

Improving Player Development Through Instructional Design

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About Me

- ▶ Writer for **Baseball Prospectus** ...
- ▶ ... and a **managing consultant** specializing in instructional design

- ▶ What do I do?
 - ▶ Perform analysis
 - ▶ Work with experts to get the right information
 - ▶ Create training materials (documents, courses, etc.)
 - ▶ Evaluate learning events

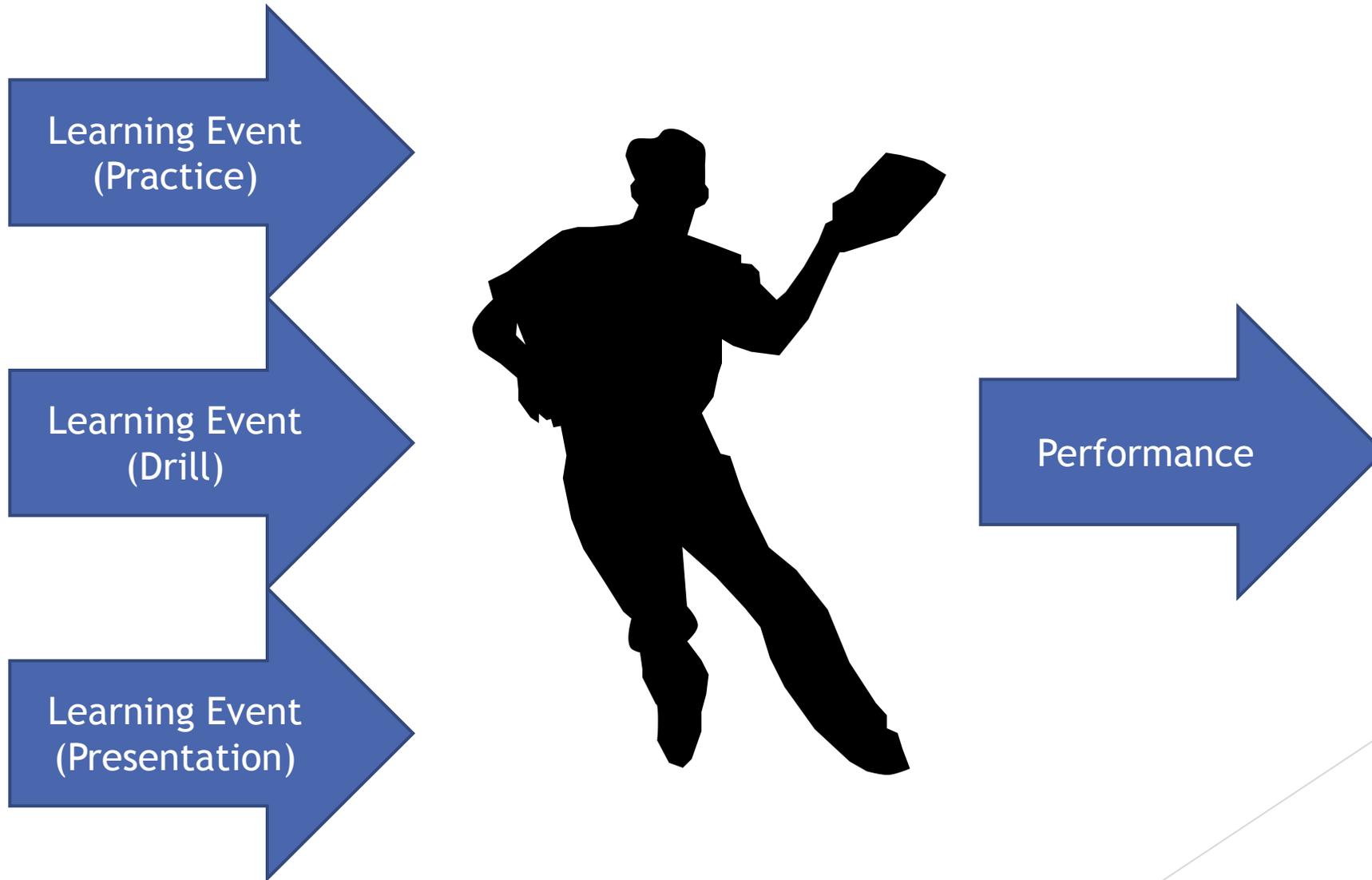
Today's Objectives

- ▶ *Describe what instructional design is, in a few sentences*
- ▶ *Define at least three key ID principles, in your own words*
- ▶ *Acknowledge the potential value of ID in player development*

What is Instructional Design (ID)?

- ▶ “Instructional Design is defined as ‘a **systematic** process that is employed to **develop education and training** programs in a **consistent and reliable** fashion’.” (Reiser, Dempsey, 2007)
- ▶ Think of it as *Sabermetrics, but for learning and training*
- ▶ Specific ID skills typically come from business, educational psychology, systems thinking, and technical fields

A Systematic Approach to Learning



The Biggest Key To Good ID Is ... ?

- ▶ Learning Outcomes should be:
 - ▶ *Specific*
 - ▶ *Measurable*
 - ▶ *Observable*
- ▶ *How else will we know if we did anything right?*



Create objectives that are specific, measurable, and observable ... then use those objectives to drive the learning.

Examples of Objectives

- ▶ **Improve Joe Centerfielder's Defense**
 - ▶ *How would we observe that this has taken place?*
 - ▶ *Can we make this more specific?*
 - ▶ *What would we use to measure that improvement actually happened?*
- ▶ **In a 50-game sample, improve Joe Centerfielder's DRS rPM by three points.**
 - ▶ *This is a broad performance objective, and a good start.*
 - ▶ *(Yes, I know all about using DRS in a 50-game sample, thank you.)*

ID and Coaching



In baseball, coaches and player development professionals are the subject experts ... the instructional designer is a facilitator and refiner of methods, never a replacement.

“N = 1” and the Human Factor

- ▶ While the end goal is to create learning events that are effective and repeatable, no one thinks that all learners are the same.
- ▶ The best training will need be adaptable to different learner groups, and different learners within groups. Some training may be person-specific.
- ▶ Communication skills are one of the most valuable tools for an instructional designer.

Task Analysis Example

- ▶ Performance Issue: **Joe Outfielder's Defense Isn't So Good**



Task Analysis - Three Components of Outfield Defense



Range

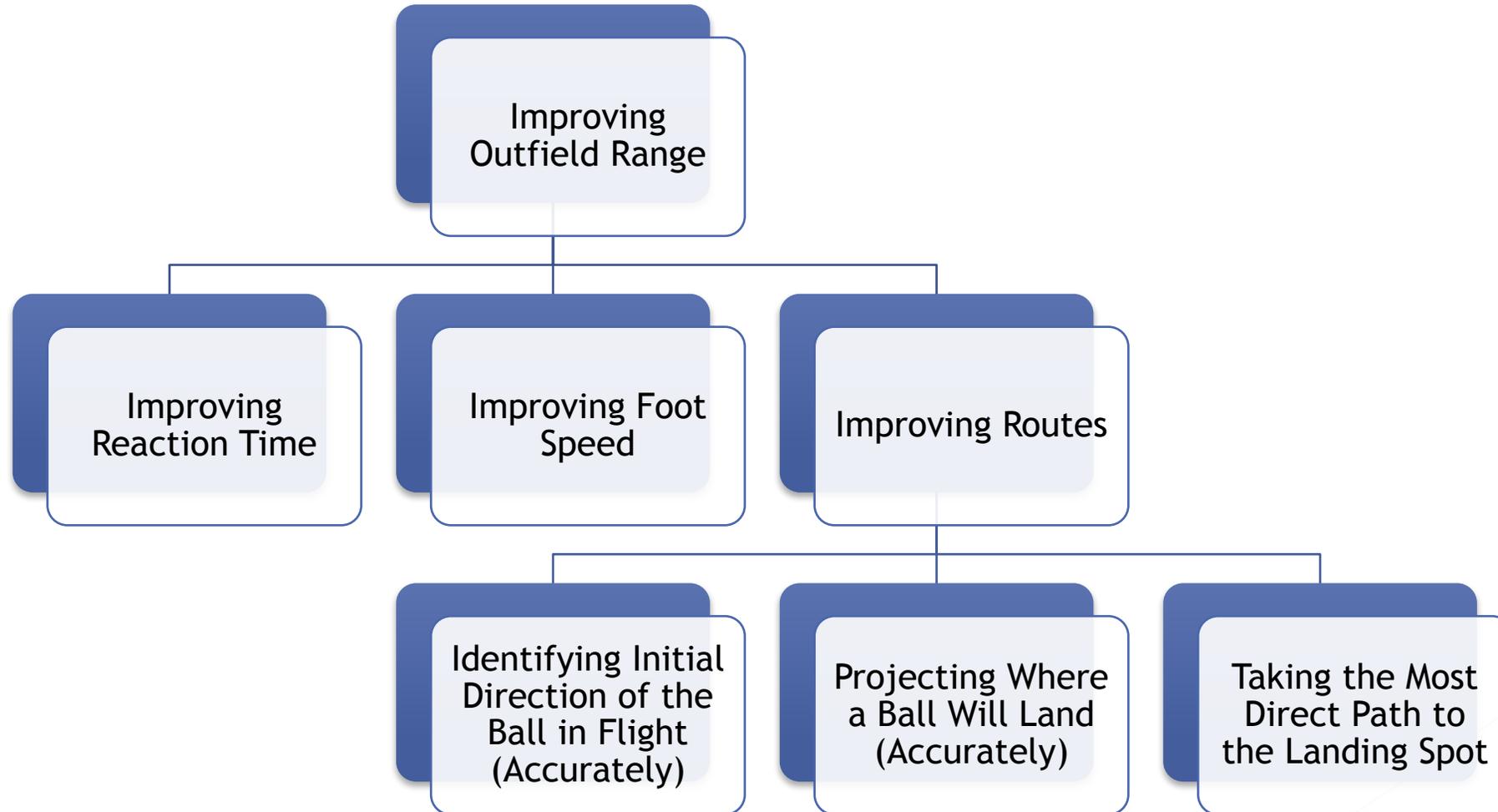


Glove



Arm

Task Analysis - Outfield Range



Task Analysis - Key Takeaways



Good instructional designers and educational psychologists recognize the value of “chunking” learning into manageable pieces, in order to drive retention.



We can use scaffolding and mental models to help develop more complex skills and real-world applicability from many of these sub-tasks or smaller chunks.

A Simple Instructional Design Model (ADDIE)

Analysis

Design

Development

Implementation

Evaluation



Evaluate your end result (summative evaluation), but also evaluate and refine your process (formative evaluation).

Places Where ID Can Help Today

- ▶ On-Field Decision-Making
- ▶ Off-Field Learning (Language, Life Skills, Team Rules, etc.)
- ▶ Less Complex Physical Skills (Baserunning, Some Defense, Pitch Framing)
- ▶ Documentation and analysis of an organizational “Way”



The more complex a performance objective is, the harder you have to work to build an instructionally sound framework.

In Closing

- ▶ *Instructional Design is about finding a way to use objective analysis to improve learning and performance*
- ▶ *By setting specific, measurable, and observable objectives, using educational data and best practices to address these objectives, and formal evaluation methods, designers can help create more effective learning.*
- ▶ *Player development organizations could use ID to make the best use of their coaches' expertise, evaluate the effectiveness of training methods, and find repeatable successes in skill development*