

**Strategies for effective interventions for older students:
addressing the connection between processing, literacy and
social skill development**

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**Understanding what you're
dealing with**

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What makes up a middle or high school student?

- Middle School
 - Starting to care much about what others think
 - Not wanting to be singled out
 - Rejecting speech services
 - Rejecting labels
 - Surface behaviors may not reflect how they really feel on the inside

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What makes up a middle or high school student?

- High School
 - Expressing individuality and opinions
 - Preparing for transitions
 - Temptations to give up

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**What makes up a middle or high school student
with a communication disorder?**

- What you may encounter
 - Auditory processing issues
 - Literacy issues
 - Social skills issues
- Combine these 3 with executive functioning issues and you've got yourself the perfect storm!

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Social communication issues

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Autism Spectrum Disorder: DSM-5 Criteria

- A. Persistent deficits in social communication and social interaction across multiple contexts (need all 3)
 - 1. Deficits in social-emotional reciprocity
 - 2. Deficits in nonverbal communicative behaviors used for social interaction
 - 3. Deficits in developing, maintaining, and understanding relationships

Autism Spectrum Disorder: DSM-5 Criteria

- B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following:
 - 1. Stereotyped or repetitive motor movements, use of objects, or speech
 - 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior

Autism Spectrum Disorder: DSM-5 Criteria

- B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following:
 - 3. Highly restricted, fixation interests that are abnormal in intensity or focus
 - 4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment

Autism Spectrum Disorder: DSM-5 Criteria

- c. **Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities)**
- D. **Symptoms together limit and impair everyday functioning**

AUTISM SPECTRUM DISORDER: DSM-5 SEVERITY

AUTISM SPECTRUM DISORDER: DSM-5 SEVERITY

SEVERITY IS BASED ON SOCIAL COMMUNICATION IMPAIRMENTS AND RESTRICTED, REPETITIVE PATTERNS OF BEHAVIOR.



Issues in autism

And how they interfere with everyday communication, performance and functioning

You always want to think...

What do I think is the root cause of this problem?

What issue(s) underlie(s) the behavior I'm seeing?

Issues in autism

Cognitive issues

Cognitive issues

- IQ
 - Verbal vs. nonverbal IQ measures
 - Average standard score range typically 85-115
- What impact does IQ have on language
 - Think intellectual disability (content, form, use)
 - Think specific language disorder (content, form, use)
- *remember IQ is a global measure of functioning only (but can serve as a guideline)
- The number often does not predict the adaptive functioning

Cognitive issues

- Theories of autism
 - Central coherence theory (Uta Frith, 1989)
 - Impairments in higher-order cognitive and language abilities along with strengths in detail perception and visuospatial abilities in individuals with asd.
 - Difficulty integrating parts into a whole

Cognitive issues

- Inconsistency is often present in research findings so core issues in autism are constantly debated, for example:
 - Response inhibition
 - Processing
 - Working memory
- Also “hidden information processing demands”
 - The ability to understand complex sentences or work with tasks that require holding multiple steps in working memory (multitasking)
 - Ex. Embedded clauses, direction following tasks

Cognitive issues

- Theories of autism
 - Information processing theory (Minshew & Williams, 2008)
 - Individuals with autism have difficulty processing information due to multiple impairments that may interact (depending upon the situation, task, environment, etc.) and placing “load” on the individual's processing ability
 - Sensory impairments
 - Motor impairments
 - Memory impairments (working memory)
 - Expressive deficits
 - This theory addresses all intact and impaired structures in brain and cognition
 - Authors believe that intellectual disability is not separate from autism but that the information processing capacity of the individual produces a specific cognitive profile (how much does it take to tax your client's system?)
 - The more severe your information processing issues, the closer you move to intellectual disability

Issues in autism

Social issues

Social issues

- “It appears that, although outcome and severity of social and cognitive deficits in autism are related to language level, these factors are also independent to some degree”
 - Studies found that children who do not talk engaged in more social routines than verbal children with autism
 - Children with more speech used their language to offer information
 - You are always looking at areas of relative strength and weakness in your individual client

Social issues

- Fmri studies show that the brains of individuals with autism have:
 - underdeveloped neural pathways (connectivity),
 - less flexibility in changing and meeting different demands
 - fewer resources to draw on, and
 - less synchrony in regions working together
- Fmri studies show individuals with autism use different cognitive strategies to complete tasks. Compensatory strategies they use may assist or interfere with task completion, depending on the strategy and the task
- These studies provide neurological evidence that individuals with autism think and perceive the world differently.

Grices conversational maxims (1975)

- Rules of discourse
 - Quantity: don't say too much or too little
 - Quality: say what is true
 - Relevance: avoid off-topic and tangential comments
 - Clarity: make it clear and understandable to your listener.
- To do this effectively you must have
 - Presuppositional skills/perspective taking skills
 - What are listener's needs in terms of communication? How much do they want to hear?
 - How should I address the listener based on the environment/situation (child vs. teacher, etc.)

What is a Nonverbal Learning Disability? Mooney, 2010

Nonverbal Learning Disability (NLD) is a neurodevelopmental disorder that is hypothesized to involve the white matter of the brain, the right hemisphere and/or the corpus callosum that typically impacts three main areas of functioning including:

- 1 - Visual Spatial/Organizational (the ability to interpret and organize the individual's visual-spatial environment)
- 2 - Motoric (the ability to master their physical environment and express themselves in written form)
- 3 - Social (the ability to adapt to new or novel situations, and/or accurately read and respond appropriately to nonverbal signals and cues)

Remember....

Kids with NVLD are NOT nonverbal!!!

Language-based learning issues

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What is LLD?

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. (ASHA, 2010)

<http://www.asha.org/public/speech/disorders/LBLD.htm>

When you see this dx, think work in the following areas: reading, writing, listening (think auditory processing) and speaking (think effective, organized, efficient communication)

Reading? Writing? What??

- It is the position of the American Speech-Language-Hearing Association (ASHA) that speech-language pathologists (SLPs) play a critical and direct role in the development of literacy for children and adolescents with communication disorders, including those with severe or multiple disabilities.
- SLPs also make a contribution to the literacy efforts of a school district or community on behalf of other children and adolescents.
- These roles are implemented in collaboration with others who have expertise in the development of written language and vary with settings and experience of those involved.

Reading? Writing? What??

- The connections between spoken and written language are well established in that
 - (a) spoken language provides the foundation for the development of reading and writing;
 - (b) spoken and written language have a reciprocal relationship, such that each builds on the other to result in general language and literacy competence, starting early and continuing through childhood into adulthood

Reading? Writing? What??

- The connections between spoken and written language are well established in that
 - (c) children with spoken language problems frequently have difficulty learning to read and write, and children with reading and writing problems frequently have difficulty with spoken language; and
 - (d) instruction in spoken language can result in growth in written language, and instruction in written language can result in growth in spoken language.

Auditory processing issues

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Auditory Processing Activity

How auditory processing breaks down

- Auditory decoding = speed of processing
- Auditory overload = language is too complex, you can't understand it, so your brain tunes it out
- Auditory figure-ground = separate background from main idea
- Think about how this breaks down in
 - Listening
 - Reading comprehension
- Remember: Auditory processing can appear as ADHD

Executive Functioning issues

Components of executive functions

- Inhibiting actions
- Restraining and delaying responses
- Attending selectively
- Setting goals
- Planning
- Organizing
- Maintaining and shifting set

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So, executive functions are...

- Knowing what you need to do to get something done (plan/organize)
- Doing what you need to do (execute)
- Staying with it and avoiding distractions (inhibit, self-regulate)
- Seeing it through to completion (persistence)

ADHD

- Up to 20% behind in years in social functioning/maturity

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The planning and organizing stage: What's your calendar like?

- How far in advance do you think about starting on a project that requires completion?
- How far in advance does the middle schooler think about starting this project?
- How far in advance does the high schooler think about starting this project?

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Self-regulation

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Self-regulation

- What populations may have trouble self-regulating behavior?
 - Language-learning disabilities
 - ADHD
 - Asperger's/NVLD/autism spectrum
- What populations may have trouble self-regulating emotion/affect?
 - Any of all of the above
 - Other diagnoses, such as depression

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Self-regulation

- What's behind the misbehavior?
 - Misperception/misunderstanding
 - Biology (impulsivity)
- What's behind the difficulty regulating emotion?
 - Biology
 - School failure
 - Fear
 - Failure
 - Looking different

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Think about the executive functioning

- That goes into reading
 - Steps to reading
 - Decoding
 - How can this go awry?
 - Comprehension: literal
 - How can this go awry?
 - Comprehension: inferencing, higher level
 - How can this go awry?
 - Focusing/staying on track/awareness of when a problem occurs
 - How can this go awry?

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Think about the executive functioning

- That goes into writing
 - Steps to writing
 - Brainstorming/generating ideas
 - How can this go awry?
 - Turning ideas into words
 - How can this go awry?
 - Turning words into sentences and paragraphs
 - How can this go awry?
 - Editing content and form/style
 - How can this go awry?

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Aligning therapy goals with the curriculum

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What to consider

- Their textbooks
- Their writing assignments
- Their chapter books

- How to hook them in
 - Get assignments completed
 - Ways that will help them get it done faster
 - Ex. Impulsivity (“you’re using too much energy”)

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What you are NOT

- A tutor

- How you move beyond this
 - Think about the language basis underneath what you are doing
 - See what gets in the way in terms of processing, etc. and work with that

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Areas to target

When you see these categories think social language/social communication/pragmatics:

(Hi Functioning) Autism
Nonverbal Learning Disability
ADHD

Areas to target

Different areas to target by diagnosis

Autism (application of rules in context)
Nonverbal Learning Disability (interpreting others’ behaviors correctly)
ADHD (self-regulation; “think it in your mind”)

Areas to target

For each category it comes down to....
Knowing yourself and what you need to monitor

Autism (how did others receive me?)
Nonverbal Learning Disability (take extra time to think it through; double meanings)
ADHD (“think it in your mind”)

Planning your goals

- When you see these categories, think higher level language (inferencing, problem solving, making predictions, understanding abstract language such as expressions, etc.)
 - LLD
 - NVLD
 - Autism
 - Auditory processing

INTERVENTION

Maintaining motivation

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Principles for working with older students

- Keep them engaged with meaningful content
- Seek their opinions as to what meaningful content is to them
- Encourage opinions and feedback
- Listen to them and show interest in what they have to say
- Acknowledge that an activity can benefit from revision
- Follow through on their suggestions

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Engagement is the key



Engagement through meaningful content

- How do you know when you have it?
 - Listening and focus
 - Laughter in response to jokes
- But how do you get it in the first place?
 - Keeping the door open to talk
 - Listening
 - Asking follow up questions about what's important to them

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Seeking their opinions

- In eval
 - Strengths & weaknesses
- In therapy
 - Activities
 - Topics of activities
 - Suggestions for change

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Encouraging their opinions and feedback

- Show them you've done something in direct response to their feedback
- Listen and show interest
- Acknowledge the need for revision

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What doesn't help

- Time pressure
- Competition
- External/tangible reinforcers

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Do your detective work

- Understand what's behind it
 - You may have to ask
 - Or be a careful observer for patterns
- Problem solve how to remedy what's behind it

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Older kids: Is it too late?

- Validate
- Give the terminology and explanation
- Take the pressure off
- Choose high interest material (the "hook")
- Preserve confidentiality
- Give them time to buy in

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INTERVENTION

Functional activities

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Processing...

- Understanding it
- Practicing it
- Compensating for it
- Advocating for it

Miscommunications

- Point them out as they occur
 - Explain
 - Write them out
- Goals:
 - Increase awareness
 - Demystify
- Exercises
 - Jokes, riddles, brain teasers
- Always ask yourself, “What happened?” “What must they think I said?”

Priming for listening

- Cross out unimportant words (written) or repeat back key words (listening)
- More sophisticated listening for unimportant info.
- Practice notetaking... “I’m going to tell you 3 things about”

Processing strategies...ideas to help in the classroom everyday

“All behavior is communication...”
Mark Ylvisaker

Classroom behaviors to **model** and **reinforce**...

- Requesting clarification...the power of peers and reinforcement
 - “I didn’t get what you just said”
 - “I missed the 3rd thing you said”
- Reminding about the purpose of **you** requesting clarification
- If it doesn’t sound right, check with your listener before reacting

Never underestimate...

- How many things can go wrong when processing a single question or direction...
- “Before you put your coat on, put your book back on the shelf and hand in your paper”
 - Student A: Too many; can’t hold them in memory
 - Hands in paper
 - Student B: before vs. after
 - Puts coat on first
 - Student C: vocabulary and/or working memory
 - Puts book on shelf; walks to get coat; talks to peers, walks back to desk with paper
 - Student D: auditory discrimination
 - “My book bag doesn’t belong on the shelf”
- Remember...your detective work may be much harder than this...this is just a framework of possibilities!

Auditory processing

- Knowing self and where and when breakdowns occur
- Advocating for self
- Being proactive in the situations

Teaching to self-advocate

- Begin early
- Give the vocabulary at first
 - Ex. What type of learner am I?
 - Learn best by seeing, doing, listening
- They eventually take on the responsibility
- “If I am listening, it helps me if...”
 - The person repeats what they are saying
 - I check my notes against someone else’s
 - The teacher writes information on the board

Literacy Issues

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Reading Specialist’s role

- Specialized reading testing
- Knowledge of textbooks
- Specialized reading programs
- Incorporating strategies into other therapies and the curriculum

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Double Deficit Hypothesis

- Difficulties with retrieval + Difficulties with phonological awareness = increased risk of literacy issues
- Many children with LLD also have issues with
 - Short-term memory/working memory
 - Retrieval

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Literacy Issues by skill

- For decoding and encoding:
 - LiPS (Lindamood-Bell) program
 - one different colored block to represent each sound in a word
 - skywrite word and name a letter given a position(Seeing Stars; Lindamood-Bell)
 - write word on paper
 - use nonsense words first with one syllable, then expand to multisyllabic words to help them gain experience with breaking apart and putting together sounds for reading and spelling.
 - For reading fluency
 - Seeing Stars program with Dolch list to increase automaticity

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Visualizing/Verbalizing (Bell)

- For reading comprehension
 - Picture to picture
 - Word to picture
 - Sentence to picture
 - Paragraph to picture
 - Main idea: who’s doing what
 - Using categories/subcategories to group items and provide a summary (verbal or written)

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Visualizing/verbalizing

- Other ways to integrate with the curriculum
 - Vocabulary words for tests
 - f/th confusion
 - Difficult words to spell
 - Combine with skywriting (Seeing Stars)

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Higher level language

- My heart's a stereo
It beats for you, so listen close
Hear my thoughts in every note
Make me your radio
And turn me up when you feel low
This melody was meant for you
Just sing along to my stereo
 - Gym class heroes
 - <http://www.youtube.com/watch?v=T3E9Wjbq44E>

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Higher level language

- If I was just another dusty record on the shelf
Would you blow me off and play me like everybody else?
If I asked you to scratch my back, could you manage that?

Furthermore, I apologize for any skipping tracks
It's just the last girl that played me left a couple cracks
I used to, used to, used to, now I'm over that
'Cause holding grudges over love is ancient artifacts
 - Gym Class Heroes
 - Warning: preview (and censor as needed) all material before use!

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Collaboration...

- There is enough intervention to go around!
(Stephanie)
- Figure out your strengths and plan accordingly
- "How can I reinforce what you are working on in what I do?"

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The Role of Self-Regulation in Effective Communication

Theory based upon what we know so far...

The more regulated the child is, the more efficiently and effectively they will communicate

Building self-regulation

- Teaching internal language
 - Words = power and control
 - Model it aloud in real-life situations
 - Model it aloud when playing games
- Teaching problem solving
 - Think alouds—talking yourself through it
 - Building the skill
 - Ask for the child's solution
 - Give 2 or 3 choices
 - Don't tell the answer unless needed; talk them through it; this develops the skill!
- Medication (an individual choice: what the research shows)

Theory based upon what we know so far...

The more practice a child has with integrated use of speech and language, the more fluent the communication should be

Daily communication practice

- Conversations (best/worst event of day)
 - You may need to model for awhile
 - Be persistent
 - Resource: *How to Talk So Kids Will Listen and Listen so Kids will Talk* (Faber & Mazlish)
- “Would you rather?” games
- Debates on topics of interest (“My sister should have an earlier bedtime because...”)
 - Focus on pyramid and expediter strategies

Improving Effective Communication

- Table Topics
 - 1-2 minutes to answer an open ended question
 - Must
 - Answer the question asked
 - Stay on topic
 - Talk for at least one minute
 - Talk for no more than two minutes

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Improving Effective Communication

- Junior Great Books: Shared Inquiry Discussion
 - Answer a question that has two sides
 - Must provide evidence from the text that supports your argument
 - For perspective taking work: Must respond to other team's argument with counterargument
 - Start with “I heard you say that...”

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Improving Effective Communication

- Mock Trial/Legal Eagles
 - Read case and discuss vocabulary
 - Prove guilt beyond a reasonable doubt
 - Must have evidence to back up your argument
 - Choose your roles and plan your questions/statements
 - Witnesses
 - Attorneys
 - Prosecution
 - Defense
 - Develop your own case

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Summary of language strategies

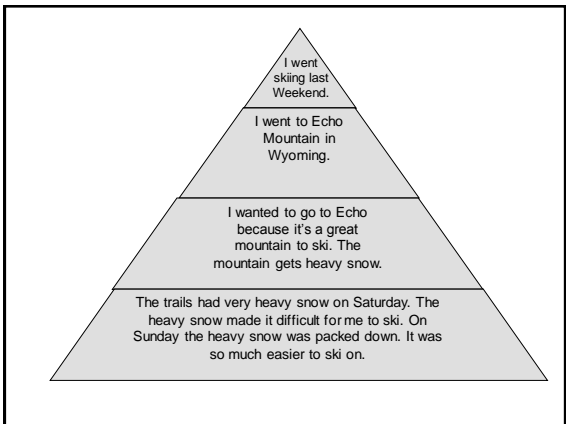
* Principles adapted from the "Pyramid Approach" (Ward, 2006)

- Progress from the "big picture" to small details in descriptions.
- Resist providing additional information or asides before the "big picture" is explained.
- Resist using fillers.

Principles adapted from "Expediter Rules" (Scaler Scott, 2002)

- Use short sentences.
- Get right to the point.
- Do not use too many examples.
- Do not use non-specific pronouns.
- Give the listener background information.

* For a full program description, see Ward (2006), p. 371-372



At home and at school: Daily Communication Practice

- Stick to "you must have evidence to back up what you say"
 - Avoid arguments ("That's interesting...bring me something that shows that")

Theory based upon what we know so far...

Kids who can use language to self-regulate emotion seem to be more fluent

Things to try

- Model persistence
 - "This is hard, but I won't quit. I'll try another way"
 - "I'm frustrated. But I know if I keep practicing it will get easier." ("Grit")
- Model flexibility
 - "This isn't working. I'll take a break and try something else. I'll come back to this tomorrow." (make sure you do and they see that you do!)
 - "I wasn't expecting that, but I'll just have to be flexible and go with it"

Things to try

- Reinforce it specifically when you see it:
 - "You really stuck with that homework even when it got tough—that's what I call persistence!"
 - "Even though we didn't expect to have to run out last night, you turned off the computer and went without a problem—that's what I call being flexible!"

Advocating and educating

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Scenario 1

- Peer 1 and Peer 2 are 10th graders and friends. Peer 2 says something to Peer 1. Peer 1 shouts at Peer 2, shoves Peer 2, and walks out of the classroom.

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Scenario 1: Think like a detective

- Could the root issue have been related to a communication disorder?
 - Auditory processing?
 - Pragmatics?
- Could the root issue have been related to a disorder of executive functioning?
 - Impulsivity?
- Could the root issue have been behavior?

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Scenario 1: Taking action

- Before we take action...
 - Use detective work about previous patterns of behavior to determine root cause
 - Teacher/family questions
 - Is this behavior typical?
 - Is this child on medication?
 - Were they on medication today?
 - Ask for both sides of the story from the peers themselves
 - Give benefit of the doubt

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Questions?

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