

Chris Hawks

Learning How to Learn Playfully

Acknowledgments

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Goal

Is there a better way?

Quest-based learning as a way to teach
an online course

Topic Overview

Existing course

3D GameLab

Modifying the Course

What We Found

Moving Forward



Existing Course

Existing Course

“Multimedia Tools in Education”

Graduate level hybrid course

Course Description: Preparation for designing and developing interactive multimedia where the user gets feedback from the computer system. These interactive environments must be designed and programmed.

3D GameLab

3D GameLab

Learning management system that applies
basic game mechanics

Created by: Dr. Dawley and Dr. Haskell

Quests

Rewards

Leader board

eXperience Points (XP)

Leveling up



Advantages of Quest-Based Learning

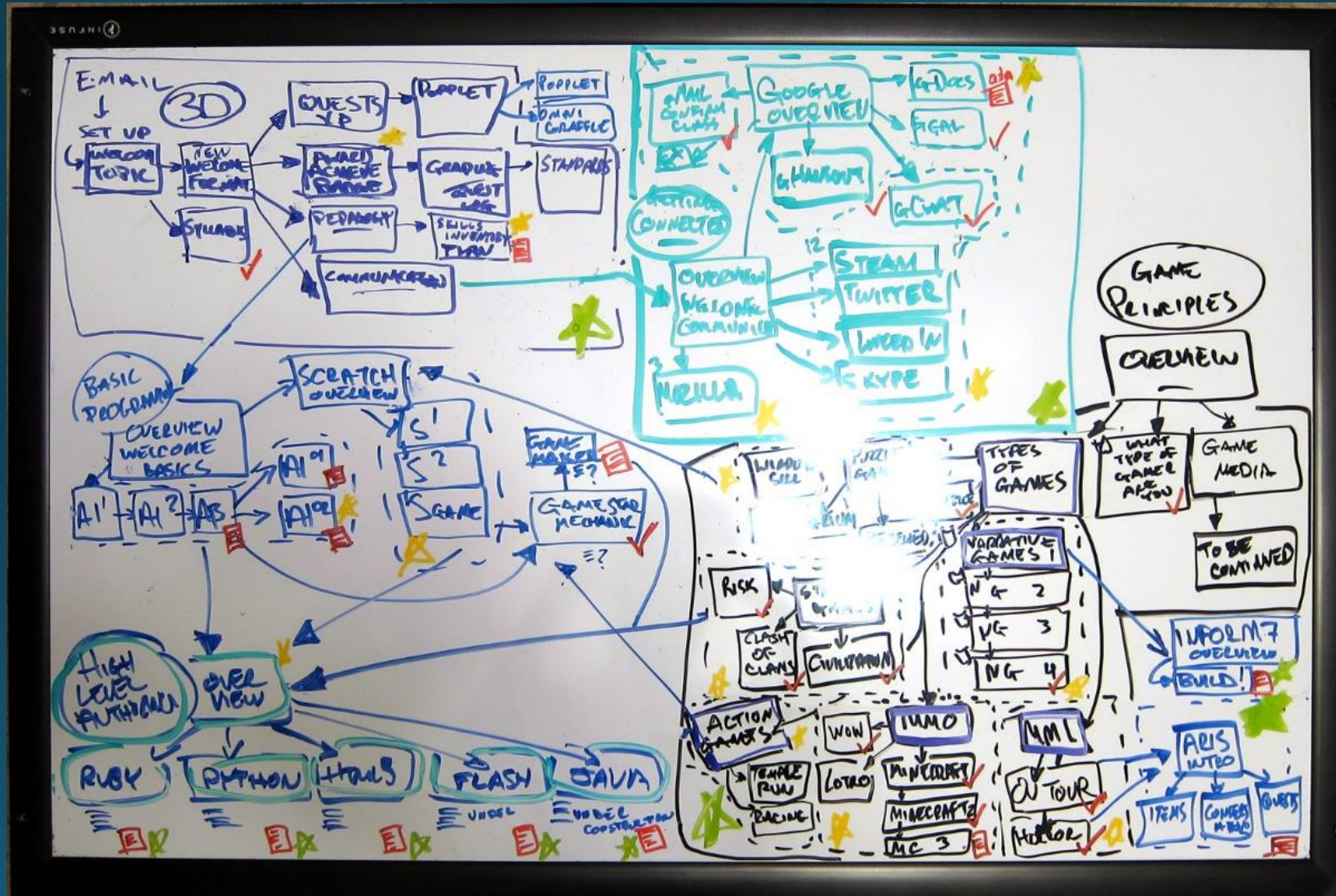
Having options helps motivate the learner

Individualized instruction

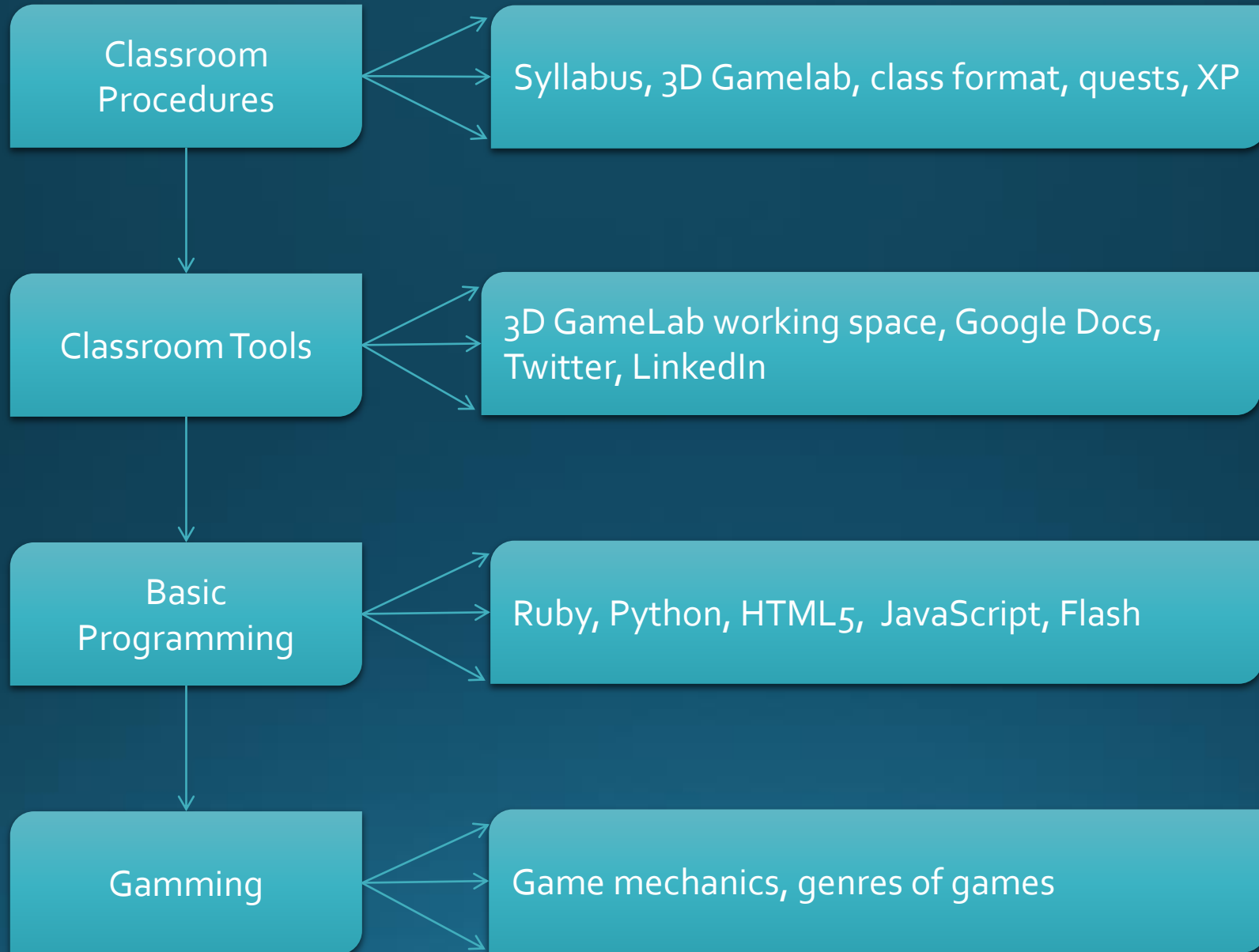
Quest can be repeatable, better competency

Modifying the Existing Class

Modifying the Existing Class - The Planning



Course Modifications



Course Modifications

Hybrid course

3 face-to-face meetings

13 virtual meetings (Google Hangout)

Gamertags (usernames)

eXperience Points (XP)

147 Quests

Midterm and Final project

Core Tools

Core Tools

Google Hangouts (online meetings)

Class of 26 was divided into three sections

Google Drive (file management)

File submission

What We Found

What we found

Quests and Binge Learning

Students started quests quickly
and finished early

Did the students actually learn?

Content was being created

Further studies needed

*"Cranked out a maximum number of
points early"*

*"I want to finish more and more quests
so sometimes I maybe finish 20 quests
in the weekend"*

*"Made me more engaged in terms of
wanting to do the quests...
anticipating the next level and
whatever the next quest will be"*

What we found

Leader board

Competition compelled certain students to be on top

Name	XP	Completed	Active	In Progress	Awards	Badges	Achievements
 Name	2565	104	15	0	2	2	4
 Name	2485	99	16	2	4	2	4
 Name	2440	90	12	1	4	2	4
 Name	2390	93	12	1	5	2	4
 Name	2200	92	8	7	3	2	4
 Name	2200	87	12	4	3	2	4
 Name	2060	69	7	2	5	2	3
 Name	1860	87	7	1	4	2	3
 Name	1765	73	3	17	2	2	4
 Name	1685	50	4	2	6	2	4

"And when you saw that you are at the top of leader list, as competitive person actually, I like the feeling."

"It was important to me to see that I was behind."

"It made it more like a fun...I can reach them [top students] and I can get to their level"

What we found

Leveling up

Learners focused on the getting
2000 XP

Starter	0 - 74
Mover	75 - 149
Underway	150 - 299
Learner	300 - 499
Investor	500 - 749
Geek	750 - 949
Programmer	950 - 1299
Expert	1300 - 1649
I33t	1650 - 1999
Master Jedi	2000 +

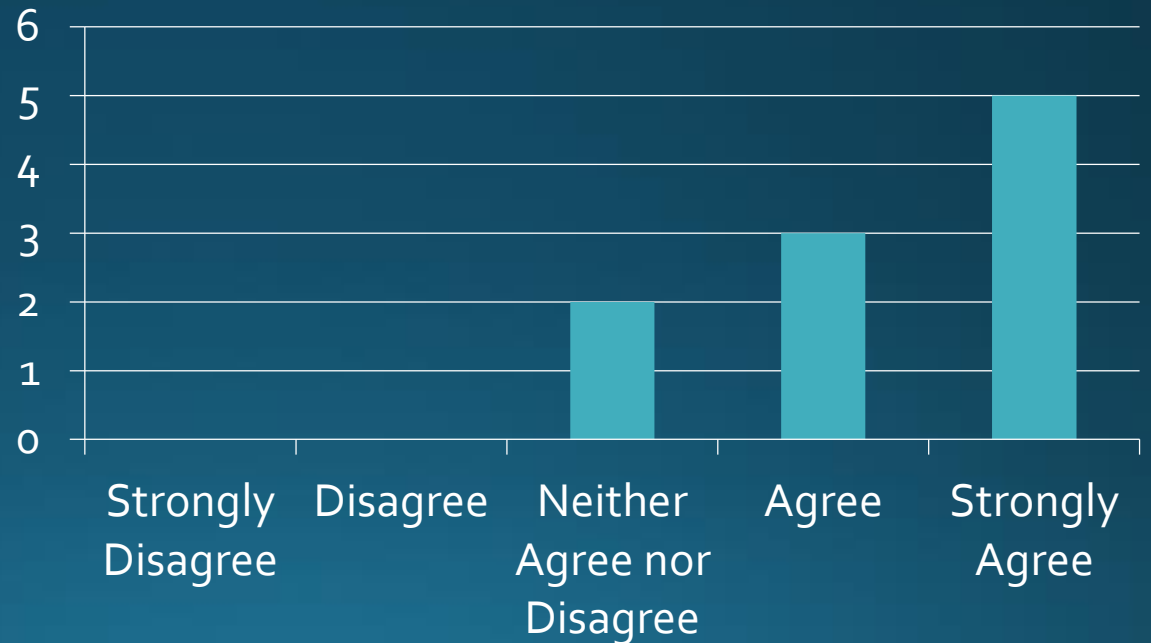
What we found

Generally positive

Global view of the quest based approach was generally positive

Students would generally take a class in this format again

I would like to take a class with this design structure in the future.
(N=10)



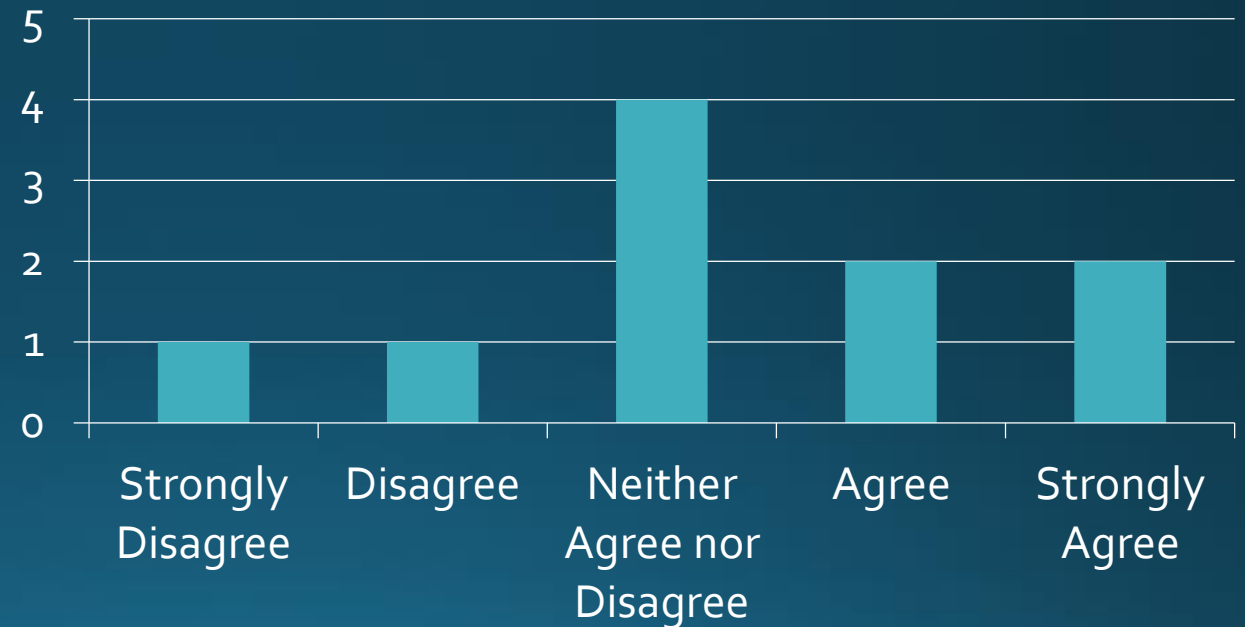
What we found

Rewards

These are graduate students

"I made the decision early on that I wasn't going to try really hard to get all of those badges because ultimately I knew that nothing would come of it."

I liked getting an award such as a badge. (N=10)



Learning from Our Mistakes

Learning from Our Mistakes

I could not keep up (Thanks Amira)

Prepared 74 quests before the semester

Some students finished all 74 in three weeks

More branches needed

Students exhibited “burn out”

There were not enough branches available to open a variety of
quests

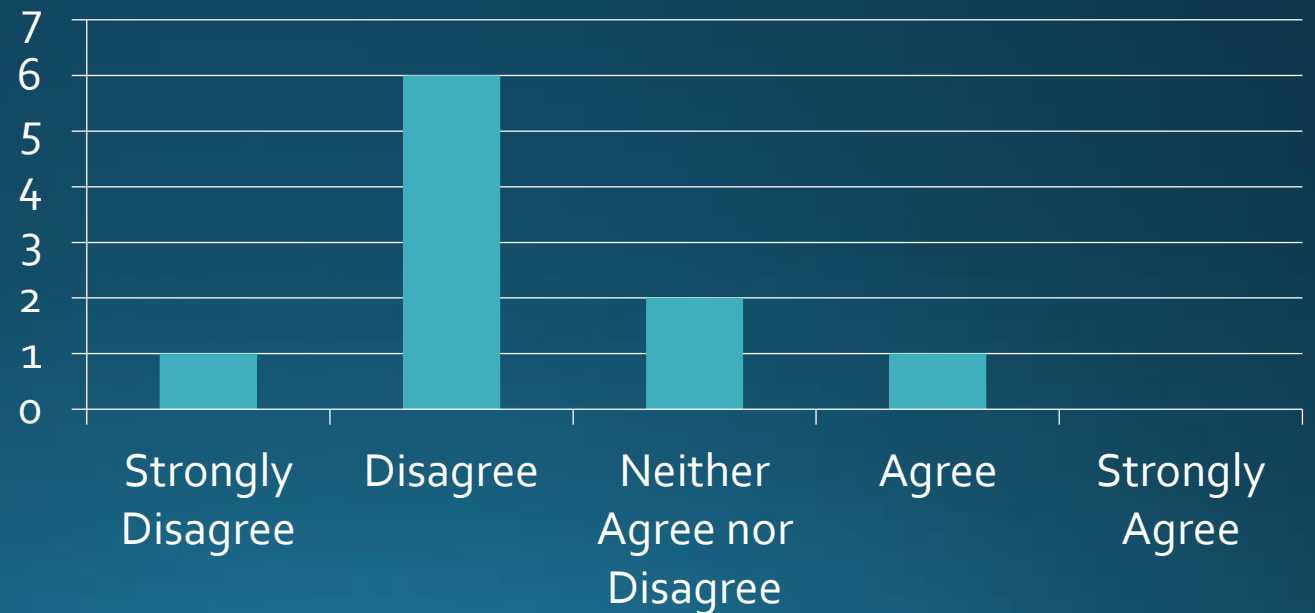
Learning from Our Mistakes

XP did not match the level of the task

Students did not do certain quests because they felt that it was not worth the XP

Does time equate XP?

Time placed into a quest and corresponding XP did not influence my desire to complete that quest. (N=10)



Learning from Our Mistakes

There was no roadmap offered to the students

Students expressed that if they knew what was coming up, they would move through unpleasant quests to get to other ones

Students would have felt overwhelmed if they knew what was ahead

Other students felt if they would have seen the tasks then it would have overwhelmed them

Learning from Our Mistakes

Students shut down after leveling to maximum

Students stopped working after they achieved 2000 points

Remember that there were 147 quests and 26 students

"After I'd reached the XP I thought was good enough for me to walk away from the course content guilt free, then I just stopped."

XP	Completed
2565	104
2485	99
2440	90
2390	93
2200	92
2200	87
2060	69
1860	87
1765	73
1685	50

Top Ten Scorers

Moving Forward

Moving Forward

Summer and Fall 2014 Undergraduates
Pre-service teachers' technology course

Thank you

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