

Valid and Reliable Assessment Methods

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Presentation by: Dr. Alexander (Sandy) MacDonald, C. Psych.

Vice President & Chief Learning Officer

Holland College



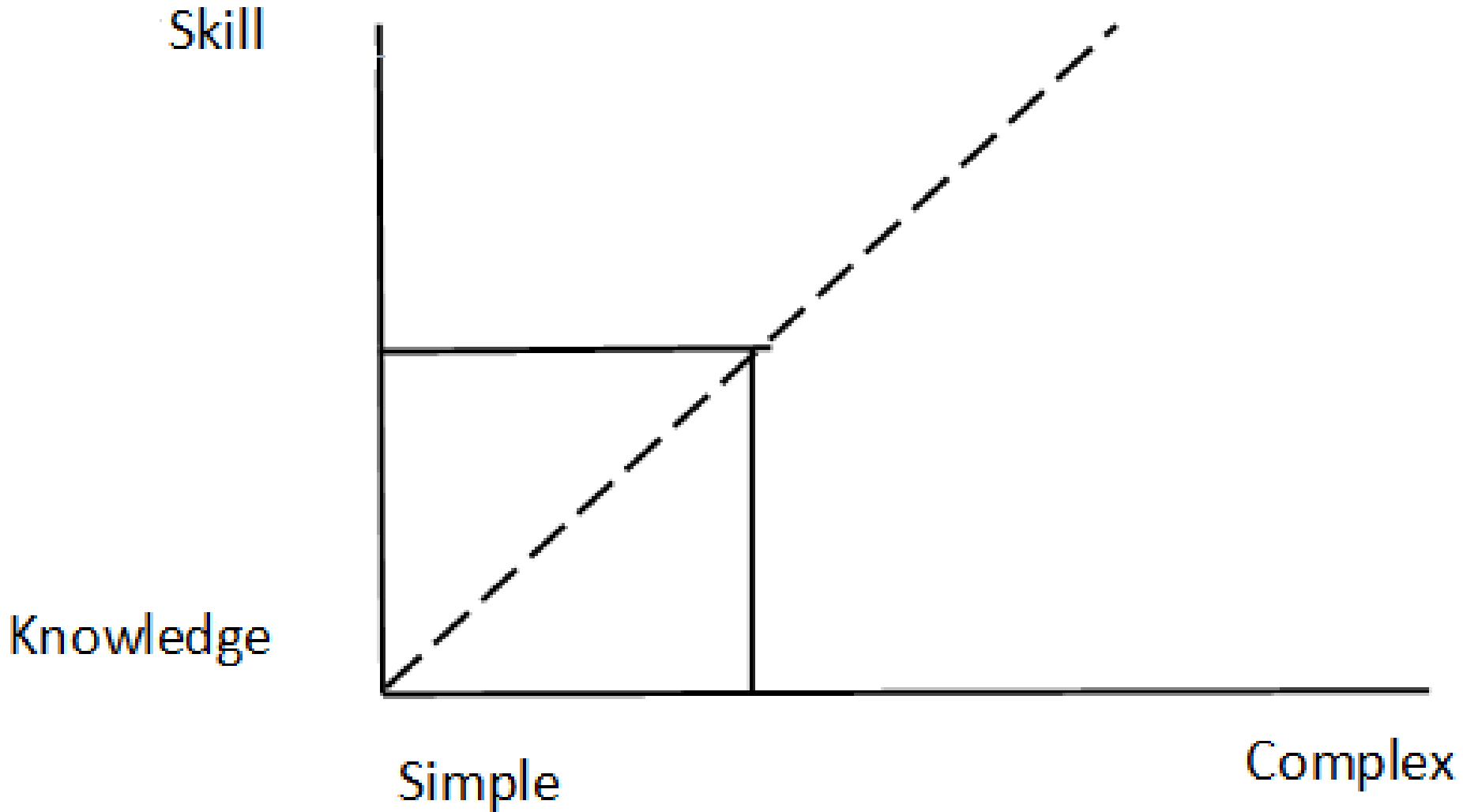
Reliability - is the tool consistent

Validity - does it measure what it purports to measure

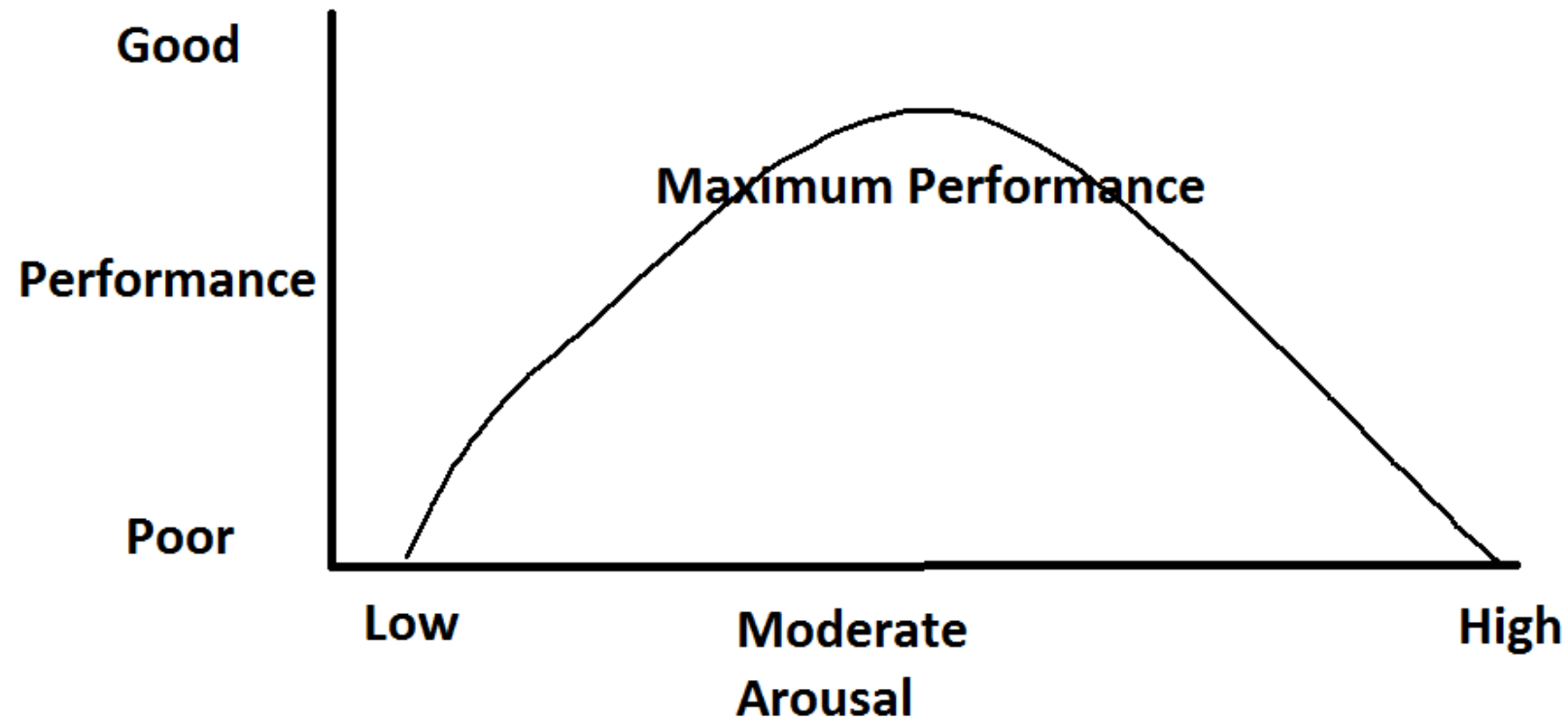
Tool/Measure/Instrument/Test: can be reliable but not
valid: cannot be valid unless it is reliable

Assessment and Evaluation

Dimension of Difference	Assessment Formative	Evaluation Summative
Content		
timing , primary purpose	ongoing, to improve learning	final, to gauge quality
Orientation	Process-oriented	Product -oriented
focus of measurement	how learning is going	what's been learned
Findings	Diagnostic	Judgemental
uses thereof	identify areas for improvement	arrive at an overall "score"



Relationship between arousal and performance



New Developments

Assessments for Learning and Assessment of Learning

1. More advanced automated assessment:
 - item generation, assessment design, marking
2. Artificial Intelligence Tutoring System:
 - Math, Writing, Science
3. Predicting student behavior and outcomes:
 - when will student dropout, fail, or find difficulty
4. Adaptive Learning Systems:
 - self assessment changes next set of materials
5. Enabling trial and error / prototype learning:
 - simulations and immersive environments – students practice with AI tutor - feedback in neutral environment