

Using Task Analysis to Improve Procedural Thinking Skills of Students with Disabilities in the Art Classroom

Abstract

Students with disabilities are at a disadvantage in the art classroom and may struggle with projects that include multi-step procedures. The purpose of this action research is to investigate the effectiveness of task analysis in the art classroom as a strategy to improve procedural thinking skills in students with disabilities.

Statement of the Problem

A typical art classroom brings together students of varying grade levels and abilities. It mirrors the reality of living and working in our own diverse communities. This places great responsibility on art teachers. It requires them to be specialists in both art and special education. Art elective courses, along with other electives, are among the most populated inclusion courses, yet the literature written on this dynamic is scarce.

For most students, creating art can be a daunting process regardless of ability level. Because art curriculum highly emphasizes project-based learning, students are required to think critically and independently in order to master skills. Projects include multi-step procedures that might be lengthy and tedious. Additionally, students might be required to create their own set of procedures, based on: (a) knowledge acquired and (b) their own ideas. Art projects require a certain level of independence, self-advocacy, and follow-through. As such, students with disabilities might be at a disadvantage. The skills used in the creation of art are not simply of importance in the art classroom but also in daily life and the workforce. Even the most basic task or transaction between people requires a person to follow a series of steps or particular procedure.

Purpose and Research Questions

The purpose of this action research study is to explore the use of behavioral strategies, such as task analysis, to improve procedural thinking skills and project development of students with disabilities in the art classroom. Task analysis will provide insight for the delivery of instruction and demonstrations of multi-step art projects.

Literature Review

Derby (2013) described the critical shortage of Disabilities Studies in the field of art education. He concluded that “closer attention to Disability Studies” (p. 379) is needed. Art teachers should reflect on their teaching practice and their use of evidenced-based methods that include strategies for a diverse population of students.

Applied Behavior Analysis (ABA), the study of behavior (Dillenburger, 2012), is an evidenced-based approach that focuses on how people behave and interact. The practice of ABA is the most effective treatment in the education of children with Autism Spectrum Disorder (Dillenburger, 2012). A notable technique in ABA is task analysis. This technique is used to break down complex a task. Task analysis can play a vital role in addressing many student needs if the practice of this behavior strategy is well understood. Task analysis can be combined with video modeling to address a variety of issues related to individuals with disabilities including Autism Spectrum Disorder, including procedural thinking (Mechling, Ayres, Bryant, & Foster, 2014).

Research Methodology

The action research will take place at a public high school in Miami-Dade County. Four high school students, from an art elective course will participate in the study. These students

have been identified as having disabilities and receive Special Education (SPED) services. Two of the four students selected for this study are also English Language Learners (ELL).

The art education teacher will collaborate with special education teachers and the SPED department coordinator for consultation regarding student data and SPED strategies. The art education teacher will follow the MDCPS curriculum, review and implement goals in each student's Individual Education Plan (IEP), choose projects that address state standards, and implement strategies (e.g. task analysis) that will assist students in mastering the course and procedural thinking skills.

Data will be collected on the following variables: (a) students' prior knowledge of ceramics, (b) students' ability to follow multi-step instructions, and (c) students' abilities to design their own set of procedures to achieve a unique work of art.

Results

Research findings will be made available in time for the conference and ready for presentation.

Implications

Procedural thinking skills are critical in everyday life. This has serious implications for students with disabilities, their families and teachers. Students with disabilities, especially students with ASD, have trouble completing tasks with multi-step instructions, motor/cognitive planning and procedural flexibility. Task analysis through video modeling may be an effective intervention that art teachers can implement to help students break down complex procedures in art projects. The method of task analysis is an ABA technique. ABA is an evidence-based practice that has shown to be an effective intervention for students with ASD and can be successful in an academic setting.

References

- Derby, J. (2013). Nothing about Us without Us: Art Education's Disservice to Disabled People. *Studies in Art Education, 54*(4), 376-380.
- Dillenburger, K. (2012). Why reinvent the wheel? A behaviour analyst's reflections on pedagogy for inclusion for students with intellectual and developmental disability. *Journal of Intellectual & Developmental Disability, 37*(2), 169-180
- Mechling, L. C., Ayres, K. M., Bryant, K. J., & Foster, A. L. (2014). Continuous video modeling to assist with completion of multi-step home living tasks by young adults with moderate intellectual disability. *Education and Training in Autism and Developmental Disabilities, 49*(3), 368-380.