Notes on These Slides

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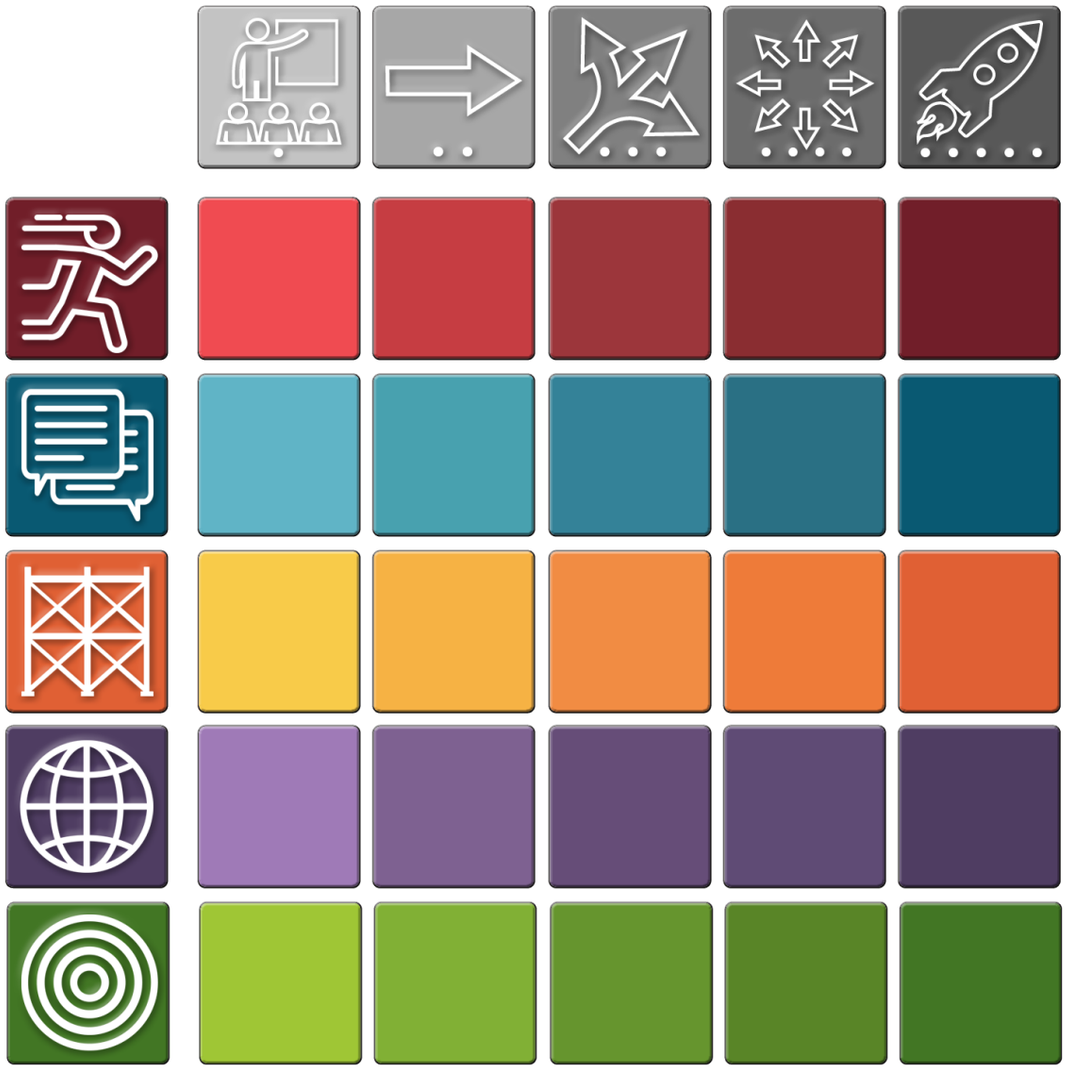


The Technology Integration Matrix: Introducing the Five Characteristics

Levels of Technology Integration

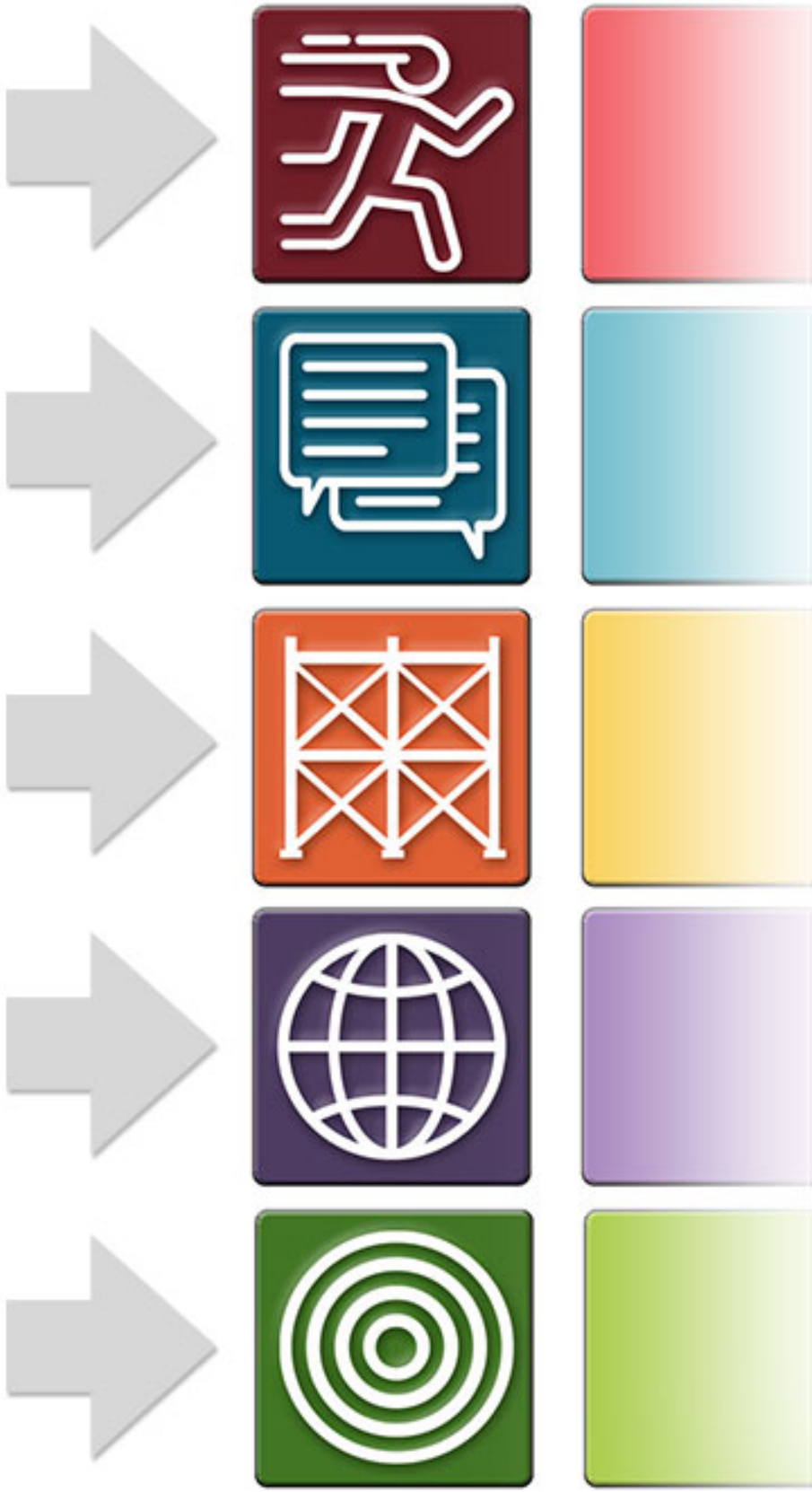
Characteristics of the Learning Environment

	ENTRY LEVEL The teacher begins to use technology tools to deliver curriculum content to students.	ADOPTION LEVEL The teacher directs students in the conventional and procedural use of technology tools.	ADAPTATION LEVEL The teacher facilitates students in exploring and independently using technology tools.	INFUSION LEVEL The teacher provides the learning context and the students choose the technology tools to achieve the outcome.	TRANSFORMATION LEVEL The teacher encourages the innovative use of technology tools. Technology tools are used to facilitate higher order learning activities that may not have been possible without the use of technology.
ACTIVE LEARNING Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.	**Active Entry** Information passively received	**Active Adoption** Conventional, procedural use of tools	**Active Adaptation** Conventional independent use of tools; some student choice and exploration	**Active Infusion** Choice of tools and regular, self-directed use	**Active Transformation** Extensive and unconventional use of tools
COLLABORATIVE LEARNING Students use technology tools to collaborate with others rather than working individually at all times.	**Collaborative Entry** Individual student use of tools	**Collaborative Adoption** Collaborative use of tools in conventional ways	**Collaborative Adaptation** Collaborative use of tools; some student choice and exploration	**Collaborative Infusion** Choice of tools and regular use for collaboration	**Collaborative Transformation** Collaboration with peers and outside resources in ways not possible without technology
CONSTRUCTIVE LEARNING Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.	**Constructive Entry** Information delivered to students	**Constructive Adoption** Guided, conventional use for building knowledge	**Constructive Adaptation** Independent use for building knowledge; some student choice and exploration	**Constructive Infusion** Choice and regular use for building knowledge	**Constructive Transformation** Extensive and unconventional use of technology tools to build knowledge
AUTHENTIC LEARNING Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.	**Authentic Entry** Use unrelated to the world outside of the instructional setting	**Authentic Adoption** Guided use in activities with some meaningful context	**Authentic Adaptation** Independent use in activities connected to students' lives; some student choice and exploration	**Authentic Infusion** Choice of tools and regular use in meaningful activities	**Authentic Transformation** Innovative use for higher order learning activities in a local or global context
GOAL-DIRECTED LEARNING Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.	**Goal-Directed Entry** Directions given; step-by-step task monitoring	**Goal-Directed Adoption** Conventional and procedural use of tools to plan or monitor	**Goal-Directed Adaptation** Purposeful use of tools to plan and monitor; some student choice and exploration	**Goal-Directed Infusion** Flexible and seamless use of tools to plan and monitor	**Goal-Directed Transformation** Extensive and higher order use of tools to plan and monitor

Five Characteristics of the Learning Environment

Each row of the Technology Integration Matrix represents one of the five characteristics:

- Active Learning
- Collaborative Learning
- Constructive Learning
- Authentic Learning
- Goal-Directed Learning.



Characteristics of a Meaningful Learning Environment

Characteristics of a Meaningful Learning Environment

Active

Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.

ENTRY LEVEL:
Information passively received

ADOPTION LEVEL:
Conventional, procedural use of tools

ADAPTATION LEVEL:
Conventional independent use of tools; some student choice and exploration

INFUSION LEVEL:
Choice of tools and regular, self-directed use

TRANSFORMATION LEVEL:
Extensive and unconventional use of tools

Characteristics of a Meaningful Learning Environment

Collaborative

Students use technology tools to collaborate with others rather than working individually at all times.

TRANSFORMATION LEVEL:
Collaboration with peers and outside resources in ways not possible without technology

INFUSION LEVEL:
Choice of tools and regular use for collaboration

ADAPTATION LEVEL:
Collaborative use of tools; some student choice and exploration

ADOPTION LEVEL:
Collaborative use of tools in conventional ways

ENTRY LEVEL:
Individual student use of tools

Characteristics of a Meaningful Learning Environment

Constructive

Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.

TRANSFORMATION LEVEL:
Extensive and unconventional use of technology tools to build knowledge

INFUSION LEVEL:
Choice and regular use for building knowledge

ADAPTATION LEVEL:
Independent use for building knowledge; some student choice and exploration

ADOPTION LEVEL:
Guided, conventional use for building knowledge

ENTRY LEVEL:
Information delivered to students

Characteristics of a Meaningful Learning Environment

Authentic

Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.

TRANSFORMATION LEVEL:
Innovative use for higher order learning activities in a local or global context

INFUSION LEVEL:
Choice of tools and regular use in meaningful activities

ADAPTATION LEVEL:
Independent use in activities connected to students' lives; some student choice and exploration

ADOPTION LEVEL:
Guided use in activities with some meaningful context

ENTRY LEVEL:
Use unrelated to the world outside of the instructional setting

Characteristics of a Meaningful Learning Environment

Goal-Directed

Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.

TRANSFORMATION LEVEL:
Extensive and higher order use of tools to plan and monitor

INFUSION LEVEL:
Flexible and seamless use of tools to plan and monitor

ADAPTATION LEVEL:
Purposeful use of tools to plan and monitor; some student choice and exploration

ADOPTION LEVEL:
Conventional and procedural use of tools to plan or monitor

ENTRY LEVEL:
Directions given; step-by-step task monitoring

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