Teacher Digital Media Literacy

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Introduction

As technology progresses, the way we engage in media literacy changes and digital media competency is needed to be an informed and engaged citizen. Teachers are tasked with making sure that the next generation learns digital media competency, but it is difficult to do so if they are not confident in this skill themselves.

Current reports of teacher digital media literacy:
- There has been digital media literacy training for pre-service teachers to some degree.
- These teachers often do not feel confident in the classroom due to a lack of diverse contexts and perspectives (Falloon 2020).
- Current frameworks for measuring teacher digital media literacy have variation and incorporate many variables.
- Additionally, they do not exclusively measure teacher media literacy or competency.

Purpose and aim of study:
- Lack of organized information makes it difficult to define what constitutes as measurable digital media literacy levels in teachers.
- Since teacher media literacy levels are unclear, it is difficult to consistently measure teacher media competency skills in a variety of geographical and socioeconomic situations.
- The aim of this study is to gather, analyze, and synthesize empirical information about the level of digital media competency found in K-12, in-service teachers in a systematic literature review.
- Specifically, this poster aims to answer the question of what the current levels and prevalence of information literacy, media literacy, and visual literacy skills are among in-service teachers.
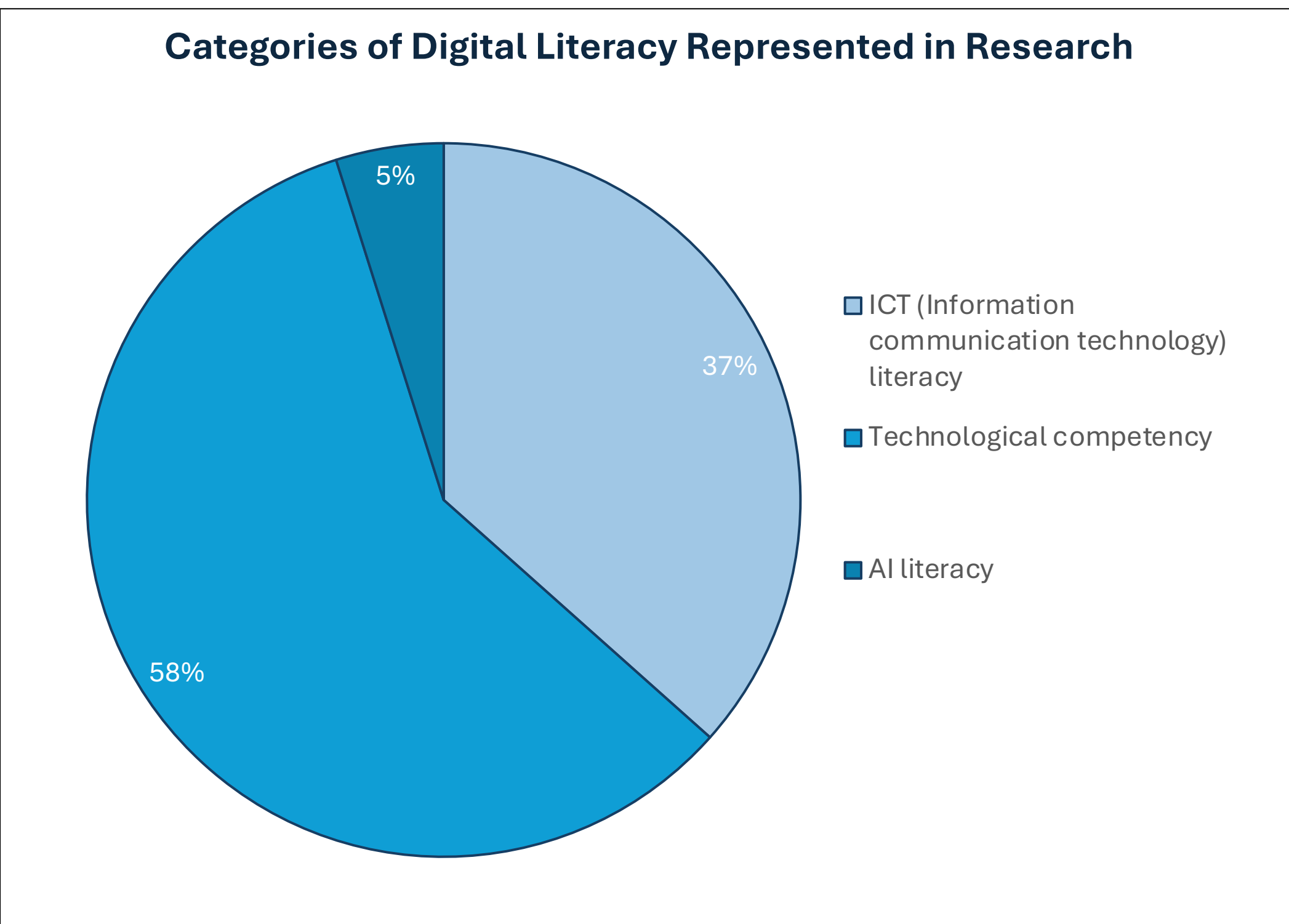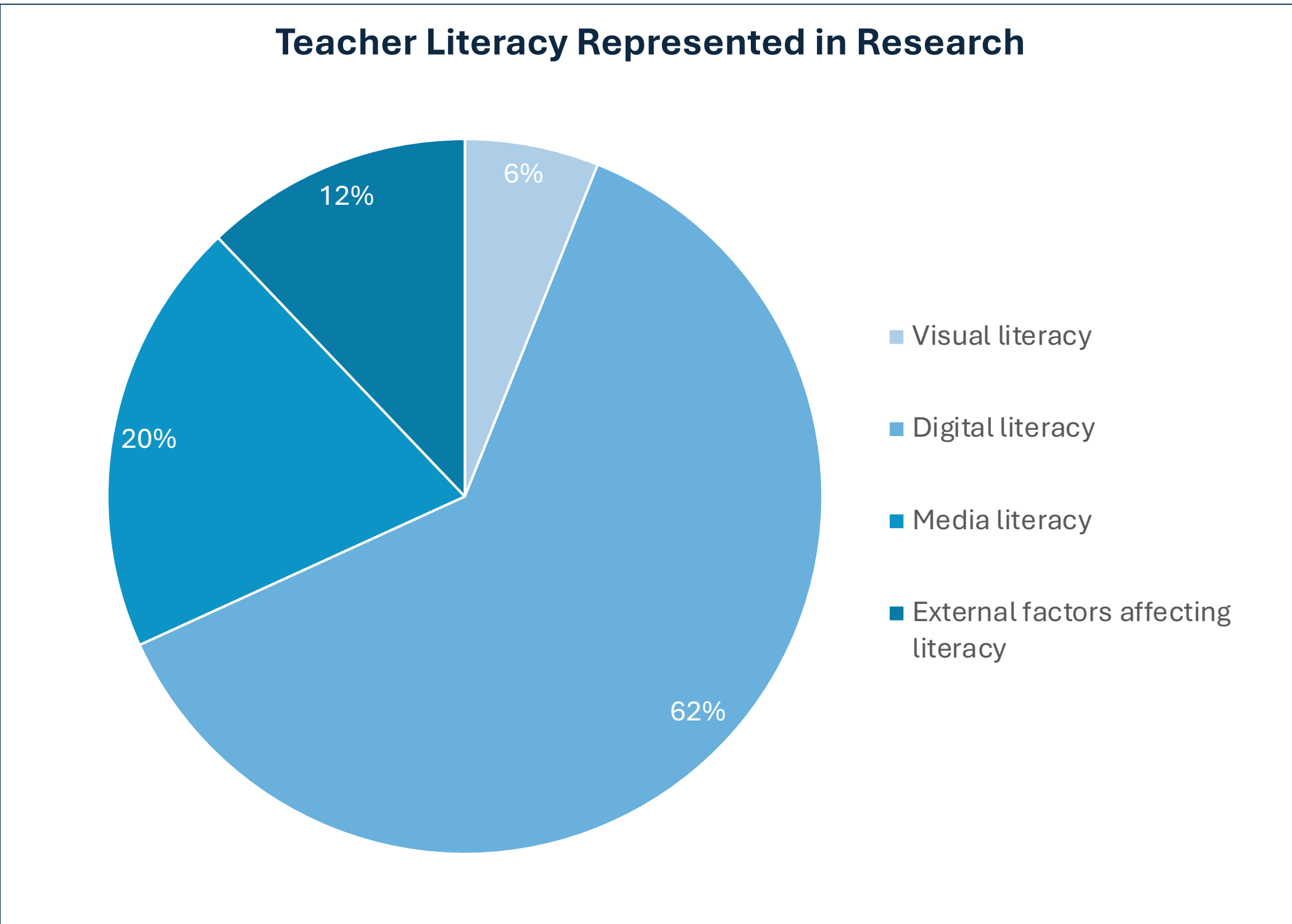
Methods

Stages of Literature Review:
- First stage of research included importing articles- 1,364 total articles were imported for the abstract stage.
- Relevant criteria were identified to help filter through abstracts of the originally imported articles, lead to stage two of research in which full articles are read and assessed with the criteria to be extracted for the literature review.
- Currently, there are 66 articles to be reviewed in the second stage.
- Later stages of research include synthetization of empirical results during the review for framework building and can be implicated for professional development.

Literature Review Criteria:
- Empirical
- Concerning K12, in-service teachers
- Concerning teacher media literacy, not student literacy or developing literacy
- Journal article

Current stage of research falls under screening abstracts of studies to either disregard or retrieve.

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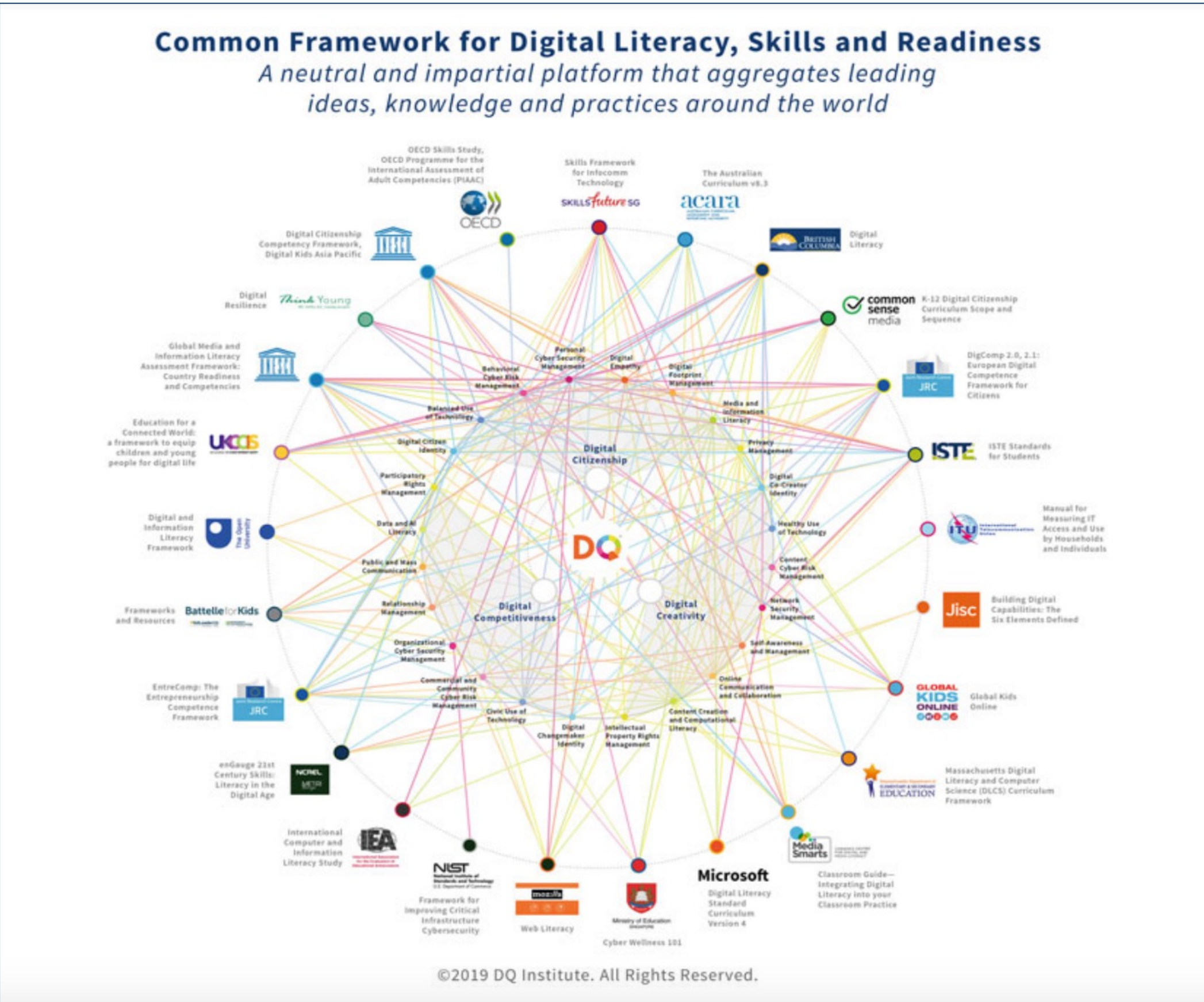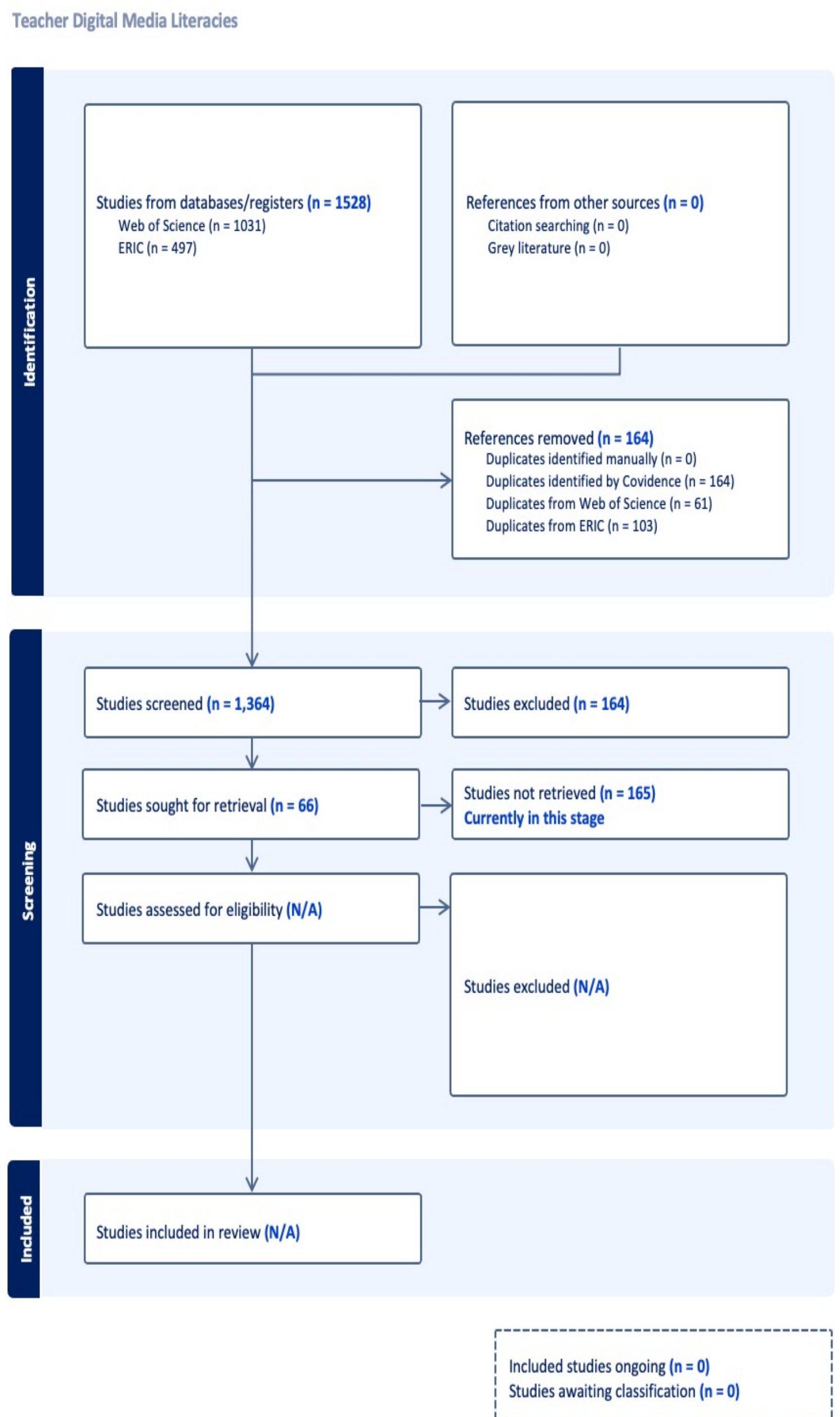
Current frameworks for assessing digital literacy assess 32 different types of media literacy and does not exclusively apply to measuring teacher media literacy, competency, and skills (DQ Institute 2019).

Teacher Literacy Represented in Research
- Visual literacy 6%
- Digital literacy 62%
- Media literacy 20%
- External factors affecting literacy 12%

Categories of Digital Literacy Represented in Research
- ICT (Information communication technology) literacy 37%
- Technological competency 58%
- AI literacy 5%

Results

As this project is an ongoing literature review, there are preliminary results to present at this time.
- 66 total articles selected for full text review can be categorized from the type of literacy it researches.
  - 6% **visual literacy**
  - 62% **digital and technological literacy**
  - 20% **media literacy**
  - 12% **external factors effect on digital literacy**
- Of articles in the digital and technological literacy category, articles can be categorized further.
  - 58% **technological competency**
  - 37% **ICT (information and communications technology) literacy**
  - 5% **AI competency**
- External factors can refer to teacher perception of digital media skills, socioeconomic factors, geographic location, administrative support, and teacher collaboration.
- Trends of increasing use of digital technologies have also been identified.
- Teachers tend now to integrate ICT and digital tools into their instruction, signifying increasing levels of digital media competency.

Discussion

Trends in digital technology use:
- As found in results, the prevalence of digital media use in classrooms as instruction is increasing.
- A strong emphasis on technological and ICT literacy is found in the research, indicating a need for a framework necessary to assess teacher digital media skills.
- A lack of skills can be addressed by a change in pre-service teacher training as well as a focus of this topic in professional development.

Changes in technology:
- Use of AI is becoming more prevalent in the classroom.
- Empirical research concerning AI and education is fairly recent, with both articles sent for full text review being published in 2024.
- Additional training in AI competency can assist teachers in incorporating developing technology into classroom and student activities.

Populations of teachers:
- Certain populations of teachers have a larger knowledge gap than others when relating to digital media competency.
- Veteran teachers tend to have lower digital media literacy and might require additional professional development.
- Elective teachers such as physical education and arts teachers may benefit from additional visual and digital media literacy training.
- Teachers in rural communities may need more support in technological access before assessing and improving technological literacy skills.

References

Falloon, G. 2020. From digital literacy to digital competence: the teacher digital competency (TDC) framework. *Education Tech Research Dev* 68, 2449–2472 https://doi.org/10.1007/s11423-020-09767-4

Marín, V.I., Castañeda, L. (2023). Developing digital literacy for teaching and learning. In: Zawacki-Richter, O., Jung, I. (eds) *Handbook of Open, Distance and Digital Education*. Springer, Singapore. https://doi.org/10.1007/978-981-19-2080-6_64