EDUCATIONAL PRACTICES SERIES-13

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Promoting pre-school language

By John Lybolt and Catherine Gottfred







EDUCATIONAL PRACTICES SERIES-13

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Series preface

The language knowledge and skills that children develop before they go to school are powerful influences on how well they do during the school years and in later life. This booklet describes the practices that parents, educators and others can employ to promote children's language in preparation for school. It has been prepared for inclusion in the Educational Practices Series developed by the International Academy of Education and distributed by the International Bureau of Education and the Academy. As part of its mission, the Academy provides timely syntheses of research on educational topics of international importance. This booklet is the thirteenth in the series on educational practices that generally improve learning.

The authors are distinguished scholars:

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The officers of the International Academy of Education are aware that this booklet is based on research carried out primarily in economically advanced countries. The booklet, however, focuses on aspects of language development and teaching that are universal. The practices presented here are likely to be generally applicable throughout the world. Indeed, they might be especially useful in countries that are currently less developed economically. Even so, the principles should be assessed with reference to local conditions, and adapted accordingly. In any educational setting or cultural context, suggestions or guidelines for practice require sensitive and sensible application, and continuing evaluation.

HERBERT J. WALBERG,
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This publication has been produced in 2003 by the International Academy of Education (IAE), Palais des Académies, 1, rue Ducale, 1000 Brussels, Belgium, and the International Bureau of Education (IBE), P.O. Box 199, 1211 Geneva 20, Switzerland. It is available free of charge and may be freely reproduced and translated into other languages. Please send a copy of any publication that reproduces this text in whole or in part to the IAE and the IBE. This publication is also available on the Internet. See the 'Publications' section, 'Educational Practices Series' page at:

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Printed in France by TYPHON, Chavanod-Annecy/France.

Introduction

This booklet summarizes some of the best practices in helping infants, toddlers and pre-schoolers maximize their language skills prior to school entry. Children who are well prepared by their parents, caretakers or pre-school teachers can readily manage the transition to the academic demands of the early school years and are more likely to learn to read successfully. Recent research on the development of first languages illustrates that spoken input in a child's pre-school years is crucial for thinking, problem solving, social communication and academic functioning.

The information presented here has been selected for its relevance to caretakers of young children. We have focused on the pre-kindergarten years because many of the relevant skills that teachers expand have their origins in the parent/child communication that begins at birth.

Some may wonder at the message that parents and caregivers can boost language skills. We will show explicitly how parents effect changes in children's language development. In a world that increasingly values literacy, schooling and preparation of children for a life of learning, skills in one or more languages provide the foundation for full participation in culture and society. The values of a child's first culture are transmitted by the vocabulary and spoken input of those responsible for the child's education. Every community in the world has an interest in providing their children with the best possible start in life using the best resources available to caregivers.

The ability to understand and use the vocabulary, grammar, word relationships and imagery of language is fundamental to achieving these goals. A rich vocabulary underlies success in reading. Word relationships are central to mathematics, science, abstract thought and problem-solving. Understanding and using grammar to express relationships among ideas must be in place for youngsters to fully and effectively participate in the complex relationships of family, culture, education or business. Creativity follows the ability to interpret and produce the imagery of language.

Yet language begins to develop soon after birth, long before these goals have begun to be accomplished. Because parents are the initial caregivers, they are the initial language tutors of children, followed by other caretakers and teachers. Around the world, there are great disparities in parent's access to economic, educational or print resources. We emphasize techniques that will guide caretakers' interactions with their children to maximize learning with minimal resources. Parents and caretakers are encouraged to build vocabulary, relationships among words and concepts, problem-solving, creativity and figurative use of language through dialogues with their children. Regardless of educational level, access to technology or access to formal school resources, parents can implement the practices summarized here.

1. Input matters: the value of early and consistent language contact with children

Children are primed to learn language from birth.

Research findings

Children are born ready to learn language. From the first time mother and child examine each other's face after birth, children learn the meaning of smiles, laughter and frowns. The baby's reactions to the mother, and the mother's reactions to the child are the first conversations of a long and eventful life as a human language user.

At birth, the neurological structure of a baby's brain is still being organized. The number of neurons is huge and growing. Some brain cells are ready at birth to perform specific tasks. New links are formed that help the baby learn new skills. Each experience in a baby's life makes a link between neurons that is strengthened with repeated experiences. Input provided by the parent and caregivers helps children organize and make connections in their world of the senses and personal interactions. These patterns of connections become more complex with age and experience, allowing the baby to anticipate, interpret, predict, analyze, imagine, create and communicate with others. Children's ability to process, understand and express these relationships is a direct result of connections facilitated by parent language.

Scientists tell us that there are windows of opportunity when some skills can be learned more easily than other skills due to neurological readiness. For example, the connections for use of sight must be made during the first four months. Other windows remain open longer. During these 'sensitive periods' some skills, such as language, are learned more readily during the first five to six years than later in life. Children learn their native language best during this sensitive period, and can learn other languages with much less effort than an adult learning a new language. Children learning multiple languages during this sensitive period may learn to speak them as well as their home language. Children do not seem to have difficulty 'mixing' up the grammar, sounds or vocabulary of multiple languages if they learn other languages before this sensitive period begins to close. If language skills are maximized during this sensitive period, children can be effective thinkers, talkers, readers and writers their entire life.

Parent/caregiver roles

Many daily child/caregiver experiences provide rich, though largely unintended sensory experiences that stimulate brain and language development. Two examples of many activities are listed below:

- Kissing, nibbling, peek-a-boo
  - Provides multi-sensory oral, tactile, visual stimulation,
  - Gives the baby repeated, direct stimulation of 'look, hear, feel' sequences,
  - Provides multiple opportunities for verbal and non-verbal affection,
  - Stimulates sound making before and after an action, and
  - Provides parents with opportunities for physical 'conversations'.
- Washing a child's hair
  - Allows many concepts (warmth, wet, soapy) and many actions (close, open, wash, dry) to be learned naturally,
  - Builds trust, partnership, co-operation and a positive interaction between caregiver and child,
  - Provides anticipation of sequences with beginning, middle and end,
  - Helps the child learn to follow directions.

2. Parents and language development

Parents are children's primary teachers.

Research findings

Current research indicates that language learning begins very early in a child's life. Babies respond differentially to aspects of the human voice and environmental sounds almost immediately after birth. Mother and child recognize and respond to each other's voice soon after birth. Babies are soothed by rhythmic, vocal music more often than 'soothing' non-language sound. Babies recognize differences between language and non-language sounds and can differentiate among speech sounds from many languages shortly after birth. Within the first six months vowels and consonants of the primary language are differentiated from those of other languages. Babies understand the intention of the speaker by the intonation of their voice and carry on 'conversations' early in life that are expanded with vocalizations, words and grammar as the child develops.

Babies are vocal from birth and produce an increasing variety of sounds (lip smacking, raspberries, vowel-like sighs and intonated glides, and babbled syllable-like strings of sounds) through their first 6 to 8 months. Parents across the world respond to the babies' vocalizations with imitations, additional sounds, 'conversations' in a type of speaking called 'motherese'. 'Motherese' consists of comfort sounds, repeated sounds, and short, repeated phrases that parents around the world use in face-to-face interactions with a child.

First sounds, babbled syllables and first-word approximations uttered by babies are similar cross-linguistically in structure and when they emerge. For example, Mandarin and English babies have similar first word vocabularies (bye-bye, kiss, eat, daddy, mama, hi, uh-oh, dog, ball) but as the initial vocabulary grows, Mandarin-speaking babies produce more verbs and English-speaking babies more nouns. Later these differences even out.

The predominant sounds of speech, syllable structure, tonal structure and distribution of parts of speech of first vocabularies

are shaped by the structure of the parent's language. Children intuit word boundaries, grammar, categories of vocabulary and concepts, rules of word order, and many other aspects of language as they listen to adult speakers. Most children have accomplished much of this task by their fourth to fifth year.

Children deprived of the face-to-face 'motherese' input provided by parents and dedicated caretakers develop deficits in all aspects of the amount and variety of speech sounds, vocabulary and complexity of language. Once provided with face-to-face individual adult caretaking that includes 'motherese' dialogues, these children begin to catch up with their peers who come from an enriching language background. The opportunity to listen and interpret what they hear has a profoundly positive impact on children's communication skills.

Parent/caregiver roles

- Use 'motherese':
  - This speech pattern, with lengthened vowels and syllables and explicit tone patterns, helps babies learn about the sounds, intonation and rhythmic structure of their language.
  - Make eye contact and use a variety of facial expressions that help babies understand emotions and focus on your speech.
- Consistent input:
  - Babies benefit from hearing speech in a variety of daily situations as they are being fed, bathed, held or played with.
  - The speech of parents helps babies anticipate and understand the beginning and end of activities, transitioning from one activity to another. Songs, lullabies and soothing speech help babies learn to calm themselves and adjust to new experiences. Words repeated consistently are among the first words understood and then spoken by children.

3. Families and cultures structure language

Children learn what they hear and experience.

Research findings

Parents and caregivers may not realize the role they have in helping children become effective learners, but they are a primary learning resource for their child during the early years. They help children learn to:

- Listen for information and instruction about the world,
- Describe and categorize their observations, to problem solve and make predictions,
- Ask and answer questions, and
- Participate in discussions and understand the rules of conversation and stories important in a culture.

In the evolution of language skills, children nearly always learn to understand words and grammar before they use them in expression. Children hear new concepts and phrases spoken or experienced in meaningful contexts many times before they begin to use them. In daily talking, adults provide repeated models of grammar, concepts, categories and word meanings. Caregivers provide children with shades of word meaning that depend on context. As they learn grammar forms, children express time relationships, speaker relationships, possession, plurals, relationships of ideas and their point of view.

As children understand the rules and conventions of how meaning and grammar are organized in their language, they occasionally overextend a grammar rule or deliberately produce a unique word meaning. Even without explicit direction, children recognize and self-correct their child-like applications, moving toward adult language forms.

Parent/caregiver roles

- Talk with children during daily activities. Describe the activities as they occur :

- The vocabulary that caregivers model should accompany the child's sensory experiences of hearing, vision, taste, touch, movement and smell.
- Adult comments to children link events and the words that explain the events. Children learn that listening to language predicts or explains outcomes. Parents' comments help a child learn to anticipate a transition, what to expect and how to react to an event.
- Caregiver comments help children develop categories, understand relationships among words, and metaphorical usage.

- Talking should be conversational :

- Direct requests for rote repetition or identification, for example, 'What's that?' or 'Tell me this colour' do not promote language for thinking or conversation.
- Open-ended questions promote language for thinking and include 'Show me something red.' or 'Can you find another ...?' or 'What do you think might happen next?' These questions provide many opportunities for conversation and indirect learning.

4. Language in areas where there are limited resources

Commited parents can overcome the lack of ressources.

Research findings

Recent research indicates that children growing up in home environments where parents are less actively engaged with their children face significant language-based barriers to academic and social success. In one study, 4-year-old children of more engaged parents had heard 40 million more words by the time they were five years old than children of parents who were less engaged. The less-advantaged children had experienced three times as many discouragements to talking as affirmations by their parents. The variety of vocabulary used and the complexity of sentences used by more engaged parents promoted listening, problem-solving and verbal interaction.

Pre-school teachers may have difficulty providing individual conversation on a daily basis with many of the children in their class. Children in school settings who are not actively engaged in language-enhanced learning experiences by their teachers are not stretching the boundaries of their knowledge. Frequently, pre-school children in areas of limited resources hear only the most frequently occurring words. It is critical that children be challenged by hearing words expressing complex meanings. Children need multiple exposures to concepts before they are fully integrated into their knowledge structure. Teachers who deliberately use grammatically complex and compound sentences increase the linguistic gains of children in their pre-school classes. Teachers who provide exposure to significant, enriching experiences enable children to extend their learning skills.

Most concept and language-learning moments occur in natural environments, coupled with conversational discourse from peer or engaged adults. Committed caregivers can take the lead in providing learning experiences. In areas of low economic and material resources, parents and teachers who are committed to enhancing their children's lives use a variety of language strategies to counter the effects of low resources.

The role of parents is critical for pre-schoolers. In some areas of the United States as many as 35% of pre-schoolers enter kindergarten ill-prepared to function in an academic setting because they have not had the necessary language exposure that can begin at home. Of these children, an average of 20% may catch up with their better-prepared peers. This lack of preparation leads to several gaps: in vocabulary, achievement and later, a motivation gap. These children will not enter adulthood fully prepared to achieve their potential.

Parent/caregiver roles

- Parents can help children learn by talking about how things work, combining familiar and less-familiar routines, using vocabulary alternatives (a word a child knows paired with a less familiar word), helping children learn about less familiar activities, describing experiences a child has not seen, relating family experiences (of an aunt, great grandparent).
- Parents can help by allowing children to participate in daily activities and using language appropriate to the task.
- Teachers help by ensuring that they highlight vocabulary from around the classroom, from classroom activities, and from their own or children's home experiences.
- Teachers who speak in sentences that challenge children to relate two or more concepts or follow sequences of two or more events will observe positive change in children's expressive skills.

5. Preparing children for school

Parents help their children become school ready.

Research findings

From birth, parents can focus a child's listening by helping them to distinguish social intention, speech sounds, word meanings and grammar. Children develop skills that help them alert to new words and make an informed guess about the meaning from context. Children learn whether a speaker's conversation is about the here-and-now, or about an experience from another time and place. Children listen to their parents for clues about the relevance of a speaker's topic to the current time and place. Children add relevant information from their own experiences based on cues from the speaker.

Conversations, play, story telling and any print or picture experiences help children prepare for school by teaching them to:

- Sustain attention for increasing periods of time,
- Listen to and follow instructions,
- Listen to descriptions and make comparisons, and
- Understand new vocabulary by remembering the background information related to the new concepts.

Teachers value these skills to introduce reading, math and science concepts and to process classroom information.

Parent/caregiver roles

- Experiences with books provide excellent opportunities for children to listen. The enhanced sensory experience of sitting close to a parent, scanning a picture and hearing the printed words or descriptions allow many successive focused listening opportunities.
- 'Call and respond' provide excellent opportunities for developing listening skills. The child's response depends on the 'call' of the singer. Children relish repetitions of familiar songs, stories, books, lullabies and nursery rhymes. As listening experience grows, children begin to anticipate what will be said.

- Children respond well to simple riddles that require them to problem solve based on language concepts. Some examples of increasingly difficult riddles for pre-schoolers include:
  'I can see something green.'
  'Can you find the littlest one?'
  'Where is something hiding?'
  'How could she ever jump over the house?'
- Use 'talk alongs' and 'think alouds'.

- When caregivers 'talk along' in parallel with children's activities, they provide vocabulary and the language structure that relates directly to the child's sensory experience.
  For example, 'We're walking up the hill. Be careful not to trip on that root that is sticking out of the ground', or 'We're wiping up the puddle of water on the floor. Quick, because it is spreading rapidly'.
  Caregivers who describe sensory experiences as they happen to a child provide immediate feedback about words and language structures that match the situation.
- 'Think alongs' are opportunities for parents and teachers to speak about the steps in planning an activity.
  For example, a parent might say: 'Let's see, to start dinner, we have to get the pot, pour the water, start the heat and measure the rice, but we shouldn't start before your brother gets home'.
  When caregivers describe the steps in an activity, children have an opportunity to hear and understand sequences, plan and anticipate outcomes.

6. Language in children's play

Play and language are inextricably intertwined.

Research findings

Play must not be overlooked as both an opportunity for language-stimulating activities and as a way in which children learn about and structure their world. Children's play evolves in complexity in a developmental sequence from birth through their pre-school years.

First games with parents include peek-a-boo, hide and seek with objects, movement games ('so big') and play that provokes laughter. These games pair sounds and words with touch in a kind of dialogue. Children learn to anticipate and initiate vocal play with the parent. Objects are manipulated in play to learn about their physical attributes of smell, touch and taste. Later play shows that children understand more about the form and use of objects. Parents who are effective teachers will provide a running commentary about the play of the child, pairing words with the child's actions and sensory experiences.

At about 12 months, children begin to stack, put objects in and take out, throw and retrieve, and play other games that involve interactions with the physical aspects of objects. These games are the beginning of turn taking, cause and effect, and comprehension of sequences. Children begin to play in parallel with caretakers or peers, assembling or stacking objects. Later, co-operative play begins to emerge. As co-operative play evolves in complexity, children begin to instruct peers or use self-talk to plan play sequences. As children's play becomes more complex, language follows. Children begin to interact with one another, setting up scenarios. Children plan their play using language to guide their actions and those of their playmates. Language is used to assign symbolic roles to objects. For example, a block might become a telephone, then a tree or a lake. Play and language follow each other as children become more skilled in the use of symbol systems.

Caregivers and teachers can use play to provide opportunities for children to apply new vocabulary and concepts in situations that become symbolically relevant for the child. Play provides a perfect opportunity to promote language use in child/child concept and problem-solving activities. Play also provides opportunities for stimulating social language practice between children.

Parent/caregiver roles

- Non-competitive play between caregiver and child opens the door for dialogue, using language for imagination and exploration of attributes of size, colour, location, quantity, quality, weight, function and categorization. In non-competitive play, the adult allows the child to take the lead in play; the adult adds language in a partnership rather than as a director. The adult can model toys in new uses and relationships, providing learning opportunities in the here-and-now.
- Dramatic play occurs as children role-play experiences they have been told about or have participated in with peers or adults. Parents or teachers can suggest roles and activities. Children are encouraged to use language that helps them act in their role.

7. Preparation for reading: the role of language

Learning to read depends on language preparation.

Research findings

Children who have had consistent language stimulation from their parents will have an easier time learning to read. Youngsters from limited resource backgrounds without book experiences or exposure to a print-rich environment lack many pre-reading skills on school entry.

Parents who read to their youngsters from an early age help their children learn about many conventions of books and print. Children learn that pictures and words go together, where to look for information on a page, recognize alphabet characters and the direction words are read. On repeated readings, children develop an expectation of the words that will be spoken. Children as young as 18 months can complete phrases from a familiar book or story. Repeated readings give children an opportunity to anticipate the story and pair the spoken word to print and picture. Phonological awareness (awareness of sound/symbol relationships) and phonemic awareness (awareness of how sounds combine to make words) are important components of pre-reading skills. These skills begin to appear during the fourth and fifth year when children have received rich language stimulation.

Talking about pictures or stories provides multiple opportunities that help children practise problem-solving and interpretive interactions. When parents ask: 'Can you find another…' or 'After the monkey found the mango, what do you think he did?', children are being asked to creatively use language. This type of dialogue develops an outlet for youngsters' imagination using print or traditional stories.

Parent/caregiver roles

- Suggestions for reading to a child:

- Sometimes books may not be available. As you pass signs, you can read the words. Tell stories about pictures, make associations or reminisce about previous experiences. Draw pictures in the sand or on other surfaces. Make letters, words or pictures that represent stories. Help the child draw and tell stories about his or her own pictures back to the parent.
- Tell nursery rhymes. An important predictor of reading success is children's knowledge of rhymes and word play in their language. Tell nursery rhymes or fables from your childhood, or that you have heard. Counting and alphabet play is very helpful as preparation for reading.
- Traditional literature and stories of the culture help children in a variety of ways. They become grounded in the mores of the culture. Parents establish behaviours and expectations they have for their children. The stories give children experience in listening and make them ready to understand the internal structure of stories they will encounter in print.
- When books are available, a normal progression includes use of wordless board or picture books and, later, books with text that repeats in a rhyme or predictable phrase. Short story books with some text can be introduced and then concept-focused books that emphasize counting, relationships (quantity, location, opposites, quality (for example, rough/smooth, hard/soft), colour or size).

8. Language in social communication

Talking builds social structures.

Research findings

The children of young, single and poor mothers frequently have numerous risk factors inclining them toward poor educational outcomes. The risk factor of poor language and communication skills relates to aggressive acts. Less-advantaged children understand fewer words than advantaged children; because they have not been exposed to them, they fail to understand the message. Each time they fail to understand the message and resolve the conflict with language, the child loses confidence, motivation and interest; in some areas with limited resources, this may happen many times each day. In these settings, children frequently have problems resolving conflicts verbally, and instead resort to physical aggression or withdrawal.

How do we prevent aggressive behaviours? One way to begin this process is to ensure that all children have good communication skills when they get to elementary school. Language and communication interface with socio-emotional development in the first four years of life. The ability to communicate is an important component in regulating emotions. Children with limited communication skills use more non-verbal responses than children with normal language skills. Development of language and communication skills is a very strong first step in preventing violent and aggressive behaviours.

Children develop an awareness of their ability to influence the behaviours and actions of others through their communication early in life. Children who have difficulty in communicating often have difficulty in social interactions as early as pre-school.

Several researchers have investigated how pre-school teachers typically stimulate language skills in their pre-school classrooms and found reduced frequency, amount and complexity of interactions. The amount of language exposure in pre-school classrooms is related to class size, level of teacher education and types of activities utilized in the classrooms. Pre-school teachers sometimes have difficulty moving from directive, demand language styles to indirect styles that promote attending and listening skills. They frequently focus on eliciting oral, rote output rather than reflective integrating responses that help children build experiential concept and vocabulary schemas. Pre-school teachers do not have functional benchmarking tools available to help them individualize, include every child in language-building activities, or to regulate their own use of open-ended questions. Helping teachers deliberately enrich the language skills of at-risk children will generate better social problem-solving skills.

Parent/caregiver roles

- Language skills that promote social communication include:

- Improving how children understand changes in word meaning that depend on context and situation,
- Developing improved self-talk skills,
- Increasing children's ability to wait before acting on their impulse, using self-talk,
- Reducing stress by providing consistency,
- Including traditional and culturally appropriate nursery tales and stories that promote co-operation and demonstrations of socially appropriate and inappropriate behaviours,
- Increasing the frequency of negotiations among children, and
- Using language as a social mediator.

Parents and teachers who can provide children with language for mediation and problem-solving supply the tools for effective social communication.

9. The language of music, math, science and art

Language supports more than reading.

Research findings

The basic concepts of size, quantity, shape, colour, location, time and sequences (first, next, then, after, before), quality (sticky, sharp, smooth, hard, dry) describe relationships among concepts. Both speaker and listener must understand the word in relation to another concept or condition, for example, 'Dry, as opposed to...'. Each of these words has a meaning that is generally agreed on by members of the culture (for example, colour boundaries shift from one culture or language group to another). These basic concepts are always used in contrast to another concept. In addition, the value of a concept may shift meaning depending on the context in which it is used. For example, a spoon may be in a box, but barely in, almost out, and simultaneously between a knife and fork, at the back of the box and under a napkin. To use these concepts correctly, children must understand the strength of relationships between two or more ideas.

Children's first expressions in the areas of mathematics and science concepts are supported by these basic concepts. Beyond the pre-school years, math and science are more formal methods to state relationships among qualities, quantities and conditions when adding, subtracting, multiplying or dividing. Children's use of the hypothetical conjunctions (if, if/then, before, whenever) in a sentence refers to observations of these basic concepts at work, much like a science experiment. Children's play is filled with examples of non-verbal and verbal manipulation of these conceptual relationships.

Parent/caregiver roles

- Parents can talk about and help children understand these concepts when they:

- Compare using words such as same, different, more than, less than, one more, next,
- Talk about first, second, third,
- Use location words such as next to, between, behind,
- Make comparisons such as taller than, smaller than,
- Use measuring to help children understand quantity and distance,
- compare amounts in glasses or differences in weights; the number of strings, yarn, steps,
- arrange by size, height,
- Copy patterns and predict which will come next in a sequence,
- Show and discuss similarities among objects, and
- Sort objects and materials in groups such as by the same colour, shape, group of animals, habitats, function (cars, trucks), actions (what things do).

Conclusion

Parents are their children's first teachers. The tools for teaching children effectively are within the reach of every parent and teacher. Systematic and thoughtful interaction with children as they play and as they work provides parents with opportunities to teach vocabulary and concepts that are the foundation for learning in school and life.

In every part of the world, being a parent requires great effort and persistence. The effort parents invest in teaching their children words, concepts and language/thinking skills is rewarded by greater success in school and life. Parents working with teachers become a team pairing cultural and family knowledge with academics.

Language underlies all academics activities, social communication, and much of creativity. Children whose pre-school years have been spent maximizing learning opportunities from parents and caregivers will be in the best position to succeed in their schools and families. Language is a key to full participation in life.

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