgFG

by Raymond Xu

Why We Do DevFest: [bit.ly/1YBJ0Pp](bit.ly/1YBJ0Pp)

by Matt Picollela

DevFest 2016 Curriculum: learn.devfe.st

6 original, self-paced online tutorials built at Columbia

Thanks!

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