Going Meta!
Cognitive and Linguistic Strategies for School-Based Speech Language Pathologists

Anthony D. Koutsoftas, PhD, CCC-SLP
Professional Development (Continuing Education) Workshop
Rutherford Hall
Allamuchy, NJ
October 11, 2021

Disclosure

• Anthony D. Koutsoftas will be receiving an honorarium and travel support from WCSHLA for his presentation. He is also an employee of Seton Hall University and will be referencing his place of employment during his presentation.

• Anthony D. Koutsoftas is the owner and sole proprietor of The Speech Guy PLLC, a speech and language consultation company.

• Anthony D. Koutsoftas has no other financial or non-financial relationships to disclose.

Course Description

• The purpose of this workshop is to provide speech-language pathologists (SLPs) instruction and support including meta-cognitive and meta-linguistic strategies as part of speech language interventions in school settings. This workshop will focus on defining and describing meta-cognitive and meta-linguistic strategies for children with speech and language disorders, and then provide demonstrations as to how these can be included as part of speech language therapy. Particular emphasis will be placed on including meta-cognitive and meta-linguistic strategies to support reading and writing for children receiving speech language services. For reading, meta-cognitive and meta-linguistic strategies will be centered around making inferences from text. For writing, meta strategies will be centered around writing for a variety of audiences and purposes. Additionally, meta-cognitive and meta-linguistic approaches for targeting language at the phonological, semantic, and syntactic levels will be demonstrated for participants.

Learner Outcomes

After attending this workshop, participants will be able to:

1) Define and explain what meta-cognitive and meta-linguistic strategies are and how these can be included as part of speech and language interventions for children on school provider’s caseloads.

2) Differentiate different types of inferences that children can make when reading texts and how to target these as part of meta-linguistic interventions in school settings.

3) Explain at least one meta-cognitive and meta-linguistic strategies for language interventions at the phonological, semantic, and syntactic levels.

Introduction and Overview

• Evidence Based Practice in Schools

• Language: Four Modalities x Five Domains

• Developmental Language Disorders

This is the intellectual property of Anthony D Koutsoftas for use by attendees of the Warren County Speech Language Hearing Association - CEU Workshop Oct 11, 2021.
Go Meta by Integrating Treatment Goals
- Since language is both oral and written...it is important to target language skills across more than one modality.

- Oral Language
  - Speaking
  - Listening

- Written Language
  - Reading
  - Writing

  - Hear it, Read it
  - Read it, Hear it
  - Include a book as part of treatment

  - Say it, Write it
  - Write it, Say it
  - Use a white board
  - Pen/Paper

How do we connect five domains of language across four modalities?

- Provide language-rich interventions, that align with the guiding principles of intervention, which include:
  - Meta-cognitive and Meta-linguistic strategies

- Going Meta can be the treatment goal; but most of the time they are the path to meeting goals (i.e., strategies), especially when providing language-rich interventions

- We will spend the bulk of today generating ideas on how to Go Meta! But first, a few things we need to know to lay the groundwork...

Principles of Intervention

1) The Four Guiding Principles of Intervention
2) Roles and Responsibilities of School-Based Providers
3) Developmental Language Disorders

Guiding Principles of Intervention (Paul & Norbury, 2012)

1) Target goals that are curriculum based
2) Integrate oral and written language
3) Go Meta
4) Provide Preventative Intervention

- What are the most important components of the curriculum for the child to master?
  - The IEP team MUST decide this.
  - Use the Core Curriculum to identify where the child need’s support...
  - Each IEP team member must claim a stake in how they will support the child to achieve these curricular skills.
Guiding Principles of Intervention

2) Integrate oral and written language
   • Provide both oral and written opportunities for students to practice the forms
     and functions targeted in intervention
     • Literacy socialization contexts – purposes for reading and writing
     • Phonological awareness
     • Narratives – tell them, read them, write them

Guiding Principles of Intervention

3) Go Meta (today’s focus)
   • Focus on activities that direct conscious attention to the language and
cognitive skills a student uses in the curriculum
     • Talking about talking
     • Thinking about thinking
     • Comprehension monitoring

Metacognition = Referring to the conscious attention of thinking, specifically related to
metacognitive function skills including attention and memory

Metalinguistics = Referring to the conscious attention of using language, with a focus on
metrical, syntactic, and discourse levels of language

Guiding Principles of Intervention

4) Provide Preventative Intervention
   • If children have a history of language disorders include them in classroom
groups and monitor progress.
   • In the early grades:
     • Watch emerging literacy carefully
   • In the later grades:
     • Watch for risk factors associated with developmental language disorders:
       • reading, writing, spelling, oral communication
     • Develop screening instruments and referral checklists for teachers.
     • Think in Discourse Cake!

Roles and Responsibilities of the Speech Language Pathologist in Schools

American Speech-Language-Hearing Association. (2010). Roles and
responsibilities of speech language pathologists in schools [Professional

Going Meta means directing conscious attention to thinking, language, or
anything. Let’s practice by thinking about where we can ‘Go Meta’ in roles and
responsibilities.

Developmental Language Disorders

Specific Language Impairment
Dyslexia
Dysgraphia
Language-based Learning Disability
Co-morbid Language Disorders

Other Common Terms:
- Language Impairment
- Primary Language Impairment
- Language Disorder
- Late Talker (non-recovering)
- Late Talker (recovered)

Developmental Language Disorders (DLD) (Coleman et al. 2013)

• Atypical language skills or functions in the absence of hearing loss,
mental retardation, autism, gross neurological impairment, social/communicative deprivation, paralysis, malformation of the
vocal apparatus, or emotional disturbance.
• There is a general consensus regarding exclusion criteria; however, there is
controversy over what disorders to include.

• Subtypes of DLD
  • Specific language impairment
  • Developmental dyslexia
  • Developmental dysgraphia
  • Language-based learning disabilities*

According to IDEA:
- Communication (Speech/Language) Impairment
- Specific Learning Disability
- Other Health Impaired

This is the intellectual property of Anthony D Koutsoftas for use by attendees of the
Language-based Learning Disabilities (LLD) (ASHA, 2015)

- Language-based learning disabilities are problems with age-appropriate reading, spelling, and/or writing. This disorder is not about how smart a person is. Most people diagnosed with learning disabilities have average to superior intelligence.


To summarize

- Language-rich interventions are an integral part of providing evidence-based practice by SLPs in school settings.

- Providing language-rich interventions requires the integration of the guiding principles of interventions, with a focus today on Going Meta.

- The roles and responsibilities that SLPs have within a school setting, including both direct to students and other academic roles, can be enhanced by thinking about strategies for Going Meta.

Going Meta!

- Defining Meta-Cognition
  - Goals vs. Strategies
  - Frameworks and examples

- Defining Meta-Linguistics
  - Goals vs. Strategies
  - Frameworks and examples

Meta-Cognition

- Directing conscious attention to one’s own thinking

- Understanding one’s own executive functions
  - Attention
  - Memory
  - Self-regulation
  - Problem solving, categorizing

- Awareness of thought or thinking

Meta-Cognition Goals vs. Strategies

**Goals**

- The measurable speech, language, literacy, or cognitive skill that aligns with the curriculum and is directly targeted as part of speech language services

  e.g.) The student will provide an sequenced narrative in both spoken and written modalities by using temporal markers in their writing, measured by at least 4 temporally sequenced events with appropriate cohesive ties.

**Strategies**

- The way we support students in meeting the goal

  - One or multiple strategies can be provided to students

  e.g.) The student will use a graphic organize that highlights temporal markers (first, next, then, last) to organize spoken and written discourse.
Meta-Organization Frameworks & Examples

Meta-Cognitive
- Attention
- Memory
- Self-Regulation
- Problem-Solving

Go-Meta: Attention

Do Now!
Working in small groups, write a strategy that you would use to support meta-cognition for:
1) Processing Controls
2) Production Controls
3) Mental Energy Controls

Try doing this for three different grade levels.

http://www.allkindsofminds.org/attention-module

Go-Meta: Memory

Do Now!
Working in small groups, write a strategy that you would use to support meta-cognition for:
1) Short-Term Memory
2) Working Memory
3) Long-Term Memory: Access
4) Consolidation

Try doing this for three different grade levels.

http://www.allkindsofminds.org/memory-module

Go-Meta: Self-Regulation

Do Now!
Working in small groups, write a strategy that you would use to support meta-cognition for:
1) Goal Setting
2) Organizing
3) Planning
4) Initiating a task
5) Monitoring/Tracking

Try doing this for three different grade levels.

www.Understood.org

Go-Meta: Problem Solving

Do Now!
Working in small groups, write a strategy that you would use to support meta-cognition for:
1) Social Problem Solving
2) Academic Problem Solving

Part of both emotional and academic self-regulation
- Social Problem Solving
- Academic Problem Solving

Going Meta with problem solving:
1) Identify the problem
2) Identify potential solutions and each potential consequence
3) Weigh the pros and cons of each possible problem solving solution
4) Make a choice

Meta-Linguistics

The conscious attention of using language:
- Understanding figurative language
- Meta-semantic/syntactic
- Drawing inferences
- Meta-discourse
- Complex/ambiguous syntax
- Meta-discourse
- Planning and organizing discourse
- Meta-discourse

• Thinking about sounds
  - Meta-phonological

• Recognizing multiple meanings
  - Meta-semantic

This is the intellectual property of Anthony D Koutsoftas for use by attendees of the Warren County Speech Language Hearing Association - CEU Workshop Oct 11, 2021.
Meta-Linguistic Goals vs. Strategies

**Goals**
- The measurable speech, language, literacy, or cognitive skill that aligns with the curriculum and is directly targeted as part of speech language services

  e.g.) The student will differentiate multiple meaning words when reading academic text books with 90% accuracy.

**Strategies**
- The way we support students in meeting the goal
  - One or multiple strategies can be provided to students

  e.g.) When a student encounters a multiple meaning word, s/he will refer to an external source to differentiate the meaning.

  - Another example?

Reading Comprehension

- Recent research has supported an expanded framework for that fits into the Simple View (Hoover & Gough, 1990) referred to as the Reading Comprehension Framework (Perfetti, Landi & Oakhill, 2005).
- The Reading Comprehension Framework (Perfetti et al. 2005) allows for the consideration of multiple levels of language with a focus on syntax, in addition to general knowledge (aka, background knowledge).

Making Inferences

- Requires the activation of background knowledge
  - General knowledge
  - Topic specific knowledge
  - Newly gained knowledge (when reading)

- Also, requires the use of multiple levels of language
  - Word knowledge (semantics)
  - Sentence knowledge (syntax)
  - Genre knowledge (discourse)

Types of Inferences

**Literal**
- Understand meaning from text, supported by the following factors:
  - Vocabulary (lexical inference)
  - Discourse (Story Meaning Inference)

**Inferential**
- Infer meaning from text in one of the following ways:
  - Cohesive Inference
    - Conclusions are drawn by connecting two pieces of information from the text
  - Elaborative Inference
    - Conclusions are drawn by connecting background knowledge to information contained within the text

Cohesive Inference

- "Stand back said the elephant, I am going to sneeze…"
- "You’re so big and strong, and your trunk is so long, your sneezes send everyone flying along..."
Elaborative Inference

- "Well, I think this is a meal fit for a goat," said Mother goat as she chewed on an old shoe.

From the text:
- The goat is chewing on a shoe.

From the reader:
- "Fit… the phrase, "fit for a goat" is figurative, so there are many meta-linguistic needs for this simple sentence.

A good meal for a goat is a shoe.

Strategies for Supporting Children’s Writing for a Variety of Audiences and Purposes

- Writing provides an excellent opportunity to provide metacognitive and metalinguistic instruction
- Current best practices in the field of writing instruction are strategy based, invoking metacognition to teach these strategies
  - Specific Focus on Self-Regulated Strategies
  - Examples of a variety of Meta-Cognitive writing strategies

Writing Strategies

- Meta-Cognitive
  - Goal Setting
  - Organizing
  - Planning
  - Initiating tasks
  - Monitoring/Tracking what one is doing
  - Problem solving

All of these skills are needed by proficient writers. Students also need Meta-linguistic support to produce quality writing.

A Framework for Writing Instruction
(Berninger et al., 2006)

- If you can think it, you can say it;
- if you can say it, you can write it.

Focus Areas for Intervention: Language and Writing Strands from CCSS

**Microstructure**

- Productivity
- Complexity
- Accuracy
- Mechanics

**Macrostructure**

- Narrative
  - Story Grammar Analysis
  - Episode Count and Complexity
- Expository
  - Text Structure
  - Signaling Devices
  - Cohesive Ties
  - Sentence Level Factors

This is the intellectual property of Anthony D Koutsofas for use by attendees of the Warren County Speech Language Hearing Association - CEU Workshop Oct 11, 2021.
Writing Interventions

- Self-Regulated Strategy Development (SRSD; Graham & Harris, 2005)
  - SRSDs have early efficacy for children who struggle with writing
  - SRSDs are language heavy, so be cautious when applying to children with Developmental Language Disorders

- Explicitly teaches students to plan, write, or revise, with procedures built in for self-regulation of these skills
  - Can use already existing SRSDs or create novel ones with your students
  - We've gone over these in prior PDs...

Writing Intervention...Summarized

- If you can think it, you can say it; and, if you can say it, you can write it.
- Provide Planning Time and Strategies
- Get a writing sample and develop treatment goals
- Select a strategy (SRSD) to target these goals
- Nest language targets within writing SRSD, or target while students develop strategy
- Make Writing Fun!

SRSDs (Graham & Harris, 2005)

- Turn-key your treatment goal into a child-friendly mnemonic to achieve all aspects of the goal
- Use already existing SRSDs:
  - PLAN
  - STOP and LIST
  - PLEASE
  - POWER
  - TREE
  - COPS
- Steps for Teaching SRSDs:
  - Discuss it
  - Model it
  - Memorize it
  - Support it
  - Independent performance
- SRSDs should be taught over time:
  - 1 session?
  - 2 to 4 sessions?
  - How to carryover to classroom?

Expository Genre

Meta-Linguistic (Comprehension and Production)

Types of Exposition
- (Auto-) Biographies
- Technical texts
- Procedures
- Scientific/Lab Reports
- Argument
- Persuasion
- Memoirs
- Journalism

Macrostructure Considerations
- Text Structure
- Signaling Devices
- Cohesive Ties
- Sentence Level Factors

Expository: Text Structure

(Merritt & Cullatta, 1988)

- Description
- Collection
- Sequence or Procedure
- Cause and Effect

Mixed/Hybrid Example

- Mixed

Metacognitive and metalinguistic strategies for targeting phonological, semantic and syntactic levels of language

- Multiple Meaning Words
- Ambiguous/Complex Syntax
- Figurative Language
Go Meta: Phonology

Think about it!
The same phonological and phonemic awareness skills we use to support children’s decoding of text can be applied to encoding (spelling) and deciphering meanings or words.

Any examples?

Go Meta with Phonology:
- Spelling
- Reading
- Deciphering word meanings

Phonological Strategies

- Meta-Phonological strategies are ways to support the understanding and use of sound level information for spelling, reading, and word learning.
- Working in small groups, write out some of the phonological challenges with spelling, reading, or word learning that students on your caseload have encounter, and provide an example of how you would provide a meta-linguistic strategy to support the skill.
  - What domain of language? (speaking, listening, reading, writing)
- Phonological Strategy:
  - Spell the word for the person who throws a ball in a baseball game
  - The student has to think about the possible spellings for the "ch" sound

Phonological Strategies

- Share out some examples of phonological skills students on your caseload are challenged with and meta-linguistic strategy you will use to teach the skill.
- Earn a prize for sharing 😊

Go Meta: Semantics

Think about it!
Semantics is an important target area for SLPs with multiple meaning words being an obvious meta-linguistic target, why not use meta-linguistic strategies to support semantic goals.

Remember, kids learn words in three different ways, how can we Go Meta to support students' learning of multiple meaning words?

Go Meta with Multiple Meaning Words:
- Homophone
- Homograph

Three Primary Strategies for Word Learning:
1) Direct Instruction
   - Seeking the meaning of a word from a parent, teacher, peer, dictionary, internet
2) Contextual Abstraction
   - Using context to glean meaning of a novel word
3) Morphological Analysis
   - Identifying the root word and affixes which likely change the word’s grammatical function

Go Meta with Multiple Meaning Words
- Homophones
- Homographs

Multiple Meaning Words

- Multiple Meaning Words (aka, homonyms)
  - Homonyms, can be homophones or homographs (or a hybrid?)
  - Sometimes two words share a letter and have two meanings OR two words share the same meaning

- Working in small groups, list/write some of the multiple meaning words that you have addressed or would like to address as part of speech language therapy, and provide an example of how you would provide a meta-linguistic strategy for using the word.
  - What domain of language? (speaking, listening, reading, writing)
- An example:
  - There were a pair of pears on the counter
  - Circle the word that says how many were on the counter
  - Underline the word that says what was on the counter
  - What other clues could help you figure out what was on the counter?

Multiple Meaning Words

- Share out some examples of multiple meaning words along with the meta-linguistic strategy you will use to teach the word.
- Earn a prize for sharing 😊
Go-Meta: Syntax

Think about it!

As children develop language and academics, they become more challenging, sentences become an important linguistic unit for assessment and intervention by SLPs. Sentences form the basis for linguistic strategies that can be used to address these challenges.

1) Following Directions
2) Formulating and Answering questions (all types)
3) Developing larger units of discourse

What are some meta-linguistic strategies that can be used to address these types of goals?

Semantics

Types of goals?

Hierarchically...

• Sentences can have one or more clauses
• Clauses can have one or more phrases
• Phrases can have one or more words

• Words can have one or more ________.

Go Meta with Syntax:

- Sentences
- Classes
- Phrases
- Words

Syntactic Strategies

• Meta-syntactic strategies highlight the meaning of sentences
• Highlight the relationships between words, phrases, clauses, and sentences
• Two important meta-linguistic considerations:
  • Word Order
  • Syntactic Categories (aka, parts of speech)

Hierarchically...

• Sentences can have one or more clauses
• Clauses can have one or more phrases
• Phrases can have one or more words

• Words can have one or more ________.

Go Meta with Syntax:

- Sentences
- Classes
- Phrases
- Words

Semantic-Syntactic Strategies

• Meta-Semantic/Syntactic strategies are ways to support the understanding and use of figurative (non-literal) language.

- Examples:
  • Metaphors
  • Similes
  • Idioms (aka, giant lexical units)
  • Ambiguity
  • Sarcasm
  • Proverbs

- Working in small groups, write out some of the figurative language that students are exposed to, and provide an example of how you would provide a meta-linguistic strategy to support either comprehension or expression.

- What domain of language? (speaking, listening, reading, writing)

Figurative (Non-Literal) Language

Go Meta with Semantic-Syntactic Units of language:

- Idioms, Similes, and Metaphors can be goals but also require Meta-Linguistic strategies to target as a goal.

Examples of figurative language.

Challenges:

• A great deal of meta-linguistic ability is required to decipher meaning, and thus constitutes a semantic-syntactic unit of language for understanding.

• Discourse environments can play a large role in a student's understanding of figurative language

Semantic-Syntactic Strategies

• Share out some examples of figurative or non-literal language students on your caseload are exposed to and provide a meta-linguistic strategy you will use to teach the word.

- What domain of language? (speaking, listening, reading, writing)

- Earn a prize for sharing 😊

This is the intellectual property of Anthony D Koutoftas for use by attendees of the Warren County Speech Language Hearing Association - CEU Workshop Oct 11, 2021.
**Go-Meta: Discourse**

**Think about it!** Discourse levels of language in school include listening to lectures/instruction, oral presentations, written communication, and conversational exchanges for both academic and social purposes. We all have goals related to pragmatics and/or discourse. What meta-linguistic strategies do you use already to support speech and language goals?

- **Planning and Organizing Discourse**
  - Students need to think about the organization of discourse that they hear or produce
  - Examples of receptive discourse:
    - Lectures, academic instruction, stories (spoken or written)
  - Examples of expressive discourse:
    - Oral presentations, written reports (narrative/expository);
    - Conversational exchanges

- **Making Inferences**
  - Especially when reading, students are expected to make inferences, by connecting two (or more) pieces of information together to infer content.
  - This requires a great deal of background knowledge, semantic, syntactic, and discourse levels of language requiring both meta-cognitive and meta-linguistic strategies.

---

**Question and Answer**

- Thank you.
- Anthony.Koutsoftas@shu.edu