



# TECHNOLOGY INTEGRATION MATRIX

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Florida's

# TECHNOLOGY INTEGRATION MATRIX

- A common language for technology integration and professional development
- 5 Attributes of Learning Environments  
(Active, Collaborative, Constructive, Authentic, and Goal-Directed)
- 5 Levels of Technology Integration  
(Entry, Adoption, Adaptation, Infusion, Transformation)

# Levels of Technology Integration



# Attributes of the Learning Environment



Characteristics of the Learning Environment

<b>Active</b> Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.
<b>Collaborative</b> Students use technology tools to collaborate with others rather than working individually at all times.
<b>Constructive</b> Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.
<b>Authentic</b> Students use technology tools to link learning activities to the world beyond the classroom rather than working on decontextualized assignments.
<b>Goal Directed</b> Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.

Levels of Technology Integration into the Curriculum

Entry	Adoption	Adaptation	Infusion	Transformation
The teacher begins to use technology tools to deliver curriculum content to students.	The teacher directs students in the conventional and procedural use of technology tools.	The teacher facilitates students in exploring and independently using technology tools.	The teacher provides the learning context and the students choose the technology tools to achieve the outcome.	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.
Information passively received from technology tools ...more	Conventional, procedural use of technology ...more	Conventional independent use of technology, some student choice and exploration ...more	Student choice of many tools ...more	Extensive and unconventional use of tools ...more
Individual student use of tools ...more	Collaborative use of tools in conventional ways. ...more	Collaborative, independent use of tools, some student choice ...more	Regular choice and use of tools for collaboration ...more	Collaboration with peers and outside resources ...more
Information delivered to students ...more	Guided, conventional use for constructing meaning ...more	Independent use for constructing meaning ...more	Choice and regular use for constructing meaning ...more	Extensive and unconventional use of technology tools to construct knowledge ...more
Use unrelated to the world outside of the classroom ...more	Guided use in activities with some meaningful context ...more	Independent use in activities connected to students' lives ...more	Students select appropriate technology tools to complete authentic tasks. ...more	Students use technology tools in innovative ways to participate in learning within a local or global context. ...more
Receiving directions, step-by-step task monitoring ...more	Conventional and procedural use of technology tools to plan ...more	Purposeful use of technology tools to plan, teacher choice, student independence ...more	Flexible and seamless use of technology tools to plan ...more	Extending the use of tools to plan ...more

## THE TECHNOLOGY INTEGRATION MATRIX

Entry	Adoption	Adaptation	Infusion	Transformation

## THE TECHNOLOGY INTEGRATION MATRIX

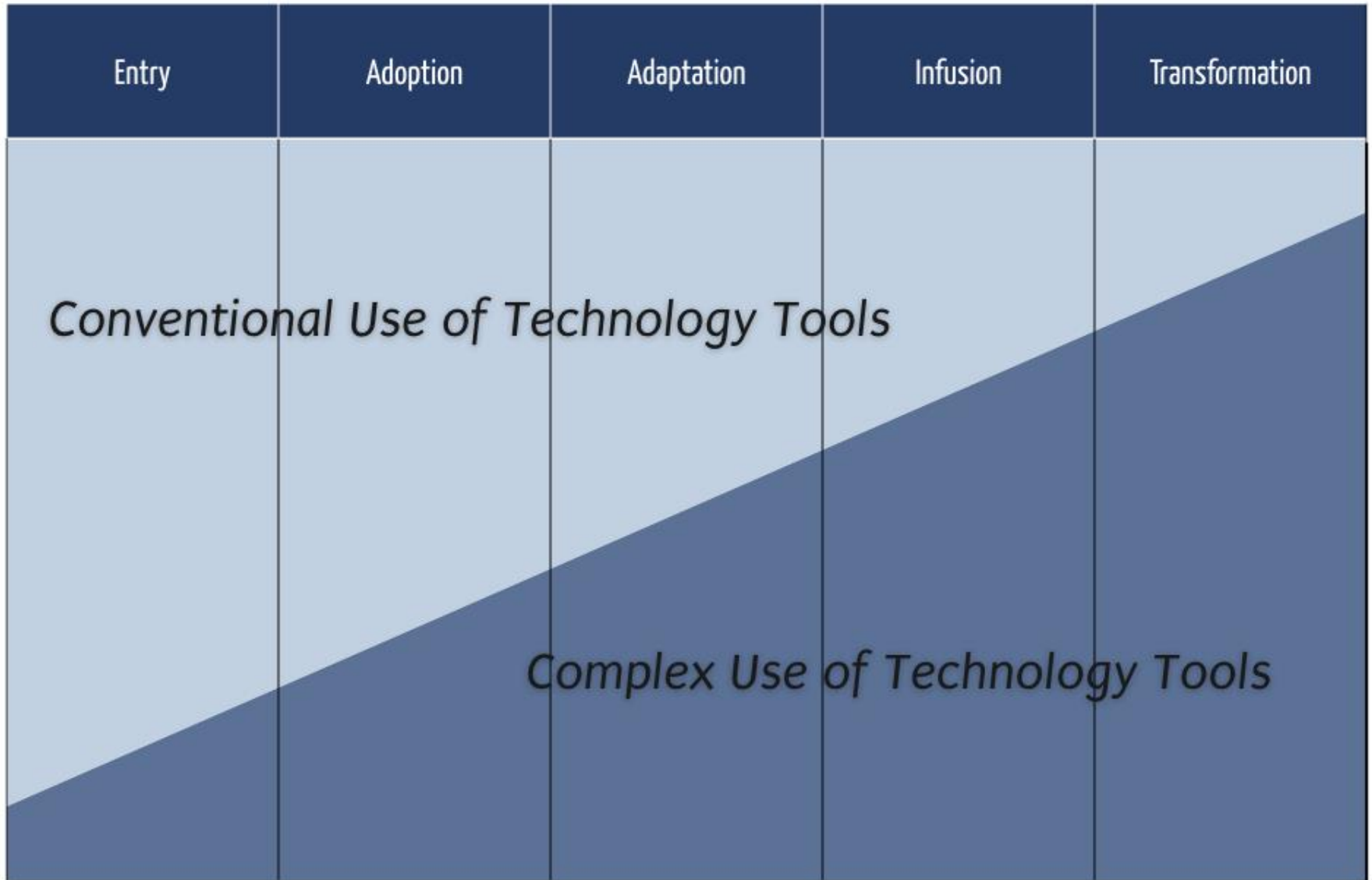
Entry	Adoption	Adaptation	Infusion	Transformation
<div><i>Teacher Ownership of Learning</i></div> <div><i>Student Ownership of Learning</i></div>				



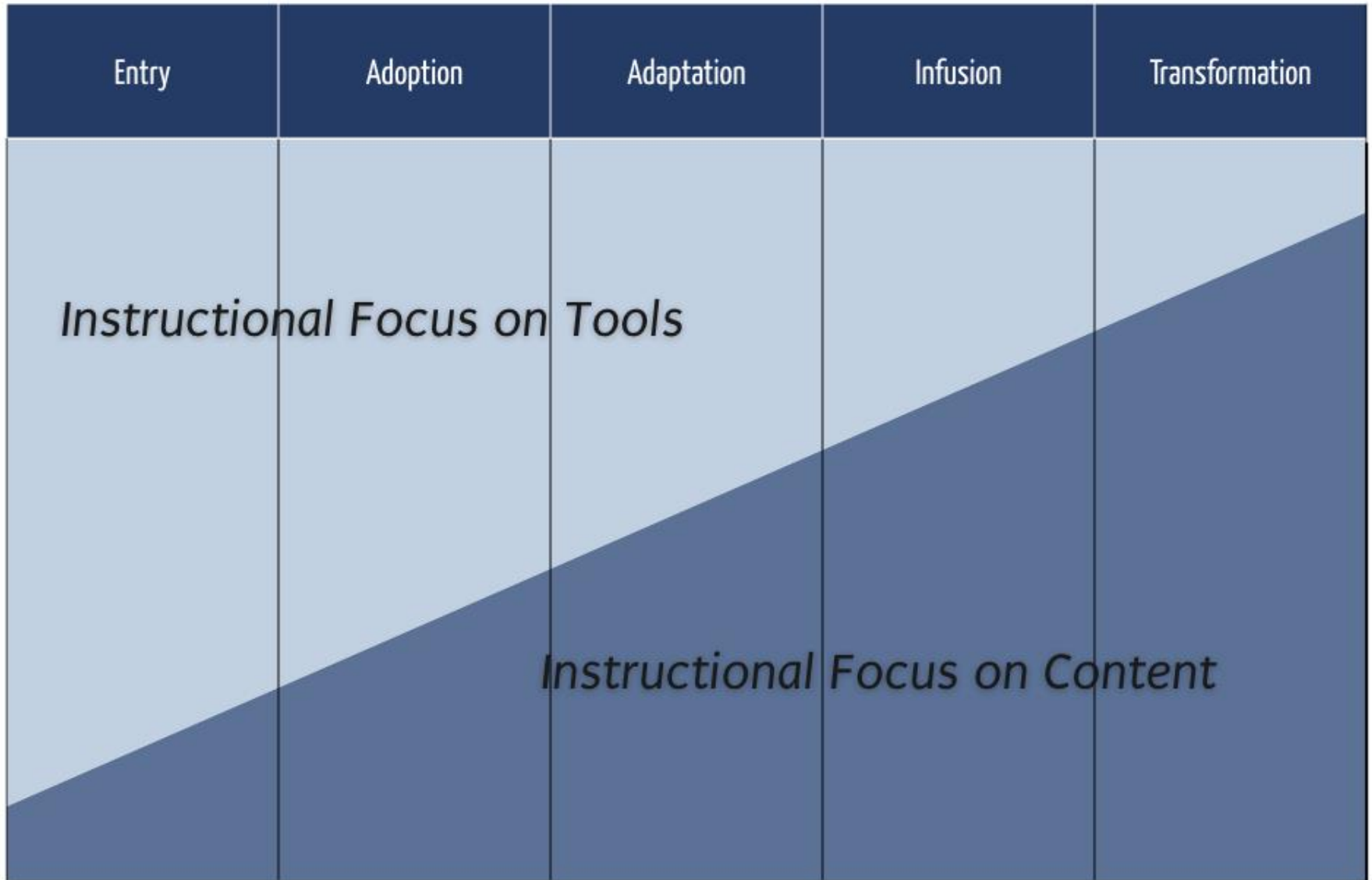
## THE TECHNOLOGY INTEGRATION MATRIX

Entry	Adoption	Adaptation	Infusion	Transformation
<div><i>Procedural Understandings</i></div> <div><i>Conceptual Understandings</i></div>				

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**ACTIVE**

**COLLABORATIVE**

**CONSTRUCTIVE**

**AUTHENTIC**

**GOAL DIRECTED**

# Levels of Technology Integration



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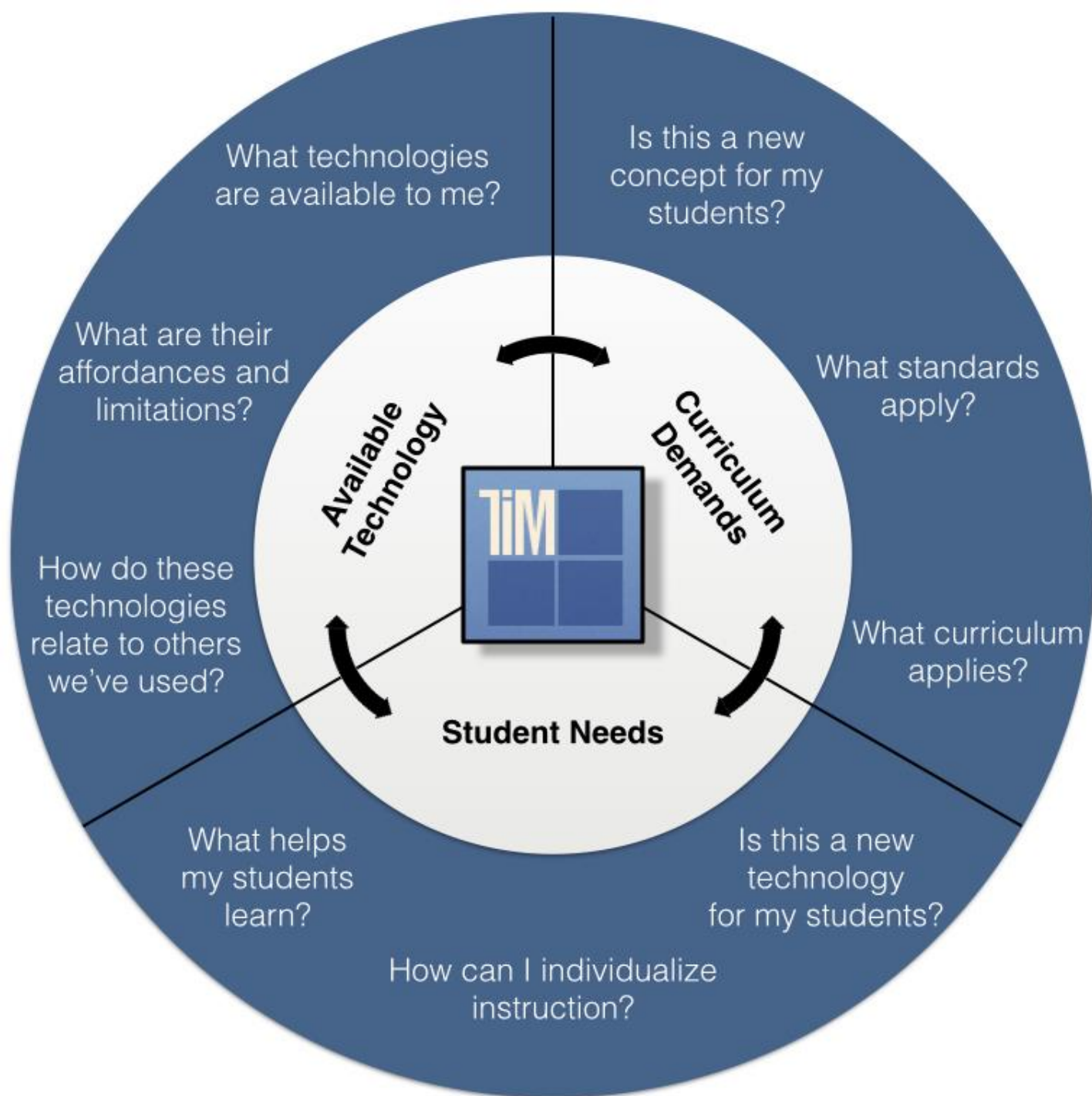
- The TIM is not prescriptive.  
*There are no essential technologies that all teachers must use. One size does not fit all.*
- The TIM is not exclusive.  
*The TIM model is complementary and compatible with other technology integration models, such as the ISTE NETS and the TPACK as well as models of effective teaching, like the Danielson model.*
- The TIM does not require teachers to use technology as much as possible.  
*This model is about understanding why and how to use technology strategically to achieve your goals as a teacher. Whatever the tool, the most effective approach is to use it with understanding and intentionality.*



**Available  
Technology**

**Student Needs**

**Curriculum  
Demands**







# *TECHNOLOGY INTEGRATION MATRIX*

# District Tools



Action Research

TIM Observation Tool

Technology Uses and Perceptions

Administrative Center

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Sign Out

# TIM TOOLS

## TUPS

- Readiness
- Baseline for comparison
- Trends
- Pre and Post data

## TIM-O

- Data about implementation
- Target specific areas
- Formative

## ARTI

- Teacher-directed inquiry
- Empowers teachers as change agents

- Aggregated at school, zone, or district levels
- Supports teacher-centered and/or teacher-driven

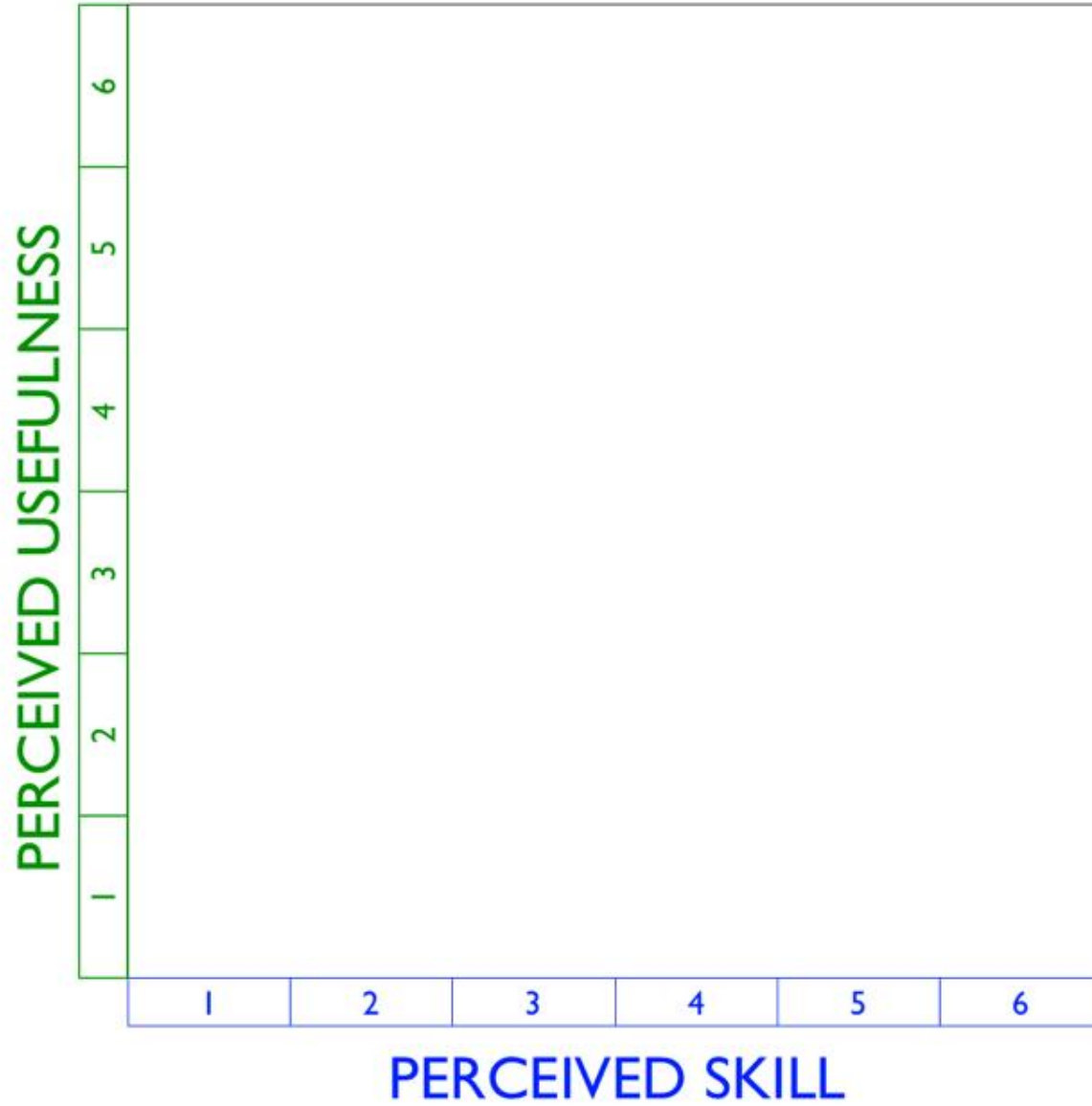
For each of 32 technologies, we ask teachers:

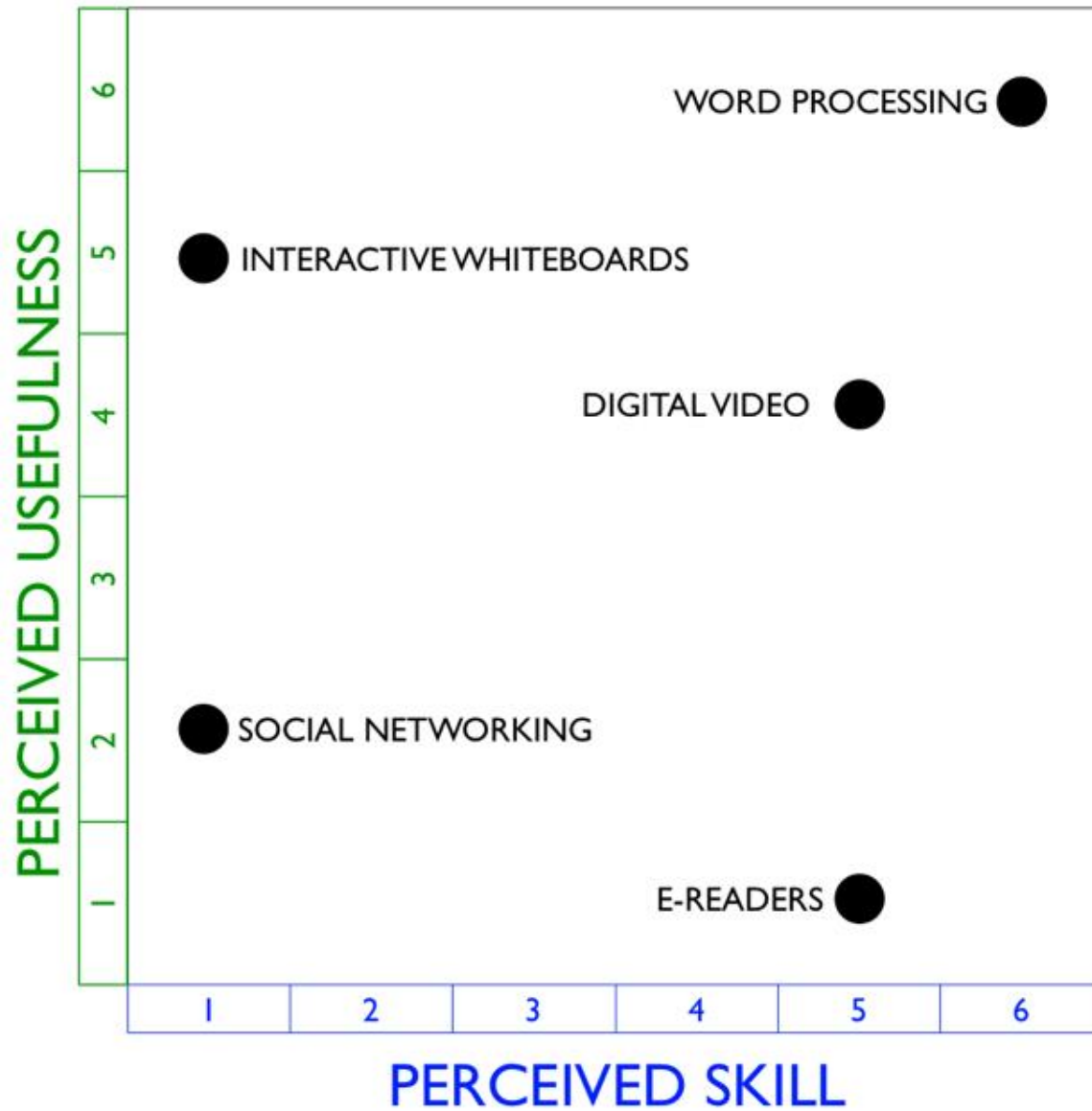
What is your level of skill with *this technology* in your teaching?

1. none	2. very low	3. low	4. moderate	5. high	6. very high
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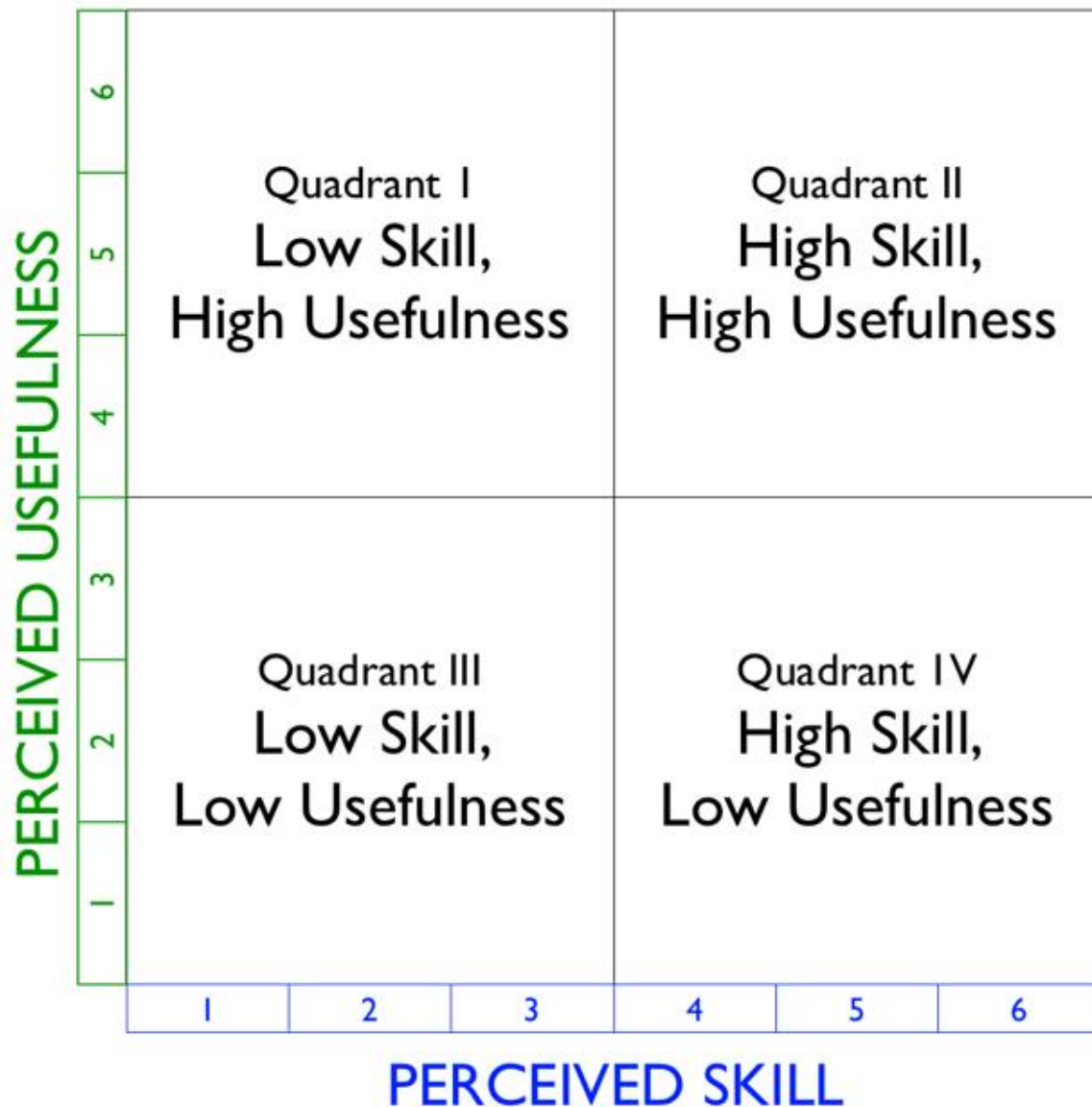
How useful do you think *this technology* is for your teaching area?

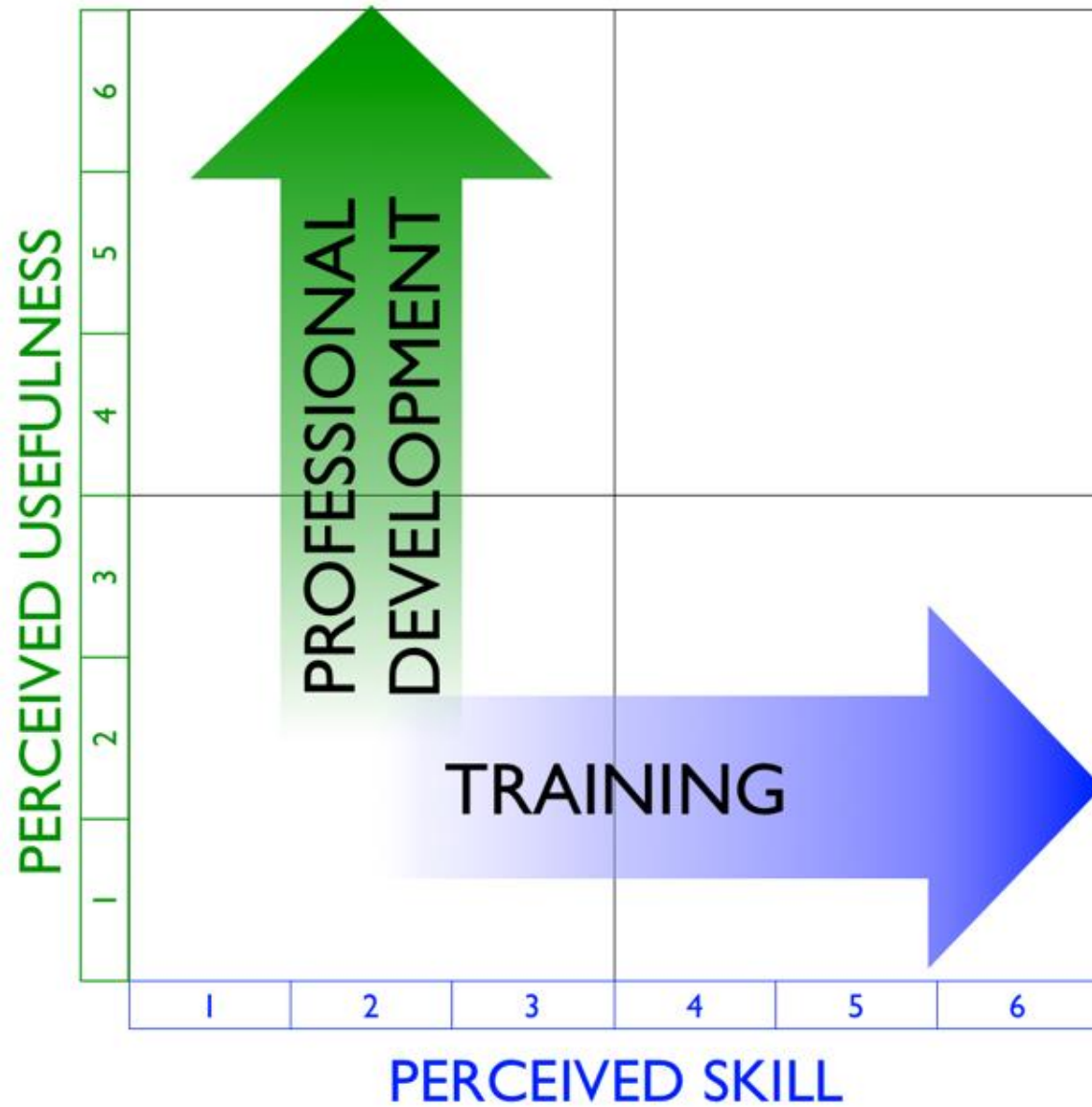
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# Technology Integration Matrix Tools

## TIM Observation Tool (TIM-O) Data Analysis Workbook

### Table of Contents

#### 0 [Summary of All Observation Characteristics](#)

Counts and percentages for all observations, all characteristics.

#### 1 [Active Characteristic Summary](#)

Information on the Active Characteristic for all observations.

#### 2 [Collaborative Characteristic Summary](#)

Information on the Collaborative Characteristic for all observations.

#### 3 [Constructive Characteristic Summary](#)

Information on the Constructive Characteristic for all observations.

#### 4 [Authentic Characteristic Summary](#)

Information on the Authentic Characteristic for all observations.

#### 5 [Goal-Directed Characteristic Summary](#)

Information on the Goal-Directed Characteristic for all observations.

#### 6 [Observation Browser](#)

Browse individual observation records, including notes.

Appendix A [Version Notes](#)

Appendix B [Raw Data](#)





# TECHNOLOGY INTEGRATION MATRIX

- What other theoretical models of technology integration are you familiar with?
- Would the TIM be a useful framework in European school contexts?
- In what ways would it need to be adapted?
- Do you want to spend more time back in Brussels looking at the TIM in more detail?



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