

Understanding Academic Language in edTPA: Supporting Learning and Language Development

Academic language (AL) is the oral and written language used for academic purposes. AL is the "language of the discipline" used to engage students in learning and includes the means by which students develop and express content understandings.

When completing their edTPA, candidates must consider the AL (i.e., **language demands**) present throughout the learning segment in order to support student learning and language development. The **language demands** in Technology and Engineering Education include **function, vocabulary and/or symbols, discourse, syntax, and visual representation (work artifact)**.

As stated in the edTPA handbook:

- Candidates identify a key *language function* and one essential learning task within their learning segment lesson plans that allows students to practice the function (Planning Task 1, Prompts 4a/b).
- Candidates are then asked to identify *vocabulary and one additional language demand* related to the language function and learning task (Planning Task 1, Prompt 4c).
- Finally, candidates must identify and describe the *instructional and/or language supports* they have planned to address the language demands (Planning Task 1, Prompt 4d). *Language supports* are scaffolds, representations, and instructional strategies that teachers intentionally provide to help learners understand and use the language they need to learn within disciplines.

It is important to realize that not all learning tasks focus on **both** discourse and syntax. As candidates decide which additional language demands (i.e., syntax and/or discourse) are relevant to their identified function, they should examine the language understandings and use **most relevant** to the learning task they have chosen. Then, teacher candidates should plan to provide appropriate and targeted language supports for students to learn and practice the language demands within the chosen learning task.

This AL handout provides definitions and a few examples of language demands and supports to help teacher candidates and educator preparation programs understand edTPA Rubrics 4 and 14. See the edTPA Technology and Engineering Education Assessment Handbook glossary and the Understanding Rubric Level Progressions for Technology and Engineering Education for additional examples of language demands.

Another valuable resource is the website of [Understanding Language](#), the center that recently merged with SCALE. This website has a number of papers on academic language for all students, archived webinars (listed under "Events"), and periodic MOOC offerings. The most relevant resources for teacher candidates are the teaching resources in English/language arts (with an example based on history/social science texts) and mathematics, with materials forthcoming in science. These teaching resources are explained and annotated to illustrate how to combine academic language development and content pedagogy for all students, including English learners.

Language Demands

I. Functions

Definition	Examples (bolded and underlined within learning objectives)
<ul style="list-style-type: none"> Purposes for which language is used Content and language focus of learning tasks often represented by the active verbs within the learning outcomes. 	<p>Learning Objectives:</p> <ul style="list-style-type: none"> Students will be able to <u>explain</u> the importance of bridges. Students will be able to <u>describe</u> the keystone of an arch bridge. Students will be able to <u>critique</u> the <u>design</u> of a bridge in terms of its ability to overcome different forces.

II. Vocabulary—Includes words, phrases, and symbols used within disciplines

Definition	Examples
Words and phrases with subject-specific meanings that differ from meanings used in everyday life	ruler, square, face, shear, isometric, oblique, expressions, product
General academic vocabulary used across disciplines	compare, evaluate, describe, draw and model, identify, design
Subject-specific words and/or symbols defined for use in the discipline	simplification, logic gates, logic notation, orthographic

III. Discourse

Definition	Examples
<ul style="list-style-type: none"> How members of the discipline talk, write, and participate in knowledge construction, using the structures of written and oral language Discipline-specific discourse has distinctive features or ways of structuring oral or written language (text structures) or representing knowledge visually. 	<ul style="list-style-type: none"> Designing a circuit using a formal design process Explaining essential elements of a system Drawing an orthographic view representation of a given object

IV. Syntax

Definition	Examples
<ul style="list-style-type: none"> The rules for organizing words or symbols together into phrases, clauses, sentences, or visual representations One of the main functions of syntax is to organize language in order to convey meaning. 	<ul style="list-style-type: none"> Symbols and representations on a two-dimensional drawing corresponding to a three-dimensional scale model Correctly labeling the lines in a two dimensional drawing Formulas for calculating forces, for example, $F = ma$ – Force = mass times acceleration Labels for sectional view drawings

V. Visual Representation (work artifact)

Definition	Examples
<ul style="list-style-type: none"> Being precise and accurate with definitions and symbols in labeling, measurement, and drawings Examples of visual representations could include, but are not limited to, CAD models, drawings, and prototypes. 	<ul style="list-style-type: none"> Constructing two-dimensional drawings to scale to represent a three-dimensional model or object

Example of Planned Language Supports

To help programs and candidates begin to develop their understanding of language supports, **start by examining a key standard or learning objective.**

The chart below identifies sample language demands with related examples of supports based on one selected learning objective in technology and engineering education.

Example learning objective: Students will *critique* the design of a physical prototype of a *wearable* medical *device* using several *manufacturing processes*.

Identified Language Demands	Planned Language Supports
Design (Function)	Model how to critique the design of a wearable medical device
Wearable device (Vocabulary)	Review vocabulary and discuss meanings in the context of the wearable devices modeled
Manufacturing process (Discourse)	Review charts that describe several manufacturing processes