

**A Constructivism-Influenced Instructional Approach for Beginning-Level Online Middle
Eastern Dance Students: Chapters 1 - 3**

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Chapter 1 - Topic and Problem

Topic

Through experiences in teaching adult female beginning-level Middle Eastern dance students, the study author has found that these students struggle to have any confidence in their ability to begin creatively participating in the art, like through the creation of their own simple choreography. In dance, as in many other subjects, there seems to be a “generative barrier” of sorts, in that students seem to believe they cannot produce anything until they “know enough.” And indeed, this belief is reinforced through the mimetic and traditional approaches to dance instruction, which emphasize a lead-and-follow, teacher-directed experience (El Raheb et al., 2019).

This general lack of creative confidence is then compounded for students using online pre recorded beginning-level Middle Eastern dance instruction for several reasons:

- 1) Pre recorded online material does not provide the physical presence of the instructor or allow for direct feedback.
- 2) Available pre recorded classes are usually a one-time experience (e.g. single presentation in a full 60-90 minute style class such as would be available on a DVD or digital download) or a series (e.g. collection of demonstrated beginning-level material such as would be available on YouTube) with a particular instructor, and these classes typically do not offer any plan for ongoing practice with the material learned after the student has completed the single class or series.
- 3) The goal of the instruction is usually for the student to sufficiently master the presented steps, combos, and/or choreography in order to perform them

simultaneously with the instructor on the screen. No instruction on creatively using what has been taught to produce new dance material is given.

According to Bayyat (2020), dance “pedagogy is rapidly changing according to the students’ needs” (p. 69) and the technological advancements of the 21st century. El Raheb et al. (2019) and Chao et al. (2021) have also identified a shift occurring in dance pedagogy toward incorporating more constructivist-style teaching practices. As a master’s student in instructional design, the study author has been intrigued by what a constructivism-influenced approach to beginning-level online Middle Eastern dance instruction might look like. As with the perceptions of beginning-level Middle Eastern dance students, though, there seems to be a “generative barrier” in learning theory, too, as constructivism is an approach that is often considered best suited to more advanced learners (Ertmer & Newby, 2013).

However, Means et al. (2009) pointed out the following in their report for the U.S. Department of Education:

Online learning can be enhanced by giving learners control of their interactions with media and prompting learner reflection. Studies indicate that manipulations that trigger learner activity or learner reflection and self-monitoring of understanding are effective when students pursue online learning as individuals. (p. xvi)

It is, therefore, this study author’s belief that a constructivism-influenced, self-paced, and creativity-focused approach to beginning-level online Middle Eastern dance instruction could well provide those desirable triggers for learner activity, reflection, and self-monitoring of understanding that mimetic and traditional dance instruction approaches do not afford.

Problem Statement

Stated succinctly, the problem to be addressed is that many beginning-level adult female Middle Eastern dance students struggle to have confidence in their ability to create their own simple choreography, which would allow them to start participating creatively in the art.

Problem Discussion

This lack of creative confidence in beginning-level Middle Eastern dance students is a significant problem because, while the routine online instructional method for pre recorded material can be effective for its mimetic goal, it is very limited from the student perspective. It does not encourage students to be able to dance on their own without the direct aid of the recorded material in front of them. Indeed, little to no effort is typically expended for assisting beginning-level students in “becoming conversant” in the “language” of Middle Eastern dance, meaning encoding the information learned for long term memory storage and then guiding the students in using this knowledge independent of the instructional materials in a creative way, such as with the creation of their own simple choreographies. Constructivist-type Middle Eastern dance instruction or activities are usually not encountered until much later in a dancer’s education, if at all, depending on how long a student chooses to pursue Middle Eastern dance.

This delay of student input does a disservice to beginning-level Middle Eastern dancers in several ways. First, it prevents them from reaching the deeper understanding of what they are learning that would come from generative interaction with the material. As Alter (2014) noted, “Having the freedom to reinvent and reconstruct information makes learning more meaningful and interesting for the student” (p. 52).

Second, the delay of student input keeps students from feeling any personal ownership of the art form because the dance is purely disseminated to them by the instructor. Alter (2014) also asserted the following about her teaching experience in the arts:

Any kind of learning environment that allows participants some level of control in forming the content and structure of the curriculum, encourages a greater sense of ownership and control over the learning process and fosters higher levels of engagement and participation. (p. 52)

And third, the delayed input denies students the creative outlet that Middle Eastern dance can provide and the encouragement to keep dancing which this creative outlet can feed. In speaking of authentic learning, Lombardi (2007) stated the following:

Developmental psychologist Jerome Bruner reminds us that there is a tremendous difference between learning about physics and learning to be a physicist. Isolated facts and formulae do not take on meaning and relevance until learners discover what these tools can do for them. (p. 2)

Similarly, there is a difference between someone learning the isolated facts of Middle Eastern dance steps and the formulae of other peoples' combos and choreography and someone learning to be a practitioner of the Middle Eastern dance art form themselves. Ertmer and Newby (2013) put this concept of tools and the ability to use them in the following terms:

One does not learn to use a set of tools simply by following a list of rules. Appropriate and effective use comes from engaging the learner in the actual use of the tools in real-world situations. Thus, the ultimate measure of learning is based on how effective the learner's knowledge structure is in facilitating thinking and performing in the system in which those tools are used. (p. 57)

A “real-world situation” in Middle Eastern dance is for students to be able to assemble for themselves and perform authentic Middle Eastern dance choreography, and it is the study author’s belief that the abilities to handle this real-world situation can be taught from the outset of students’ Middle Eastern dance journeys and can greatly benefit their learning experiences.

Research Question

- 1) What is the impact of teaching a six-hour online instructional unit with constructivist elements on the confidence levels of beginning-level adult female Middle Eastern dance students to create their own simple choreography as measured by a pre- and post-instruction survey?

Topic and Problem Conclusion

This study is a small, action research project on a specific subset of beginning students in a particular style of dance. However, it touches on several important topics in online dance education and online education in general, such as teaching beginners online, online learner confidence and self-efficacy, online learner engagement, the use of constructivist practices in online learning, and the successful application of learning received online to real-world scenarios. This study also follows the current dance instruction trend toward more constructivist approaches, as identified by El Raheb et al. (2019) and Chao et al. (2021). While the results of this study will not be broadly generalizable to other populations, dance styles, etc., the study should provide some interesting insights for others interested in online dance education. The study author, therefore, believes it to be a timely and worthwhile contribution to research about online dance instruction.

Chapter 2 - Review of the Literature

Overview of the Literature

To build knowledge on significant topics related to beginning-level online Middle Eastern dance instruction with constructivist elements and choreography creation confidence in students pursuing it, this literature review will present research findings on three main topics. Due to the subject matter and delivery method for this study's instructional materials, online dance instruction in general is examined. Constructivism in online instruction is also explored because of this study's focus on the incorporation of generative elements. Finally, literature on the promotion of self-efficacy in online students is also surveyed to investigate elements which might contribute to the confidence of online learners.

Online Dance Instruction

Before examining online dance instruction specifically, it is important to understand theory about dance instruction in general. There are four basic dance instructional approaches that underlie all dance instruction: mimetic, traditional, generative, and reflective (El Raheb et al., 2019). These approaches vary in the level of importance placed on the teacher and the student in the learning experience. In mimetic instruction, which is also called the "see and do" (p. 5) method, the student merely copies dance movements seen in the performance of another dancer. The traditional approach squarely places the teacher as the director of the dance learning experience, with the transmission of knowledge flowing from teacher to student. Generative dance instruction begins to move the focus of the learning experience to the student: the teacher provides a starting point from which the student can then experiment to develop technique, expand understanding, and exercise creativity. And in reflective instruction, the migration of focus to the student is complete as the main activity involves student explorative and improvisational performance on which the teacher then gives feedback.

The mimetic and traditional approaches have been the long-established standards of dance instruction, but El Raheb et al. (2019) noted in their research that in recent times, more dance instructors have begun to incorporate generative and reflective qualities in their teaching. Chao et al. (2021, p. 3) verified this in the following recommendation from their research:

Although improving skills and techniques is still the main goal of dance education, students must learn not only how to apply skills and techniques in class but also how to perform higher level art with them (Lin et al., 2018). Therefore, besides practicing over and over to master dance skills, students also need to develop their own distinguishing dance characteristics (Sööt & Viskus, 2014), ability of self-examination (Leijen, Valtna, Leijen, & Pedaste, 2012), creativity, and ability of adding value (Sööt & Leijen, 2012).

El Raheb et al. also pointed out that this shift in pedagogy parallels technological advancements that have been taking place in the world of dance instruction. The online beginning-level Middle Eastern dance instruction with constructivist elements created for this study will be in keeping with these progressive trends in dance education.

In their research, El Raheb et al. (2019) additionally proposed a classification of function for new technological advancements in dance education: choreographic, augmented performance, educational, research and analysis, and games. They then further broke down the educational class of online dance tools into desktop, mobile apps, whole-body interaction, and augmented/mixed/virtual environments. The instruction for this study about online beginning-level Middle Eastern dance instruction falls into the desktop and mobile app subcategories of the education class, since Thinkific (<https://www.thinkific.com/>), the learning management system employed in this study, makes the learning experience available both in desktop and mobile environments.

Furthermore, El Raheb et al. (2019) put forward a learning workflow for their speciality of Dance Interactive Learning Systems (DILS), which are dance education tools involving whole-body interaction and motion capture. This workflow consists of four phases. Phase 1 is Student Moving, in which the student attempts to learn the presented dance material. In phase 2, Capturing Student's Movement, the learner makes a visual recording of the practiced movements. This visual data is then analyzed by the involved technology in Phase 3, Processing Movement Data. And finally, Phase 4, or the Feedback phase, is the presentation of the technology's analysis, whether that is continuous or discrete feedback with a method of correction, reflection, or judgement, to the learner. While the instruction for this study does not involve DILS, El Raheb et al.'s workflow can be adapted for online beginning-level Middle Eastern dance students so that they can self-assess their dance efforts in the asynchronous and self-paced environment of the course. After practicing steps, combos, or choreography several times (phase 1), the students can watch themselves in a mirror or record themselves with a phone or camera if a mirror is not available (phase 2), compare their performance with the instructor demonstration (phase 3), and then determine ways to improve their dance execution with reflective feedback points provided in the instruction (phase 4).

Besides these theoretical points about online dance instruction, it is also essential to consider the practical aspects of delivering dance instruction online. Zihao (2020) identified 3 key principles for conducting an online dance course when he transitioned an in-person university-level dance course to an online format during the COVID-19 pandemic. Zihao's first principle is providing clear communication with learners about how the online course works, for which Zihao suggested recorded video as a direct and personable medium. The next principle is selecting the right platform for the distribution of the course, both from the perspective of the

features offered for the instructor and the needs of the students. And instituting an appropriate and predictable structure for individual classes in which all of the elements can reliably be performed in a small space is his third principle. All of Zihao's principles generalize to many types of online dance courses, and his suggestions will be implemented in the development and implementation of this study's online beginning-level Middle Eastern dance material.

Coelho and Menon (2020), in their study which took place during the COVID-19 pandemic, elucidated several possible concerns of online dance students. Their study inspected recreational ballroom dance students' preferences in regard to online training when in-person classes could not be held due to the pandemic. Among students who were unsure about or opposed to online classes, the concerns were as follows: space constraints at home, a belief that it would be difficult to learn anything complicated online, uncertainty about keeping up with the instructor, no way to ask questions or receive feedback like in face-to-face classes, and a perceived lack of fun in online learning. However, Coelho and Menon were able to enact interventions that largely ameliorated these concerns, such as requiring instructors to stay within a boxed perimeter during teaching to simulate a small at-home space, allowing time for questions in live sessions, giving instructor feedback on student-submitted dance videos, planning for interaction between students and the instructor and/or other students during classes, and using the gallery view and chat features in the class platform. And while Coelho and Menon's classes were synchronous and many of their interventions are not possible in an asynchronous course like the online beginning-level Middle Eastern dance materials for this study, it is useful to be aware of the student concerns they identified and address them as well as possible in an asynchronous format.

Another major consideration in online dance instruction is how to have students evaluate the perceived effects of the online course on some construct. Chao et al. (2021) capably employed the Physical Activity Class Satisfaction Questionnaire (PACSQ) in their study that compared traditional, blended, and flipped versions of a dance course at a Taiwanese university and students' levels of satisfaction with those course versions. (The blended and flipped versions of the course both employed online dance instruction.) PACSQ was originally developed at Texas A&M University by Cunningham (2007) to measure various dimensions of satisfaction for students in several types of physical education courses. Cunningham viewed each of the physical activity courses at his university as providing "a 'service' (i.e., physical activity delivery) to the 'customer' (i.e., the student in the class)" and believed that "the students' satisfaction with the class would be one of the primary outcomes of the class" (p. 162). The development of the questionnaire was a multi-step process which first involved a qualitative study to determine what students viewed as components of course satisfaction and then two quantitative studies to develop and refine the questionnaire. To explore the multi-dimensional aspects of student satisfaction, the finalized version of PACSQ requires students to rate their perceptions of course mastery experiences, cognitive development, teaching received, normative success, interaction with others, fun and enjoyment, improvement of health and fitness, diversionary experiences, and relaxation with eight-point Likert scale items about those topic areas. PACSQ is an excellent example of a physical activity course assessment that measures students' perceptions of a construct related to the course experience, in this case satisfaction, and can, therefore, be used as a valuable guide for creating the assessment to measure the development of confidence in choreography creation tied to this study's course of online beginning-level Middle Eastern dance instruction.

Constructivism in Online Instruction

To understand constructivism in an online context, it is first necessary to separately understand essential features of constructivism, its paired theory of objectivism, and e-learning. According to Zhu (2008, p. 2), the learning theory of constructivism “stresses that learning is an active and constructive process in which the learner is building up a personal and contextualised interpretation of experience. The key constructivist notion of learning is a personal or social construction of meaning.” This may be contrasted with the more traditional approach of objectivism, in which “learning involves acquiring correct or true beliefs about the world. The goal of instruction is to communicate or transfer knowledge to learners” (p. 1). As for online learning, Zhu (2008) defined it as “the network-enabled transfer of skills and knowledge” (p. 1). She also observed that while it is easy to acknowledge the objectivist applications of online learning, constructivist applications are not always as readily apparent to educators.

To create harmony between views of objectivism and constructivism in e-learning, Zhu (2008) also employed communication theory and proposed that learning in general always involves both objectivism and constructivism: it is a communicative transmission of information from teacher to student, an interaction period, and a personal knowledge construction process by the individual student. And in specific reference to e-learning, Zhu recommended that it be thought of as the method through which the instructor shares content and the learner shares feedback so that the instructor and student can share meaning together. Zhu’s model of knowledge transmission to interaction to personal meaning construction will be followed in the online beginning-level Middle Eastern dance course of this study.

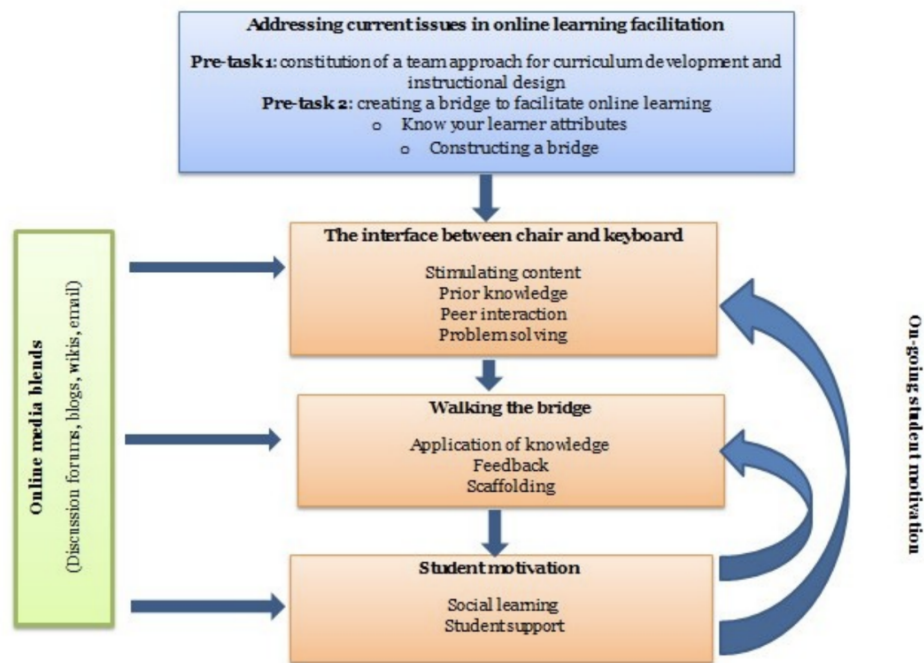
Mbati and Minnaar (2015) noted that “models and guidelines for online learning that stimulate constructivist as well as observational learning are lacking” and emphasized their

desire to help fill that gap (p. 273). To do this, they blended their phenomenological research findings on challenges in online learning practice with the following findings from other researchers which they believed to be pertinent:

- Baviskar et al.’s four constructivist criteria: the eliciting of prior knowledge, the creation of cognitive dissonance, the application of knowledge with feedback, and reflection on learning (p. 275)
- Bandura’s four functions for observational learning: attentional processes during modeling, retention, the production process, and the motivational process (p. 276)

Figure 1

Guidelines for the facilitation of interactive online learning programmes



From “Guidelines Towards the Facilitation of Interactive Online Learning Programmes in Higher Education,” by L. Mbatia and A. Minnaar, 2015, *International Review of Research in Open and Distributed Learning*, 16(2), p. 282. [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/).

Mbati and Minnaar's (2015) guidelines for developing online instruction compatible with these constructivist and observational tenets is represented through four steps. Step one of their guidelines is entitled "addressing current issues in online learning facilitation" (p. 282) and consists of two pre-tasks to deal with issues in online learning facilitation. Pre-task one involves the assurance that the online course development team has a unified approach to course creation. And pre-task two is focused on facilitating online learning by both having a system for bringing any needed print media to the appropriate online format and uncovering key learner attributes to accommodate in the instruction. In step two, the center of attention is what Mbati and Minnaar call "the interface between the chair and keyboard" (p. 282). This interface is composed of the presentation of stimulating course content, the eliciting of the student's prior knowledge, the promotion of peer interaction, and the engagement of the learner in problem solving. Step three is called "walking the bridge" (p. 282) and encompasses the application of knowledge by the student, feedback, and scaffolding. "Student motivation" (p. 282) is step four and includes social learning and student support. Ongoing student motivation supports the learners as they are continually drawn back to steps two and three throughout their learning experience in a course. And online media blends, like discussion forums, blogs, wikis, and email, can have significant impact on phases two, three, and four. While it will not be possible in this study to support all of the social aspects that Mbati and Minnaar included in their guidelines, their recommendations will inform the decisions made for the online beginning-level Middle Eastern dance instruction produced for this study. In particular, a Facebook group will be used as an available online discussion forum for the participants.

Gold (2001) focused on the constructivist online instructor in his study about training teachers in online constructivist methods. He affirmed that some of the beneficial features of the

online learning movement are the opportunities to re-examine traditional instruction and to create needed changes in the learning transaction that better match the demands of online asynchronous education. Gold emphasized that constructivist online instructors must specifically tailor their methodology and the online environments they create to meet the needs of these students with whom they cannot be present. He also observed how crucial it is that online constructivist instructors' dialogue be immediately meaningful and relevant to their students.

Gold (2001) additionally presented a useful mapping of Piaget's four processes of knowledge construction to constructivist instructional principles and online learning components. Gold adapted this mapping from an earlier work by Akyalcin called "Constructivism – an epistemological journey from Piaget to Papert." Piaget's four processes of knowledge construction, which form the basis of this mapping, are as follows:

- 1) Assimilation: the association of "new events with background knowledge and prior conceptions" (Gold, 2001, p. 39)
- 2) Accommodation: modifying "existing structures to new information" (Gold, 2001, p. 39)
- 3) Equilibrium: the balancing of "internal understanding with external 'reality' (e.g. other's understanding)" (Gold, 2001, p. 39)
- 4) Disequilibrium: letting the learner experience things "without achieving a state of equilibrium" (Gold, 2001, p. 39)

The mapping in the table below effectively demonstrates the progression of theory into real-world constructivist practices and is, therefore, valuable for constructivist instructors to review.

Table 1

Constructivist components within an ALN environment

Processes	Instructional Principles	ALN Components
Assimilation	Gauge the learner’s previous knowledge and experience.	Pre-test Introductory posts
Assimilation	Orient the learner to his learning environment (LE).	Broadcast emails Syllabus Resources To do lists Glossary Course information FAQ Synchronous chat
Assimilation	Solicit problems from the learner and use those as the stimulus for learning activities, or establish a problem such that the learners will readily adopt the problem as their own.	Course testing and revision Class content Synchronous chat Online lectures and readings Non-graded, starter activities Facilitative questions
Assimilation	Support the learner in developing ownership for the overall problem.	Discussion forum feedback by other students and facilitator
Assimilation	Anchor all learning activities to a larger task or problem. The learner should clearly perceive and accept the relevance of the specific learning activities in relation to the larger task.	Individual unit activities leading to team project
Accommodation	Design the LE to support and challenge the learners’ thinking.	Modularize content so as to scaffold learning Behavior modeling by facilitator Quizzes for reinforcement

Table 1 (continued)

Processes	Instructional Principles	ALN Components
Accommodation	Design the task and the LE to reflect the complexity of the environment in which they must function after the learning has occurred.	Compare and contrast activities Facilitative questions Discussion forum feedback by other students and facilitator Online course delivery Modeling of course structure and components Team project
Accommodation	Encourage testing ideas against alternative views and alternative contexts.	Discussion forum Modularize content to introduce new concepts quickly Compare and contrast activities Interactive essay Facilitative questions
Equilibrium	Design an authentic task. An authentic LE is one in which the cognitive demands are consistent with the demands in the environment for which the learner is being prepared.	Team project
Equilibrium	Provide an opportunity for reflection on both the learning content and process.	Facilitator evaluation of team projects Auto-marked quizzes Open student evaluation to instructor
Disequilibrium	Provide an opportunity for changing and enhancing, drafting, and redrafting.	Unit summaries of student discussions

Table 1 (continued)

Processes	Instructional Principles	ALN Components
Disequilibrium	Challenge misconceptions.	Students' and facilitator's feedback Project gallery Post-test

Note: ALN = Asynchronous Learning Networks, LE= Learning Environment

Reproduced from “A Constructivist Approach to Online Training for Online Teachers,” by S. Gold, 2001, *Journal of Asynchronous Learning Networks*, 5(1), pp. 38-39. Copyright 2001 by Sanford Gold.

While there have been further developments in the types of online learning components available since Gold’s (2001) study was published two decades ago, his breakdown of knowledge construction processes to constructivist principles to possible practical applications through specific course components is valuable for the way it illuminates a selection process that online constructivist instructors can follow while developing course materials. For Gold’s actual study on training teachers in online constructivist methods, he employed several of these components. The central constructivist feature of his course was an online discussion forum, through which many course assignments took place. Another helpful feature was the use of a well-defined syllabus that gave directions and hyperlinks to the study participants for the various constructivism-related class activities. And instead of traditional assessments, students were asked to submit projects illustrating their understanding of various course concepts.

It is also instructive to look at a few more examples of successful constructivist online education that have occurred after Gold’s study in order to reveal examples of additional modern

online constructivist course components. Keast (2009) was responsible for the development of a constructivist online music history course for his university. In his study, he discussed the use of virtual classrooms, online tutoring and writing support, enhanced media delivery and interactivity (especially in quizzes), and more developed learning platforms, such as Blackboard (<https://www.blackboard.com/>). Bryant and Bates (2015) were tasked with taking two community-oriented and constructivism-focused education master's programs online for their university. Two key technological advancements emphasized as essential to their online programs were podcasts and Google Docs, because both of these tools allowed their students to communicate and interact asynchronously.

In the words of Bryant and Bates, “deep and meaningful interaction can be facilitated through the careful examination of online tools matched to course objectives” (2015, p. 22). The author of this study will give careful consideration to the best online tools to meet the needs of the study participants while providing online beginning-level Middle Eastern dance instruction with constructivist elements.

Promotion of Self-Efficacy in Online Students

Again, it is necessary to first explore the concept of self-efficacy before examining its relationship to online learning. Bandura (1977), in his landmark article “Self-efficacy: Toward a Unifying Theory of Behavioral Change,” explained the concepts of both the outcome expectation and the efficacy expectation. While an outcome expectation is the belief that a certain behavior produces a certain outcome, an efficacy expectation refers to “the conviction that one can successfully execute the behavior required to produce the outcomes” (p. 193). Efficacy expectations related to the self then influence many key factors in the learning process, like what a student chooses to try, the amount of effort a student is willing to invest, and the amount of

persistence a student exhibits in learning activities, especially ones that may not produce immediate successes.

Bandura (1977) then discussed four major sources of information from which an individual may judge self-efficacy. The first of these is performance accomplishments, which relate to personal mastery experiences. Repeated successes in personal mastery experiences bolster self-efficacy, while repeated failures, especially early on in a learning experience, will damage self-efficacy. The next source of information on self-efficacy is vicarious experiences, in which an individual's feelings of self-efficacy can be increased or decreased through witnessing others' successes or failures. The third source is verbal persuasion, as encouraging words can instigate a boost in an individual's belief of self-efficacy. And finally, emotional arousal has an effect on perceived self-efficacy. Stress impacts self-efficacy negatively, but coping mechanisms can help to mitigate stress-induced self-efficacy losses. Of all of these information sources, however, personal mastery experiences are king. No other source of information is able to trump what an individual has personally experienced, positively or negatively.

In 2008, Hodges surveyed ways that Bandura's four major sources of self-efficacy information could be applied online. In the realm of personal mastery experiences, Hodges suggested building these mastery experiences through the careful sequencing of online courses from low-level to complex skills and the appropriate chunking of content according to age and learning level. Vicarious experiences, he said, could be achieved online with the use of characters in the learning experience, like an animated assistant in an application, or through video, audio, and social comparison examples. He also cited research on the effects of written communication and audio feedback to provide verbal persuasion and emotional arousal coping mechanisms, like stress-reduction tips. In this study about online beginning-level Middle Eastern

dance instruction, Hodges' admonishment to carefully stair-step mastery experiences will be followed so that the students will be able to establish and grow feelings of self-efficacy in the unfamiliar artistic form.

Hong et al. (2019) provided perspectives on other significant elements in fortifying the self-efficacy of online students. In a study of Southeast Asian fourth graders learning Chinese as a second language online, Hong et al. tested for correlations between cognitive certitude calibration, cognitive anxiety, online learning interest, and online learning self-efficacy. Cognitive certitude calibration is the ability of students to align their perceptions of what they think they know with what they actually know as revealed by empirical testing. Hong et al.'s study revealed a positive correlation between cognitive certitude calibration abilities, online learning interest, and online learning self-efficacy. Therefore, students who could accurately judge their knowledge on a subject they considered interesting exhibited above average levels of online learning self-efficacy. Cognitive certitude calibration abilities and cognitive anxiety were negatively correlated, in that as cognitive certitude calibration abilities rose, cognitive anxiety decreased. The study also showed the value of sustained practice in increasing cognitive certitude calibration and self-efficacy. So ensuring that the online beginning-level Middle Eastern dance materials of this study's course are 1) presented in an attention-sustaining way to 2) students interested in the subject with 3) plenty of opportunities for practice should contribute to confidence in their cognitive certitude calibration abilities and general feelings of self-efficacy in the course.

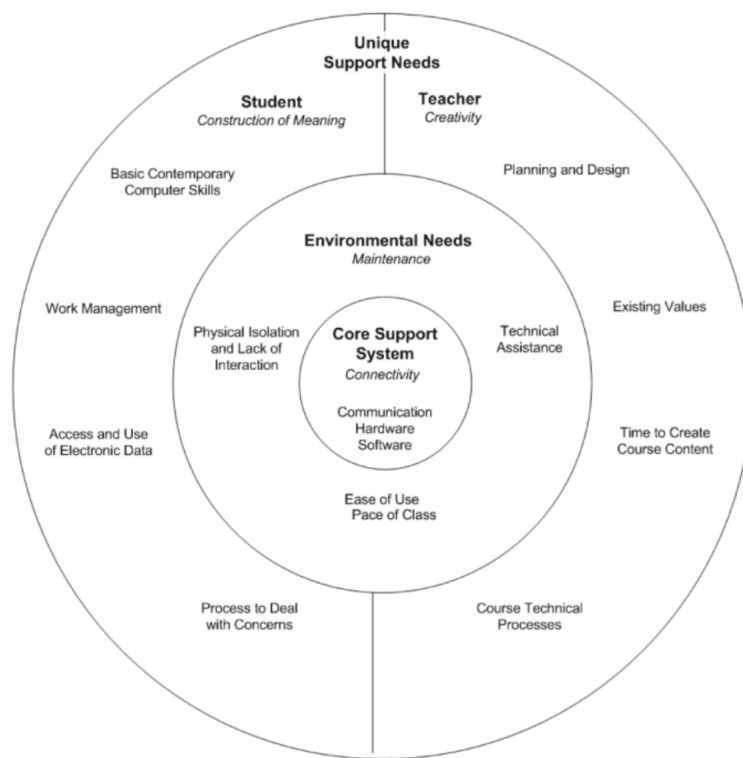
In his later work on self-efficacy scales, Bandura (2006) stated, "One cannot be all things, which would require mastery of every realm of human life. People differ in the areas in which they cultivate their efficacy and in the levels to which they develop it even within their

given pursuits” (p. 307). This awareness of the multidimensional nature of self-efficacy has influenced the development of online self-efficacy scales by other researchers, and these scales reveal some of the varied types of self-efficacy online learning entails. For example, Artino and McCoach (2008) devised a scale which they called the Online Learning Value and Self-Efficacy Scale (OLVSES). They tested and revised this scale through three sequential studies with online learners in the U.S. Navy and U.S. Naval academy. Their finalized scale questions asked about learners’ self-efficacy beliefs in performing well in a self-paced, online course; overcoming technical difficulties; learning without an instructor or other students present; and understanding difficult material. Yavuzalp and Bahcivan (2020) translated into Turkish and then tested the Online Learning Self-Efficacy Scale (OLSES) originally developed by Zimmerman and Kulikowich in 2016. Both Zimmerman and Kulikowich and Yavuzalp and Bachivan administered the test to university students in various majors. OLSES focused on online self-efficacy in the areas of learning in the online environment, which includes such behaviors as navigating materials, submitting assignments, and learning without the instructor or other students present; time management, which includes such behaviors as assignment completion and meeting deadlines; and technology use, which includes such behaviors as posting on discussion boards, using online communication, and participating in online calls. Both OLVSES and OLSES clearly illustrate that “online learning self-efficacy” is not one thing but rather multiple types of self-efficacy centered around the educational medium of online learning. And indeed, in order to develop successful online beginning-level Middle Eastern dance instruction for this study, it will be necessary to encourage such various types of self-efficacy as technical self-efficacy, online learning environment self-efficacy, course management self-efficacy, and dance self-efficacy.

An excellent example of considering the multifaceted self-efficacy needs of both teachers and students and providing support for those needs was presented by Steinbronn and Merideth (2003). Their model consists of a series of concentric rings that represent their outward design system for online support needs, which they developed through practical experimentation with online summer programs at their university.

Figure 2

Outward design system for online support needs



From “An outward design support system to increase self-efficacy in online teaching and learning,” by P. Steinbronn and E. Merideth, 2003, *Campus-Wide Information Systems*, 20(1), p. 18. Copyright 2003 by Emerald Publishing Limited.

At the center of the model is what Steinbronn and Merideth (2003) term the core support system for connectivity. This central level of the model involves communication with hardware and software. For this level, they implemented such pragmatic interventions as providing detailed descriptions of technical requirements, disseminating visual usage directions, sending encouragement emails, ensuring 24/7 access to online materials, setting up faculty hardware and software support, and promoting student registration.

The next layer outward from core connectivity in Steinbronn and Merideth's (2003) model is the maintenance of environmental needs, which incorporates the ideas of physical location, lack of interaction, ease of use, pace of class, and technical assistance. Their efforts at this support level included requiring faculty to publish course intros and syllabi prior to classes so students would be informed in advance about class loads and faculty would undertake course development early on. They also sought to generate student interest and further faculty course development through demos of assignments and course tools prior to the start of classes. And they created methods for effective instructor-student and student-student communication during the courses, as well.

Steinbronn and Merideth's (2003) outermost model level encompasses unique support needs, both for construction of meaning by students and creativity in teachers. For student meaning construction, Steinbronn and Merideth asserted that students should have basic contemporary computer skills, time management abilities, access to and ability to use electronic data, and an established process for dealing with concerns. And in order to support those student requirements, information about class dates and materials, links to the student software guide and class syllabi, an email contact page, subject-based help pages, periodic email reminder newsletters, a telephone support helpline, an online help desk, a mentor network, and

course-specific websites were provided. For teachers, the support needs for their creativity were planning and design, recognition of existing values, time to create course content, and course technical processes. Steinbronn and Merideth addressed these faculty needs with a novice-level course technology workshop, faculty help page, in-depth course technology workshops, and hands-on workshops about creating course pages and materials.

Steinbronn and Merideth's (2003) university wished to provide extensive support to promote feelings of self-efficacy in their students and teachers in regard to online learning, and they had the funding and resources to enact those measures. The majority of the measures were well-received and rated as helpful, as revealed in Steinbronn and Merideth's surveying of the participants. While smaller or less well-funded organizations would not be able to independently put forward such a vast array of self-efficacy reinforcements for learners and instructors, Steinbronn and Merideth's study is nonetheless enlightening in how it imparts an expansive list of possible real-world methods to positively affect feelings of self-efficacy. And indeed, either through the intentional inclusion of some of the supports listed here in the online beginning-level Middle Eastern dance course of this study or through the resources of the learning management system that will be used (Thinkific), Steinbronn and Merideth's core connectivity, environmental needs maintenance, and unique support needs of students and the instructor will be addressed.

Summary

While this overview of research about online dance instruction, constructivism in online instruction, and the promotion of self-efficacy in online students does not cover every topic related to this study's investigation of a constructivism-influenced instructional approach for beginning-level online Middle Eastern dance students, it does offer many valuable insights for the study. For example, it identifies current trends in dance education, where this study's course

fits in with present-day online dance education efforts, and concerns that online dance students might have. It provides an exemplary model in the PACSQ assessment for the measurement of choreography creation confidence which must occur in this study, and it also elucidated many best practices for teaching dance in an online format which the study author intends to utilize. Additionally, the literature review covered many ways to enhance Bryant and Bates' "deep and meaningful interaction" (2015, p. 22) through constructivist principles, which will also inform the development of this study's beginning-level online Middle Eastern dance instructional materials. And finally, it revealed numerous theoretical realizations and practical applications to support the multiple types of self-efficacy that the beginning-level Middle Eastern dance students who participate in this study will need.

Chapter 3 - Research Methodology

Research Design

Acrobatiq (2018) says the following of action research, the research design which this study about beginning-level online Middle Eastern dance instruction closely follows:

Action research is focused on addressing and solving specific problems that educational professionals face in their local schools and communities. It is generally conducted directly within [the] classroom or workplace. It starts with the goal of generating local (not national) knowledge, and it often results in changes to established practices. It is often used to experiment and try out new strategies and practices, with the researcher carefully measuring and observing the outcomes and consequences in his or her workplace. (p. 42)

The elements of this study match the Acrobatiq definition point-for-point:

- 1) **Solving a specific problem:** The study will focus on the specific problem of a lack of creative confidence in beginning-level Middle Eastern dance students, which the study author has specifically observed as an instructor of these students.
- 2) **Study environment:** The study course will create an online classroom environment specifically for beginning-level Middle Eastern dance students, and the study itself will examine what the effects of a constructivism-influenced instructional approach within this environment are.
- 3) **Local knowledge:** The purpose of this study will be to produce local knowledge on the effects of a constructivist-influenced approach for a specific group of beginning-level online Middle Eastern dance students, which represent the type of Middle Eastern dance students with whom the study author typically works.

- 4) **Changes to established practices:** The results of this study will likely influence how the study author teaches future beginning-level Middle Eastern dance students, both in person and online.
- 5) **Experimenting with new strategies and practices:** This study will be an experiment with a new type of constructivism-influenced instruction for beginning-level online Middle Eastern dance students.
- 6) **Careful measurement of outcomes:** The study author will carefully measure the pre- and post-instruction survey results to determine whether the new method successfully bolsters the students' creative confidence in the art form or not.

Research Question

- 1) What is the impact of teaching a six-hour online instructional unit with constructivist elements on the confidence levels of beginning-level adult female Middle Eastern dance students to create their own simple choreography as measured by a pre- and post-instruction survey?

Participants

The participants for this research study will come from a convenience sampling of the study author's Facebook connections. They will also be sampled purposively because adult females with an interest in taking a beginning-level online Middle Eastern dance course are being sought out from among those Facebook connections. Additionally, the sampling will allow for snowballing so the study author can receive recommendations about women who might enjoy being a part of the study, as well. The study author has been placing potential participants into a private Facebook group for the purpose of communication about the development of the study author's Middle Eastern dance instructional materials. The actual research participants will be

women from this group who formally agree to be part of the study by reviewing and signing the informed consent document. The target number of participants for this action research study will be 10, and the data these participants provide will be kept secure with password-protected software.

A survey of some potential participants (Alton, 2020) has yielded the following salient points of information to guide instruction. These adult female participants generally have little to no experience in Middle Eastern dance but have likely been involved in other dance or movement modalities. They indicated a preference for visual and kinesthetic forms of education, which should match well with the materials of the study's course. The majority of the potential participants attested that they have positive feelings about online instruction and feel comfortable using online videos as a medium of instruction. Additionally, multiple participants indicated that the course could potentially trigger body image issues for them.

Data Collection Instrument and Methods

A single quantitative self-assessment survey created by the study author will be administered before and after the beginning-level online Middle Eastern dance course materials to demonstrate whether or not the course provoked a change in the students' confidence levels for choreography creation. The survey will be delivered via JotForm (<https://www.jotform.com/>), an online form and survey platform. The research participants will be given a link to the survey before the instruction period begins through their email addresses and after completing the instructional material through the final chapter of course material in Thinkific.

The instrument for this study will be called the "Beginning-Level Middle Eastern Dance Confidence in Choreography Creation Assessment." The survey will consist of 10 four-point Likert scale items. These items will ask the research participants to numerically rate their

confidence levels about tasks related to simple Middle Eastern dance choreography creation, like their abilities to perform various types of steps, put those steps into simple original combos, and connect those combos into simple original choreography. The pre- and post-instruction scores for each question will be compared. The full instrument is included in Appendix A.

In the first phase of the study, the focus will be on officially enrolling study participants. As mentioned previously, the study author has been assembling a group of prospective study participants in a private Facebook group. The study author will reach out to these prospective research participants through the Facebook group to inquire about their ability to complete the study. The study author will provide a link in the Facebook group to the informed consent agreement in JotForm. The prospective research participants will read and sign the informed consent if they wish to officially be a part of the study. Those who sign the agreement will also provide an email address so that they will be able to receive study-related emails. At this point, the research participants will be considered officially enrolled in the study.

The next phase of the study will center on creating an anonymous experience for the research participants and their completion of the pre-instruction questionnaire. A research assistant will send the research participants their randomly-assigned study identification numbers at the email addresses they will provide in the informed consent agreement. The participants will use these identification numbers in both survey assessments. Once the research participants have their numbers, the study author will deliver a link for the pre-instruction survey through email. The research participants will then complete the pre-instruction survey.

The final phase of the study will be concerned with the participants completing the course instructional content and post-instruction survey. A link to the course materials on Thinkific will be provided through email to the students. This email will also contain instructions on how to log

in to the course materials and a quick video overview of how the course works. The research participants will then complete the course material. In the conclusion section of the course, the research participants will be provided with a link to the post-instruction survey, which will again be submitted through JotForm. The study author will then analyze the data from the pre- and post-instruction surveys and report on the findings to Western Governors University.

Data Security and Confidentiality

In order to handle participant data securely and confidentially, the following measures will be employed:

- 1) Participant data will be kept in password-protected software and deleted after the study has concluded, all the data has been analyzed, and the report has been submitted to Western Governors University.
- 2) Only the study author and the research assistant will have access to any personal information provided by study participants.
- 3) The data that participants submit through the study's online surveys will be anonymous. To accomplish this, the services of a research assistant will be employed. The research assistant will randomly assign a study identification number to the email address for study-related communication submitted by each participant with the informed consent document. The research assistant will then notify the participants through email of their numbers. The participants will then use these identification numbers as the identifiers on their survey submissions. The researcher will not have access to the list of number assignments made by the research assistant, and the research assistant will not have access to the survey

data that participants submit. Only the study identification numbers will be used in reported findings.

Summary

This study will adhere to the tenets of action research as it seeks to examine the impact of teaching a six-hour online instructional unit with constructivist elements on the confidence levels of beginning-level adult female Middle Eastern dance students to create their own simple choreography as measured by a pre- and post-instruction survey. The target of 10 adult female research participants will be gathered through convenience and purposive sampling of the study author's Facebook connections, along with snowballing from those connections. The "Beginning-Level Middle Eastern Dance Confidence in Choreography Creation Assessment" will be given as a pre- and post-instruction survey through JotForm, and the scores from these surveys will be compared to determine if the instructional approach had the desired effect or not. The study author will communicate with the participants both through a private Facebook group and email as they progress through the stages of enrolling in the study with informed consent, completing the pre-instruction survey, experiencing the course materials, and taking the post-instruction survey. Participant data will be kept in password-protected software, and participants will have study identification numbers so that they can submit their surveys anonymously.

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Appendix A

Beginning-Level Middle Eastern Dance Confidence in Choreography Creation Assessment

Instructions to Participants

You will take this survey before and after you complete the “Learn to Speak Basic Middle Eastern Dance” course. The survey is not for a grade or evaluation of you as a dancer; Its purpose is to help evaluate the effectiveness of the course. As mentioned above, several of the questions will ask you about your confidence in your ability to “perform” various types of steps. For the purposes of this survey, please consider an ability to do most of the major movements of a step most of the time as “performance.” Step perfection or 100% accuracy is not expected or required.

Questions

Please rate your confidence in the following:

	Not confident at all	A little confident	Fairly confident	Very confident
1. My ability to perform examples of basic Middle Eastern dance slides.	1	2	3	4
2. My ability to perform examples of basic Middle Eastern dance lifts and drops.	1	2	3	4

	Not confident at all	A little confident	Fairly confident	Very confident
3. My ability to perform examples of basic Middle Eastern dance circles and crescents.	1	2	3	4
4. My ability to perform examples of basic Middle Eastern dance twists and figure 8's.	1	2	3	4
5. My ability to perform examples of basic Middle Eastern dance arm movements.	1	2	3	4
6. My ability to perform examples of basic Middle Eastern dance shimmies.	1	2	3	4
7. My ability to perform examples of basic Middle Eastern dance undulations.	1	2	3	4
8. My ability to perform examples of Middle Eastern dance travelling steps and turns.	1	2	3	4

	Not confident at all	A little confident	Fairly confident	Very confident
9. My ability to put examples of the above basic Middle Eastern dance steps into my own simple combos.	1	2	3	4
10. My ability to put simple combos of the above basic Middle Eastern dance steps into my own simple choreography.	1	2	3	4

Closing

Thank you so much for completing the survey and participating in this Middle Eastern dance research study!