

EUROPE ATP
2018

Athens, Greece



TRANSFORMING ASSESSMENTS

It's Not All Fun and Games: Real-World Considerations for Performance Assessments and Gamification

VIDEO EXAMPLE



DR. MANNY STRAEHLE



- Inventor of the Swearing Chicken
- Ph.D. in Educational Psychology
- ABD in Counseling Psychology
- IT Certifications: GISF, Data Management Support
- Therapy Certifications: Social Therapy
- Testing Organizations Worked at:
 - Psychometrics: NBME, Prometric, USGBC
- Organizations founded:
 - International Credential Associates
 - Assessment, Education, and Research Associates (AERE)
- University Teaching Experiences: Temple, Penn State, Saint Joseph's University, Johns Hopkins, USC, and George Washington University
- Number of Organizations Consulted: 100+
- Social Responsibility: TEDx, E-ATP, ATP, ACA, ALA, Special Olympics, Spark, ESI, Habitat for America
- Number of Presentations: 70+
- Interests: Pizza Making, Presidential Libraries, Healthcare Communications, Pro Bono, Family, Friends, and Good Laughs

NIKKI EATCHEL



- 24+ Years in the Assessment Industry
- Chief Assessment Officer, Scantron
- Led Assessment/Psych Teams at Prometric, Questar, Exterior
- Chair Emeritus, ATP 2018
- Board Chair, ATP 2017
- Chair Security Committee 2011-2014
- ADP Services Provided in over 30 Countries
- ADP Services Provided in all 50 States (the District of Columbia)
- Number of Presentations: 60+
- Social Responsibility: E-ATP, ATP, ICE, CLEAR, Angels' Hands, Dress for Success, MN Sandwich Project
- Interests: Family, Music, Food, Wine

1. Definitions
and Examples

4.
Considerations

2. History

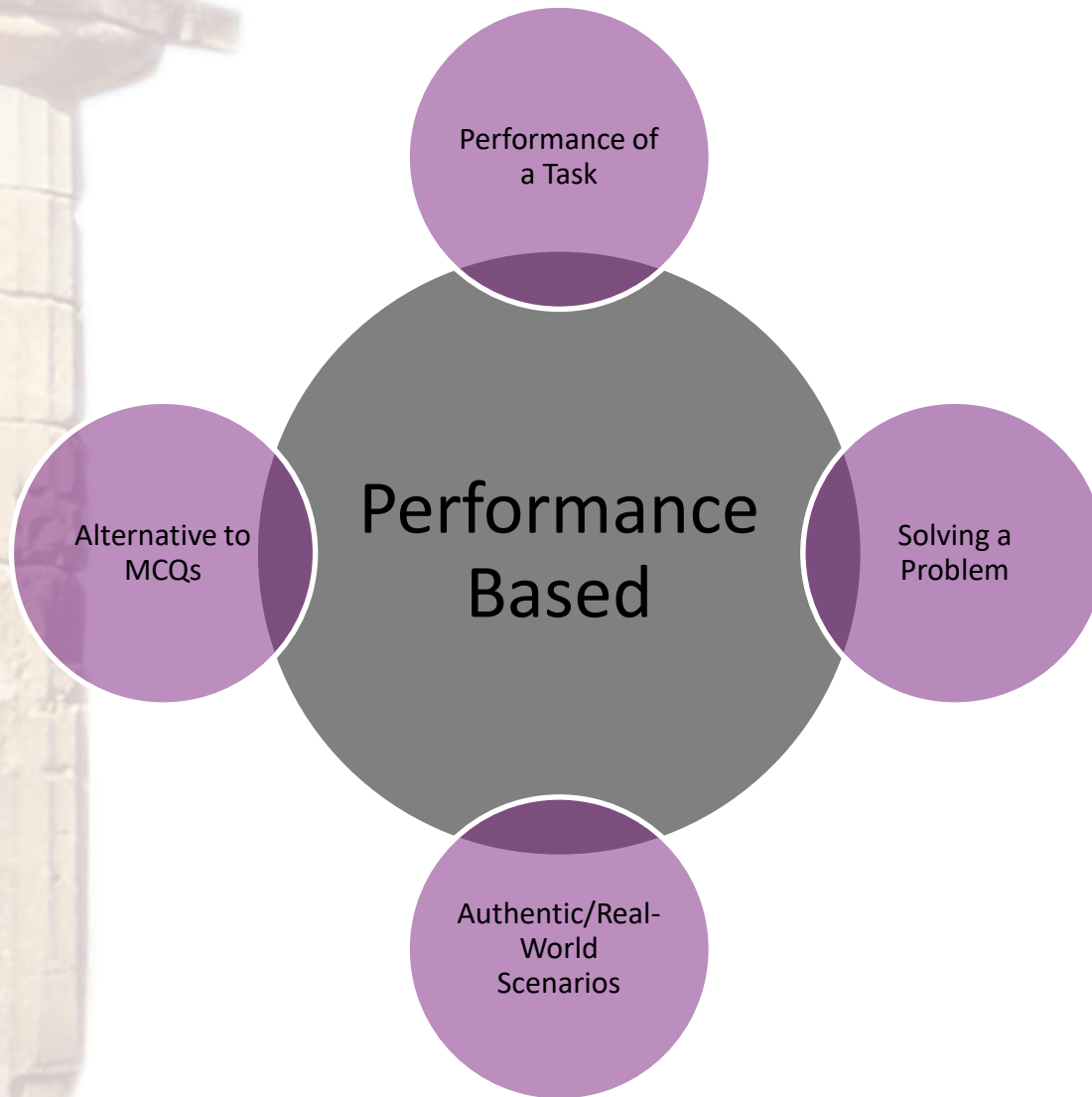
3.
Examples

PBA - DEFINITION

Test taker demonstrates skills by doing real-world tasks.

This demonstrated performance can create a more holistic evaluation in which both knowledge and observable skills are assessed.

PBA - DEFINITION



Performance-Based Items (within traditional exam)

Performance-Based Tasks (outside traditional exam)

Live Practical Exams

Computer-Based Simulations

“Live” Simulations

PBA - ADVANTAGES

Allows for evaluation of multiple tasks,
knowledge, skills

Provides opportunity to assess higher
Depths of Knowledge

Enables assessment under simulated
emergency and infrequent conditions

- Topic: Understanding biological diversity
- Possible Task Design
 - bring the students to the pond or creek
 - Ask them to find all living organisms near pond or creek
 - Bring them to school playground to find as many living organisms they can find

Observe how the students will develop a system for finding such organisms, classify the organisms and concluding the difference in biological diversity of the two sites.

<i>Presentation Introduction</i>		
Performance Step	Yes	No
Welcome and thank the audience		
State purpose of the presentation		
Give an outline of the presentation		
Use discourse markers in outline		
Mention admin rules (questions, breaks)		
Signal the end of the introduction		
Introduce the first topic using signposting		
Maintain eye contact with audience		
Speak clearly		
Use appropriate body language		
Total		



Teaching Performance Assessment

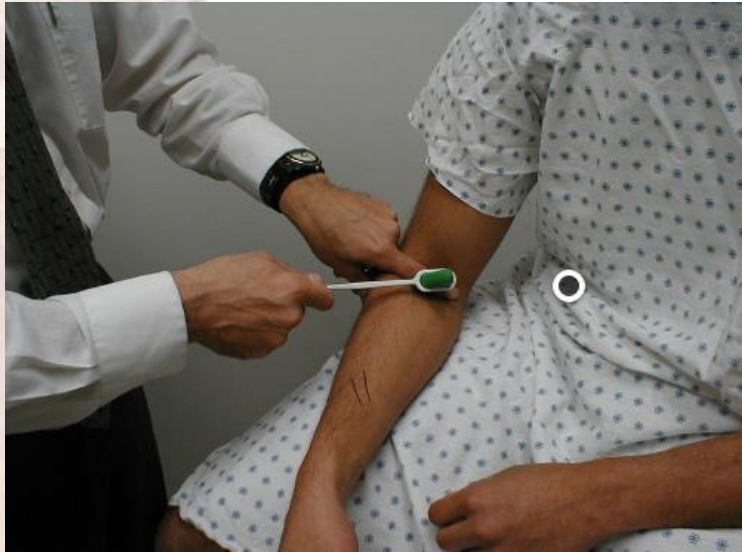
	Exceptional: Meets expectations at least 90% of the time. (4,000 pts)	Proficient: Meets expectations at least 80% of the time. (3,000 pts)	Developing: Meets expectations at least 70% of the time. (2,000 pts)	Needs Improvement: Does not meet program expectations. (1,000 pt)
Written Lesson Plan	Lesson plans are consistent; detailed and clear; have a logical flow; are developmentally appropriate and build on student prior knowledge.	Lesson plans are typically: detailed and clear; have a logical flow; are developmentally appropriate and build on student prior knowledge.	Lesson plans are inconsistent: in detail and clarity in logical flow; in developmentally appropriateness and in building on student prior knowledge.	Does not meet program expectations.
Lesson Plan Objectives	Consistently clear, performance-based, relate to important concepts and/or skills, can be assessed, LO are reflected in the lesson and correlate with state standards.	Typically clear; performance-based; related to important concepts and/or skills; care assessable; LO are reflected in the lesson and correlate with state standards.	Inconsistently in clarity; in performance-based, in relation to important concepts and/or skills, unassessable, are not reflected in the lesson and LO may not correlate with state standards.	Does not meet program expectations.
Lesson Plan Subject Matter	Consistently demonstrate knowledge beyond the text and teachers' guides, are accurate and free of content errors, and address content misconceptions.	Typically demonstrate knowledge beyond the text and teachers' guides, are accurate and free of content errors, and typically address content misconceptions.	Inconsistently demonstrate knowledge beyond the text and teachers' guides, have content errors, and fail to address content misconceptions.	Does not meet program expectations.
Pedagogical Content Knowledge	Consistently utilizes methods of instruction that are appropriate to content and context and encourage students to produce high quality work.	Typically utilizes methods of instruction that are appropriate to content and context and encourage students to produce high quality work.	Inconsistently utilizes methods of instruction that are appropriate to content and context and is inconsistent in encouraging students to produce high quality work.	Does not meet program expectations.
Differentiation	Consistently provide multiple ways for learners with differing abilities to engage with content and provide for reviews for early and late	Typically provide multiple ways for learners with differing abilities to engage with content and provide for early and late finishers	Inconsistently provides ways for learners with differing abilities to engage with content and provide for early and late finishers	Does not meet program expectations.

LIVE PRACTICAL EXAMS

Practical exams



Practical exams



COMPUTER-BASED SIMULATIONS

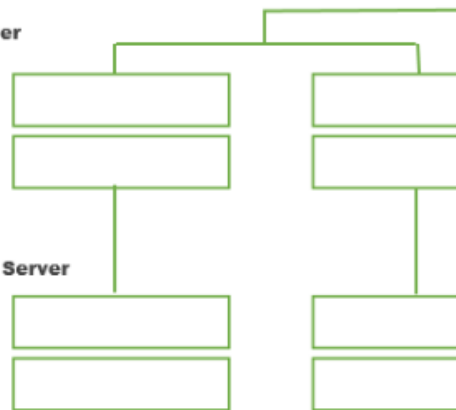
Exam 1

5.3 Install and configure security controls when performing account management, based on best practices.

Look at the output of the hacker's machine (redacted script below) and determine the server being attacked and the attack method. Then identify the best defense against that attack. First, choose the machine that is under attack. Then, choose the attack type and appropriate defense from the drop down menus.

```
evilhacker@ubuntu:~$ ./SSL [REDACTED] Attack.py 192.168.1.2 [REDACTED]
[+] Attacking Host : 192.168.1.2
[+] Trying to break in with username: admin password: admin
[-] Failed! ...
[+] Trying to break in with username: admin password: password
[-] Failed! ...
[+] Trying to break in with username: root password: t
[-] Failed! ...
[+] Trying to break in with username: root password: a
[-] Failed! ...
[+] Trying to break in with username: bonanzaming
[-] Success .. username: bonanzaming and password mv
```

Web Server



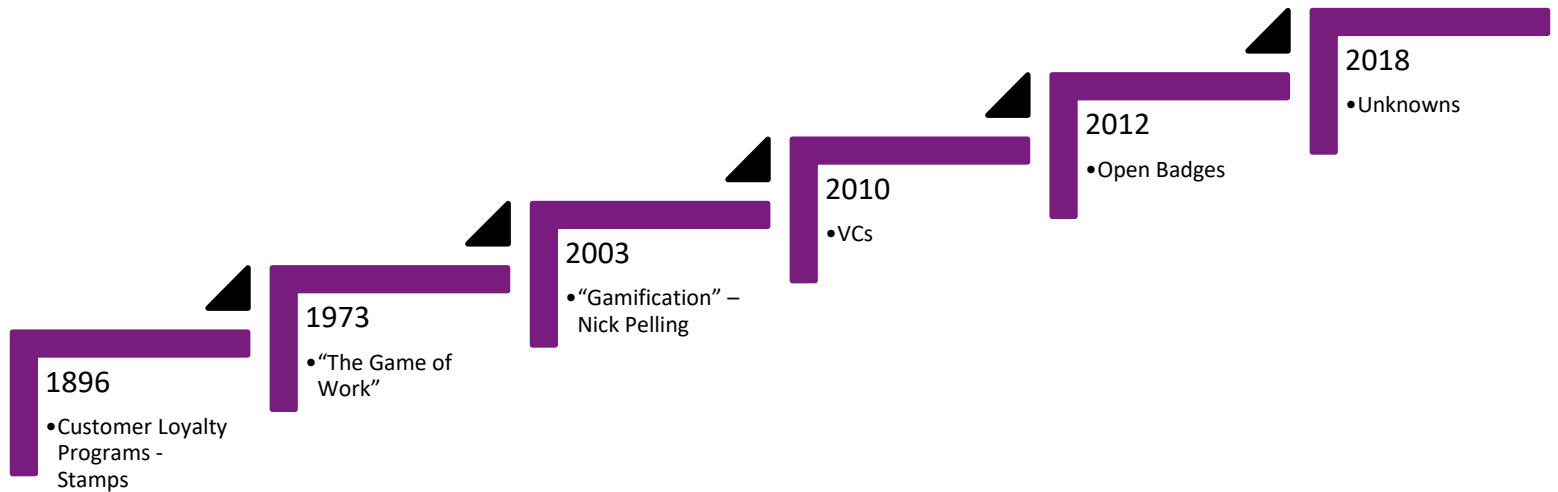
Windows Server





Simulation Exams

HISTORY OF GAMIFICATION



Gamification

Gamification is the application of **game-design elements** and game principles in non-game contexts

Gamed-Based Assessments

Develop an assessment more like a game and assess an individual on an existing game

GBA Purpose

- Develop, attain, and demonstrate mastery
- Engage
- Motivate

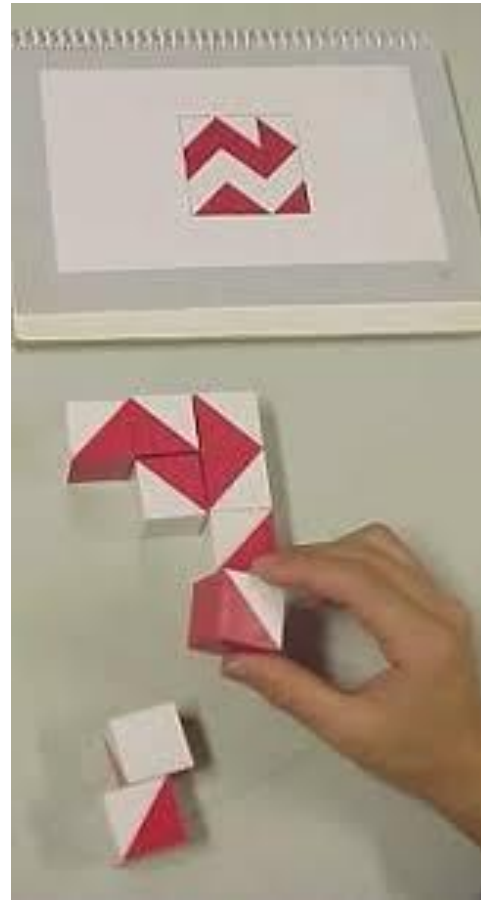
GBA – KEY ELEMENTS



GBA – REWARDS



GAMIFICATION



GAMIFICATION EXAMPLE



GAMIFICATION EXAMPLE



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#2

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GAMIFICATION EXAMPLE

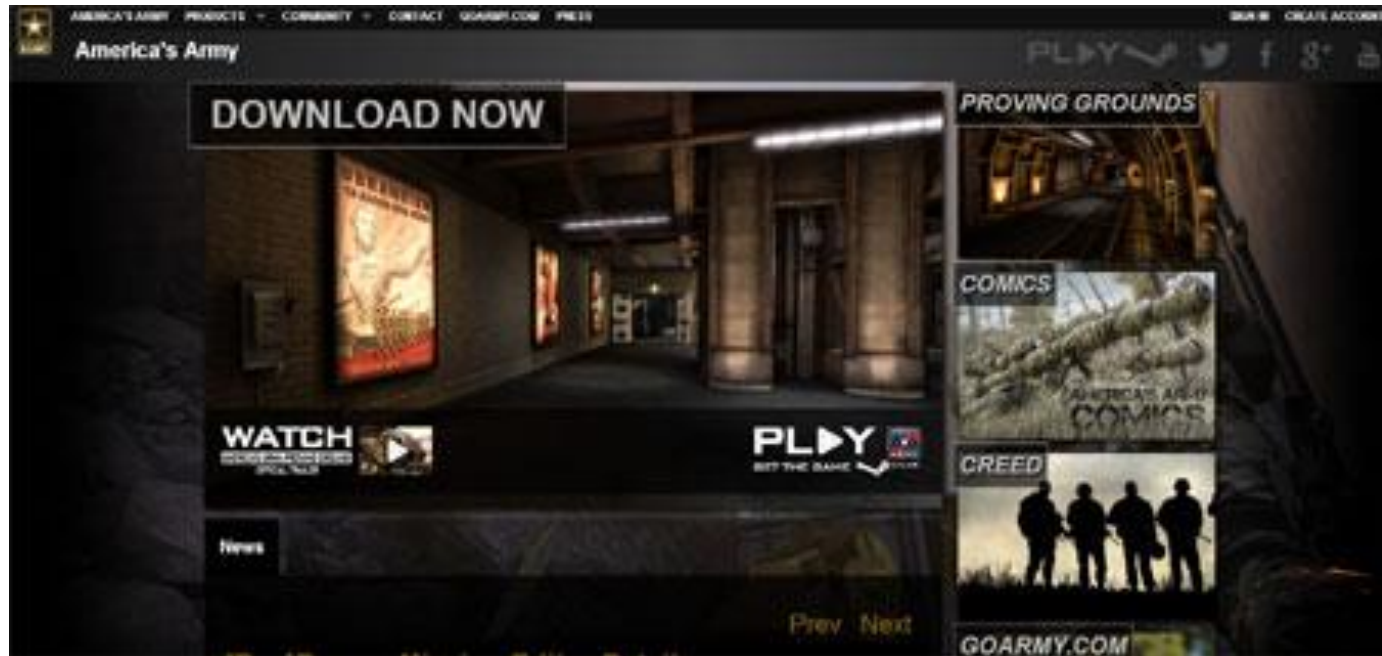
Risk Management ★ RATE THE COURSE ☑ RECOMMEND THE COURSE 📄 RESOURCES

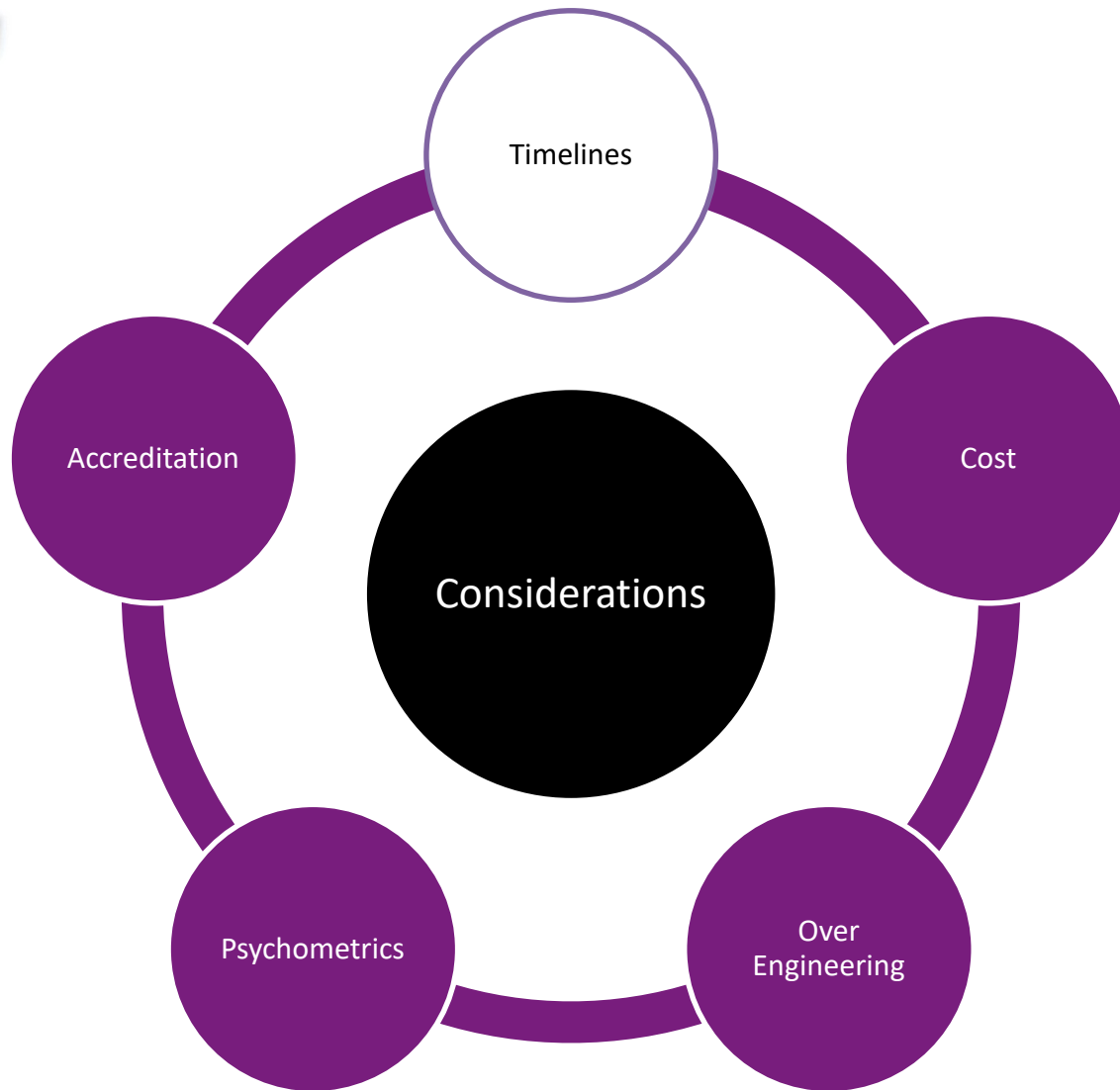
THE COMPANY

Select each section in the given order to do the security audit. To move to the next building, you have to pass the authentication test at the Exit door of each building.

MENU 0 25

GAMIFICATION EXAMPLE





PBA

Item/Exam Design
1-2 years

Simulator Design
2-3 years

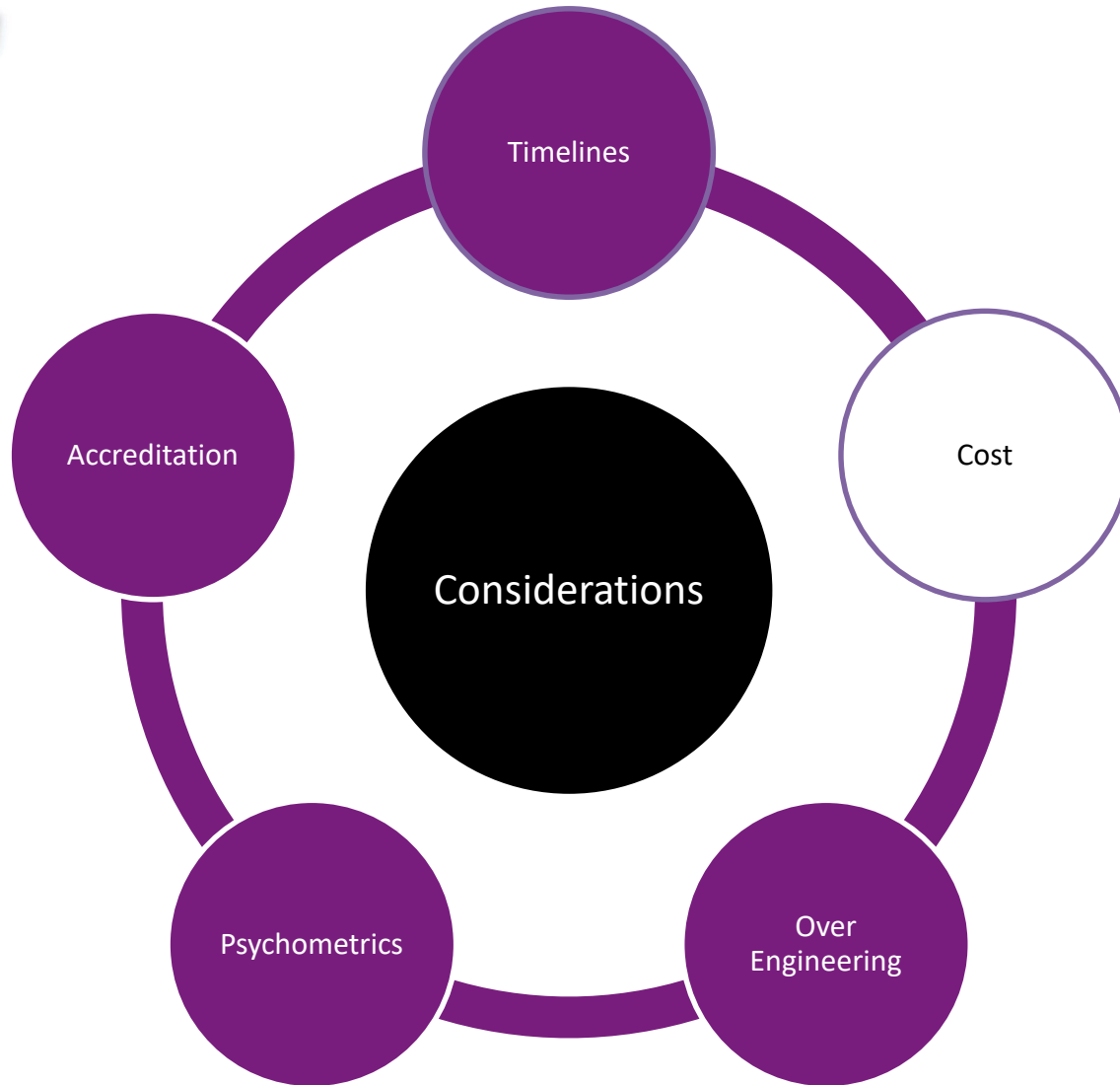
GBA

Game Design

- 2 years

JA/LOs

- 2 to 6 Months



PBA

Initial

PBA \$5-25k per activity

Practical \$50-250k+ per exam

Simulator (Varies Largely)

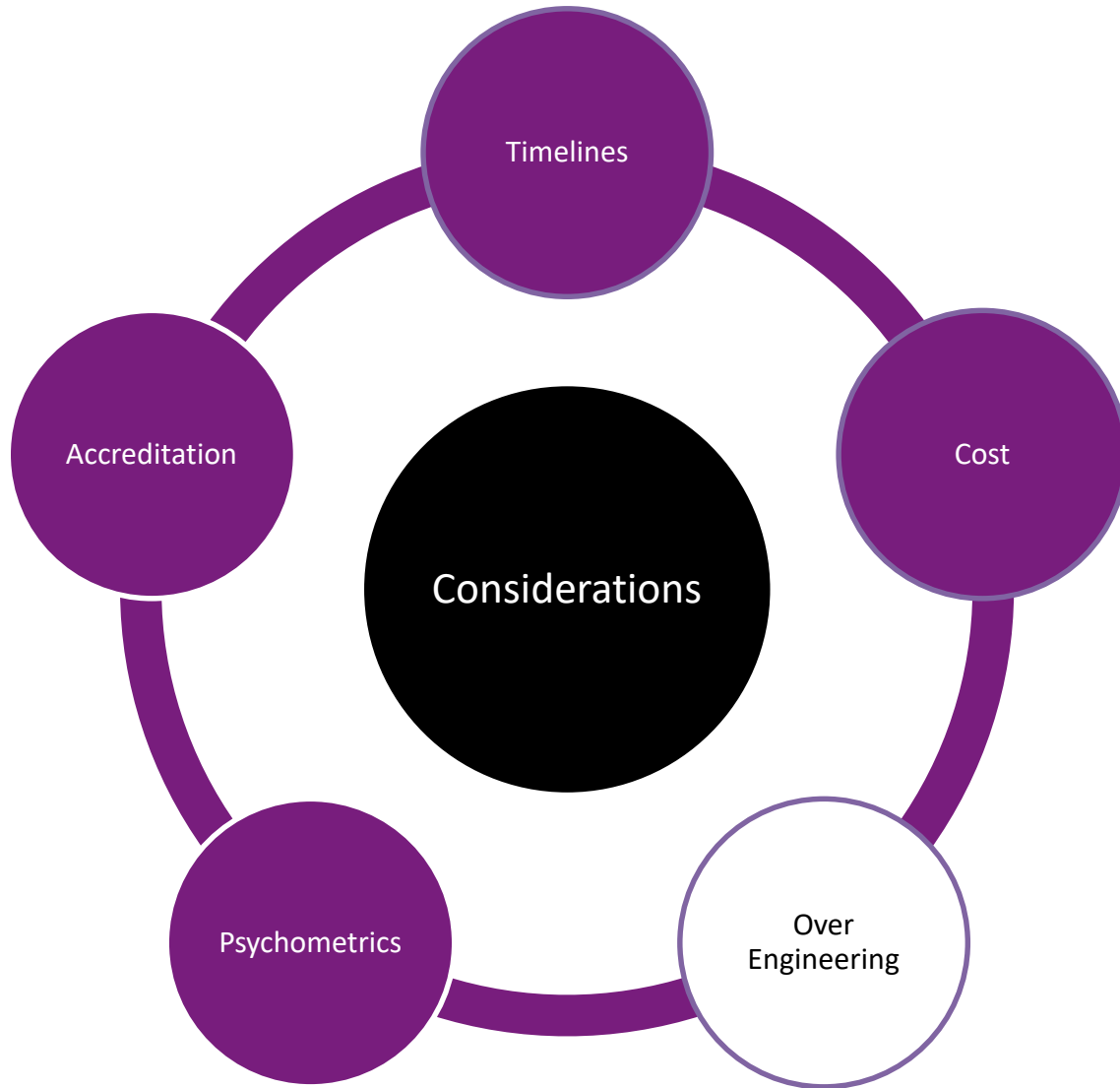
Maintenance

GBA

Initial

- Typical Game Development
 - \$1 to \$10 million of typical game development
- Serious Games
 - 46K to 233K

Maintenance



PBA

Number of Sessions/Tasks

Tasks Sampling

Task Complexity

Skills/Task Ratio

Animation

Design

Scoring

Length

GBA

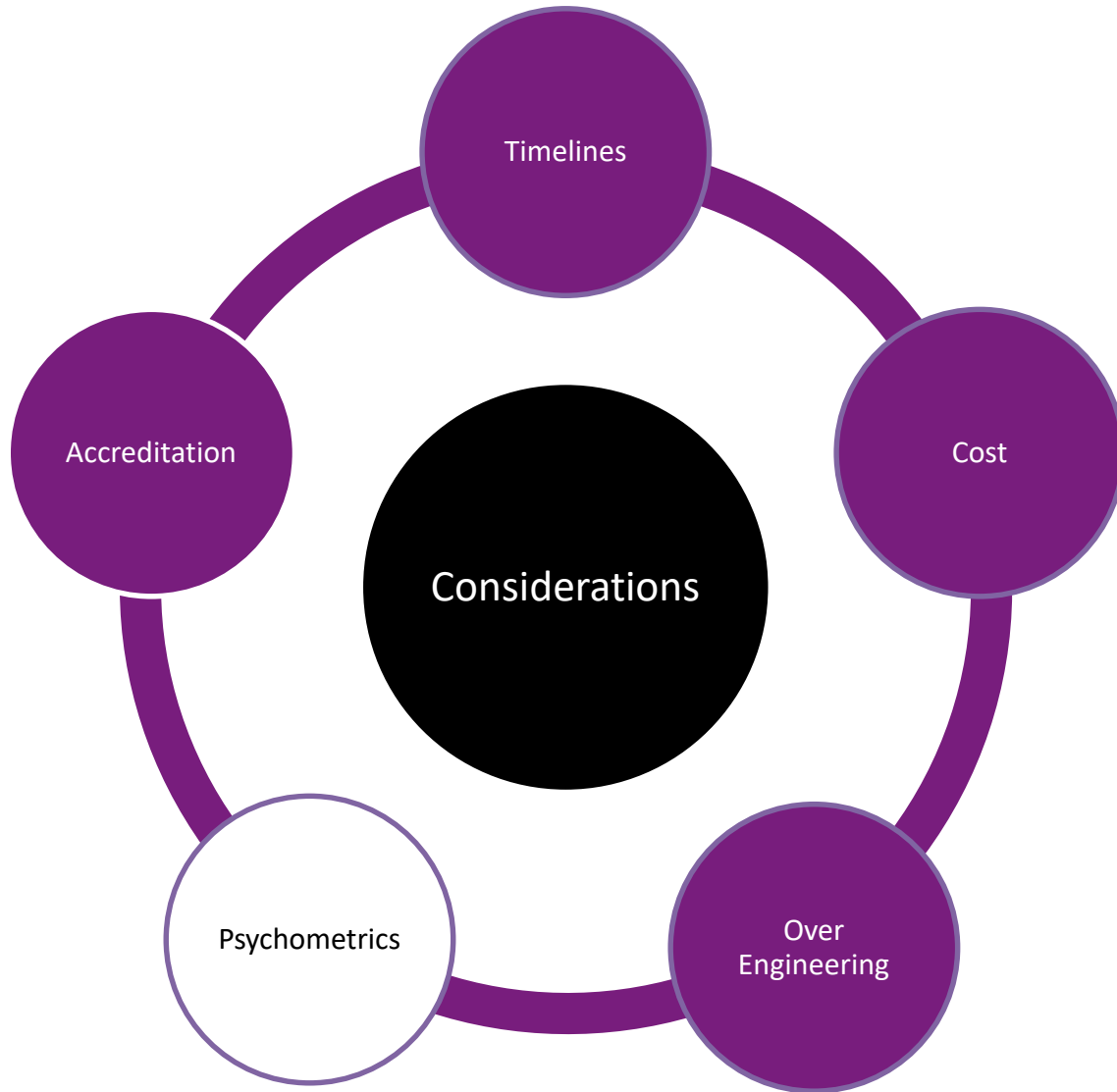
Graphics

Animation

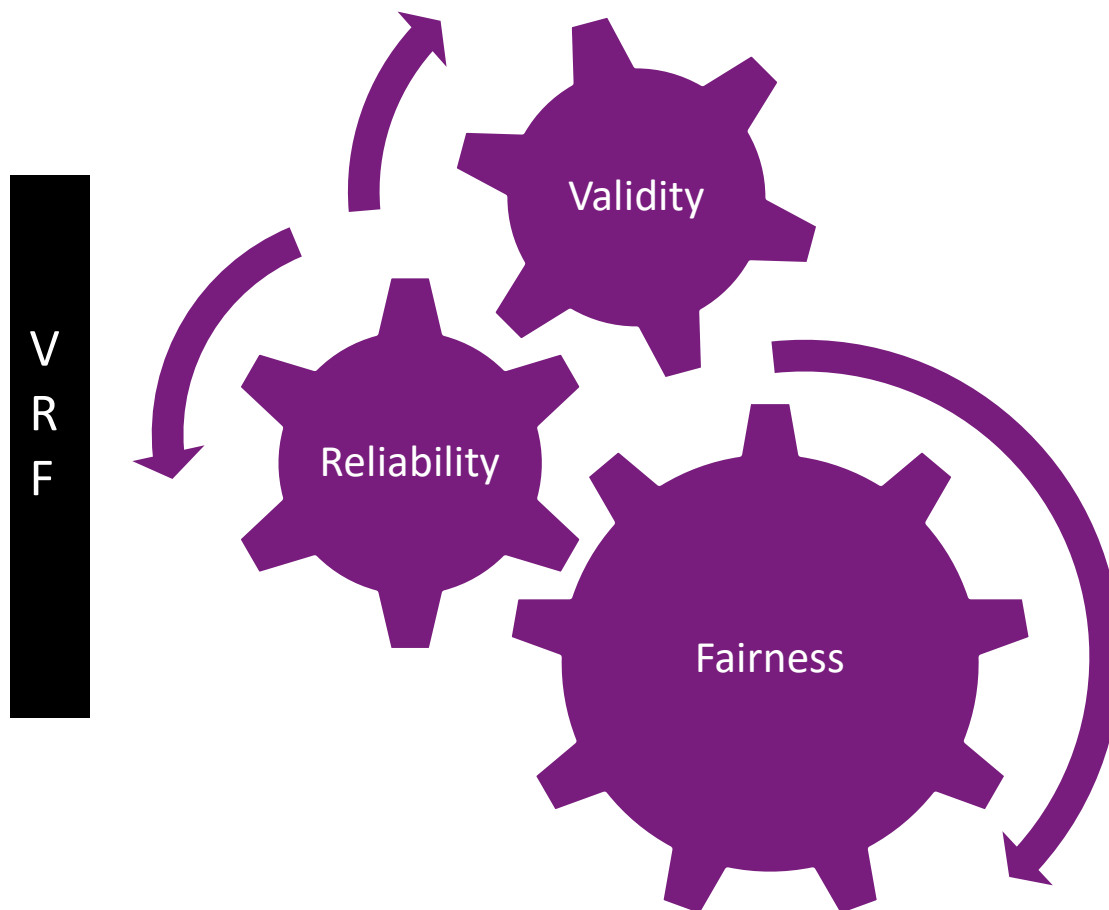
Design

Scoring

Length



PSYCHOMETRIC GOALS



VRF SCORE™ - AERE'S GLOBAL EVALUATION SCORE



0=Many Threats

50=Some Threats

100=Minimal to No Threats



Does Not Meet Accreditation Requirements
Does Not Meet Testing Standards/Legal Requirements
Violates/Does Not Use Evidence Based Practices
Testing Experts Don't Approve Methods/Approaches Used

Accreditation Ready
Meets Testing Standards/Legal Requirements
Adheres to Evidence Based Practices
Testing Experts Approve Methods/Approaches Used

PBA

VRF

Items

Rubrics

Scoring Model

Training and Calibration

Interrater Reliability

GBA

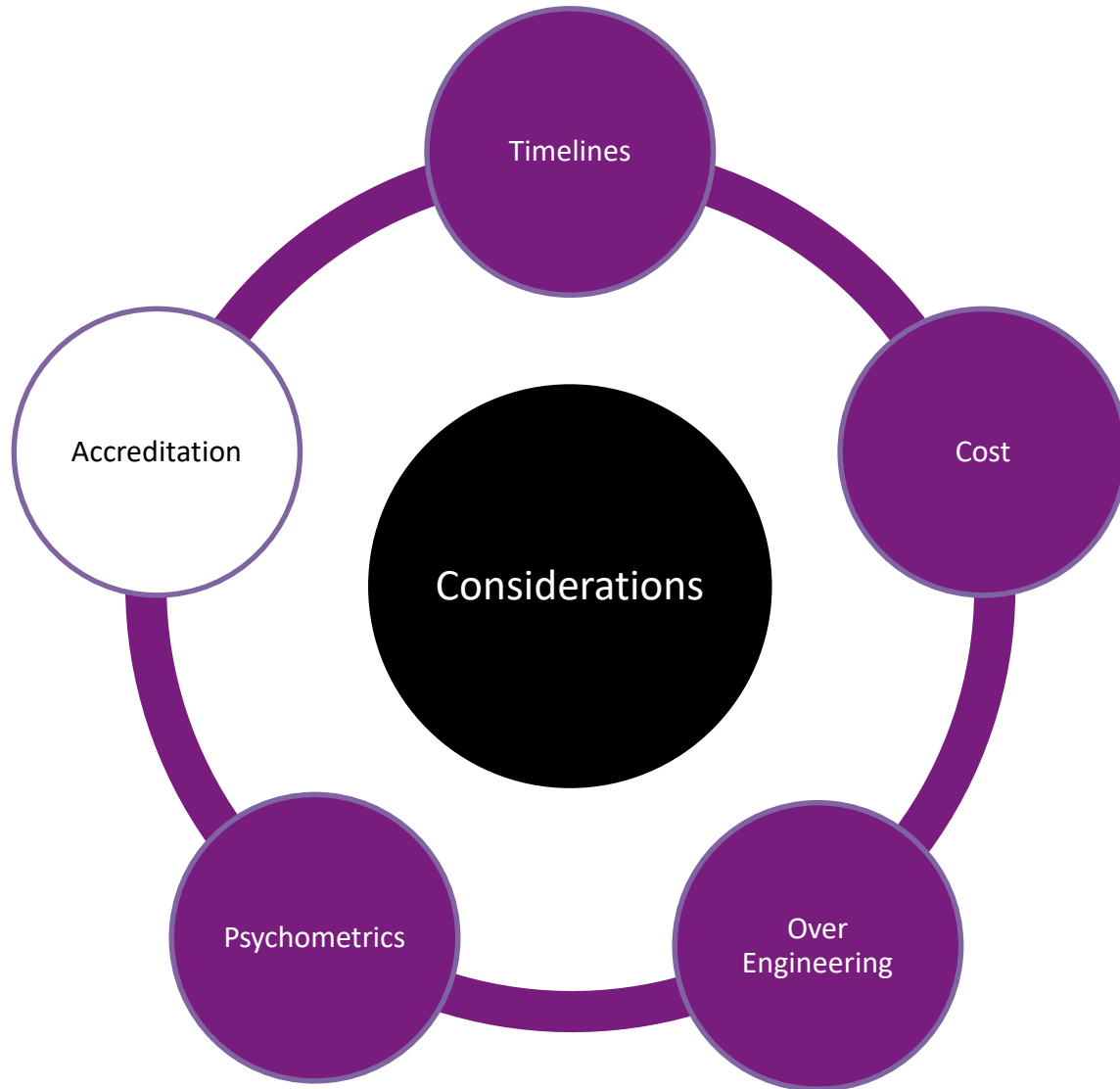
VRF

JTA/LOs/KPIs

Items

Scoring Model

Interpretation/Feedback





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SCANTRON®
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