

DIR and Language The Higher Levels

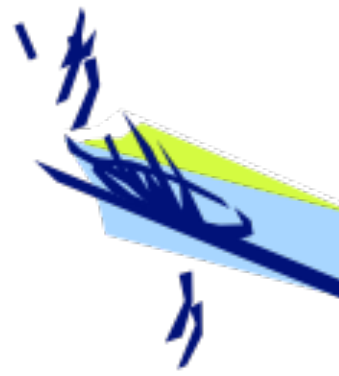
Michele Ricamato, M.A. CCC
Speech and Language Pathologist



A Perfect Pair - DIR ® and developmental Language Intervention

- DIR ® looks at the whole child, never teaching isolated skills or component parts.
- Developmental Language Intervention sees language as a process that occurs as the “whole” child interacts with their world in a dynamic way. Natural learning environments are encouraged and skills are not taught in isolation.

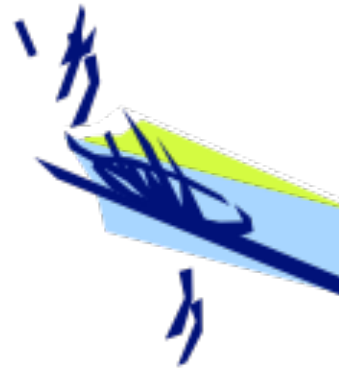
Ricamato, 2009



Language Development

- When we begin to look at language development, we must see it as a dynamic process that is impacted and effected by other areas of growth and development.
- In other words, language doesn't develop in a vacuum.

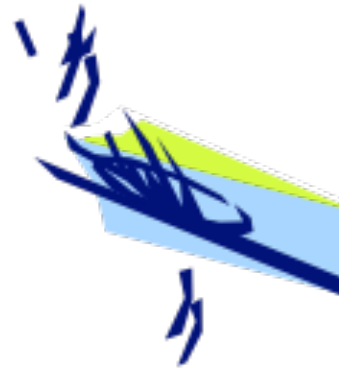
Ricamato, 2009



DEVELOPMENTAL

- Language Intervention in DIR ® should be based on the developmental sequence followed by typically developing children.
- Assessment and Intervention must take into consideration each child's developmental capacities and the strengths and weaknesses within each developmental level.

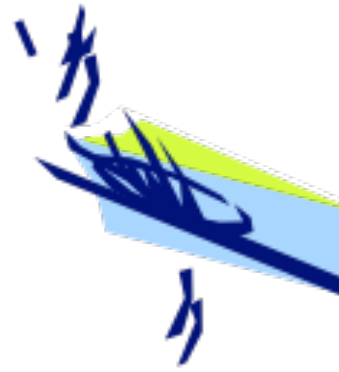
Ricamato, 2009



Traditional or Behavioral intervention plans

- Focus mostly on Form - words and sentence structure. Words alone, without the meaning they express, are empty.
- Intervention goals are not based on what is known about typical language development.
- Production of language is often prompted with extrinsic rewards, rather than promoting natural consequences of communication.

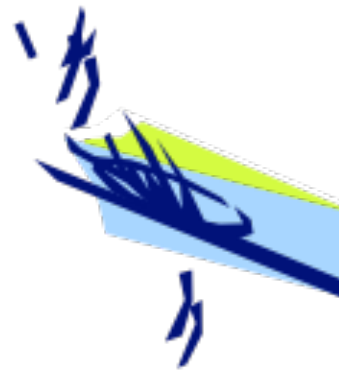
Gerber, Ricamato 2009



Why a developmental model based on typical language acquisition?

- Typical language learners follow a certain progression because it is most EFFICIENT.
- Typical language learners communicate using certain meaningful word combinations because they are both cognitively and linguistically easier.
- When we ask a child with a language disorder to produce forms out of sequence, we are asking them to do something harder than a child typically developing.

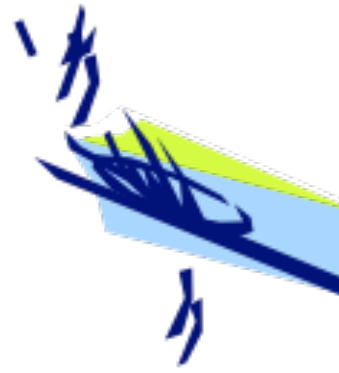
Gerber, Ricamato 2009



Individual Differences

- *As Speech and language pathologists, we must understand that just as each child's sensory profile is unique, so is their language profile. This knowledge will determine how to intervene in order to support further development.*

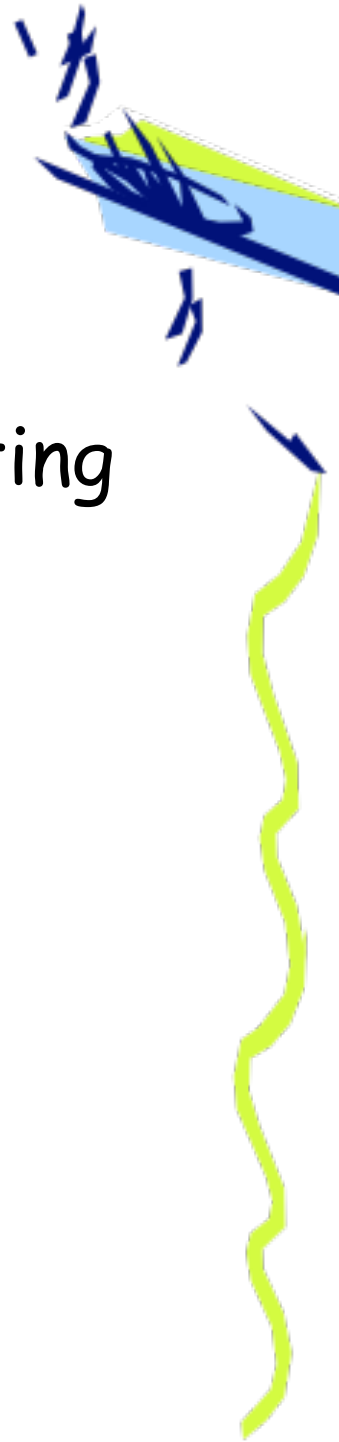
Ricamato, 2009



Individual Differences in Language

- Some children have challenges formulating language to express themselves.
- Some children have challenges understanding language.
- Some children have challenges using language in social settings.
- Some children have all of the above challenges.

Ricamato, 2009



Relationship Based Approach

- Relationships are the foundation for any meaningful learning or growth.
- This includes language learning.

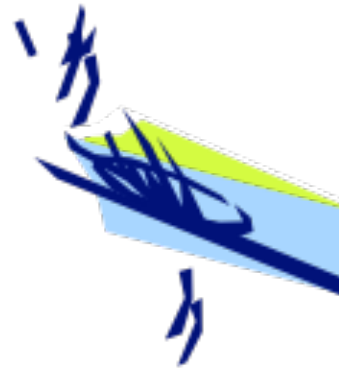
Ricamato, 2009



Role of Relationships in Language Learning

The knowledge of the baby or child that the caregiver brings to the relationship, allows for better and more cohesive shared attention, shared meaning and reciprocity.

Ricamato, 2009



Relationships in Language Learning

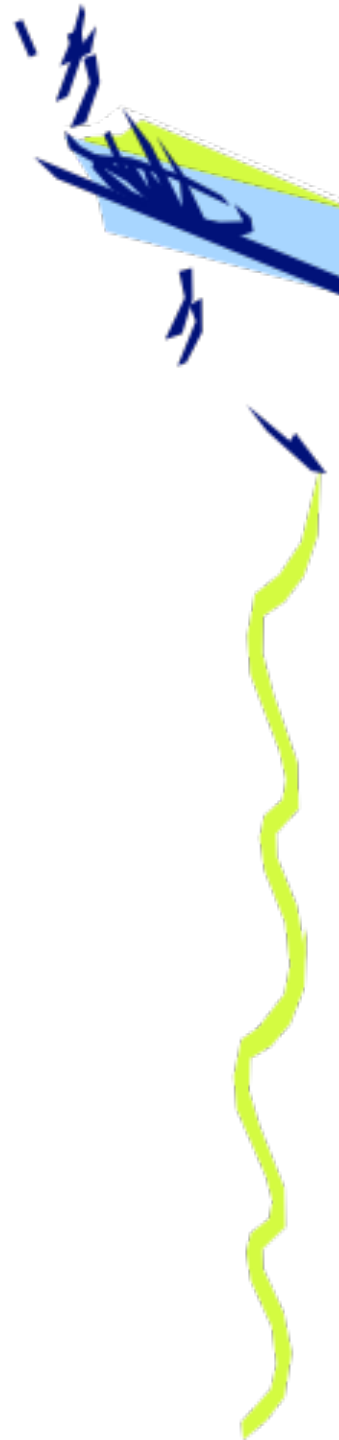
The attunement of the caregiver to the child, brings meaningful moments for language learning and overall communication.

Ricamato, 2009



What is Language?

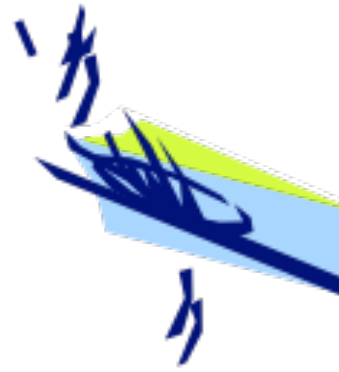
Ricamato, 2009



Language

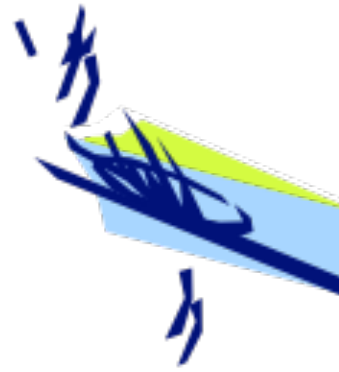
- Language is the way that we make ourselves known to others and how we come to understand ourselves (Sima Gerber).
- Language is the vehicle by which we make meaning in our world.

Ricamato, 2010

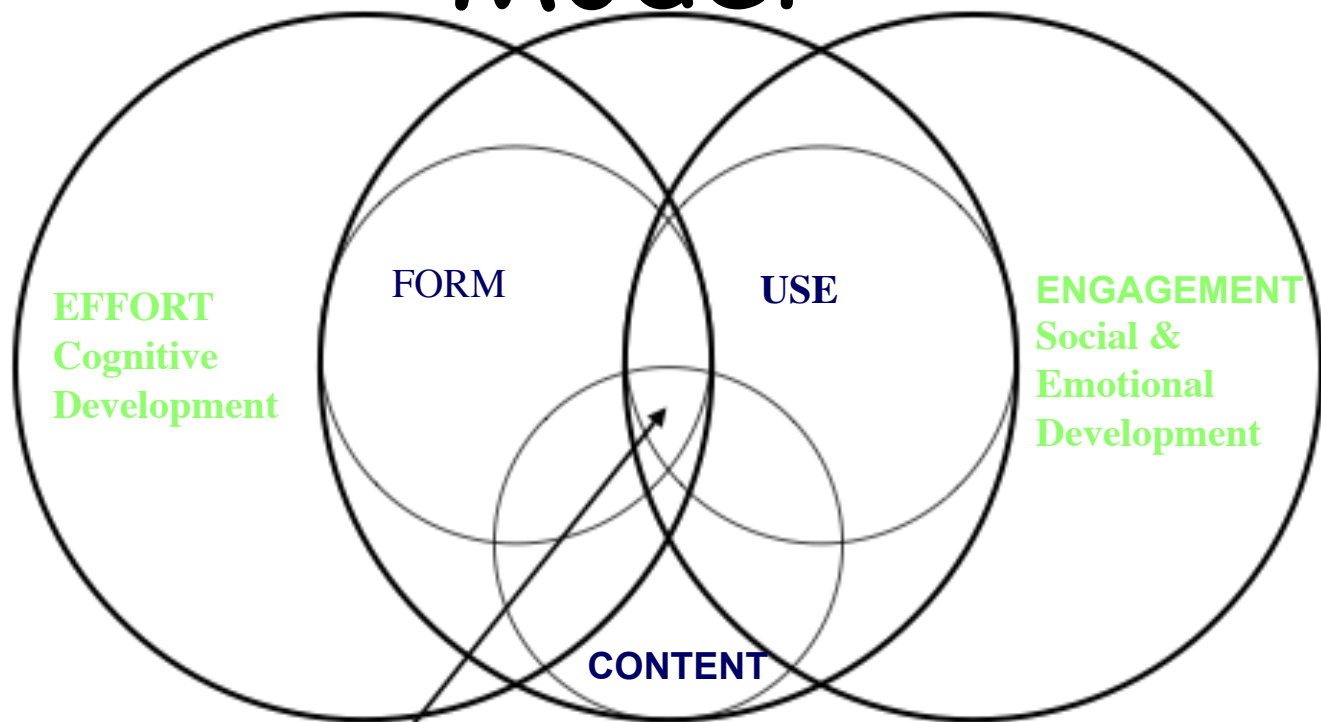


Language is the primary tool that humans use to go beyond attention to the exchange of meaning

- Sharing the meaning of experience appears to be a unique motivation of human cognition incorporating the intertwined motivations of MAKING SENSE and MAKING RELATIONSHIPS (Nelson, 2007)



Developmental Language Model



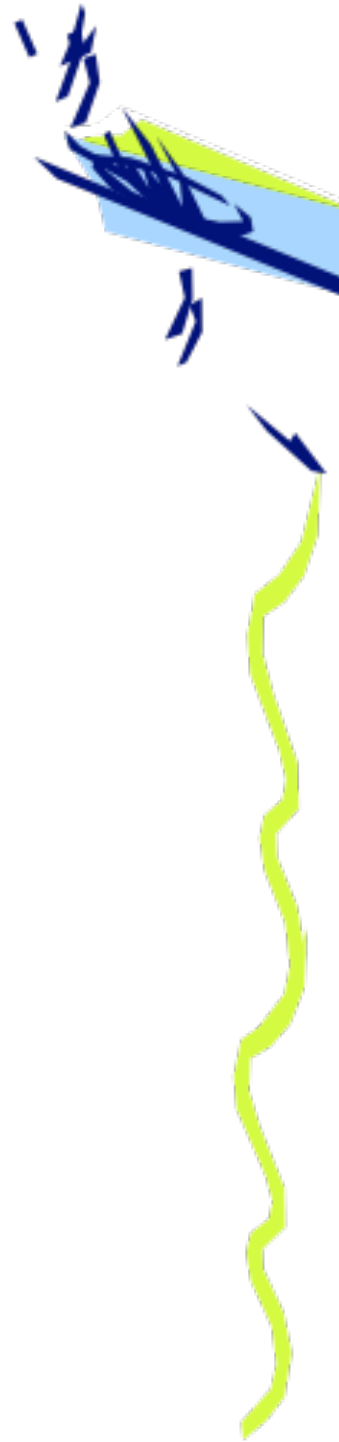
LANGUAGE

THE INTENTIONALITY MODEL BLOOM & TINKER, 2001
Gerber, 2007

Components of Language

- Precursors to Language
- Pragmatics
- Comprehension
- Production

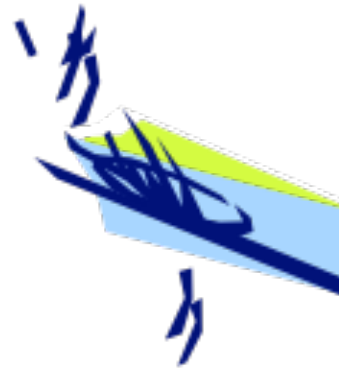
Cervenka, Gerber, Ricamato 2009



Higher Developmental Levels

Promoting Language Development when
Working with Children at the Higher
Developmental Levels

Ricamato, 2011

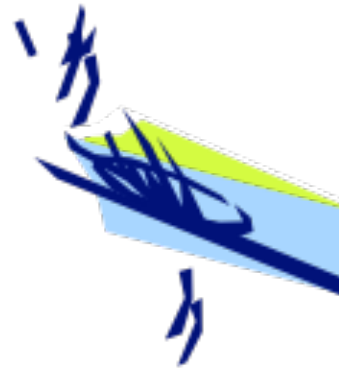


Creating Ideas

Level 5

- Emerges between 18-30 months
- Child is able to create, elaborate on and share meanings through pretend play, language, and affect.
- Emotional Themes beginning to be explored.

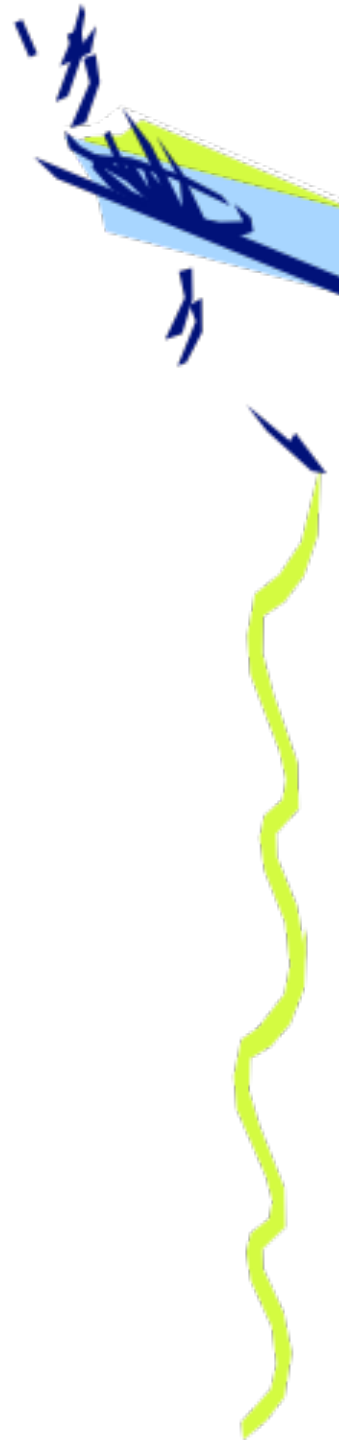
Ricamato, 2009



Creating Ideas

- 21 month old - typically developing

Ricamato, 2009

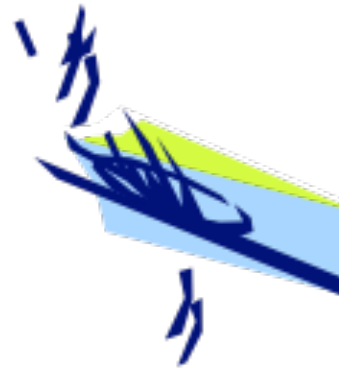


Building Bridges Between Ideas

Level 6

- Emerges between 30-48 months of age.
- Child now has capacity to elaborate a number ideas through play and language that go beyond basic needs and simple themes.
- At upper end (42-48 months), play involves 3 or more ideas that are logically connected.
- At upper end, child is able to answer complex "what", "why" and "how" questions.

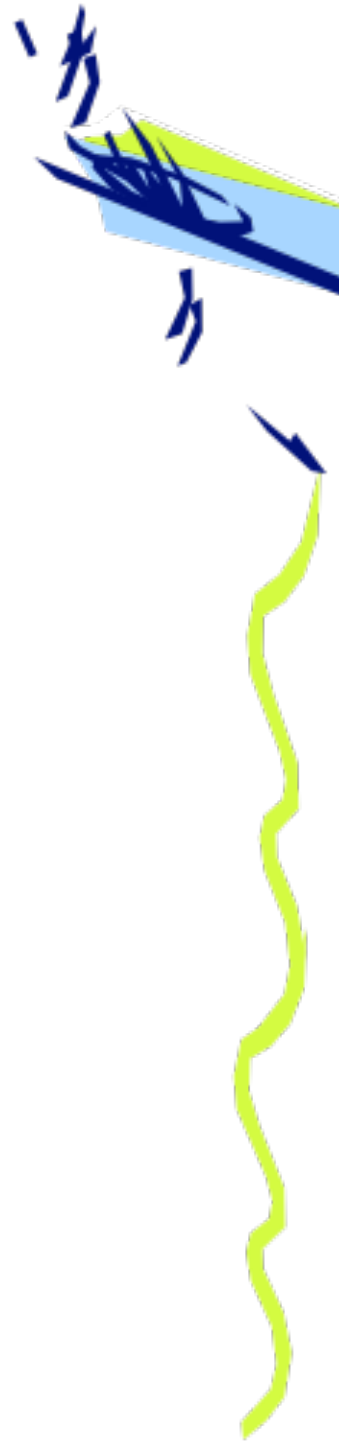
Ricamato, 2009



Building Bridges Between Ideas

- 36 month old - typically developing

Ricamato, 2009



Pragmatics/Use Of Language

Pragmatics is knowing *when* to say *what*
to *whom*

Gerber 2007



Pragmatics (Use of Language)

Involves the following:

- It is WHY we speak and listen to one another.
- It helps us know WHAT to say to achieve our goals as speakers.
- It is the use of social interactions to help us begin, continue and end conversations.

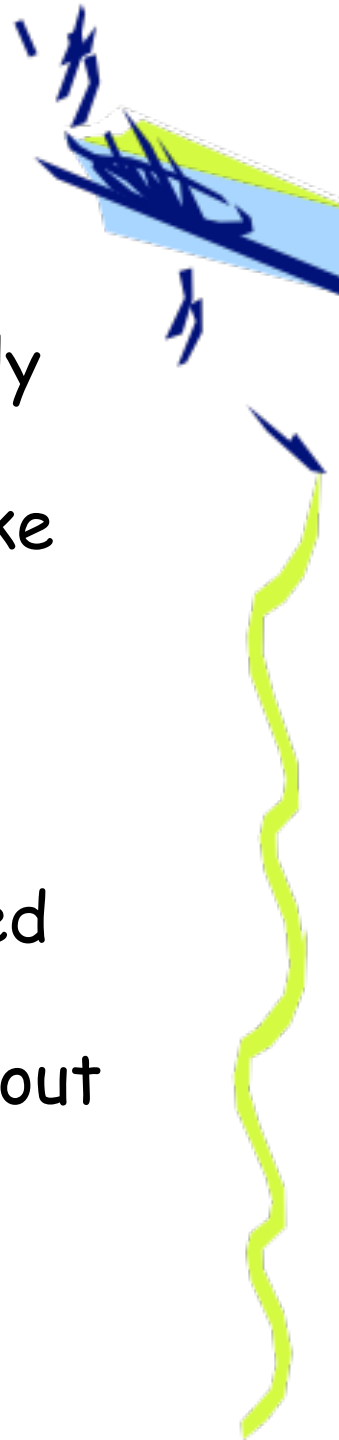
(Lahey, 1988)



Traditional Language Intervention Strategies

- * Indicate the rules of conversation by explicitly presenting the child with a list of conventions
 - During the interaction, remind the child to take his turn, look at his partner, respond to his partner, etc.
 - Use structured games and activities as the contexts of intervention
 - Reward the child each time he uses the desired behaviors
 - Indicate to the child that we're not talking about that topic now.

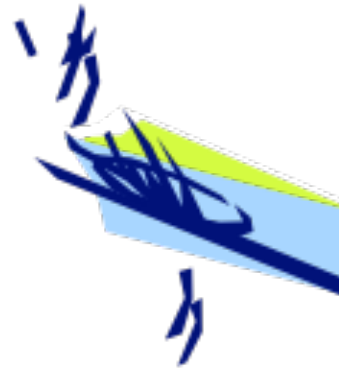
Gerber, Ricamato, 2008



Developmental Language Intervention Strategies for Pragmatics Developmental Levels 1-6

- Model typical conversation to promote typical conversation (discourse patterns)
- Create natural opportunities for promoting non-verbal pragmatic abilities such as body language, gestures, and facial expressions.
- Use a range of ways to communicate - commenting, questioning, protesting.
- Create 'turn-taking' opportunities through expectancy, waiting, and non-verbal communication.

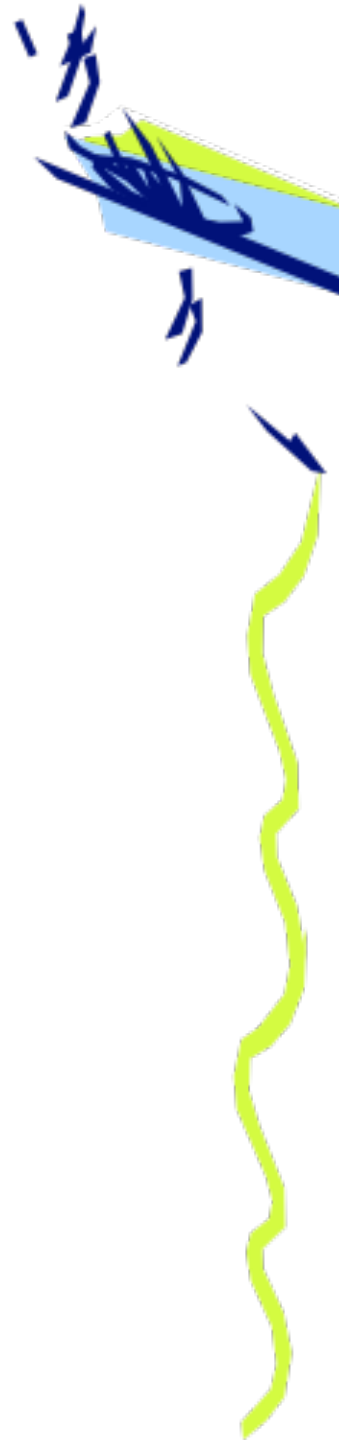
Gerber, Ricamato, 2008



Pragmatics

- Graham with balloon
- Casey at 5 years old
- Casey talking about Blackhawks

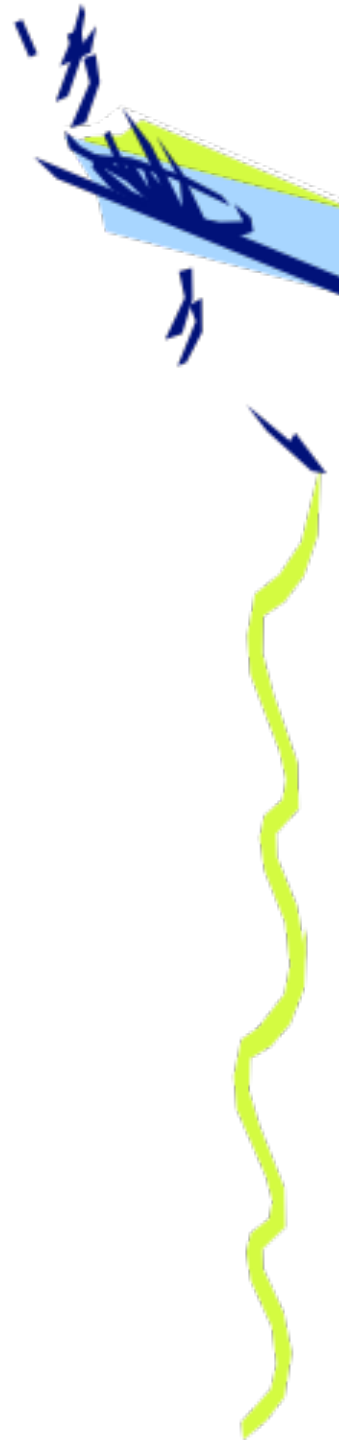
Ricamato, 2011



Graham

- Graham - 5 years old
- Play with balloon
- What are Graham's ideas about the balloon?
- What is he learning through play about balloons in this interaction?

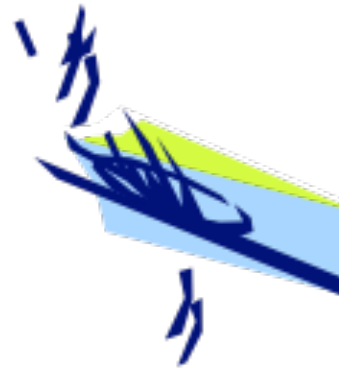
Ricamato, 2010



Pragmatics - Casey - 5 years

- Casey often communicates through questioning others.
- Supporting simple flow of typical discourse patterns without use of questions promotes interaction.
- Intonation patterns are more fluid during activities that promote the body.

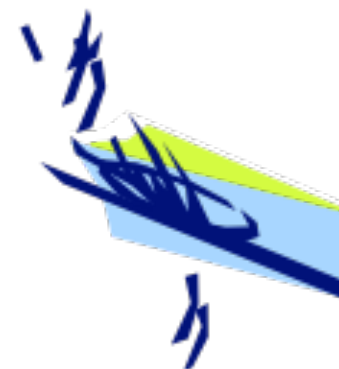
Ricamato, 2010



Casey talking about the Blackhawks Later Pragmatic Intervention - Video

- Clinician and Casey work within the context of natural conversation.
- Clinician supports Casey's ability to review his opinions, compare his feelings, and determine similarities and differences between the way clinician and Casey think.
- Clinician models non-verbal pragmatic abilities such as body language, gesture, and facial expression.

Cervenka, Ricamato
2010

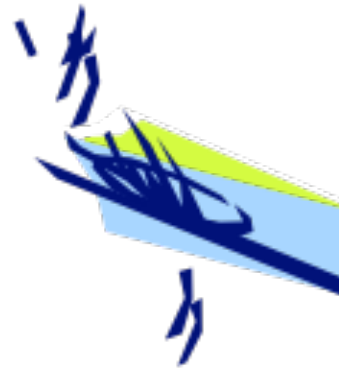


Language Comprehension

- The ability to interpret and make sense of spoken or written language. (Miller and Paul, 1995).
- The ability to understand words and sentences (derive meaning from combinations of words).
- The ability to use context when exposed to language beyond your linguistic level.
(comprehension strategies)

Miller and Paul, 1995

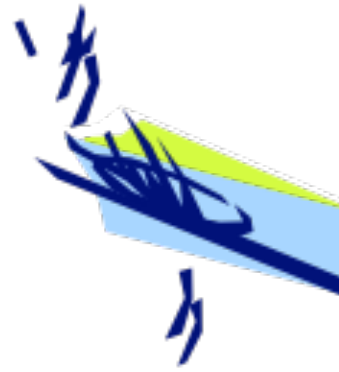
Gerber, Ricamato 2009



Comprehension

- Language is the way that we make ourselves known to others and how we come to understand ourselves (Sima Gerber).
- Language is the vehicle by which we make meaning in our world.
- Comprehension is a critical bridge in making meaning in our world.

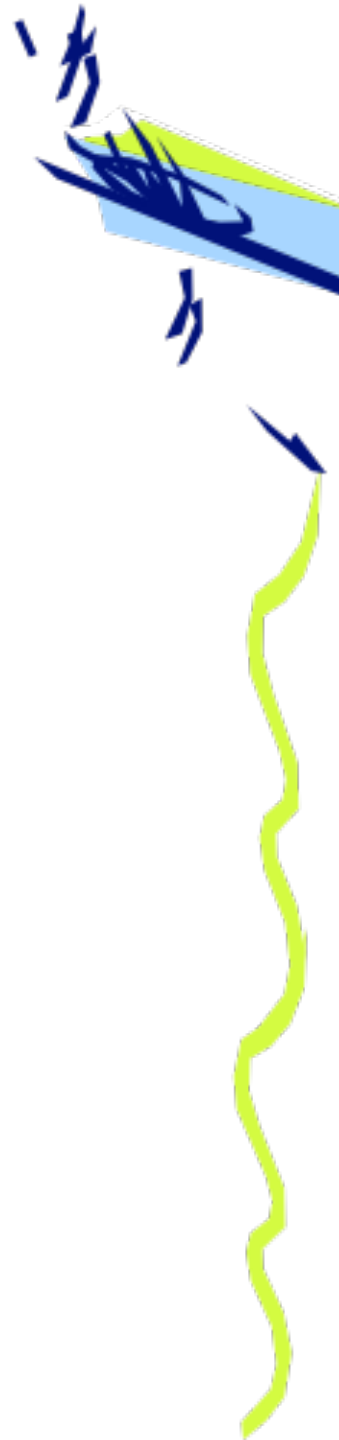
Ricamato, 2010



Where Does the Ability to Comprehend Language Come From?

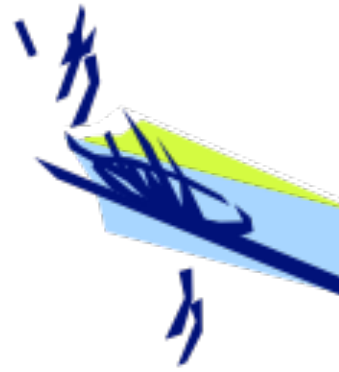
- Shared attention
- Shared Meaning
- Shared Intentionality

Gerber, Ricamato 2009



Shared Attention

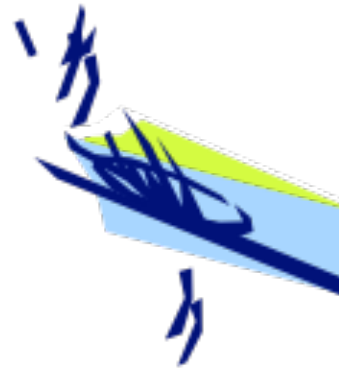
-two people are directing their attention to the same aspects of the event....
-ensures that some aspect of the event is experienced by both participants.
- Sharing attention is a first step toward minimizing the difference between experiences (Nelson, 2007, p. 9)



Shared Attention in Early Comprehension of Words

- The child will develop meaning for certain words based on what has been observed in the interaction with the communicative partner.
- Without shared attention, observation and meaning will not be made. (Tomasello, 2003)

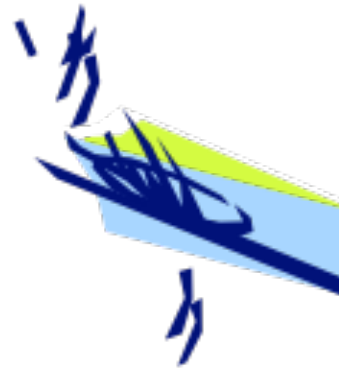
Ricamato, 2010



Shared Meaning

- Meaning...is whatever is perceived as relevant to the individual on the basis of needs, interests, present context, or prior history...that which has meaning---significance---for the individual.....
- Two people can share an experience but not a meaning
- The enlargement of the boundaries of experience and meaning is at the heart of cognitive development and it begins in the first year

Nelson, 2007



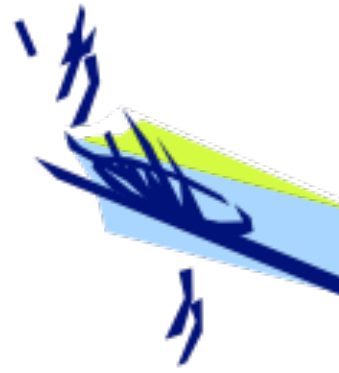
Language is the primary tool that humans use to go beyond attention to the exchange of meaning

- Sharing the meaning of experience appears to be a unique motivation of human cognition incorporating the intertwined motivations of MAKING SENSE and MAKING RELATIONSHIPS (Nelson, 2007)



Typical Development

- Tyler - 3 years
- Learning the meaning of "high" and "low." Trying it out within his own understanding - what's meaningful for him.



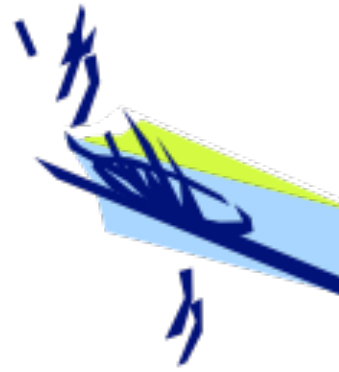
SHARED INTENTIONALITY

Tomasello (1999); Carpenter, Nagell, and Tomasello (1998)

- Tomasello views social developments as the beginnings of the child's understanding of intentionality, an essential basis for language.

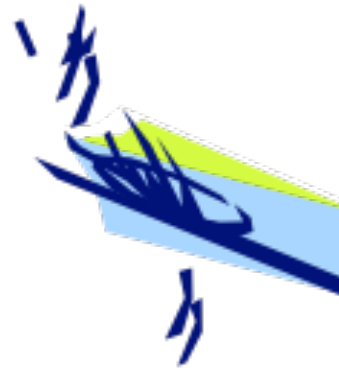
Shared intentionality is a collaborative activity in which participants share psychological states with one another.

Gerber, Ricamato 2009



Intentionality in Comprehending New Words

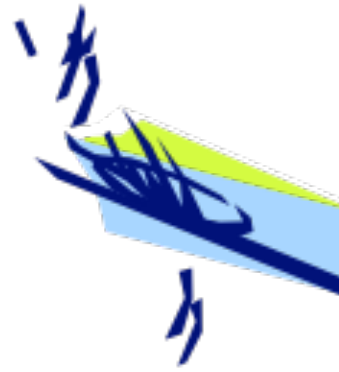
- Children learn specific types of words early on in development only in situations where they can read the communicative intent of the adult partner.
- If the intent is unclear, shared intentionality will not be established and meaning will not be made.



Making Meaning of Words

- When the child is able to make meaning of a word, "WORD" and "CONCEPT" become a single whole.
- This merging of word and concept comes through activities and experiences of the word in context where partners use the words that fit the child's understanding of the situation. (Nelson, 2007)

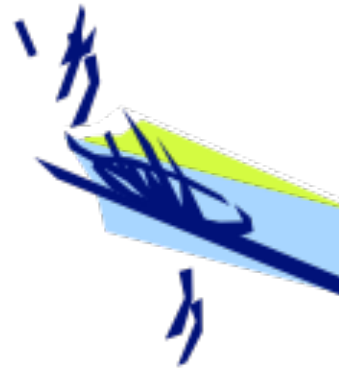
Ricamato, 2010



Comprehension Strategies

- Children must develop comprehension strategies to interpret linguistic information that is above their developmental level.

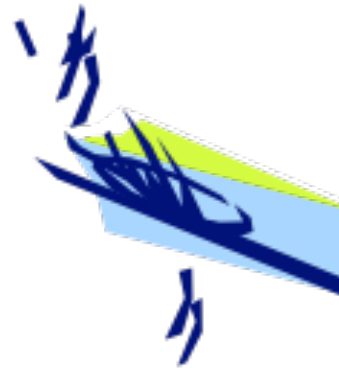
Ricamato, 2010



Comprehension Strategies

- “To display comprehension of what the parent says, the child can simply respond to some part of the whole pattern of a phrase such as “throw me the ball” in the context of playing with a ball.” (Nelson, 2007)

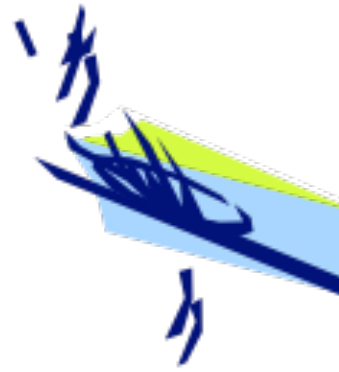
Ricamato, 2010



The Role of Context

- In order to understand the linguistic information contained in the message, the non-linguistic context augments the language to support understanding. (Weiss, 2009)

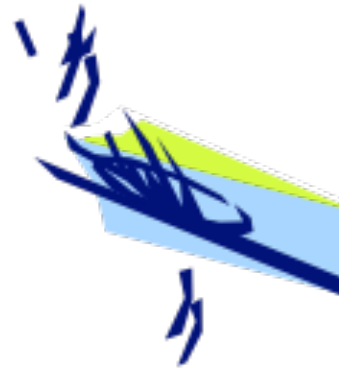
Ricamato 2010



Non-Linguistic Context

- What is going on at the same time someone is speaking?
 - Who is speaking?
 - What was previously said?
 - What visual information is available?
- (Weiss, 2009)

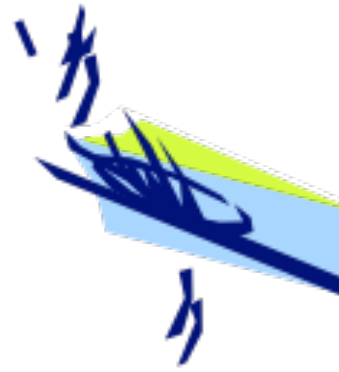
Ricamato, 2010



The Role of Affect

- Children use affect to support their ability to understand more about their world.
- Adults use affect to support understanding as well!!!

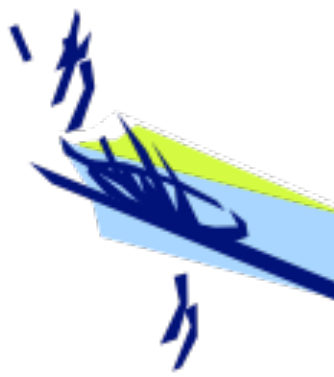
Ricamato, 2010



"Life is Beautiful"

- What do we understand from his affect?
- What do we understand from his gestures?
- How does he help us understand even if we don't speak Italian?

Ricamato, 2010

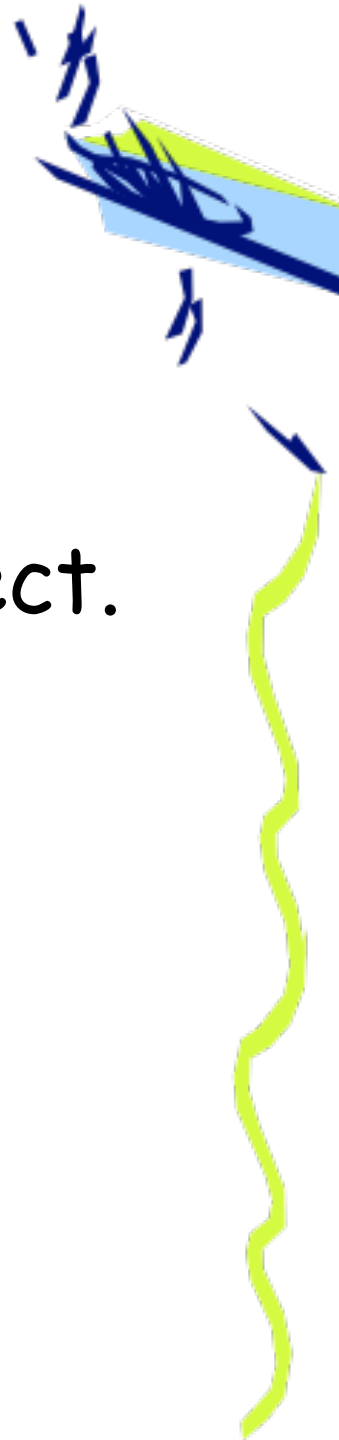


Comprehension Strategies Used By Children

- Do what is normally done with object.
- Look to what the caregiver is focusing on.
- Look at objects mentioned.
- Act on objects at hand.

(Chapman, 1978)

Ricamato, 2010



The Here and Now

- "Young children are focused on the here and now. Whatever is physically present will significantly figure into the child's attempts to understand any linguistic message." (Weiss, 2009)



Ricamato, 2010

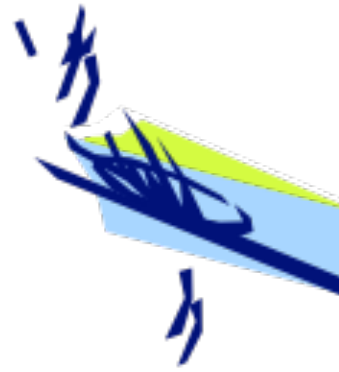


How do adults help the young child understand?

- Repetition, especially of content words (cookie, eat).
- Longer pauses at grammatical junctures.
- Emphasis on Content words.
- Dramatic shifts of prosody and intonation.
- Longer transitions between turn taking.

(Fernald & Khul, 1987)

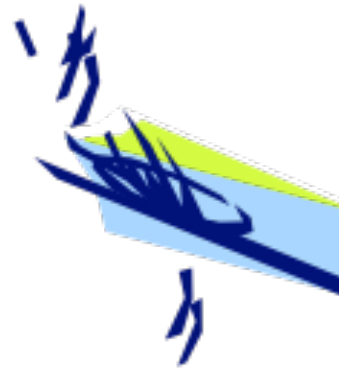
Ricamato, 2010



Comprehension Intervention

Traditional Strategies

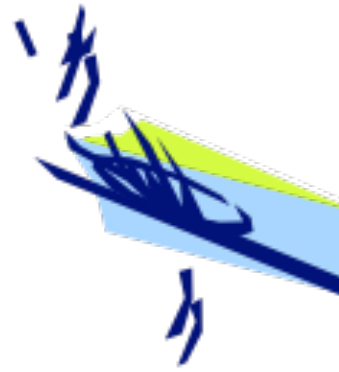
- Determine targets for comprehension based on age norms, not developmental norms.
- Focus on Wh- questions without regard to hierarchy of question comprehension
- Focus on direction following with locatives (in, on, under, beside, behind)
- Present comprehension work within 'therapy' contexts rather than 'natural' play contexts. Use of picture cards to identify concepts and vocabulary.



Comprehension Intervention Traditional Strategies

- Minimize the non-linguistic support for comprehension which does not support the building of comprehension strategies.
- Present contrastive directions to the child
 - 'put it in the box' 'take it out of the box' - within the same context
- Memorization of definitions for concepts/words promoted without meaningful understanding

Gerber, Ricamato 2009



Later Comprehension Intervention Developmental Strategies

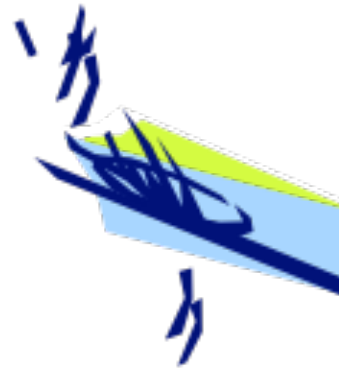
- Using real experience to support comprehension.
- Using reenactment with the child's body to develop more robust comprehension.
- Using visual supports to support comprehension.
- Reframing to support comprehension.



Later Comprehension Intervention

Developmental Strategies

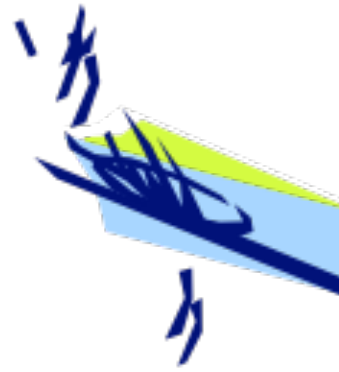
- Adapt utterance length to the child's comprehension level
- Use visual and gestural cues to support understanding
- Pair words with gestures and facial expressions
- Use Question forms the child understands
- Request for clarification
- Paraphrasing



Casey and Linda

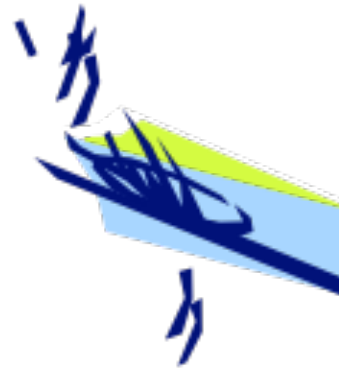
- Casey - 5 years
- Discovering all about Santa.
- Has never celebrated Christmas until this past year.
- Through play and conversation, is able to make meaning around this new concept.

Cervenka, Ricamato, 2010



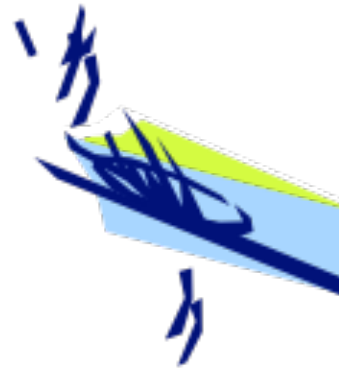
Jace with Mom, Megan and Michele

- 6 years old
- Plays out a theme about a robber who took money from a bank.
- Doesn't understand what money is for.
- Through play and context, able to relate an experience where money was needed.



Higher level Comprehension

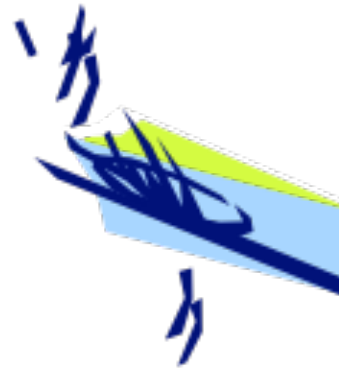
- In order to understand the complexities of life, you must develop the capacity to share the intentions of another.
- In order to do this, you must be able to integrate your visual and auditory systems as well as to develop abstract capacities like perspective taking.



The Importance of Sharing Intentions

- ".....Mirror neurons reveal that the brain is able to detect the intention of another person (when the action is intentional). Here is evidence not merely for a possible early mechanism of imitation and learning, but also for the creation of mindsight, the ability to create an image of the internal state of another's mind." (D. Siegel, 2003)

Ricamato, 2010



Sharing Intentions

Developmental Language Strategies

- Support child's ability to understand others' affect states during natural exchanges (point out and highlight affect states)
- Support child's ability to understand a range of intentions expressed by others (make reference to and call attention to others' intentions)
- Support the child's ability to express a range of affect states during natural exchanges (move beyond a narrow range of affect states).
- Support child's ability to express a range of intentions with gestures, words and sentences.



Michaela

- 6 years old
- Reading a book called "One Frog too many."
- Book without words, just pictures.
- Trying to interpret intentions of others.



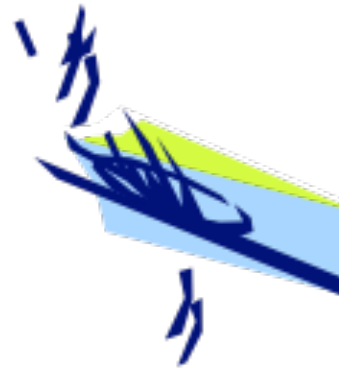
Ricamato, 2010



Cara

- 5 years old
- Reading "One Frog too many."
- Trying to interpret the intent of the author in the book.

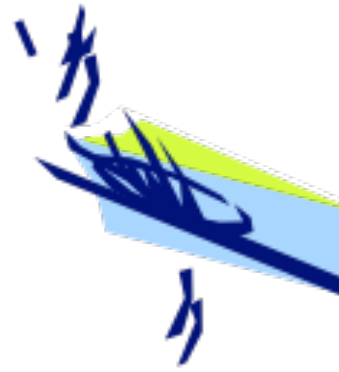
Ricamato, 2010



Michaela

- 6 years old
- Reading "Diary of a Wombat"
- Trying to determine the intentions of the characters in the book and the reasons for their reactions.

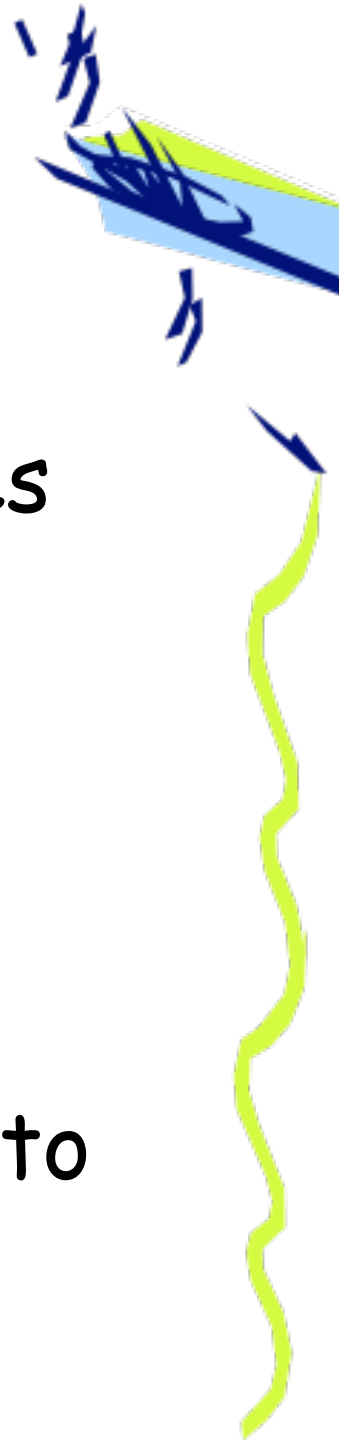
Ricamato, 2010



Additional Knowledge is Imperative to Make Meaning

- Comprehension of language requires much more than linguistic comprehension.
- That's why computers can't comprehend every day speech.
- Additional knowledge is necessary to make sense of conversation.

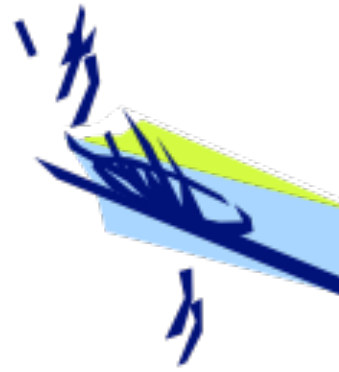
(Miller and Paul, 1995).



Additional Information needed to understand in Conversation

- Social Knowledge And Understanding Intentionality - "Do you want to be sent to your room without dinner?"
- Sincerity Conditions for speech acts - "Are you hungry?" "Is the Pope Catholic?"

(Miller and Paul, 1995)



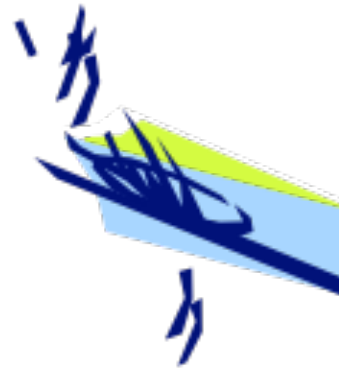
Additional Information

Cont...

- Scriptal Knowledge - When someone asks us at a restaurant "What'll it be?" - we know we can't respond with something that is not on the menu like "a pair of blue jeans."
- Background knowledge - If someone says, "You're no Fred Astaire" while you're out on the dance floor, you have to know who Fred Astaire was in order to understand the comment.

(Miller and Paul, 1995)

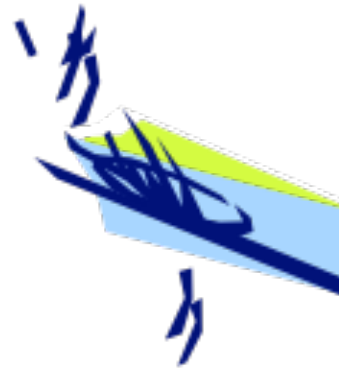
Ricamato, 2010



Additional Information Continued....

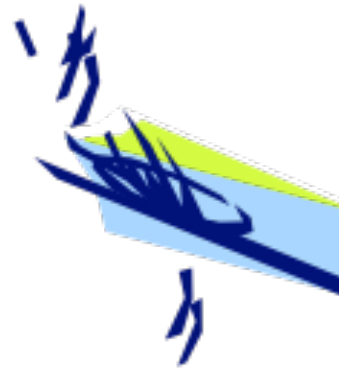
- Ability to Infer - Speakers don't include all of the information in their communication but rely on their listener to make reasonable inferences based on their knowledge of how things ordinarily happen in the world. (Miller and Paul, 1995)

Ricamato, 2010



Additional Knowledge Needed in Conversation

- Tyler - 4 years old
- Conversation regarding a few topics - Halloween and Fire fighters.
- What does he have to understand about the world in order to have this conversation?

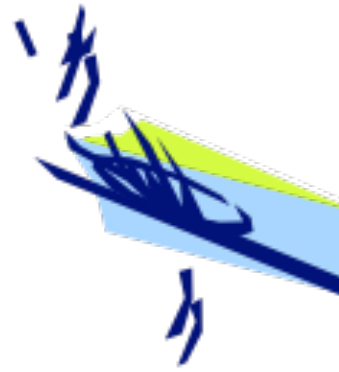


Ricamato, 2010

Jace

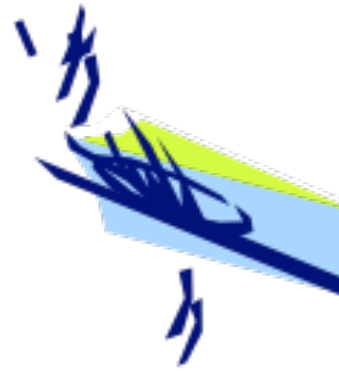
- 6 years old
- Making sense of complex concepts.
- Why didn't someone who was speeding at 90 miles per hour didn't get a ticket?
- How do we help Jace understand more about the world in order to comprehend more?

Ricamato, 2010



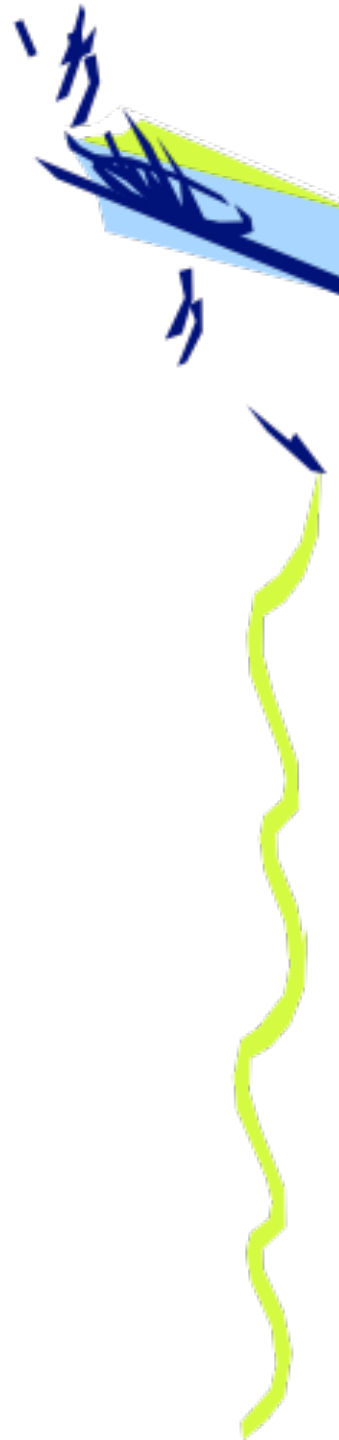
Later Production - Conversation

Consistent with Developmental
Levels 5-6



Production

- Form
- Content



Ricamato, 2009

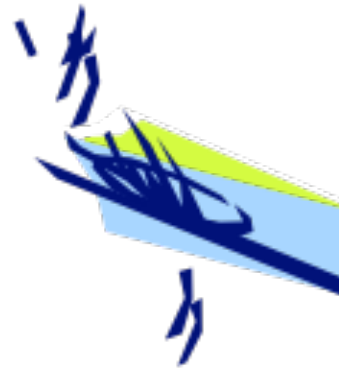


FORM

- Form - (1) the sounds, (2) combinations of syllables that contain meaning (-s, -ing, -ed), (3) the arrangement of words in which there is meaning.

(Bloom and Lahey, 1978, 1988)

Gerber, Ricamato 2009

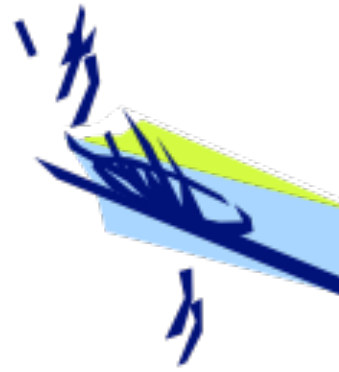


CONTENT

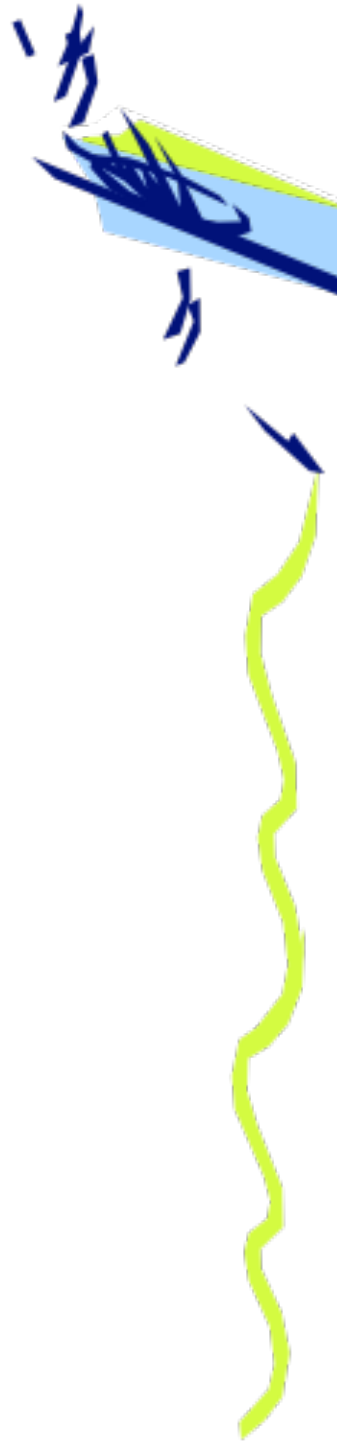
- Is the meaning expressed by a variety of categories of topics.
- Actions (jump), Existence (this), Attribution (hot), Possession (mine), Temporal (before), Causal (because), Quantity (two), etc...

(Bloom and Lahey, 1978, 1988)

Gerber, Ricamato 2009

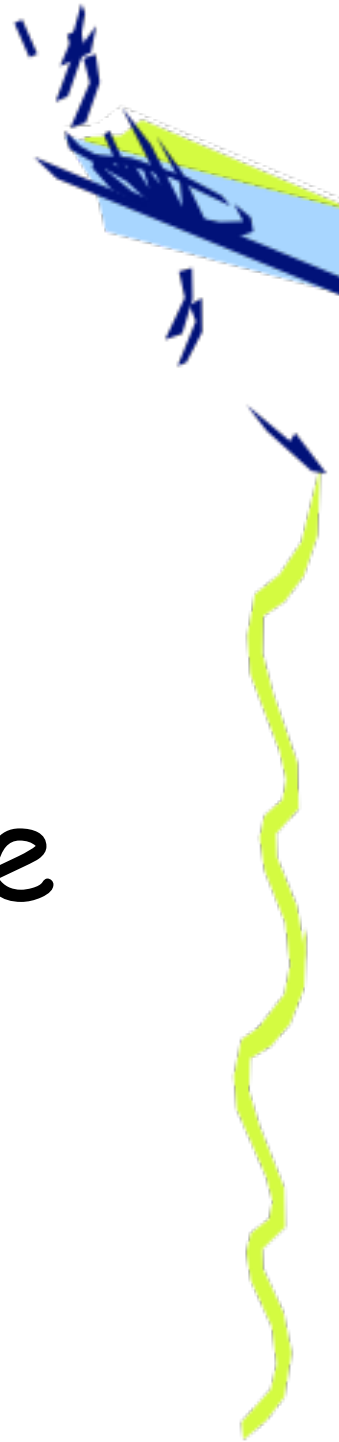


Expression at the higher levels of Development



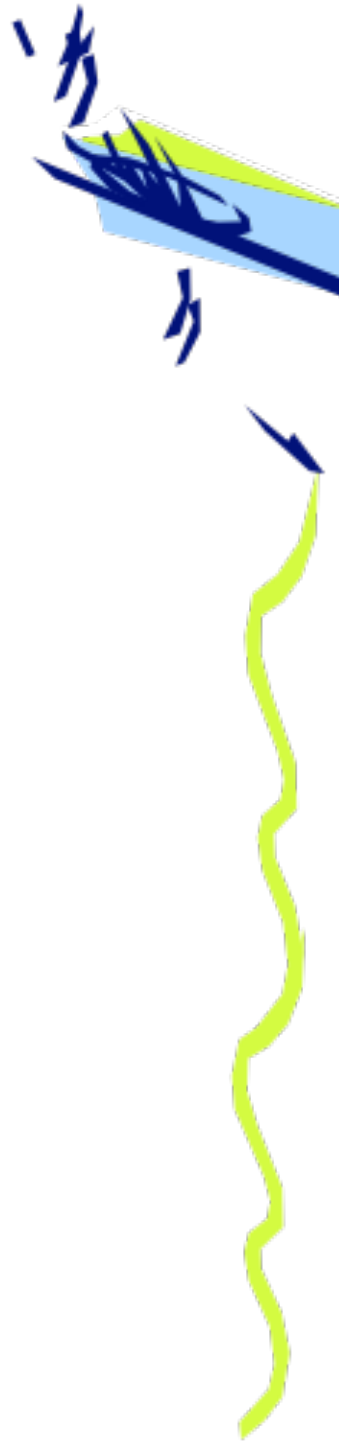
Ideation and Language

The Continuous and Interdependent Circle



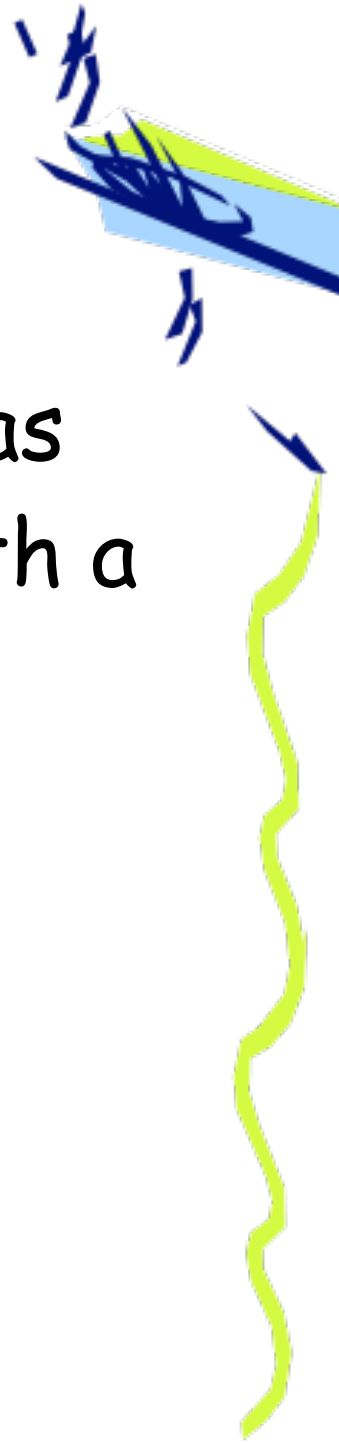
How does ideation support language development?

- You must have ideas in order to express them.
- Without ideas, more complex language is challenged.



How Does Language Support aspects of ideation - Planning, Execution and Adaptation?

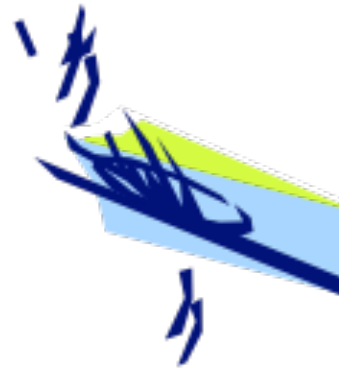
- Language is the means by which ideas become shared and co-mediated with a partner.
- Without language, more complex ideation is challenged.



Tessa

- Tessa - 6 years old
- Selectively mute
- Without language, Tessa is unable to share her plan, her intentions, her inner feelings.

Ricamato, 2010



How does the Child's profile

impact their ideas?

We Must Take Into Account All of the Following and More:

- Visual Capacities
- Motor Capacities -
- Verbal and Visual Sequencing Capacities -
- Comprehension Capacities -
- Regulatory Capacities -
- Emotional Capacities
- Anxiety

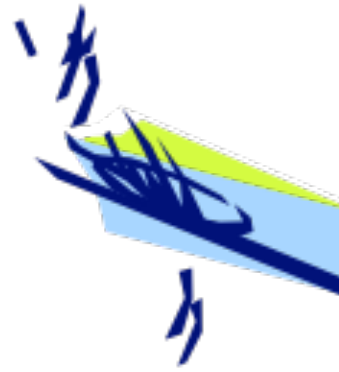


Ricamato, 2010

How to promote later discourse?

- The early reading of stories that support a sequence (beginning, middle and end) for each stage of development are wonderful models for how to tell someone something.
- Planning and sequencing events to occur within play (using written words and visuals/objects).
- Teaching concepts through experience and meaningful exchanges.

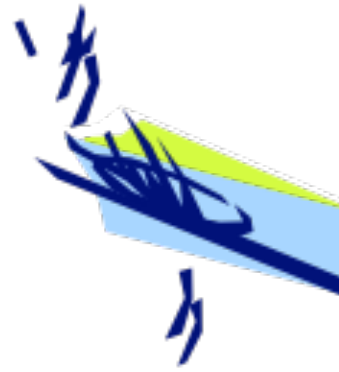
Ricamato, 2010



Promoting later discourse

- Help the child to become aware of another's knowledge (use of books, natural interactions) in order to provide more specific information.
- Help the child when they get "stuck" in the interaction to learn to repair by making changes in their communication when necessary.
- Let play and affect continue to be a form of expression for the child.
- Use of experiential projects - crafts and cooking.

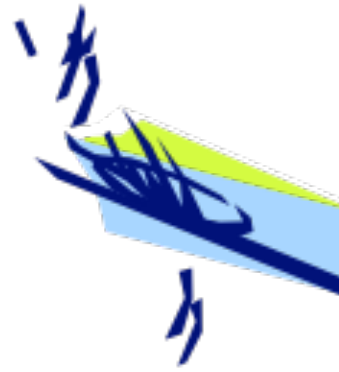
Ricamato, 2010



Promoting later discourse

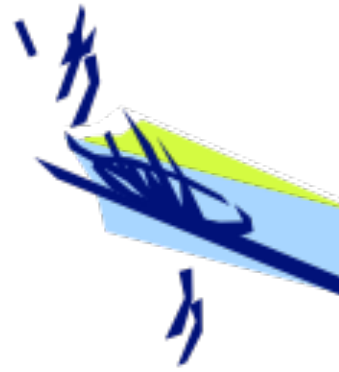
- Help the child to maintain a topic by lively back and forth discussions around interests of the communicators. Model typical discourse.
- Use questions that expand the dialogue versus questions to obtain facts or knowledge. Questions should be posed at the "just right moment", not constantly throughout the dialogue.

Gerber, Ricamato 2008



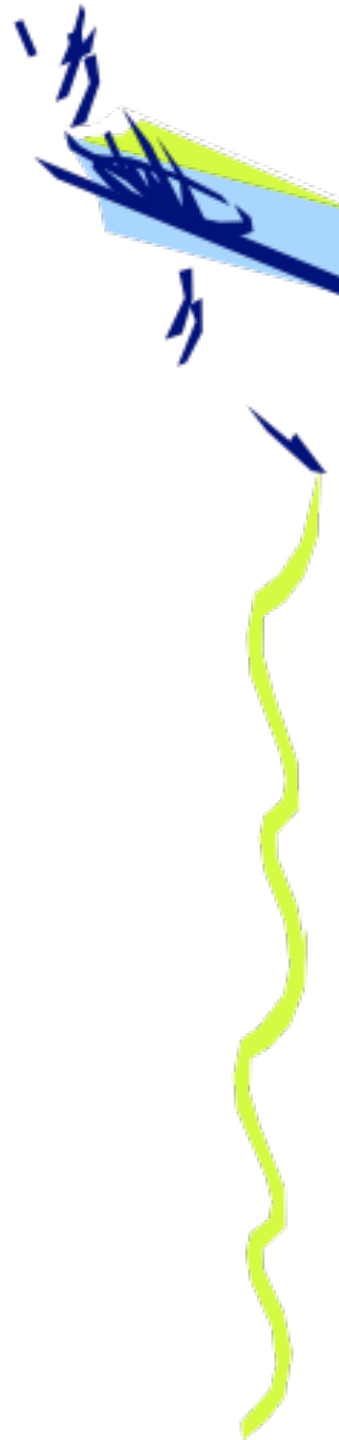
Supporting Ideation and Language Together

- Play is a form of expression - Expression of affect, expression of language, and expression of ideas.
- Through Play, we can support ideation and language at the same time.



Later Production - Discourse

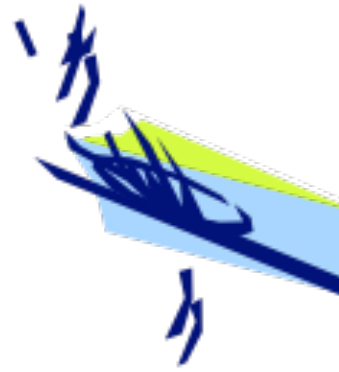
- Graham
- Kevin
- Mason
- Cara
- Michaela



Kevin

- Kevin - 4.6 years old
- Using language to explain to the clinician how to get the key from the top of the cabinet.
- Demonstrates thinking and range of ideas and has ability to put those ideas into formulated utterances.

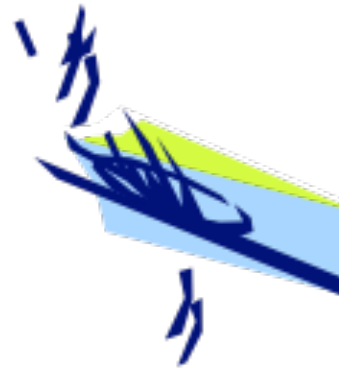
Ricamato, 2010



Mason

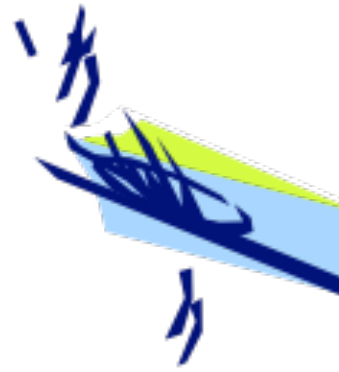
- Mason - 6 years old
- Using language express ideas, plan his play and execute his ideas.

Ricamato, 2010



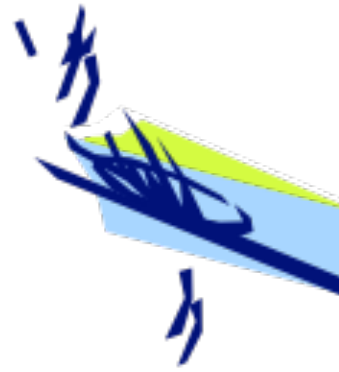
Selected References

- **Beasley, Jane** (1956). *Slow to Talk*. New York, Columbia University.
- **Bloom, L. & Tinker, E.** (2001). The intentionality model and language acquisition. *Monographs of the Society for Research in Child Development*, 267, Vol. 66, 4.
- **Bransford, Nitsch.** (1978). *Coming to Understand Things*. The Massachusetts Institute of Technology.



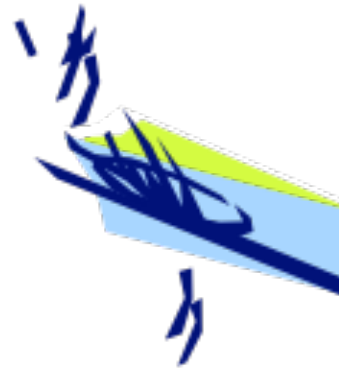
Selected References

- **Gerber, S.** (2007). Visual Reality: Illustrating the Application of Developmental Language Models to Language Intervention with Young Children. DVD. Supported by the Bamford-Lahey Children's Foundation.
- **Gerber, S.** (2003). A developmental perspective on language assessment and intervention for children on the autistic spectrum. *Topics in language disorders*, 23.
- **Greenspan, S. & Wieder, S.** (1998). *The child with special needs*. Mass.: Addison Wesley Longman



Selected References

- **ICDL-DMIC (2005).** *Diagnostic Manual for Infancy and Early Childhood.* ICDL Press: Bethesda, MD.
- **Lahey, M. (1988).** *Language disorders and language development.* New York: Macmillan.
- **Miller, J. and Paul, R. (1995).** *The Clinical Assessment of Language Comprehension.* Paul H. Brookes Publishing Company. Baltimore, MD.
- **Nelson, K. (2007)** *Young minds in social worlds.* Cambridge: Harvard Univ.
- **Siegel, D. (2003).** *Parenting from the Inside Out.* New York: Penguin Group.



References continued

- **Weiss, A. (2010).** Language development: foundations, processes, and clinical applications (Shulman and Capone). Comprehension of Language, Chapter 11. Jones and Bartlett Publishers, LLC.

