Application Project (Final)

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ELDT 6100 - Instructional Design

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December 10, 2025

Context Analysis

In this project's context, the learners comprise students from the poorest school district in Illinois. Since the medium for learning will be a job aid and this is intended for remote learners, students who learn from this will not be in a traditional classroom. Rather, willing participants from anywhere in the district will be able to learn from this job aid. From a pre-test assessment, the students are determined to possess no or virtually no prior musical performance knowledge. In addition, this test demonstrates that students' goals are to enter into music classes or professions in the future and therefore find it useful since fundamental information is on the job aid. To access this, students will need access to a device with high speed internet, a modern web browser, Adobe Acrobat reader, and a printer if they prefer a hard copy. The context will vary depending on the students' location, but will include at least these elements.

Learner Analysis

A pre-test given before downloading the job aid reveals characteristics of the students. They all are of various ethnicities in the poorest school district in their state, where opportunities are scarce and upward social mobility is dubious. They comprise the K-12 grade levels. The students have a personal love of music and previously have had no musical instruction. Some previously had little experience with an instrument, but in all cases their involvement was found to be negligible. Most of the culture in the district is typical of lower/working class life. Most people identify themselves as a Protestant Christian. All are cognitively average and share similar musical tastes.

Learning Objective

The instructional objective is to recite every pitch from the C major and A minor scales respectively.

Part	Description
Audience	The job aid will provide basic information on how to play a major and minor scale for students from the poorest school district in Illinois.
Behavior	Following the instruction, these learners will be able to clearly distinguish what a major and minor scale are.
Condition	To execute the objective, students must have little or no prior knowledge of music other than casual listening. They must also have access to a computer with high speed internet, a modern internet browser, and Adobe Acrobat reader.
Degree	The criterion students must reach is being able to recite all the pitches from a C Major and A Minor scale from memory while distinguishing one from the other with 100% accuracy.

Learning Theory

The learning theory employed in this project will be cognitivism. Since all students are learning from the same resource and cognitivism promotes the idea of learners learning from existing schemas, information in the job aid will seek to stimulate this. For example, musical letters are in the same order as letters in the alphabet. The distance from one pitch to another is how musical pitches are measured, with letters representing the pitch rather than numbers or some other sign. This will encourage learners to draw on their existing schemas to connect how

musical pitches work to what they already know about the order of the alphabet and how numbers are used as measures.

Instructional Design Model

The ADDIE model will be implemented for this project:

Analysis: In the analysis phase, the following is determined. The participants consist of the poorest school district in Illinois. Various ethnicities are present across these participants, they are in K-12 grades, have similar musical and artistic interests, most identify as a Protestant Christian, are cognitively average, and love music, yet have no previous experience playing this. Constraints could be not having access to a computer since they are in a poor area, not being able to get to a library, not having access to a piano/keyboard or piano app to play notes, etc. The delivery options are digital or physical. The objective will be to clearly distinguish the difference between a major and minor scale.
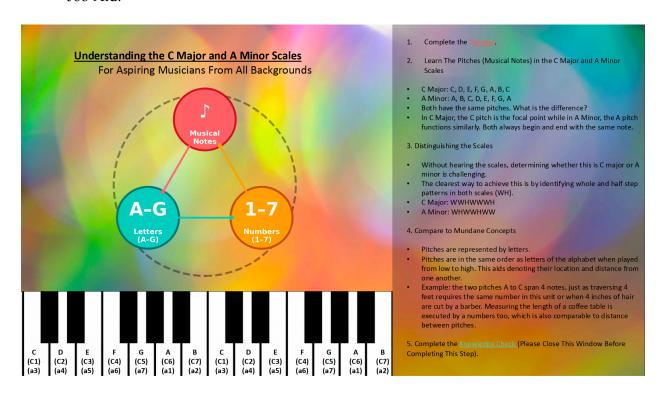
Design: In this phase, entries from a task analysis will be properly sequenced to achieve maximum efficiency. Once steps have been entered into the job aid, if the result is found to be improper, entries will be resequenced to inform the final product until the desired product is fulfilled. This will better inform which strategies to use and why. Elaboration will be a generative strategy used to align with the employment of cognitivism in this project. Learners using their own schemas to learn the new information from the job aid will benefit them significantly. The text will all be the same font. Sizes will be the same size for headings and body text. Finally, a piano visual and others will be used to aid retention and memory.

Development: This section will demonstrate the steps of the job aid. This is a step by step sequence with graphics. The job aid determines the concepts that participants need to learn in order to execute the instructional objective. These include pitches, pitches of the C major and A minor scales, the fact that both scales contain the same pitches, how these relate to mundane concepts and whole/half step patterns. There is also a graphic of piano keys on this job aid where each is labeled with matching pitches along with the scale degree number of each in the C major and A minor scales. This is to facilitate understanding the concepts and is placed near text denoting them. Additionally, there is a graphic of a cycle between music, letters and numbers to illustrate how a foreign concept relates to common ones. Finally, there is a pretest and knowledge check included.

Implementation: For this portion, learners will need access to a device with high speed internet, a modern web browser, Adobe Acrobat reader and a printer if they prefer a hard copy. However, to access the pretest and knowledge check, learners will be required to use the digital version. When accessed online, the job aid will be in PDF format, so Acrobat Reader will be essential. Otherwise, what a student may or may not need could depend on their environment. Since this job aid can be viewed from any location, whether the learner is in their home, on a noisy subway, in a library, or walking their dog, various contexts may necessitate various needs for full implementation. In addition, this job aid has no sound. Therefore, hearing narration or sounds will not be required, reducing possible environmental restrictions. The most significant challenge will be for learners to understand how to distinguish between the C major and A minor scales without hearing them, which will likely demonstrate the effectiveness of this job aid. Feedback will be recommended in the last step of the aid.

Evaluation: For the evaluation phase, a knowledge check is mandated at the end. This assessment asks the questions "Which notes are in the C major scale?" and "Which notes are in the A minor scale?" Learners are also given an opportunity to provide feedback on the job aid, which will allow them to express anything they desire regarding this and the general experience. In short, this will assess how well or poorly students comprehended the job aid material and their honest thoughts and feelings about this. This will likely lead to further improvements on the job aid as further development may be executed towards this in the future if these evaluations prove a need for improvement.

Job Aid:

Understanding the C Major and A Minor Scales
For Aspiring Musicians From All Backgrounds

1. Complete the Pre-test.

2. Learn The Pitches (Musical Notes) in the C Major and A Minor Scales

- C Major: C, D, E, F, G, A, B, C
- A Minor: A, B, C, D, E, F, G, A
- Both have the same pitches. What is the difference?
- In C Major, the C pitch is the focal point while in A Minor, the A pitch functions similarly. Both always begin and end with the same note.

3. Distinguishing the Scales

- Without hearing the scales, determining whether this is C major or A minor is challenging.
- The clearest way to achieve this is by identifying whole and half step patterns in both scales (WH).
- C Major: WWHWWWH
- A Minor: WHWWHWW

4. Compare to Mundane Concepts

- Pitches are represented by letters.
- Pitches are in the same order as letters of the alphabet when played from low to high. This aids denoting their location and distance from one another.
- Example: the two pitches A to C span 4 notes, just as traversing 4 feet requires the same number in this unit or when 4 inches of hair are cut by a barber. Measuring the length of a coffee table is executed by a numbers too, which is also comparable to distance between pitches.

5. Complete the Knowledge Check (Please Close This Window Before Completing This Step).

References

Open AI. (2025, Dec 10). *ChatGPT5*. chatgpt.com