EDTC 6321 Instructional Design
Instructional Design Project (IU's 1-5)

Project Description

My instructional unit was designed to empower 504 Special Program managers and writing/ELAR teachers with the skills and knowledge to teach proper pencil-gripping techniques to identified students. It was conducted in a conducive learning environment within the IDEA Quest library, utilizing a combination of high-speed internet, school-distributed laptops, and an overhead projector to facilitate both group and independent learning. The unit's instructional goal focused on enabling learners to identify, use, demonstrate, and explain different pencil grip styles, enhancing their pedagogical approach for students requiring accommodations. Feedback from subject matter experts and formative evaluations played a crucial role in refining the instructional strategies and materials, ensuring they were effective and user-friendly. Modifications over time, based on both expert feedback and direct input from learners, underscored the iterative nature of the design process, leading to improved educational outcomes and teaching practices.

Standards Met

This project demonstrates proficiencies in the following AECT standards: Standard 1 – Content Knowledge, Standard 2 – Content Pedagogy, Standard 3 – Learning Environments, Standard 4 – Professional Knowledge and Skills, and Standard 5 – Research. The chart below illustrates the performances that fulfill the AECT standards.

AECT 2012 Standards	
Standard 1 – Content Knowledge: Candidates demonstrate the knowledge necessary to create, use, assess, and manage theoretical and practical applications of educational technologies and processes.	
Performance indicators:	**Justification**
1.1 Creating. Candidates demonstrate the ability to create instructional materials and learning environments using a variety of systems approaches. **1.2 Using.** Candidates demonstrate the ability to select and use technological resources and processes to support student learning and to enhance their pedagogy.	1.1 In creating the instructional unit, I utilized a systematic approach by integrating feedback from subject matter experts and formative evaluations to develop and refine instructional materials tailored for learners with specific needs. This process ensured the creation of a learning environment conducive to teaching proper pencil-grip techniques, demonstrating my ability to apply systems approaches effectively. 1.2 I demonstrated my ability to select and use technological resources by incorporating PowerPoint presentations and

	instructional videos into the learning environment, enhancing student understanding of pencil grip styles. This choice of media supported student learning by providing clear, accessible instruction and allowed for repeated viewing, thereby enhancing my pedagogical approach.
Standard 2 – Content Pedagogy: Candidates develop as reflective practitioners able to demonstrate effective implementation of educational technologies and processes based on contemporary content and pedagogy.	
Performance indicators:	**Justification**
2.1 Creating. Candidates apply content pedagogy to create appropriate applications of processes and technologies to improve learning and performance outcomes. **2.2 Using.** Candidates implement appropriate educational technologies and processes based on appropriate content pedagogy. **2.4 Managing.** Candidates manage appropriate technological processes and resources to provide supportive learning communities, create flexible and diverse learning environments, and develop and demonstrate appropriate content pedagogy. **2.5 Ethics.** Candidates design and select media, technology, and processes that emphasize the diversity of our society as a multicultural community.	2.1 In creating the instructional unit, I applied my understanding of content pedagogy to develop processes and technologies that specifically address the needs of students requiring pencil grip accommodations. By doing so, I improved learning outcomes by ensuring that the instructional materials were not only appropriate but also directly targeted at enhancing the performance of both teachers and students. 2.2 I implemented educational technologies, such as interactive videos and PowerPoint presentations, based on a thorough understanding of content pedagogy. This approach ensured that the technologies used were appropriate for the subject matter, facilitating effective learning by directly addressing the instructional goals of teaching different pencil grip styles. 2.4 I managed technological processes and resources by creating a supportive learning community in the IDEA Quest library, where learners could engage with the instructional material in a distraction-free environment. This management included the provision of laptops and internet access, ensuring a flexible and diverse learning environment that supported the unique learning needs of each participant. 2.5 In designing the instructional unit, I was mindful to select media and technology that reflect the diversity of our society. By incorporating examples and scenarios that acknowledge various cultural backgrounds, I aimed to create an inclusive learning environment that respects and embraces multicultural perspectives, thereby promoting an ethical approach to educational technology.

Standard 3 – Learning Environments: Candidates facilitate learning by creating, using, evaluating, and managing effective learning environments.	
Performance indicators:	**Justification**
3.1 Creating. Candidates create instructional design products based on learning principles and research-based best practices. **3.2 Using.** Candidates make professionally sound decisions in selecting appropriate processes and resources to provide optimal conditions for learning based on principles, theories, and effective practices. **3.6 Diversity of Learners.** Candidates foster a learning community that empowers learners with diverse backgrounds, characteristics, and abilities.	3.1 In creating the instructional unit, I meticulously designed products that are grounded in learning principles and research-based best practices, such as the incorporation of formative assessments and feedback loops from subject matter experts. This approach ensures that the instructional materials not only meet the specific learning needs of students requiring pencil grip accommodations but also adhere to the highest standards of educational design. 3.2 When selecting processes and resources for the instructional unit, I made decisions based on a solid foundation of educational principles, theories, and effective practices. This included choosing technological tools that enhance learning outcomes and instructional strategies that cater to different learning styles, ensuring optimal conditions for all learners. 3.6 I fostered a learning community that respects and empowers learners from diverse backgrounds, characteristics, and abilities by designing instructional materials that are accessible and accommodating to all students. This approach emphasized inclusivity and adaptability, allowing for personalized learning experiences that acknowledge and value the unique contributions of each learner.
Standard 4 – Professional Knowledge and Skills: Candidates design, develop, implement, and evaluate technology-rich learning environments within a supportive community of practice.	
Performance indicators:	**Justification**
4.4 Assessing/Evaluating. Candidates design and implement assessment and evaluation plans that align with learning goals and instructional activities. **4.5 Ethics.** Candidates demonstrate ethical behavior within the applicable cultural context during all aspects of their work and with respect for the diversity of learners in each setting.	4.4 I designed and implemented an assessment and evaluation plan that aligns directly with the learning goals and instructional activities of the instructional unit, incorporating both formative evaluations from subject matter experts and summative assessments to measure learner understanding of pencil grip techniques. This approach ensured that assessments were relevant, meaningful, and effectively gauged the learners' ability to meet the instructional goals.

	4.5 Throughout the development and implementation of the instructional unit, I consistently demonstrated ethical behavior, respecting the diverse backgrounds and needs of all learners. My commitment to ethical practice was evident in my careful consideration of the cultural context, ensuring that all instructional materials and activities were inclusive and respectful of the diversity present in the learning environment.
Standard 5 – Research: Candidates explore, evaluate, synthesize, and apply methods of inquiry to enhance learning and improve performance.	
Performance indicators:	**Justification**
5.1 Theoretical Foundations. Candidates demonstrate foundational knowledge of the contribution of research to the past and current theory of educational communications and technology. **5.2 Method.** Candidates apply research methodologies to solve problems and enhance practice. **5.3 Assessing/Evaluating.** Candidates apply formal inquiry strategies in assessing and evaluating processes and resources for learning and performance.	5.1 My work on the instructional unit is deeply rooted in the foundational knowledge of educational communications and technology, reflecting the significant contributions of research to both past and current theories. This project illustrates my understanding of how these theories underpin the development of effective educational tools and strategies, showcasing my ability to integrate theoretical insights into practical instructional design. 5.2 In addressing the challenge of teaching proper pencil grip techniques, I applied research methodologies to identify the most effective instructional strategies and technologies. This process involved a systematic review of current best practices and the integration of feedback from subject matter experts, demonstrating my ability to use research methodologies to solve practical problems and enhance educational practice. 5.3 For assessing and evaluating the instructional unit, I applied formal inquiry strategies grounded in established research and the ADDIE model as outlined by Robert M. Branch in 'Instructional Design: The ADDIE Approach'. Specifically, the evaluation phase of ADDIE helped justify my selection of tools and strategies by emphasizing the importance of continuous feedback and iterative design. This approach ensured that the instructional materials were not only effective in meeting learning goals but also aligned with research-based best practices for enhancing learning and performance outcomes.

Modifications Made

Throughout the duration of the course and in the period following its completion, I have made several modifications to my project, reflecting both my growth in the program and the invaluable feedback received from peers, subject matter experts, and learners. The iterative nature of instructional design, particularly informed by the ADDIE model, has underscored the importance of continuous refinement of educational materials.

Short-term Modifications:

After initial feedback from Garret Lo Biondo and Mrs. Pena, I reduced the number of performance objectives from five to three. This change made the goals more focused and achievable within the allotted time frame.
I added notes to the video slides in the PowerPoint presentation, emphasizing that teachers could watch the instructional videos multiple times to fully grasp the pencil grip techniques.
Long-term Modifications:

Based on the use of the lesson materials with actual learners, I observed a need for additional practice worksheets that catered to varying levels of difficulty. This led to the development of a tiered worksheet system, allowing for differentiated learning.
Following a six-month period of implementation and further feedback, I revised the instructional videos to include more diverse examples of pencil grips, catering to a wider range of learners and acknowledging the diversity in classroom settings.
Documentation and Evaluation:
Real-time input from learners during the instructional sessions highlighted the effectiveness of certain strategies and the areas needing improvement. These observations were crucial for the summative evaluation phase, leading to targeted adjustments in the instructional materials.

These modifications not only reflect my commitment to enhancing the learning experience but also my growth as an educational technology professional. By applying the theories and methodologies learned throughout the program, I have been able to refine my instructional design project in ways that more effectively meet the needs of diverse learners. Future improvements, informed by ongoing summative evaluations, will continue to be documented and incorporated, ensuring that the instructional unit remains a dynamic and evolving tool for educational enrichment.

Hyperlinks to Drafts:

Original Draft Final Draft