AMERICAN COUNCILS
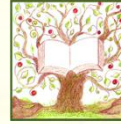## ACCESS KNOWLEDGE. ACCESS THE WORLD.

IN COOPERATION WITH

MEGA AND **ACADEMIA** NICOLAE DUMITRESCU

PROUDLY PRESENT

Operation P.E.A.C.E.

Practical & **E**ntertaining **A**dventure for **C**onflict-resolution and **E**nglish-teaching

Gamification Handbook

Operation P.E.A.C.E.: Gamification Handbook

The Gamification Handbook is a handy visual support tool for implementing gamification and "serious games" in English teaching on the topic of conflict resolution and peace building. It is aimed to be used by English teachers interested in developing games for their students, as well as for any person willing to use the power of games in teaching and learning. The Handbook should be used together with other literature on gamification, game design, and "serious game" development.

Any inquiries regarding the Gamification Handbook please address to Alexandr Iscenco, alexander@megageneration.com.

CONTENTS

INTRODUCTION

Dear Reader,

We, the American Councils for International Education in Moldova, Moldovan Environmental Governance Academy (MEGA), and Academia Nicolae Dumitrescu (AND), the organizers of the project "Operation P.E.A.C.E. Practical and Entertaining Adventure for Conflict-resolution and English-teaching" offer you the Gamification Handbook.

Gamification Handbook is a handy compendium of the most important tools, guidelines, and frameworks to support you in implementing the concept of gamification and "serious games" in your activity of teaching English with specific focus on the topic of conflict resolution and peace building. The Handbook is not a book or a manual on teaching what is gamification and how to use it. It is a visual support tool to recall and implement the main aspects of gamification and "serious game" development. Therefore for an in-depth understanding of this topic the Handbook should be supplied with other literature.

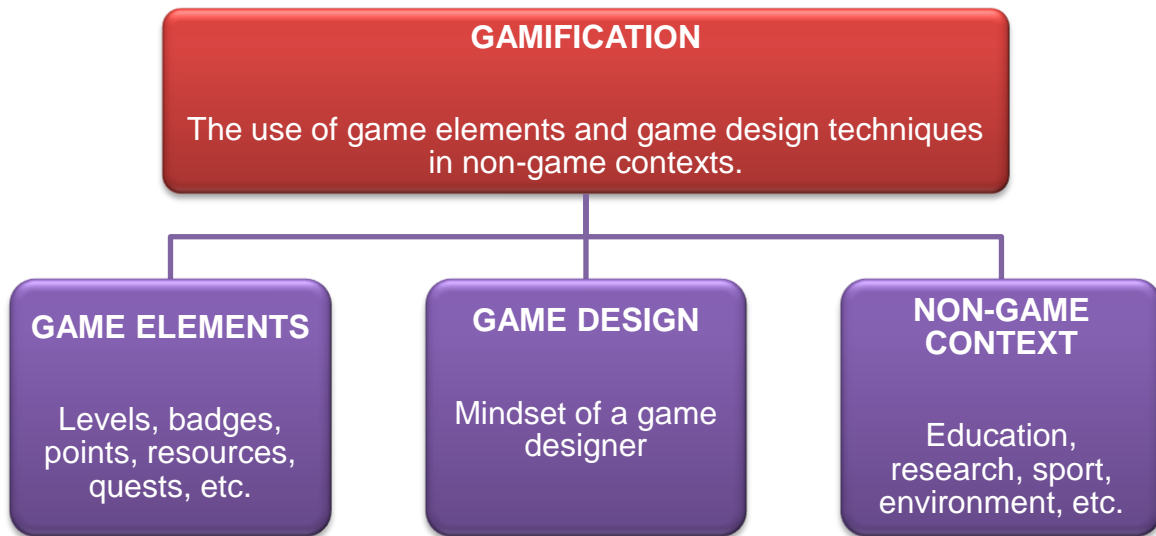We hope that the Gamification Handbook will be of good use to you in your activity of teaching English through games on the topic of conflict resolution and peace building. And we are always ready to receive your feedback on how we can make the Gamification Handbook even better and more practical and useful to you.

Happy reading, game-designing, and playing!

Yours,
American Councils, MEGA, and AND

GAMIFICATION: WHAT AND WHY

Definition of Gamification.

GAMIFICATION

The use of game elements and game design techniques in non-game contexts.

GAME ELEMENTS	GAME DESIGN	NON-GAME CONTEXT
Levels, badges, points, resources, quests, etc.	Mindset of a game designer	Education, research, sport, environment, etc.

Main Reasons for Implementing Gamification.

- Emerging learning practice
- Increased knowledge retention rate
- Games are powerful
- Games cause feel-good reactions
- **WHY GAMIFY?**
- Use of psychology of learning
- Games can motivate & inspire
- Students want this: games and fun
- Challenging but rewarding

GAMIFICATION AND LEARNING

The Learning Pyramid.

Average Retention Rates

5%	Lecture **5%**	
10%	Reading **10%**	Passive Teaching Methods
20%	Audio/Visual **20%**	
30%	Demonstration **30%**	
50%	Discussion Group **50%**	Participatory Teaching Methods
75%	Practice by Doing **75%**	
90%	Teach Others **90%**	
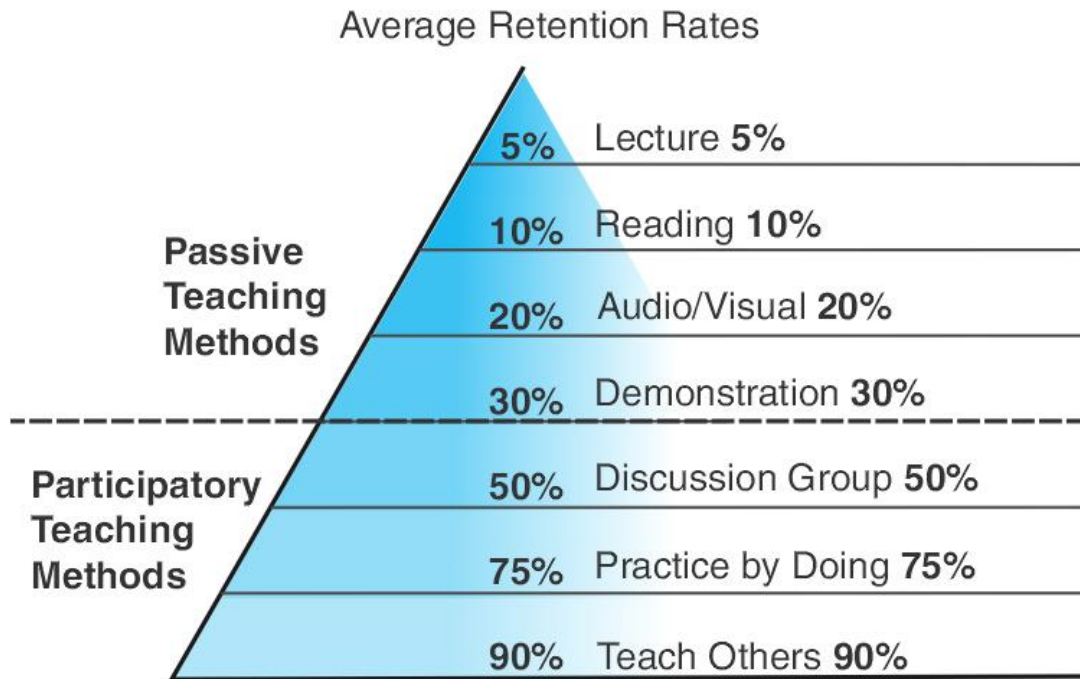
Adapted from National Training Laboratories. Bethel, Maine

Conflict Resolution Modes that can be integrated into Games.

Competing
—Zero-sum orientation
—Win/lose power struggle

Collaborating
—Expand range of possible opitions
—Achieve win/win outcomes

Compromising
—Minimally acceptable to all
—Relationships undamaged

Avoiding
—Withdraw from the situation
—Maintain neutrality

Accommodating
—Accede to the other party
—Maintain harmony

ASSERTIVENESS
Focus on my needs, desired outcomes and agenda

COOPERATIVENESS
Focus on other's needs and mutual relationships

Key Questions to Consider for Gamifying Learning Experience.

Purpose
- What problems are you trying to solve with games or by gamifying your learning?

Narrative
- How can you turn your content into a compelling story that will not only provide context for the learning but allow learners to actively interact with the content?

Progression
- What content could you organize into playing levels of increasing difficulty?

Motivation
- How can you reward and motivate your learners based on real outcomes vs. simple completion of tasks?

Time
- How can you use the concept of time within your games to mimic real-life situations?

Freedom to Fail
- Where could you leverage gaming elements as a means of providing a safe environment where learners can truly learn from their mistakes?

Feedback
- Can you rethink your learning experience design to incorporate immediate game-element feedback on an ongoing basis?

Tools
- What type of gamification experience could you create that addresses your problem statement? What game tools can you use?

Main Criteria for Effective Learning Games.

They are part of a larger learning strategy.

They provide an active learning experience.

They are designed to engage the learner through intrinsic motivation, resulting in learners playing multiple times.

They incorporate and encourage risk taking and learning from failures.

They offer challenges with increasing difficulty and consolidation of learning to overcome these challenges.

They prioritize performance over competence: "first you try and then you learn".

Satisfaction of Basic Human Desires by Gamification.

Green dots – the primary desire a particular game mechanic fulfills;
blue dots – the other areas that it affects.

| Game Mechanics	Human Desires					
	Reward	Status	Achievement	Self Expression	Competition	Altruism
Points	🟢	🔵	🔵		🔵	🔵
Levels		🟢	🔵		🔵	
Challenges	🔵	🔵	🟢	🔵	🔵	🔵
Virtual Goods	🔵	🔵	🔵	🟢	🔵	
Leaderboards		🔵	🔵		🟢	🔵
Gifting & Charity		🔵	🔵		🔵	🟢

GAMIFICATION AND GAMES

Differences between Games and Gamification.

Games	Gamification
Games have defined rules and objectives	May just be a collection of tasks with points or some form of reward
There is a possibility of losing	Losing may or may not be possible, because the point is to motivate people to take some action to do something
Sometimes just playing the game is intrinsically rewarding	Being intrinsically rewarding is optional
Games are usually hard and expensive to build	Gamification is usually easier and cheaper
Content is usually morphed to fit the story and scenes of the game	Usually game-like features are added without making too many changes to your content

Gamification is Integration of Parts of a Game into Specific Context.
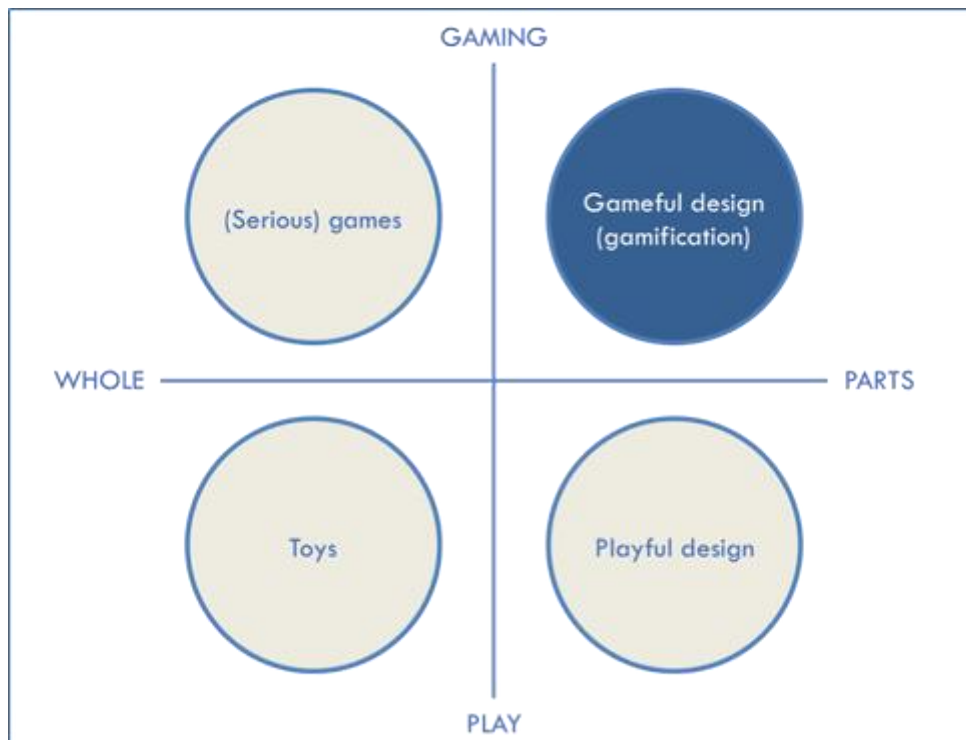
GAMIFICATION DESIGN FRAMEWORK

Werbach's 6D Gamification Design Framework.

6D FRAMEWORK

Define goal and objectives

Delineate target behaviors

Describe the players

Devise activity loops

Don't forget the fun

Deploy the appropriate tools

6D: DEFINE GOAL AND OBJECTIVES

Key Steps of Elaborating Gamification Objectives.

List and rank possible objectives for your gamification initiative.

Go through the list and review your objectives. Try to categorize them and limit to maximum 3.
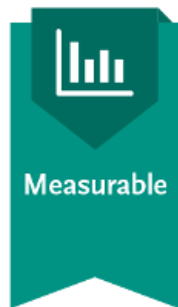
Connect and justify your objectives.

Criteria for S.M.A.R.T. Objectives.
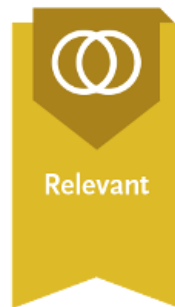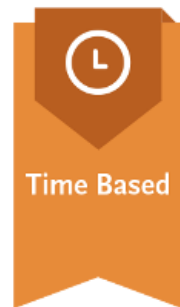
SMART

Specific	Measurable	Attainable	Relevant	Time Based

6D: DELINEATE TARGET BEHAVIORS

Main Ways to Stimulate the Desired Behavior in Players.

Ways to Stimulate Desired Behavior	**Status**	Award a special social status to the player
	Access	Give special access to certian information / opportunities
	Power	Offer special powers to the player
	Stuff	Give physical rewards and prizes to the player
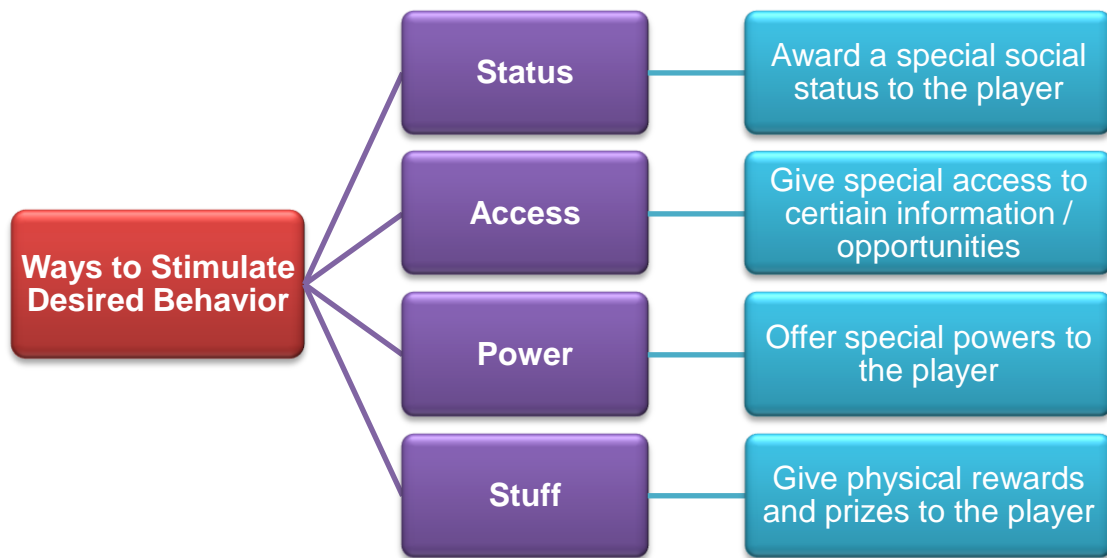
Fogg's Behavior Change Model.

6D: DESCRIBE THE PLAYERS

Key Needs of a Player to Take into Consideration.

Player's Needs

- To be in the center of the game
- To feel authonomy and freedom
- To experience fun and enjoyment
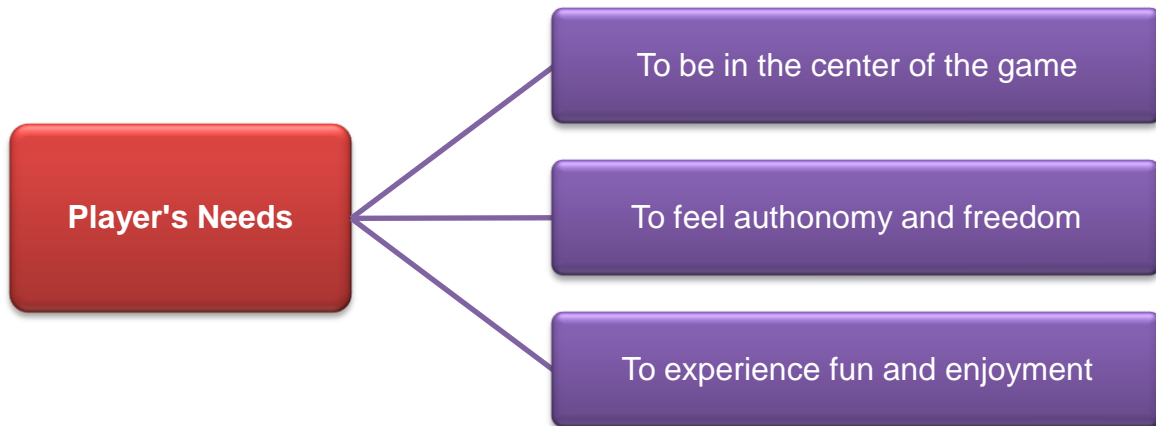
Bartle's Types of Players.

Killers

Defined by:
A focus on winning, rank, and direct peer-to-peer competition.

Engaged by:
Leaderboards, Ranks

Achievers

Defined by:
A focus on attaining status and achieving preset goals quickly and/or completely.

Engaged by:
Achievements

Socialites

Defined by:
A focus on socializing and a drive to develop a network of friends and contacts.

Engaged by:
Newsfeeds, Friends Lists, Chat

Explorers
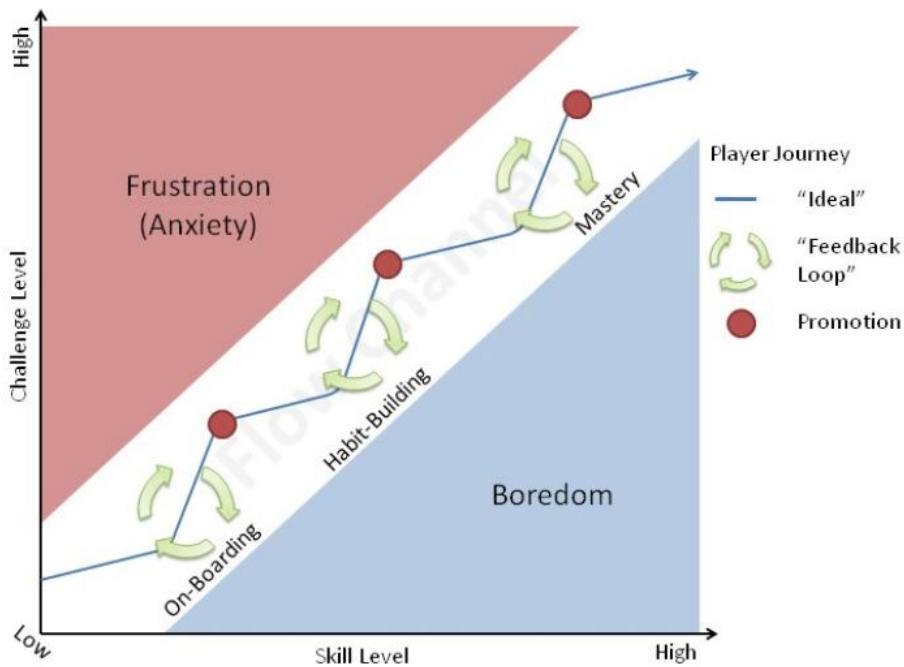
80%

Defined by:
A focus on exploring and a drive to discover the unknown.

Engaged by:
Obfuscated Achievements

6D: DEVISE ACTIVITY LOOPS

Player's Journey within a Game.

Engagement Loop of a Game.
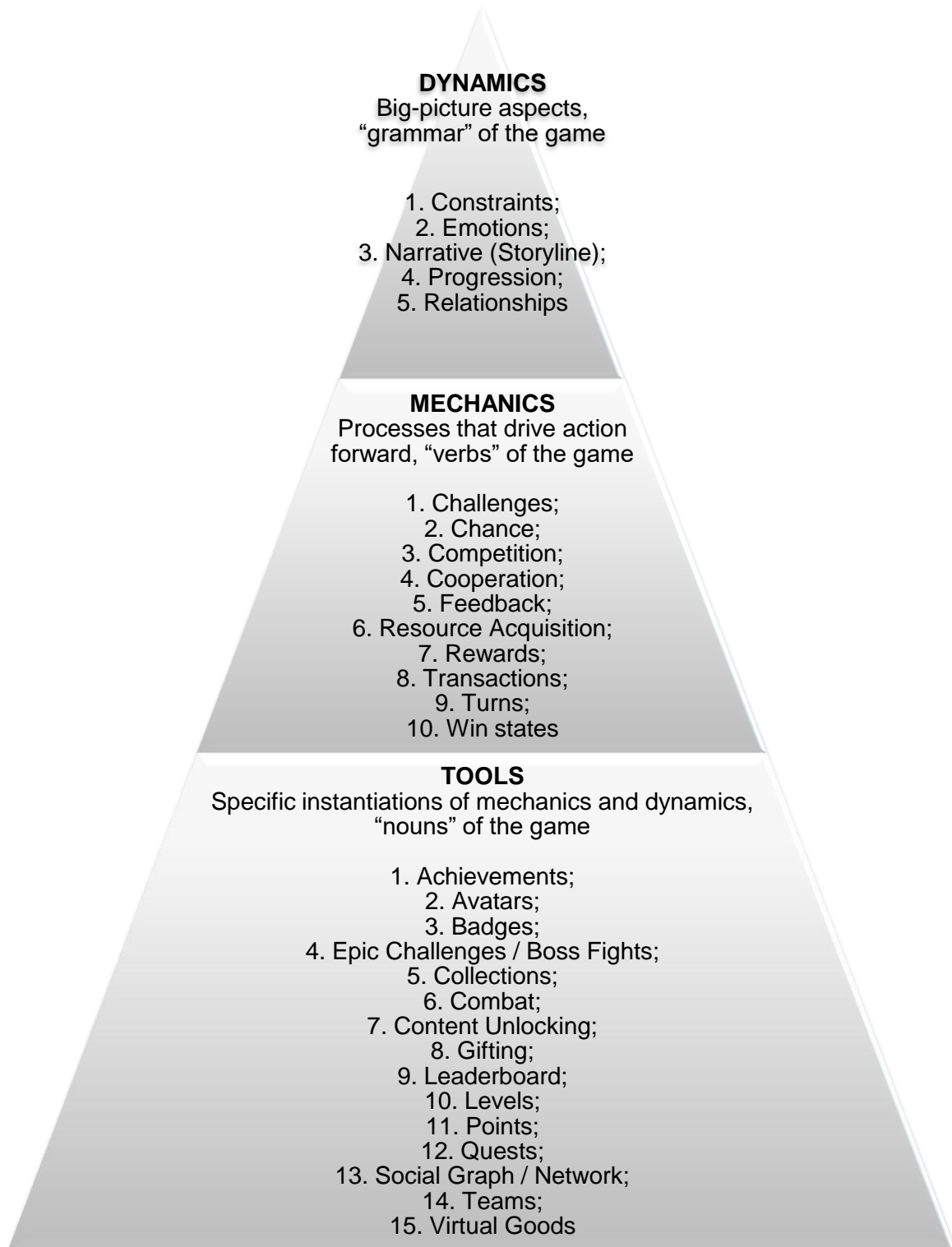
6D: DONT FORGET THE FUN

Different Types of Fun that can be used in Games.

Different types of **FUN**: Winning, Problem-solving, Exploring, Teamwork, Recognition, Collecting, Surprise, Creativity, Sharing, Socialization, Role playing

6D: DEPLOY APPROPRIATE TOOLS

Hierarchy of Gamification Elements.

DYNAMICS
Big-picture aspects,
"grammar" of the game

1. Constraints;
2. Emotions;
3. Narrative (Storyline);
4. Progression;
5. Relationships

MECHANICS
Processes that drive action
forward, "verbs" of the game

1. Challenges;
2. Chance;
3. Competition;
4. Cooperation;
5. Feedback;
6. Resource Acquisition;
7. Rewards;
8. Transactions;
9. Turns;
10. Win states

TOOLS
Specific instantiations of mechanics and dynamics,
"nouns" of the game

1. Achievements;
2. Avatars;
3. Badges;
4. Epic Challenges / Boss Fights;
5. Collections;
6. Combat;
7. Content Unlocking;
8. Gifting;
9. Leaderboard;
10. Levels;
11. Points;
12. Quests;
13. Social Graph / Network;
14. Teams;
15. Virtual Goods

Examples of Applying Gamification Elements in Learning.

POINTS
- Use points to indicate current status and progress in learning.
- Points should unlock access to new content and levels.

ACHIEVEMENTS
- Make them meaningful for players and difficult to ubtain.
- Allow players to show off their achievements to others.

LEADERBOARD
- Make sure the leaderboard displays the results that are important for learning goals.
- Create several leaderboards: for all players, for friends, for specific region, etc.

LEVELS
- Break down the player's journey into several levels with prerequisites to be achieved for each level.
- Allow players to level up based on their active participation and learning results.

CHALLENGES
- Configure the challenges based on the actions and behaviors that you're tracking.
- Vary the length, difficulty, and completion time of the challenges.
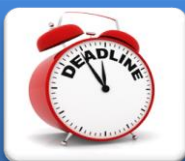
TIME-BASED ACTIVITIES
- Use time constraints to create a sense of urgency within players.
- Useful when the learning goal is prioritization of certain tasks.

FREEDOM TO FAIL
- Design multiple attempts into game interactions.
- Provide positive instructional feedback when players fail on the first attempt, and give them opportunities to try again.

NARRATIVE
- Set up a storyline that unfolds gradually throughout the gaming experience.
- Create a compelling plot that creates a sense of tension and establishes a conflict. The learning opportunities lie within the conflict..

GAMES & GAMIFICATION EXAMPLES
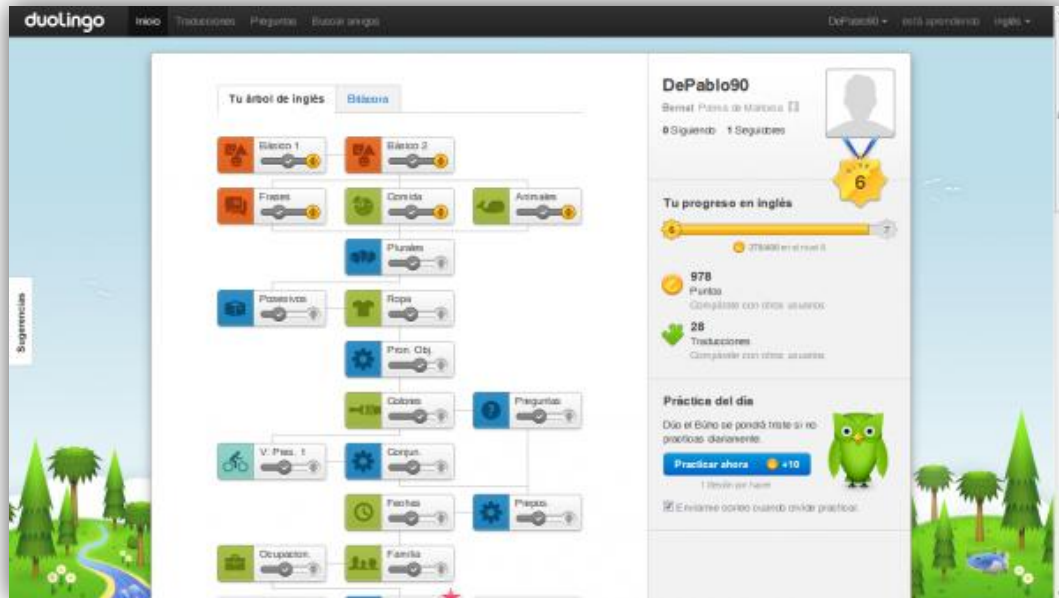
Conflict Resolution Vocabulary Game

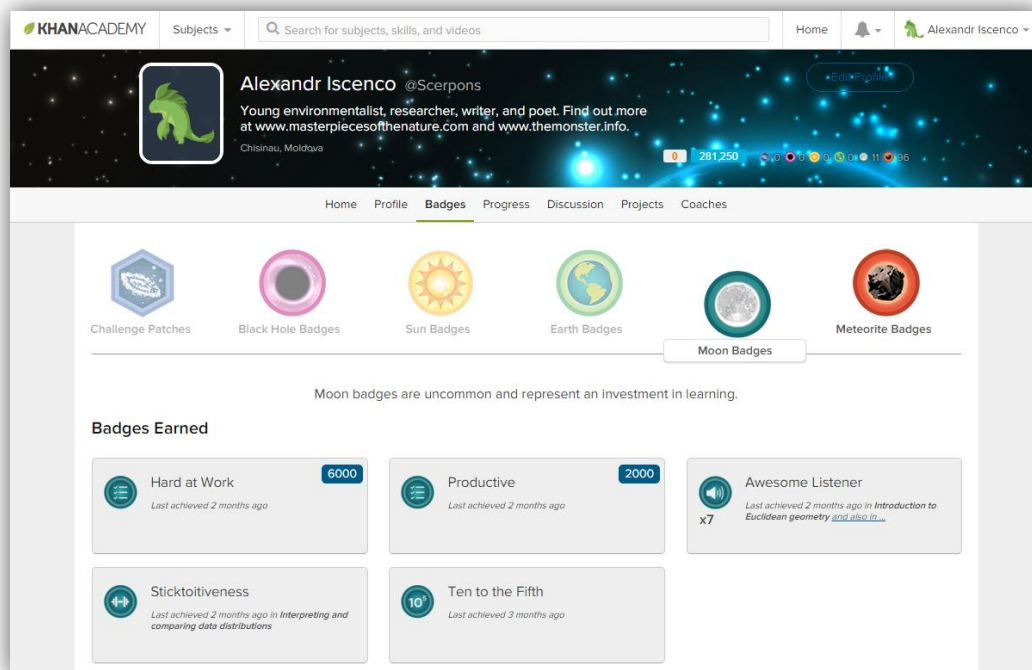Link: https://www.teacherspayteachers.com/Product/Conflict-Resolution-Game-1100049
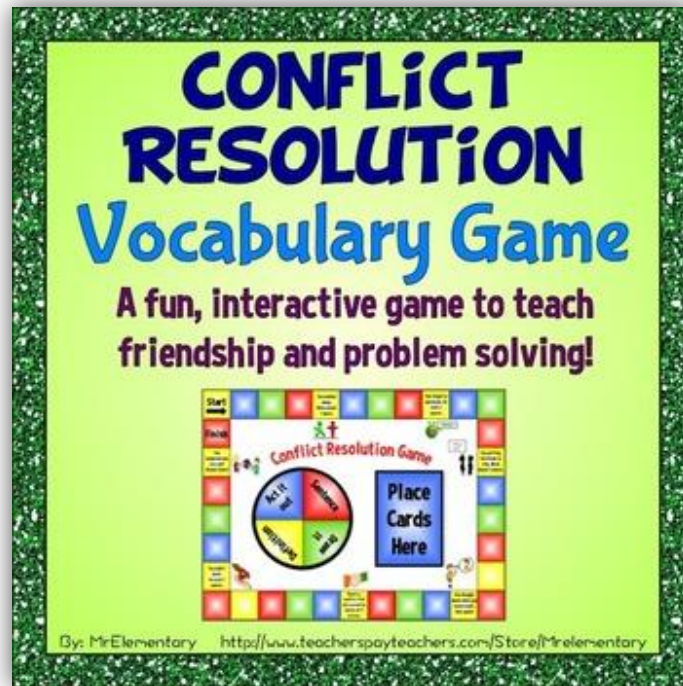
Conflict Resolution Word Search

Link: http://www.creducation.org/resources/cr_word_search/index.html

Duolingo

Link: https://www.duolingo.com

Khan Academy

Link: https://www.khanacademy.org

Peacetown: A Conflict Resolution Game

Link: http://www.childtherapytoys.com/store/product5458.html

Social Conflict Game

Link: https://shop.acer.edu.au/acer-shop/group/SCG

The Conflict Resolution Board Game

Link: http://www.childtherapytoys.com/store/product431.html

The Talking, Feeling & Doing Conflict Resolution Card Game

Link: http://www.childtherapytoys.com/store/the-talking-feeling-doing-conflict-resolution-card-game-moreinfo.html

Trace Effects

Link: http://traceeffects.state.gov

UN Global Compact Dilemma Game

Link: http://designtoimprovelife.dk/finalist2011-48

REFERENCES AND RESOURCES

1. Coursera, 2015. Gamification course. Available at
   https://www.coursera.org/learn/gamification

2. Enders, B. 2013. Gamification, Games, and Learning: What Managers and
   Practitioners Need to Know. Available at:
   http://www.elearningguild.com/research/archives/index.cfm?id=168&action=viewonly

3. Iversity, 2015. Gamification Design 2015 course. Available at:
   https://iversity.org/en/login

4. Kapp, Karl M. 2012. The Gamification of Learning and Instruction: Game-based
   Methods and Strategies for Training and Instruction. Available at
   http://www.amazon.com/The-Gamification-Learning-Instruction-Game-
   based/dp/1118096347

5. Manrique, V. 2015. Epic Win Blog: Gamification. Available at:
   http://www.epicwinblog.net

6. Manrique, V. 2013. The Gamification Mechanics Toolkit. Available at:
   http://www.epicwinblog.net/2013/10/the-35-gamification-mechanics-toolkit.html

7. McGonigal, J. 2011. Reality Is Broken: Why Games Make Us Better and How They
   Can Change the World. Available at http://janemcgonigal.com/my-book

8. Scannell, M. 2010 The Big Book of Conflict Resolution Games. Available at
   http://www.institutik.cz/wp-content/uploads/2010/10/The-big-book-of-conflict-
   resolution-games.pdf

9. Sheldon, L. 2011. The Multiplayer Classroom: Designing Coursework as a Game.
   Available at http://www.amazon.com/The-Multiplayer-Classroom-Designing-
   Coursework/dp/1435458443

10. TED, 2015. Jane McGonigal: Gaming Can Make a Better World. Available at
    https://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world

11. Werbach, K. and Hunter, D. 2012. For the Win: How Game Thinking Can
    Revolutionize Your Business. Available at http://wdp.wharton.upenn.edu/book/for-
    the-win

12. Werbach, K. and Hunter, D. 2013. For the Win: Serious Gamification. Available at
    http://gamifyforthewin.com

13. Werbach, K. and Hunter, D. 2015. The Gamification Toolkit: Dynamics, Mechanics,
    and Components for the Win. Available at
    http://wdp.wharton.upenn.edu/book/gamification-toolkit

GAMIFICATION HANDBOOK
PREPARED BY

GAMIFICATION HANDBOOK SPONSORED BY