

Training Gamification: Putting the "Fun" in Workplace Safety Fundamentals

Presented by:
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Meet Your Presenter

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Session Goals

AGENDA
✓
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Session Goals...

- ✓ Understand the training program management process
- ✓ Establish the importance of engagement to training success
- ✓ Understand gamification concepts
- ✓ Learn best practices for applying gamification strategies to your training program
- ✓ How to measure training success



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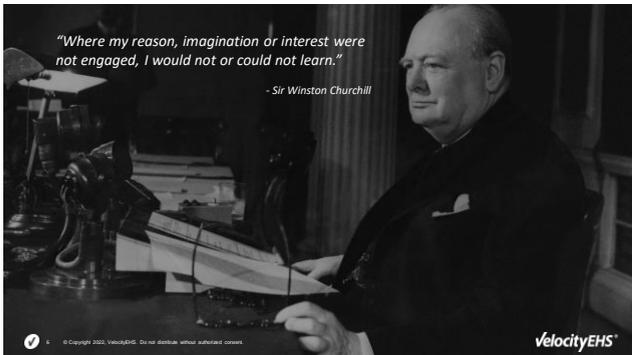
First...A Quote On Training & Learning

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"Where my reason, imagination or interest were not engaged, I would not or could not learn."

- Sir Winston Churchill



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Overview of the Training Program Management Process

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The Training Program Management Process



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But there's a better way...

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The Training Program Management Cycle

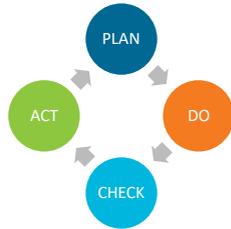


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This Should Look Familiar...

- **Continuous improvement** is key to a successful training program (not to mention your other EHS management systems!)
- Each run through the cycle should achieve incremental performance gains
- It provides a “systems-based approach” to developing and maintaining a sustainable training program



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But my EHS training program is fine...right?

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Hallmarks of Effective Workplace Training & Training Programs

- 1. Mandatory/Compulsory
- 2. Practical
- 3. Engaging
- 4. Regular
- 5. Dynamic/Responsive
- 6. Programmatic
- 7. Comprehensive
- 8. Well-documented



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The Importance of Engagement to Training Success

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The Challenge of Engaging Stakeholders

- A recent *EHS Daily Advisor* study of over 500 safety professionals stated that **98%** believe greater worker participation (engagement) contributes to improved safety performance
- However, when asked to rate participation in their safety program, **72%** said they only have limited to moderate participation



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The Real Benefits of Engagement

- Fosters greater understanding of the workplace safety and health program itself!
- Promotes ownership of training program success and workplace safety
- Training engagement supports a strong workplace safety culture!



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The Real Benefits of Engagement

- Gallup's 2017 *State of the American Workplace* report found that companies with more engaged workers realized the following benefits compared to organizations with lower levels of participation:
 - 17% Higher Productivity
 - 21% Higher Profitability
 - 41% Lower Absenteeism
 - 59% Lower Turnover
 - 70% Fewer Safety Incidents



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Driving Engagement Through Gamification

- The point of gamification is to inspire users to engage with the content.
- This is especially valuable for training tasks that are not necessarily 'exciting', such as an in-depth safety training program and compliance training
- Gamification offers us a great tool to further motivate and engage learners!



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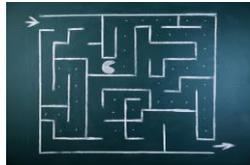
Training Gamification Concepts

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What is "Gamification"?

- Gamification (of education) is a strategy for increasing learners' **motivation and engagement** by incorporating game design elements with training activities.
- Based around the premise that motivation is among the most important predictors of student academic achievement, being directly correlated with the effort and time a student spends engaged in learning (Linehan, Kirman, Lawson, & Chan, 2011).



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Workers Want Gamification

- 97% of employees above the age of 45 agree that it would help improve work
- 87% agree that it makes them more productive
- 85% would spend more time on gamified software (Source: FinancesOnline)



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Benefits of Gamification in Training

- Incentivize & accelerate learning
- Increased information retention
- Motivate action in the workplace
- Encourage social connections
- Connect training to company culture



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Benefits of Gamification in Training

- Gamification training features have shown to increase employee engagement by **60%**
- Increase productivity by up to **50%**. (Source: FinancesOnline)
- **60%** of employees who undertook gamified training increased their productivity. (Source: Forbes)
- 72% of employees claim gamification inspires them to work harder. (Source: Medium.org)



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Aspects of Gamification

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Gamification Aspects

The use of gamification in learning involves a number of aspects, including:

- Game elements
- The educational context
- Learning outcomes
- Learner profiles
- The game environment



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Let's talk about some of these aspects in detail.

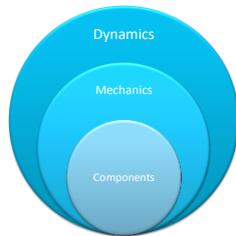
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Game Elements

Game design elements used in gamification scenarios are often divided into three categories:

- **Dynamics** - represents the highest conceptual level in a gamified system. Describes the constraints, emotions, narrative, progression and relationships of the game.
- **Mechanics** - the set of rules that dictate the outcome of interactions within the system. (Think about the rules of any game). They include challenges, chance, competition, cooperation, feedback, resource acquisition & rewards structures.
- **Components** - the basic level of the gamification process, encompassing the specific instances of mechanics and dynamics. They can include achievements, avatars, badges, collections, content unlocking, gifting, leaderboards, levels, points, virtual goods, etc.



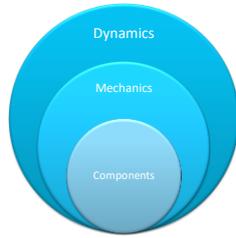
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Game Elements

How do Dynamics, Mechanics & Components interact?

- For an example, points (components) provide rewards (mechanics) and create a sense of progression throughout the game/training curriculum (dynamics)
- Fundamental concept of game design!



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A Word on Game Dynamics

- Training gamification should have a master narrative/story
 - This maps to the objective of the learning journey; the narrative crafts a real and relatable experience for learners.
- A strong training narrative contributes to the goal of creating training that is:
 - Practical (useful & relevant)
 - Programmatic (follows a logical curriculum)
 - Regular (periodic & predictable)
 - Comprehensive (follows a learning journey from start to finish)



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Learner Profiles

Learner profiles should contain, at a minimum:

- ✓ Names of trainees/employees
- ✓ Name and signature of trainers
- ✓ Dates of training
- ✓ Subjects/topics of training
- ✓ Dates(s) of evaluation
- ✓ Training scores and completion rates
- ✓ Trainee/Trainer feedback, comments, recommendations, etc.



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Final Thoughts on the Game Environment

- In addition to reward and feedback mechanisms, recent research shows a critical component of gamified systems is an environment where learners can gain experience without being judged or punished for mistakes.
- Significant contributor to success of training gamification



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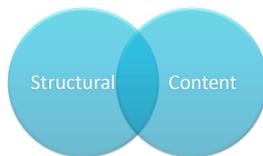


Implementing Gamification into Your Training Program

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Structural Gamification Vs. Content Gamification

- Structural Gamification
 - Putting a game structure around content without altering the content itself.
 - This is often accomplished through incentive-based systems (points, badges and leaderboards).
- Content Gamification
 - The act of taking content and making it more game-like.
 - Often involves the use of stories, characters and realistic problem-solving challenges to engage and motivate learners.



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But it's not just the learning experience that can be gamified!

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Gamification Can Be Applied to Other Steps in the Training Management Process



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Example: Identification of Training Needs

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Training Needs Analysis

- A comprehensive assessment of training needs involves substantial planning and involvement of ALL workers.
- Planning workshops with a dedicated training committee are a useful format to assess and compile your complete set of training needs
- The training needs analysis process can be gamified!



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Work Analysis (Hazard Studies)

- Analysis of the tasks and processes being performed, and the hazards encountered in performing them
- Methods/resources to identify and address work/process hazards:
 - Job safety analysis/job hazard analysis (JSA/JHA)
 - Process hazard analysis (PHA)
 - Hazard IDs & Near-Misses
 - Incident Investigation Findings/Root Cause Analysis
 - Injury & Illness data
- Gamify your Work Analysis by setting targets for hazard identification performance and incentivizing completion/submission!



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Performance Analysis

- Analysis of employees' existing EHS performance and competencies
- Answers questions including:
 - Are employees performing up to established standards?
 - What competencies do workers possess, and what competencies are needed to fill any performance gaps?



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Performance Analysis

And then...

- Incentivize participation and contributions of workers/learners in the performance analysis!



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Think about if/how gamification can be applied to each step of the training program management cycle!

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Sounds Simple, Right?

- The process of integrating game design principles within educational experiences is a relatively new concept, only formally introduced around 2010.
- There are currently few practical guidelines for how to do so in a coherent and efficient manner.
- Studies on how distinct categories of learners are affected by gamification, what outcomes to measure (program metrics), and how to best gamify training activities are still emerging.



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Challenges to Training Gamification - Motivation

- Many gamification studies indicate that in a learning context, successful gamification requires more than simply applying game elements to existing learning content.
- Successful gamification should offer stronger ways to motivate learners, rather than be simply a stream of extrinsic motivators (incentives).



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Motivational Factors in Gamification

- Motivation is demonstrated by an individual's choice to engage in an activity and the intensity of effort or persistence in that activity.
- Traditionally, games are designed for entertainment.
- As you can imagine, training is rarely perceived as 'entertainment'



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Motivational Factors in Gamification

- Unfortunately, the primary focus of most studies on gamification is on learning, attainment and participation metrics.
- As a result, the educational benefits of gamification in terms of increasing student motivation or linking this motivation to learning outcomes are still not well understood.
- However, successful gamification taps into the user's intrinsic motivation *and* extrinsic motivations!



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Motivational Factors in Gamification

- Understanding the difference between **intrinsic** and **extrinsic** motivation
 - **Extrinsic** motivation relies on incentives or expected consequences of an action
 - **Intrinsic** motivation stems from fulfilling the action itself.
- Understanding differences in learners' motivations is important to the design of reward, progress, and feedback systems
- The unique needs and preferences of each group of learners (and learning objectives relevant to that group) form the basis for choosing appropriate game elements.



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But...This Presents Its Own Challenges

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Demographic Factors in Gamification

- The impacts of gamification can also vary among different demographic groups
- Example: Some studies have shown in a more general context that women experience greater engagement when the gamification contains social aspects, while men experience greater engagement when there is a sort of competition. (Christy & Fox, 2014)
- These results suggest that the use of leaderboards in academic environments can, in some circumstances, affect academic performance of different demographics differently.



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Demographic Considerations



All of these factors are present to some degree and interact with others in unique ways. No two workplaces are alike. What's true for others might not be true for you.

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Measuring Success

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Evaluating Training Program Performance

With training documentation in-hand, you'll want to ask questions including:

- Are employees aware of what is required of them? (i.e. have training expectations been communicated effectively?)
- Do they actually possess the knowledge and skills needed to work safely?
- What is the **feedback** from trainers, trainees and other stakeholders?
- What training methods were most effective?
- Is there a need for further information and/or training?
- Has there been any **improvement** in organizational health and safety performance? (EHS Performance Metrics)
- Have there been observable **changes in behavior** and practice amongst employees?
- Could any improvements to the training content or training program be made?
- Are gamification/gamified training elements well received? How could they be better?



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Steps for Improving the Training Program

1. Compare actual training program performance to goals
2. Identify shortfalls **AND** successes. What worked and what did not?
3. Review stakeholder recommendations and feedback
4. Develop alternatives, and evaluate risks and benefits
5. Select and implement improvements/new elements according to formal management of change (MOC) processes

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Takeaways for Successful Gamification

- Mimic real-life challenges with increasing levels of difficulty.
- Promote social interaction and competition.
- Use badges, leveling and other incentives (structural gamification)
- Provide learning in a forgiving environment, which allows for risk-free mistakes.
- Tap into **intrinsic** motivations.
- Make sure any training tools & technologies are easy to use

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Final Thoughts on Training Gamification

- Remember, the whole purpose of gamification is to improve engagement & motivation. Fun is a by-product.
- You don't have to implement a complex gamification scheme on day one.
- Start small, gamify where you can (think Level 1)
- Consider 'piloting' gamification strategies and systems
- Introduce gamification elements via MOC principles, and involve learners in that process

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Questions?

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