Learning Design for Educators: Integrating Artificial Intelligence (AI) in Teaching Practices

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EDCI 565: Research and Practice of Learning Design

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March 26th, 2024

Abstract

Artificial Intelligence (AI) is a powerful, relevant, and impactful tool that can positively impact educators' teaching resources, streamline administrative tasks, and increase student personalized learning. However, there is an identified gap in teachers' knowledge and understanding regarding how AI can be utilized to support their role as educators. This learning design is developed per the ADDIE framework, Universal Design for Learning (UDL) guidelines, and constructivist principles to guide educators through activities to close this learning gap. Minimizing this AI learning gap is significant because AI-based tools in education can positively impact teachers' jobs, increase student engagement, and ensure educators do not fall further behind in their technological knowledge. Participants will engage in thoughtful conversations, academic research, and hands-on learning activities with AI-based tools to understand how this technology can positively impact their work.

The workshop aims to educate participants and guide educators toward the learning outcomes of being able to define AI, identify how it has been utilized, and communicate how they can integrate AI into their teaching practices. Participants will also discuss ethical considerations, boundaries, and limitations of AI in education. However, the learning design primarily aims to allow educators to engage with the ChatGPT, MagicSchoolAI, and Eduaide AI programs. The participants will gain a foundation of AI understanding through engaging in these activities. They will be able to decrease their time on non-teaching tasks, increase the learning experience for students, and understand AI so they can participate in future, more advanced workshops. The instructor will use formative and summative assessments of participants' learning outcomes to improve, adapt, and modify the workshop for future sessions.

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Introduction

Artificial Intelligence (AI) is rapidly becoming a fundamental aspect of educational environments for teachers and students worldwide. AI generally "refers to applications of software algorithms and techniques that allow computers and machines to simulate human perception and decision-making processes to complete tasks" (Murphy, 2019, p. 2). This widespread introduction of AI into our education systems has shown that education is evolving, and there are feelings of uncertainty, excitement, and apprehension amongst students, parents, and educators regarding integrating AI into education. Even with the skepticism and concerns about AI in education, this technology has opportunities to support educators in their teaching environments.

The job of an educator is "one of the most demanding professions and has consistently shown higher levels of burnout among teachers compared to professionals in other human service fields" (Hashem et al., 2023, p. 1). This is attributed to non-teaching tasks, such as lesson planning and preparation, administrative duties, and the additional role of instructing, supporting, and assessing students through under-resourced school environments (Murphy, 2019, p. 13). However, AI-based tools, when used as an assistant to teachers, "can help reduce teachers' workload and mitigate the risk of burnout" (Celik et al., 2022, p.628). The advantages of AI can help teachers "focus their attention on the timely intervention, personalized learning, and [the] assessment of [their] students" (Celik et al., 2022, p. 628).

This workshop aims to introduce educators to different AI-based tools and teach them practical skills about how AI can be used in their teaching practices to increase the efficiency of their tasks and their students' learning experiences. It also aims to provide teachers with a

foundation of understanding about AI, the misconceptions of AI, and important ethical considerations regarding integrating AI in education.

Literature Review

Artificial Intelligence (AI) refers to computers or teaching machines that can perform cognitive tasks replicating human thinking, problem-solving skills, and intelligence (Baker, 2019; Hashem et al., 2023). Although these technologies are commonly utilized through various research fields, "AI-based tools are becoming widespread in the K-12 context," (Celik, 2023, p. 9) and "AI applications in education are on the rise" (Zawacki-Richter et al., 2019, p. 1). This prominence of AI-based tools worldwide has created uncertainty, excitement, and a general unknown regarding the future of AI in education. However, AI will not disappear from our education systems. Instead, it will continue to expand, develop, and integrate into our everyday lives (Ottenbreit-Leftwich et al., 2023, p. 268). Although the integration of AI into society has people questioning the impact of these AI-based tools on education, AI has the potential to positively influence teachers' workload, burnout levels, and instructional effectiveness (Celik et al., 2022; Hashem et al., 2023; Kuleto et al., 2022).

The job of an educator requires the teacher to have a heavy workload while receiving inadequate support (Hashem et al., 2023, p. 18). This results in educators working extended hours, feeling overwhelmed by non-teaching tasks, and experiencing increased rates of burnout (Celik et al., 2022; Hashem et al., 2023). As these implications of being an educator are observed worldwide, AI-based tools have been shown to assist teachers in their non-teaching and administrative tasks (Murphy, 2019, p. 1). Hashem et al. (2023) stated that generative AI-based tools, such as ChatGPT, can assist teachers in non-teaching tasks (p. 2) and "it can reduce teachers' workload and mitigate the risk of burnout" (p. 17). As a result, AI can provide value

and relief to educators by limiting teachers' administrative tasks and providing them with practical teaching support. However, the effective utilization of AI-based tools requires education, support, and understanding, which teachers may not yet have (Celik, 2023; Celik et al., 2022; Kuleto et al., 2022; Ottenbreit-Leftwich et al., 2023).

To successfully implement and integrate AI into education, more information and research must be completed regarding teachers' skills and knowledge of AI-based tools (Celik, 2023; Celik et al., 2022). Currently, "little is known about teachers' knowledge and skills about AI tools" (Celik, 2023, p. 9), and "the role of teachers in the development of AI has been ignored in literature" (Celik et al., 2022, p. 616). As observed by Hasse (2017), "more than 40% [of teachers] estimate that they do not have the necessary technological qualifications for using new technologies in their teaching" (p. 367). Another statistic of teachers' limited knowledge of technology is that 80% of teachers have a limited or basic understanding of AI fields (Chounta et al., 2022, p. 744). This can be attributed to "teachers [feeling] left behind because they [have] received very few guidelines on how and why new technologies should be coupled with professional matters" (Hasse, 2017, p. 371). This indicates a significant gap between the potential of AI technologies in schools and teachers' abilities to implement these AI-based tools in education. Therefore, educators need structured content, information, and learning opportunities to integrate AI into their teachers' toolkits (Ottenbreit-Leftwich et al., 2023).

Generally, "to effectively integrate AI into education, teachers' AI-specific technological and pedagogical knowledge is vital" (Celik, 2023, p. 7). A process of educating teachers on introductory AI content and programs is critical (Ottenbreit-Leftwich et al., 2023, p. 268), and "for teachers to become AI-literate citizens who can make informed decisions about technologies and how they are used, they need opportunities for meaningful learning about AI" (Ottenbreit-

Leftwich et al., 2023, p. 286). A workshop can be a positive learning experience for educators, providing them with technological, pedagogical, and ethical awareness of AI information and programs (Celik, 2023; Trust & Pektas, 2018). This is essential for the effective use of AI-based tools in education as "research [has] proven that the higher the teachers' awareness and knowledge [of AI], the easier it is for them to identify opportunities for implementing AI in K-12 schools" (Kuleto et al., 2022, p. 9).

Regarding an effective instructional design model, the ADDIE model is a fundamental process for developing practical learning resources (Branch, 2009; Trust & Pektas, 2018; Tu et al., 2021). ADDIE is an acronym for Analyzing, Designing, Developing, Implementing, and Evaluating, and it is an effective model for "creating high-quality professional development experiences" (Trust & Pektas, 2018, p. 219). The intention of using the ADDIE framework in a professional development program is to create "student-centred, innovative, authentic, and inspirational" (Branch, 2009, p. 2) learning resources which utilize fundaments of the Universal Design for Learning (UDL) guidelines and constructivist principles. By incorporating the ADDIE framework into professional development workshops, the courses are designed for the needs of the participants (Tu et al., 2021, p. 17). Trust and Pektas (2018) developed a flexible and constructivist course that effectively engaged participants in learning using the ADDIE framework and UDL guidelines (p. 231).

The Universal Design for Learning (UDL) is a framework for developing learning materials that meet the needs and interests of diverse learners (CAST, 2018; Trust & Pektas, 2018). The UDL "has three guiding principles: (a) multiple means of representation, (b) multiple means of action and diverse expression, and (c) multiple means of engagement" (CAST, 2018; Trust & Pektas, 2018, p. 221). Integrating these UDL principles into programs makes the

learning environment accessible for all learners, regardless of their capabilities or experiences (Basham et al., 2016; Dalton et al., 2019; Lee & Griffin, 2021). This is essential for creating a series of professional development workshops as the UDL guidelines "can positively influence the level and experience of learning for students at various levels of education" (Dalton et al., 2019, p. 5). Although the Universal Design for Learning and the ADDIE framework successfully provide a foundation for professional development workshops, integrating constructivist principles into participant learning can further impact their learning outcomes.

Constructivism is a learning theory that focuses on active, social, and hands-on learning experiences (Harasim, 2017; Mattar, 2018). Through constructivist principles, learners must be actively involved in learning activities where individuals, individually or socially, can construct knowledge and understanding (Harasim, 2017). This connects to the ADDIE framework and UDL guidelines of ensuring learning designs have been analyzed and modified for participants learning gaps and requirements (Branch, 2009; CAST, 2018). This is because learners can meaningfully understand the material when learning activities are designed for participants. The ADDIE framework and constructivist principles emphasize student-centred learning (Branch, 2009), and the UDL can be implemented to "facilitate inclusion and greater access to [learning materials]" (Craig et al., 2022, p. 24).

In summary, Artificial Intelligence (AI) has impacted different levels of education worldwide, and AI-based tools will transform teaching and learning. Although there is a need for further research on the effects of AI-based tools on educators' jobs, there are various benefits that AI can have on teachers' workload, risk of burnout, and non-teaching tasks. However, there are gaps in teachers' understanding and ability to utilize AI-based educational tools and applications effectively. Therefore, an introductory workshop designed through the ADDIE framework, UDL

guidelines, and constructivist principles is beneficial for introducing AI to educators. Research shows that hands-on activities that are relevant, applicable, and valuable to educators can positively impact teachers' job satisfaction and overall well-being. A wide variety of research has been completed on integrating AI in different educational systems, primarily higher education. However, more research is needed regarding how AI workshops for educators can positively impact teachers, students, and administrators. Further research must be completed on how the ADDIE framework, UDL guidelines, and constructivist principles can impact the creation of learning materials, resources, and workshops for educators.

Theoretical and Conceptual Framework

This workshop's theoretical framework uses the ADDIE instructional design model, Universal Design for Learning (UDL), and constructivist learning theory.

Learning Design Model

This workshop aims to provide relevant, engaging, and valuable information to educators with various learning preferences, needs, and requirements. Therefore, the workshop is structured and designed according to multiple Universal Design for Learning (UDL) guidelines. Overall, "UDL is a comprehensive framework that aims to shape the design of learning environments to be accessible for all learners" (Roski et al., 2024, p. 2). This framework has guidelines for providing multiple means of engagement, representation, and action/expression, which have been implemented through this workshop to increase accessibility and success for all participants. In particular, the following UDL guidelines are applied to this learning design:

- Guideline 3.1: Activate or supply background knowledge (CAST, 2018). As this is an introductory workshop, this learning design will ensure that background information is

presented to participants, and there will be guided questions and conversations that will support participants in understanding how AI is evident worldwide.

- Guideline 4.2: Optimize access to tools and assistive technologies (CAST, 2018). In this workshop, participants access different AI programs, Google Documents, and prescribed learning activities. The instructor, other participants, and AI will help support each other's learning during the activities. Additional support will be provided if participants require further assistance.

- Guideline 7.1: Optimize individual choice and autonomy (CAST, 2018). This guideline will be implemented through hands-on learning activities where participants choose from different activities and programs that offer similar learning outcomes.

- Guideline 7.2: Optimize relevance, value, and authenticity (CAST, 2018). This guideline is evident through the workshop's aim to ensure that the learning outcomes and activities are relevant, applicable, and valuable to participants. These activities are authentically designed for educators and support the participants in learning how AI-based tools can assist them in their jobs.

- Guideline 8.2: Vary the demands and resources to optimize challenge (CAST, 2018). The workshop presents accessible activities, discussions, and information to those with varying experiences with AI. There are sections for participants with zero experience and lots of experience. This allows participants to be successful and challenged regardless of their experience with AI-based tools.

Utilizing these guidelines in this learning design is essential for the success of all participants, as using UDL can support all learners in the classroom (Roski et al., 2024, p. 2). This workshop will supply participants with the necessary background information, provide them

with autonomy and choice, and allow educators with differing levels of AI-based tool experience to participate in learning activities connected to their everyday lives. The workshop aims to ensure that all participants are successful, and the UDL framework provides the foundation of an inclusive learning experience for all learners.

Instructional Design Model

The workshop is structured through the framework of ADDIE, which stands for Analyze, Design, Develop, Implement, and Evaluate. Although ADDIE is an instructional design framework, not a learning design model, it "is a fundamental process for creating effective learning resources and experiences" (Branch, 2009, p. 2). Here is a breakdown of the five steps of ADDIE and how they are integrated within the context of this workshop:

- Analyze: This step "is to identify the probable causes for a performance gap" (Branch, 2009, p. 2). In the context of this workshop, there is an identified gap in teacher knowledge of AI-based tools, their technology abilities, and how AI can positively impact their teaching practices.

- Design: This step "is to verify the desired performances and appropriate testing methods" (Branch, 2009, p. 2). It involves selecting appropriate activities and information to "[close] the performance gap due to a lack of knowledge and skills" (Branch, 2009, p. 2). In the context of this workshop, different instructional strategies, content areas, and activities are identified and designed to increase teachers' understanding of AI-based tools.

- Develop: This step "generates selected learning resources" (Branch, 2009, p. 2). After identifying the resources in the previous phase, they are created in the development stage. In the context of this workshop, resources such as the Call for Interest infographic, the Google

Document of activities, and the PowerPoint presentation are developed to form the instructional resource package.

- Implement: This step "prepares the learning environment and engages the students" (Branch, 2009, p. 2). This includes ensuring the learning activities are facilitated smoothly, accurately, and effectively. In the context of this workshop, this includes executing the workshop plan and ensuring that participants are engaged, actively involved, and successful with the learning resources.

- Evaluate: This step "assesses the quality of the instructional products and processes before and after implementation" (Branch, 2009, p. 2). The evaluation phase is vital to the learning design because the strengths, areas of improvement, and overall effectiveness of the learning activities are evaluated. In this workshop, the evaluation will include collecting feedback through a Google Form, actively observing participants, and adjusting the activities for future workshops.

The ADDIE framework is practical for this workshop design as it provides a structure for identifying learning outcomes, engaging participants with the content, and evaluating the workshop's strengths, challenges, and areas of improvement. It also ensures that the instructors understand and acknowledge the participants' context and learning abilities, which allows them to create or change activities that will ensure the participants' successful learning outcomes.

Learning Theories

In learning designs, it is essential to understand the different learning theories embedded within the activities as "[they] help us understand how people learn" (Harasim, 2017, p. 4). By understanding learning theories, "educators can reflect on their practice and improve, reshape, and refine their work" (Harasim, 2017, p. 4). This is essential to teaching and connected to the

ADDIE framework and the UDL guidelines. In the context of this workshop, although the learning theories of cognitivism, behaviourism, and connectivism are rooted throughout the workshop's activities, the most prominent learning theory embedded in this workshop is constructivism.

Constructivism states that "learning is an active process of constructing [knowledge] rather than acquiring it, and instruction is a process of supporting that construction of understanding rather than communicating knowledge" (Harasim, 2017, p. 4). It views humans as "active creators and constructors of [their] own learning" (Harasim, 2017, p. 4). This theory is seen throughout school systems as learners construct knowledge by actively collaborating, doing, and thinking. Constructivism encourages critical thinking and problem-solving, supports personalized learning, and promotes deeper content learning.

In the context of this workshop, participants' construction of understanding is observed through the discussions and the hands-on activities. These workshop sections are supported by "the constructivist four key principals of active learning, learning-by-doing, scaffolded learning, and collaborative learning" (Harasim, 2017, p. 4). Through the designing, development, and implementation phases of ADDIE, the workshop's resources, activities, and discussions are intentionally structured to have the participants actively engaged. Using the AI-based tools, participants can construct an understanding of this technology, reflect on how it could be implemented into their teaching practices, and collaborate with others regarding their workshop experiences, insights, and successes. Incorporating constructivism into the learning design activities enhances participants' learning outcomes and empowers them to use AI-based tools in their teaching practices.

Educational Context

The context for this workshop is designed for generalist middle school educators and focuses on the ethical integration of AI-based tools in education. The current uses of AI-based tools in our school district depend solely on teachers' information about AI, their familiarity with AI technology, and their ability to learn these tools independently. The workshop is structured to be completed in a face-to-face learning environment, such as a middle school classroom, and each participant needs access to the internet and an individual computer. There will be approximately 20 participants who will have basic computer literacy skills, and they will be able to navigate websites and Google Documents without support. The participants' experience of AI in this workshop will range from those without experience to those with some experience with AI but have yet to successfully implement it as a tool to support them in their jobs as educators. The duration of this workshop is set to ninety minutes.

During this workshop, the instructor will share information through a PowerPoint presentation, facilitate conversations regarding 'hot topics' in AI, and guide participants through engaging hands-on learning activities with the AI programs of ChatGPT, MagicSchoolAI, and Eduaide. These activities will be documented in a Google Document, and the description of activities will provide participants with step-by-step instructions for completing a task. The workshop activities directly apply to teachers' jobs as educators and, when used effectively, can be beneficial in supporting teachers through their teaching, planning, and administrative tasks. This workshop aims to introduce, engage, and empower teachers to use AI-based tools and evolve this introductory session into a series of workshops that continue to educate, support, and inform teachers about the application of AI-based tools in their teaching practice.

Learning Outcomes and Goals

This workshop aims to provide educators with a foundation of understanding regarding AI, its ethical considerations, and the potential of AI-based tools in education. Through this workshop, participants will engage in information, discussions, and activities to achieve the following learning outcomes:

- By the end of the workshop, participants will be able to define AI, identify where it is commonly used, and describe three ways it can be used in education.

- By the end of the workshop, participants will be able to communicate their perspectives and boundaries regarding the ethical considerations of AI in education.

- By the end of the workshop, participants will have engaged in meaningful, collaborative, and reflective conversations about AI's role and impact in education.

- By the end of the workshop, participants will have explored at least one AI program and understand how this program can support them in their role as educators.

- By the end of the workshop, participants will be able to understand and communicate how they will integrate AI into their teaching practices.

Workshop Activities

This workshop consists of various activities that ensure participants can interact with and experience AI information, programs, and activities. Through the UDL guidelines, ADDIE framework, and constructivist principles, this workshop is designed to provide interactive, inclusive, and hands-on learning experiences for all participants. After the analysis phase of the ADDIE framework was complete and the gaps in teachers' understanding, knowledge, and abilities were identified, the workshop's activities were developed in the design and development phases. These activities have been intentionally designed per the principles, guidelines, and

framework above to create accessible, constructive, and comprehensive learning experiences for participants. The outline below includes an overview of AI, facilitates collaborative discussions, and offers practical applications of AI-based tools for educators.

- Introduction (5 minutes): The instructor will introduce themselves, welcome the participants to the workshop, and outline the workshop's activities. The instructor will engage participants in an icebreaker of 'Two Truths and a Myth' regarding AI in Education. After sharing the three statements, the instructor will ask participants which statement they think is the myth. This section is designed to engage participants at the beginning of the workshop and begin to build community and rapport. The 'Introduction' section begins the 'Implement' phase of the ADDIE framework.

- Overview of AI in Education (10 minutes): In this section, the instructor will share how AI-based tools are currently used in education, the different ways AI programs are used in society, and the promises and challenges of AI in the education system. The instructor will present this section via PowerPoint, and the information on the slides will be multimodal, accessible, and supported by literature. This section is designed to provide participants with background knowledge of AI in education and reinforce how research has shown AI-based tools to benefit educators.

- Discussion (10 minutes): The instructor will engage participants in the following thought-provoking questions that will activate their prior knowledge and engage the educators about how AI-based tools can assist them in their jobs. The role of the instructor will be to ensure that all contributing participants' voices are respectfully heard, and that the conversation is guided towards how AI can assist educators in their work. This section is designed to have

participants communicate with others, engage in exploratory talk, and learn from each other's ideas, beliefs, and experiences with AI in education. The questions are:

- What comes to mind when you hear 'Artificial Intelligence' in the context of education?

- Can you think of any tasks in your teaching or administrative work that you wish technology could assist with?

- Demonstration of Logging onto the AI Programs and the Google Document (10 Minutes): In this section, the instructor will show participants how to access the "Artificial Intelligence introductory learning activities guide" provided in the Appendix, and log into ChatGPT, MagicSchoolAI, and Eduaide. This Google Document will be emailed to participants before the workshop begins. During this time, the instructor will project the document of activities onto the projector screen. The document will contain usernames and passwords for participants to access the AI programs if they choose not to create a personalized account. Once the instructor shows the basics of logging onto each program and identifies which program is most beneficial for specific teaching tasks, the instructor will demonstrate to participants where to find the activities for each AI program. In this section, the UDL principles of Multiple Means of Engagement and Representation are embedded to ensure that all participants can be successful in their next activity.

- Hands-on Activity with AI Tools (30 minutes): During this time, the participants will explore ChatGPT, MagicSchoolAI, or Eduaide by interacting with the activities in the "Artificial Intelligence introductory learning activities guide." If time permits, participants can explore multiple AI-based tools. This section introduces participants to how these programs can assist them in planning, administrative work, or teaching. The instructor will be available for

technical support, questions, or guiding participants individually through different activities. Constructivist principles are rooted in this section as participants actively learn, problem-solve, and construct understanding, ideas, and the ability to engage with AI-based tools for educational purposes. To access this document, see the Appendix.

- Group Discussion and Reflection (15 minutes): After the hands-on learning activities, the instructor will engage participants in a group discussion regarding the questions identified below. The purpose of this section is for the participants to reflect on their experiences with the different AI programs, share their insights with others, and learn from each other's thoughts, ideas, and experiences. The purpose of this section for the instructor is to conduct a formative assessment regarding the strengths, challenges, and effectiveness of the hands-on learning activities. This section builds on the UDL guidelines by engaging participants in multiple means of engagement through their reflection, self-assessment, and discussions. The group discussions are based on the constructivist principles of socially constructing understanding. Participants engage in meaningful, practical, and relevant conversations regarding their experiences with AI in education. The questions are:

  - Which features of these AI-based tools did you explore that are most beneficial for your teaching practices, and why?

  - What ethical considerations come to your mind after using these tools?

  - How do you think AI-based tools can assist with personalized student learning, and are you concerned about their use in this context?

- Conclusion (5 Minutes): In the workshop's final section, the instructor summarizes the essential takeaways from the activities. The instructor then answers any questions, thanks the

participants for engaging in the activities, and informs them that a short questionnaire regarding the workshop will be emailed to them later that day.

Assessment and Evaluation

This workshop's ability to guide participants to the learning outcomes identified above will be assessed through various methods, and participants will be invited to share their feedback on the workshop's activities after the session. Although evaluation and assessment are commonly interchanged, as Taras (2005) stated, "assessment refers to judgements of students' work and evaluation refers to judgements regarding courses or course delivery" (p. 467). Therefore, for this workshop, formative and summative assessment tools will be utilized to assess participants' ability to engage proficiently with AI-based tools for education, and following the workshop, the participants will provide an evaluation of the workshop's structure, content, and activities.

Generally, formative and summative assessments are two tools teachers commonly use to assess student learning of new material and knowledge (Dixson & Worrell, 2016, p. 153). Formative assessment is designed to monitor learning progress and provide students with feedback throughout learning activities; summative assessment is designed to assess student learning outcomes at the end of instruction. In this workshop, the instructor will engage in the formative assessment of participants by observing participants' engagement with AI-based tools, communicating with participants in discussions, and working with participants during the hands-on learning section of the workshop. In addition, the instructor will provide one-on-one support for participants and be available to troubleshoot. Regarding summative assessment, the participants will be invited to complete a questionnaire at the end of the workshop. This will allow the instructor to assess the participants' overall learning regarding the learning outcomes of this workshop.

The participants will be invited to provide feedback regarding the workshop's structure, instructor, and activities through an online form. The online form will allow the participants to evaluate the effectiveness of the learning design. As Dixon and Worrell (2016) stated, teachers must be mindful of how they plan to use evaluation results (p. 157). Regarding this learning design, the instructor will use the evaluation, information, and feedback provided by participants to adjust the learning design to be more effective, engaging, and meaningful for future sessions.

Conclusion

In recent years, "the use of Artificial Intelligence (AI) technologies has expanded to many areas where they directly affect many people's lives" (Brusilovsky, 2024, p. 1). This impact of AI has the potential to have both positive and negative effects, depending on how educators utilize it. However, "little is known about teachers' knowledge and skills to integrate AI-based tools" (Celik, 2023, p. 9). Therefore, although there are advantages to educators utilizing AI in education (Celik et al., 2022), there are gaps in teachers' understanding and ability to integrate AI-based tools into their roles as educators. Addressing this gap, educators will engage in direct instruction, discussions, and hands-on learning activities in this workshop with the AI programs ChatGPT, MagicSchoolAI, and Eduaide.

This learning design uses the ADDIE framework, UDL guidelines, and constructivist principles to create an informative, applicable, and relevant workshop for educators regarding the potential of utilizing AI-based tools as assistants in their jobs. Through activities, participants can achieve the learning outcomes of defining AI, identifying different AI programs, and acknowledging how these AI-based tools can assist them in their non-teaching and administrative tasks. Additionally, the participants will discuss the ethical considerations and implications of utilizing AI-based tools in their teaching practices. Depending on the instructor's assessment of

participants' learning outcomes and the participants' evaluation of course activities, content, and instructor, the workshop can be modified to create more meaningful, educative, and impactful sessions in the future. This workshop aims to introduce educators to AI-based tools and develop a foundation of learning and understanding of AI-based tools for educators in future sequential workshops.

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Appendix

Artificial Intelligence Introductory Learning Activities Guide

For the hands-on learning portion of the workshop

Hotchin, J. (2024). *Artificial intelligence introductory learning activities guide* [Google Document].

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