From Exploration to Practice: PK-12 Special Education Teachers and the Lived Experiences of AI Integration

Drs. Mitzi Fehl-Seward, Rachel Copeland, & Sonja Maggi

Regent University
School of Education



Purpose of Study

To yield transformative insights into the integration of AI in special education, providing practical recommendations for the field

RQ1: How are PK-12 special education teachers currently using artificial intelligence tools in their professional practice?

RQ2: What benefits and challenges do special education teachers identify in integrating artificial intelligence into their professional practice?

RQ3: How do special education teachers learn to use artificial intelligence?

RQ4: How do special education teachers envision artificial intelligence impacting their roles and professional practices?

Artificial Intelligence

For this study, we referred to artificial intelligence as AI and asked about any AI-based platforms, software programs, apps, and online tools. This also included generative AI resources.

Theoretical Frameworks

Technology Acceptance Model



Autonomous Learning



Images created by ChatGPT

Theoretical Framework Connections

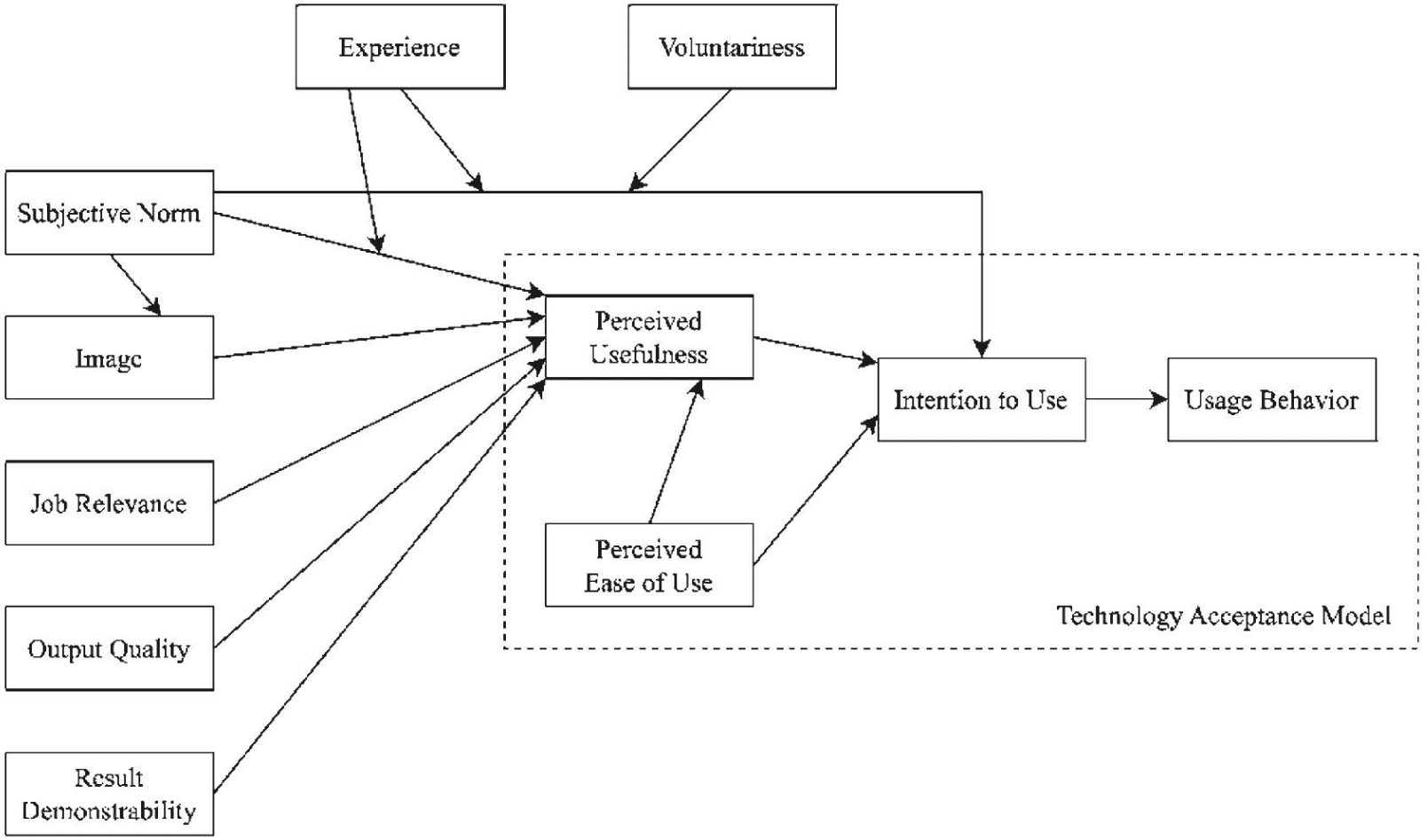


Fig. 2.2 Technology Acceptance Model 2, TAM2. (Venkatesh & Davis, 2000)

Davis, F. D. & Granić A. (2024). *The technology acceptance model: 30 years of TAM*. Springer International Publishing.

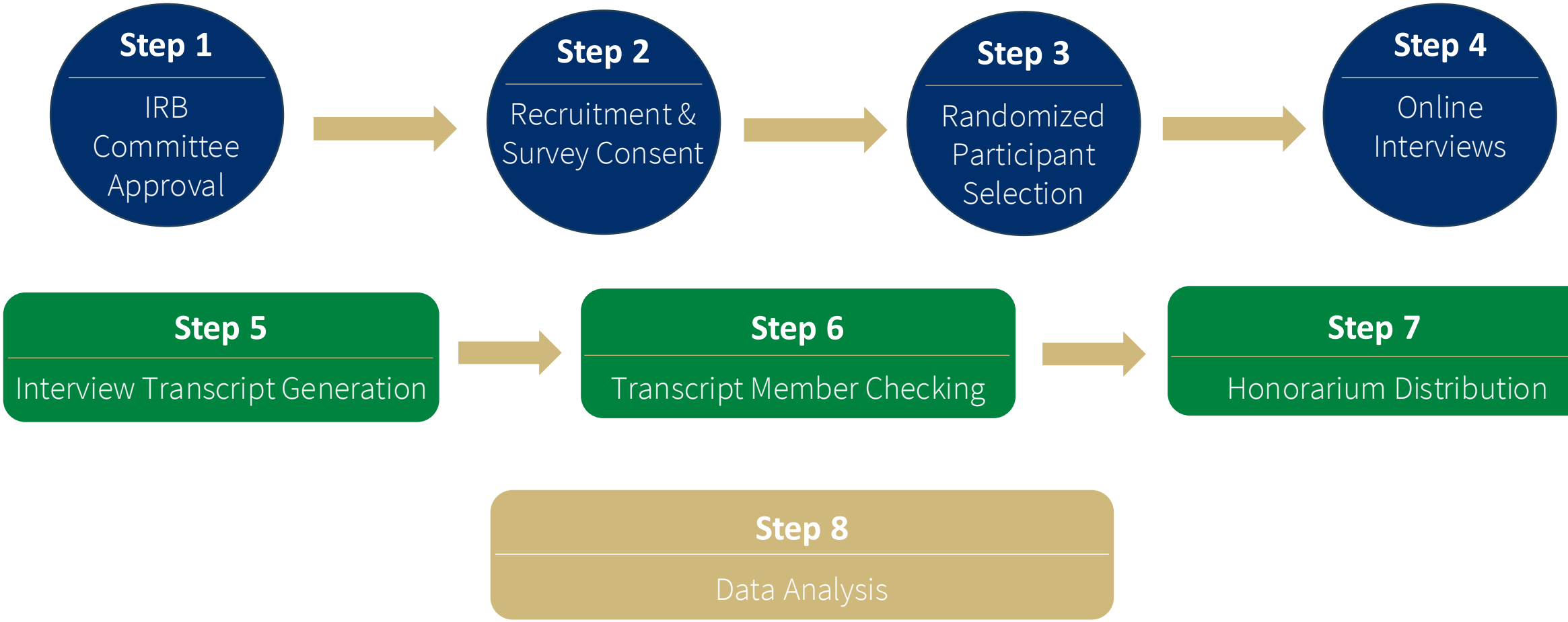
Constructs and Components of Learner Autonomy



Ponton, M. K., & Carr, P. B. (2000). Understanding and promoting autonomy in self-directed learning. *Current Research in Social Psychology, 5*(19), 271–284.

Methodology

The study employed a phenomenological approach to capture the lived experiences of special education teachers



Demographics *(N=10)*

GENDER	
Female (4)	40%
Male (6)	60%

AGE BAND	
25-34 (8)	80%
35-44 (2)	20%

TYPE OF SCHOOL	
Public (9)	90%
Private (1)	10%

LICENSE TYPE	
Professional (7)	70%
Provisional (3)	30%

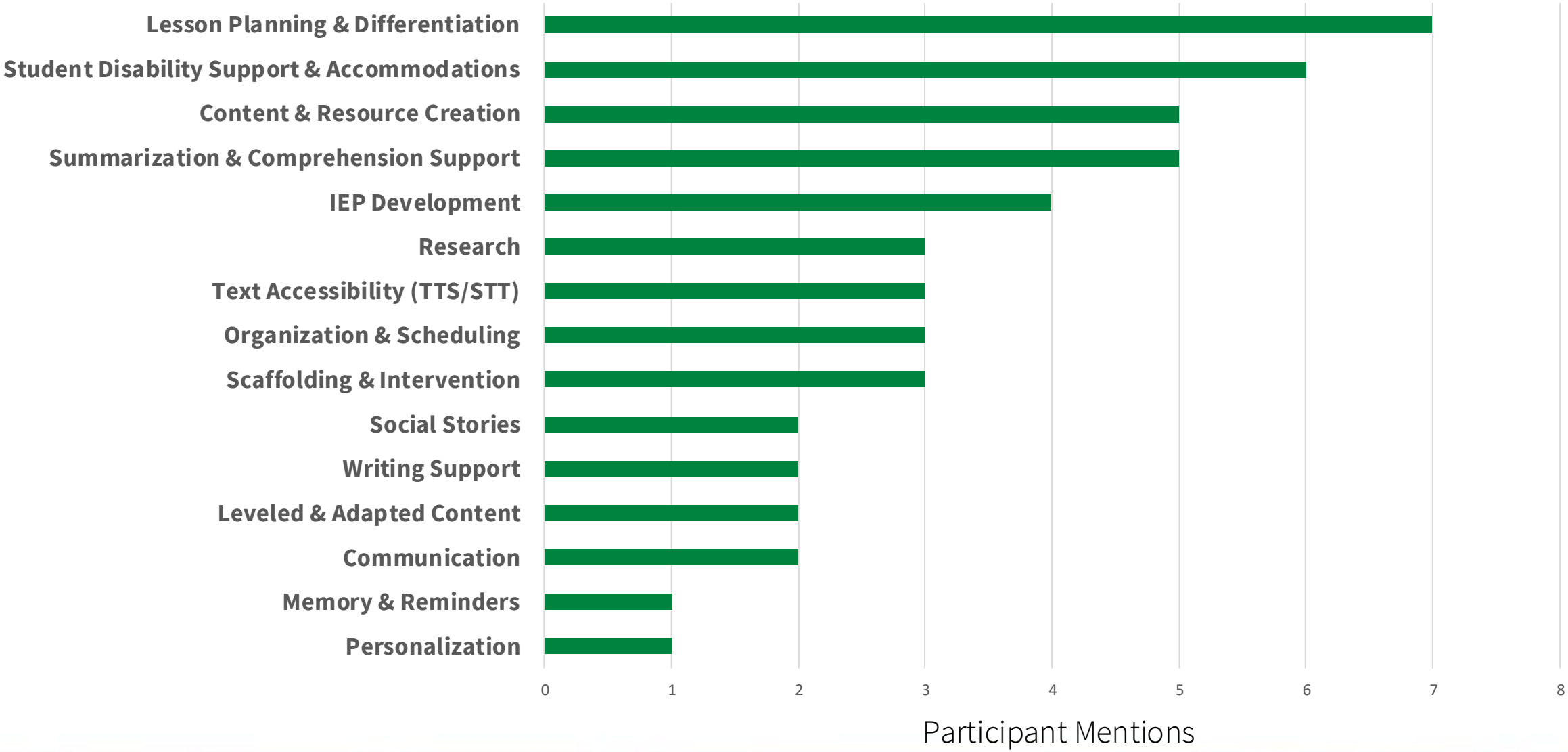
YEARS AS SPED EDUC	
1-3 YRS (2)	20%
4-6 YRS (6)	60%
15-20 YRS (2)	20%

ETHNICITY OR RACE	
Black/African Am (6)	60%
Multiracial/Multiethnic (1)	10%
White (3)	30%

GRADE BANDS TEACHING	
PK-2 (3)	25%
3-5 (3)	25%
6-8 (4)	33.33%
9-12 (2)	16.67%

RQ1 Themes

How are PK-12 special education teachers currently using artificial intelligence tools in their professional practice?



RQ2 Themes

What benefits and challenges do special education teachers identify in integrating artificial intelligence into their professional practice?

Top Major Benefits

- Time Savings & Workload Reduction (9)
- Personalization (4)
- Instructional Support & Clarity (4)
- Resource & Content Creation (3)
- Differentiation & Accommodations (3)
- Organization & Data Management (3)
- Student Engagement & Independence (3)

Top Major Challenges

- Policy & District Guidance Gaps (5)
- Prompting Skill & Precision (5)
- Accuracy & Reliability (4)
- Student Data Privacy (3)
- Output Review & Editing Burden (3)

NOTE: The number of participant mentions are listed.

RQ3 Themes

How do special education teachers learn to use artificial intelligence?



RQ4 Themes

How do special education teachers envision artificial intelligence impacting their roles and professional practices?

Prevalent Themes & Quotes	Participant Mentions
AI as Support, Not Replacement (2)	4
"it works with the teacher not outside of the teacher — it still needs a human final decision; supports rather than replaces; supports teacher in meeting diverse needs of students"	
Time Savings & Efficiency (3)	3
"saving time; efficiency and time saving; saves time"	
Enhanced Student Access & Engagement (3)	3
"helps us create engaging activities for our students; ease of accessibility tools as a professional; students can engage more fully with the curriculum"	
Teacher Role Amplification (2)	3
"enabling, assisting; focus on meaningful instruction; supports teacher in meeting diverse needs of students"	
Content & Material Creation (2)	3
"visuals, materials; create engaging activities; make IEPs more parent-friendly"	
Professional Advancement & Growth (2)	2
"advancement; achieving beyond what we are achieving today"	
Data-Informed Decision Making (1)	2
"helps identify patterns in behavior; inform decisions"	

KEY: **Cautious** **Optimistic**

Theoretical Frameworks



Technology Acceptance Model 2



Autonomous Learning

	Technology Acceptance Model 2	Autonomous Learning
RQ1 (AI Tools)	●	
RQ2 (Benefits & Challenges)	●	●
RQ3 (How They Learned)		●
RQ4 (Envision)	●	●

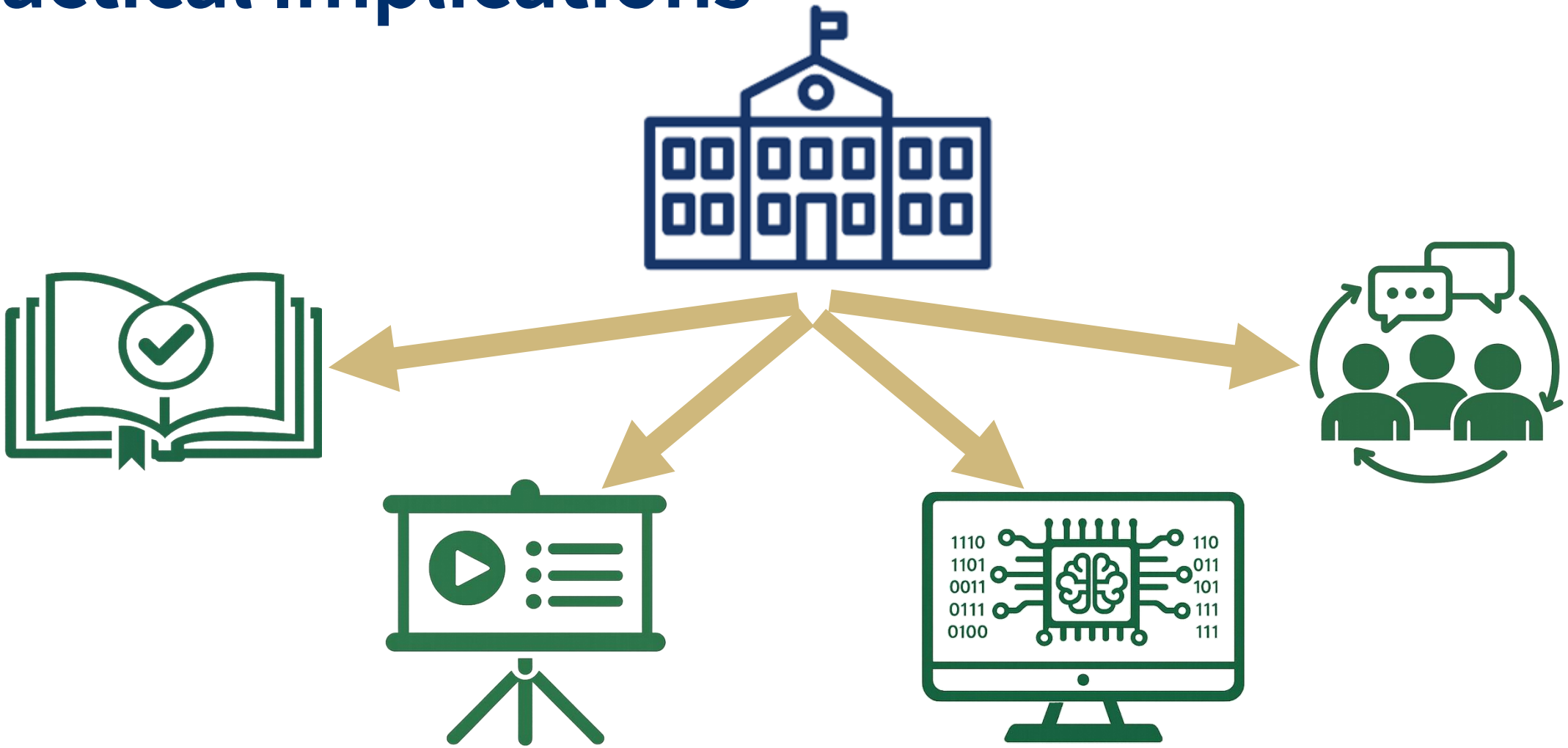
Images created by ChatGPT

Practical Implications

Our findings suggest that special education teachers possess the motivation, willingness, and desire to learn AI and are making progress in its use.

However, …

Practical Implications



"I wish different universities would come together and share their experiences to discover best practices..."

"I would like to see a unified approach to AI development..."

"Another challenge is lack of professional development..."

"I would like to see a unified approach to AI development..."



Special education teachers are initiating and implementing their own AI learning endeavors.

The inherent opportunity is for education leaders to be astute enough to guide their learning.