Chapter 12
Building Academic Language Through Innovation: Teaching With a Maker’s Mind

Brandy C. Judkins
University of Nebraska – Lincoln, USA

Zoe Falls
University of Nebraska – Lincoln, USA

ABSTRACT

Academic language instruction, exposure, and proficiency are increasingly the focus of research, curricula, and pedagogy within the field of English language teaching. Yet, academic language is more than lexicon, encompassing context-specific and content-driven spoken and written discourse in a large range of registers, each with its own quirks, features, and discourse patterns. We must, then, engage students in developing and practicing academic language in authentic communicative experiences—experiences we may have limited time to add to the curriculum. Thus, innovative approaches to these experiences are needed. Consequently, the aim of this chapter is to present one such innovative approach: incorporating making, tinkering, and collaborating into the classroom. Direct connections between communicative language teaching and the theoretical grounding of making in the classroom are highlighted, in addition to specific pedagogical advice and examples that empower language teachers to purposefully teach with a maker’s mind.

INTRODUCTION

From parents, to students, to teachers, to policy makers, STEAM, Science Technology Engineering Art and Mathematics, dominates educational conversation. From robotics teams to marshmallow bridges, engaging elementary students through hands-on experiences with applying STEAM to making, tinkering, creating, and collaborating is happening in our classrooms and beyond. These experiences are tied to standards in the STEAM fields and to preparation for careers and college experiences in the 21st century. But, is the learning limited to STEAM, to making, creating, and ideating (the inquiry and brainstorming process of making).

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STEAM activities are an exciting way to engage students in using the language of technicians, scientists, engineers, mathematicians, and artists; to foster collaborative learning and communication with peers; and to challenge students to challenge themselves—through academic language use. As students begin making, as these experiences grab and hold their attention, and as elementary English language learner students hear and encounter our models, they demonstrate an increased interest in STEAM fields, and a desire to talk like scientists, technicians, engineers, and artists (Lou, Shih, Diez & Tseng, 2011). This low stress, low stakes approach enables inclusion of every learner, at his or her level, in making, achieving the goals behind Universal Design for Learning (UDL). UDL is a framework to improve and optimize teaching and learning for all students. Universal design involves development and implementation of instruction that anticipates learning needs, builds in accommodation, remediation, and acceleration, and integrates brain-based learning and instruction. Universally-designed instruction is strategic, engaging, resourceful, active, and expressive (CAST, 2014). Maker activities create pathways for students to manage their own learning by solving complex problems tied to both content and real-world needs (Hira, Joslyn & Hynes, 2014).

Since the 1970s and 80s, academic language instruction, exposure, and proficiency has increasingly been the focus of research, curricula, and pedagogy within the field of English language teaching (Bailey, et al, 2010; DiCerbo, Anstrom, Baker, & Rivera, 2014; Frances, Rivera, Lesaux, Kieffer, & Rivera, 2006; Krashen, 2012; Zacarian, 2014). While academic language is complex and, potentially, not fully understood (DiCerbo, Anstrom, Baker, & Rivera, 2014), it is well-known that academic language is more than lexicon despite vocabulary receiving much of research attention (2014). Academic language encompasses context-specific and content-driven spoken and written discourse in a large range of registers. Each register, additionally, has its own quirks, features, and discourse patterns. Recognizing this increasing emphasis upon academic language development (DiCerbo, Anstrom, Baker, & Rivera, 2014; Zacarian, 2014), this chapter addresses the language teacher’s concern for providing authentic communicative experiences and compelling comprehensible input that empowers learners to develop academic language.

Consequently, the aim of this chapter is to present an innovative approach to providing such instruction for elementary English language learners, incorporating making, tinkering, and collaborating into the classroom. Within the chapter, making is positioned within the increasing emphasis on academic language development, communicative language teaching, and constructionism. Pedagogical applications and examples are discussed to demonstrate how language teachers can purposefully teach with a maker’s mind. Two exemplar lesson plans are provided, which are able to be adapted for a range of grade levels, to demonstrate how design thinking and making can both help teach challenging academic content and empower students to learn, experiment, and use academic language.

BACKGROUND

Academic language proficiency is a skill that all students, native speakers included, must develop. English language learners’ academic language is often less developed than their social language (Cummins, 2009). Yet, the increasingly rigorous demands of curricula via the shifts to Common Core State Standards and the Next Gen Science Standards, among others, require students to develop multifaceted academic language proficiency and diverse social and academic registers (DiCerbo, Anstrom, Baker, & Rivera, 2014). Included within those multiple facets is not just lexicon, but also spoken and written discourse.