Let's Learn

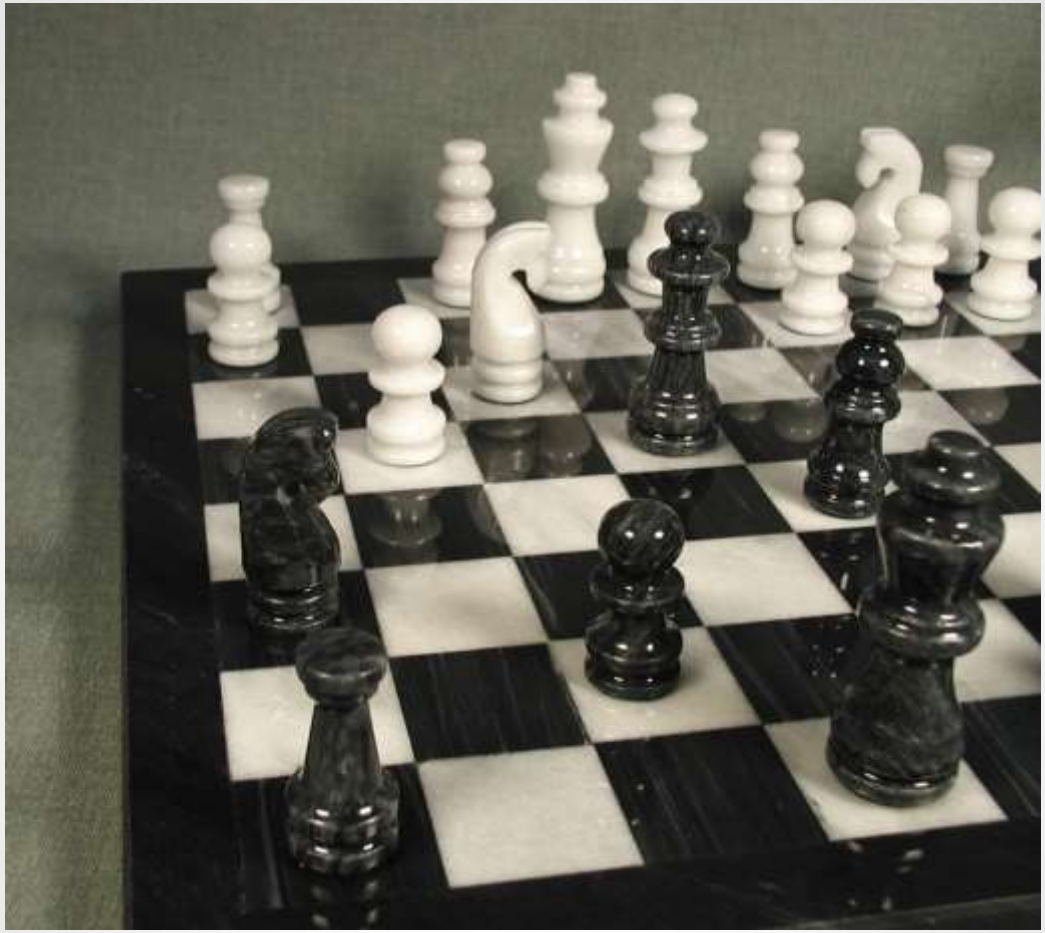
Experience learning through gaming

Kristjan Uba

Let’s Test 2015

Me

I test. I teach.
I help others to create stuff.
I like procrastination.



What would be your move?

Image: http://www.chesscentral.com/Marble_Chess_Set_p/ww-96016bw.htm

General notes

My experience.

Learning a skill:

- Able to use the skill on **different targets** well

Learning a product:

- Able to use **different skills** on target efficiently

Today

- Focus on learning complicated product
- Teams of X
- 3 hands-on sessions
- Debriefing and reflections after sessions
- Leaderboard and **prize**
- Concluding debrief

Testing?

In testing we need to quickly learn something new - create a model of how something works.

In order to be good at testing we need to be good at learning about stuff.

Target

We will play a game and measure our learning progress by getting to know the game as much as possible.

Exploration, planning, determination, notes, experimentation, paying attention - are the keywords for successful team.

Target

As projects tend to changes, the game changes as well. So there is no “one correct way” to do things.

Limited hands-on time means you need to use information from others - just in as in real testing project.

Reminder

You are **not looking for bugs** in the game.
You are **learning** to play the game.
You are under pressure of time and in competition. Focus and make an effort, but **don’t cheat**.
Then you can analyze your progress and learn about how you learn about stuff.

Leaderboard

Progress is measured by:

- Standing after each hands-on session
- Each session has different goal

Overall goal is to know as much as possible of the game.

Form Teams

Who knows the game -> Observers

Who generally knows gaming -> Team leads

Randomized starting positions

Rules of observation

Don’t distract the playing team.
Take notes.
Pay attention.

This is what it looks like.

Introduction time

Every team will have 5 minutes:

- try out the game
- prepare for the first round

The goal in first round is to get as much knowledge of the game as you can.

1st Round

Provide **evidence** of your broad knowledge of the game: game mechanics, goals, enemy types, etc.

Judged by observers and me, we value:
number of different facts (and clarity, broadness, presentation).

12 minutes per team hands-on time.

Debrief

- What kind of test design did you use?
- What was the most useful activity you did?
- Did you have a plan?

Learning steps

Every time we encounter something new we have to:

- Get the picture of what we already know about the "new" (or think we know)
  - is it completly new or are just looking at a new angle
  - difficult if we think we know enough
- Understand why do we need to know/understand
  - Gives us the context of how deep we need to go
  - Where to focus with the limited available time

Learning steps

- Give it some shape, to make it easier to handle
  - what is the "goal" of it
  - what are the features (critical, supporting)
  - what is the underlying technology (dependencies)
  - main use cases and business value (and general understanding target users)
- What are we missing (to learn it efficiently)
  - knowledge, yes, but which areas
  - skills to get the knowledge/use the product/etc.
  - how to bridge the gap (involve experts, buy tools)

Learning steps

Using the above, compile a quick plan, on what you want to understand first.
And what helps you on the way.

Testing?

- What are we actually dealing with?
- How to go about learning about complex product (map the inputs/outputs, distinguish important elements and their relations, creating test data, etc.)?
- How to understand the big picture (goal, main workflows, etc.) and what we (think we) already know?
- How to focus on small things to get clear info of their behaviour?
- How to defocus to get new info - and how small things fit into big picture?
- How to take notes of the live experiments? And share them
- How to make use of data other people have gathered (testing done before you were drafted to the project, etc.)?

2nd round - Details

Provide **as much details as** possible for:

- at least 4 enemy types
- Hero characteristics & abilities
- Map generation

Judged by observers and me.

Bonus points for number of equipped items & runes

2nd Round

5 mins for planning what to do in the next round of hands-on. **New person as player**.

10 mins per team
According to the leaderboard.

Debrief

- Did you have enough time for planning?
- Did you follow your plan? Why not?
- What was the most significant thing the other teams did?

Learning steps 2nd

Setting clear goals to update your models:

- Get details of important features and their relations
- Re-visit black-alley features, could be important
- Train specific skills to be more efficient
- Spread the roles within the team & build synergy
- Agree on approach
  - "Random" exploration, focus, systematic combing
  - Not to get bogged down in one specific bit
- How to take/update notes, form it into one big picture
- Set up toolchain to make it all work

Learning steps 2nd

Using the above, and the session goal, it seems apparent what to focus on.

And which strategies are more useful for getting ahead in the game.

Testing?

- How to establish experiments (clean environment, clear goal, failure states, dependencies) and then update your models accordingly?
- How to keep track of the plan - follow the plan
- Why have a plan at all? (to cover what you wanted to cover in this iteration, not stuck somewhere interesting)
- How to manage changes - update the plan
- How to 'keep track of the learnings' - also from other teams even if the projects are different

Management Happens

Restructuring is typical way “managers” think things get done faster.

Every team must choose someone from the other team to join them. Reverse order from leaderboards.

And no, you can’t have them back.

3rd Round

Get as high as possible - by level. With as low number of heirs as you can.

Good strategy beats blind rush.

3rd Round

5 mins for planning.

10 mins per team
According to the leaderboard

Winner

Congratulations.

Luck plays always some role, but information gathering, good notes, plan and discipline are very important.

Debrief

- Did the team structure and chosen strategy work for you?
- Did you learn from the discussions earlier - or did you have the same problems still?
- How did new team member change the dynamic?

Learning steps 3rd

Keeping the system going by:

- being able to deal with changes
- keep working as a team in new situations
- handling “the routine" to find new ways to learn more
- analyzing behaviour to find weak points and improve
- keeping up motivation, battling stress
- revisiting and challenging "old" knowledge

Learning steps 3rd

Today, the last session was about having a good plan to get the as much gold as possible.

And having a team to figure it out and carry it through.

Testing?

- Testing strategy in different phases (release day)
- How strict deadlines change people/rules
- Maintaining teamwork (support, coaching, trust, etc.)?
- Can the team adjust to change?
- Did you follow the original plan? What changed?
- Are you constantly improving?

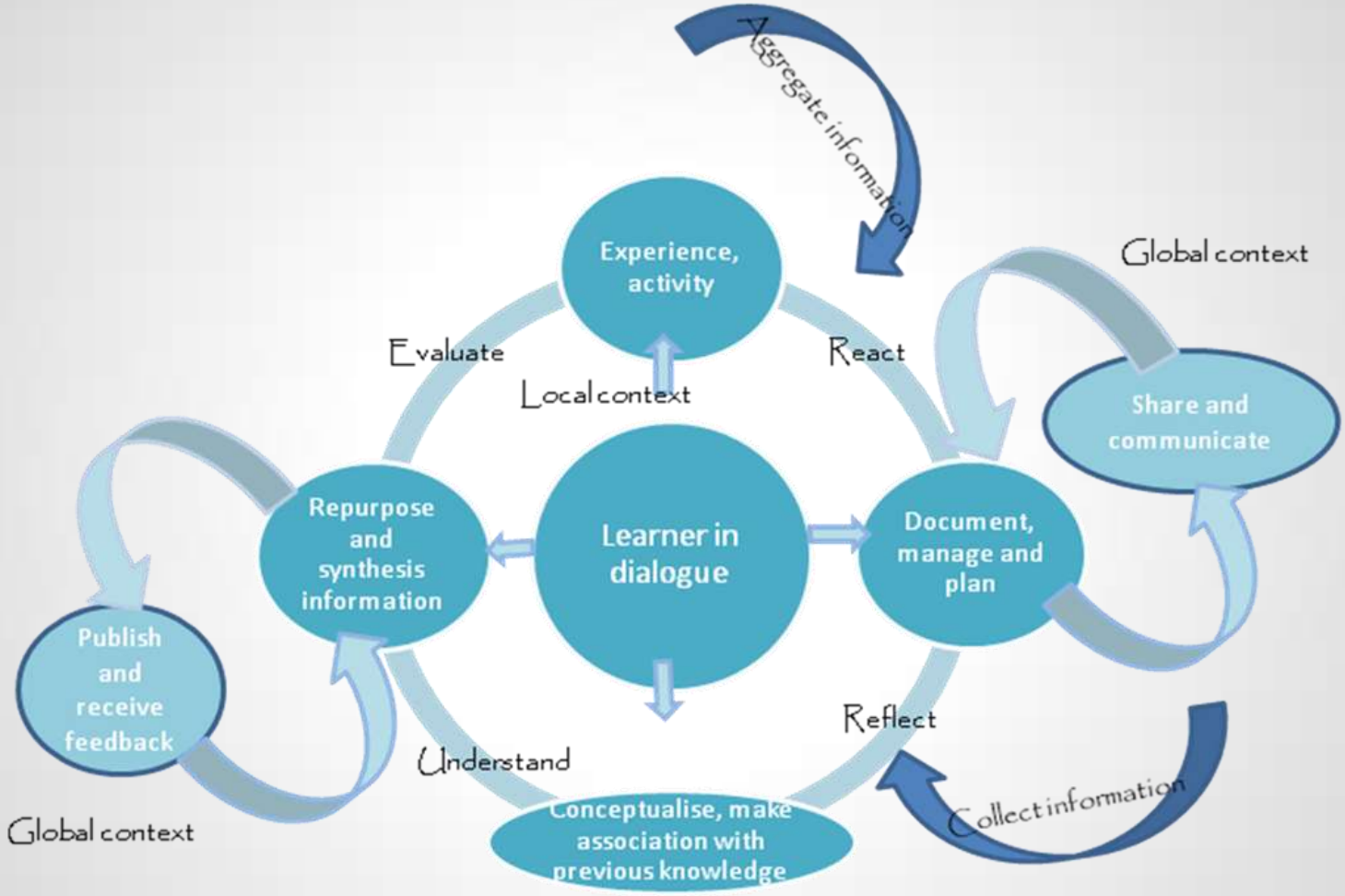
Conclusion

Learning to play a game is very much like testing:

- Complex product domain exploration
- Planning & managing time/resources
- Working with a team
- Analyzing your skills and improving

Learning steps, summary

Build the first model (what, why)
Update models and reflect (details, system)
Stable rhythm (change, reflection)



Kop, 2010, Model of learning in a Personal Learning Environment

Learning to learn

Today you experienced learning under pressure: time and competition.

Make sure you know what you tend to do and build yourself a rhythm for learning new stuff. Use mnemonics or checklists or pictures or friends.

Advice

- Don't practise until you can get it right - do it until you can't get it wrong!

- We are what we repeatedly do. Excellence, then, is not an act, but a habit.