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Magnetic Book as a Recyclable Tool Used for Teaching a Foreign Language and Incorporating Principles of Language Acquisition Theories

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Abstract

Teaching English to children at an early age does not only prepare a breeding ground for early bilingualism/multilingualism but also facilitates language learning at later stages. The early introduction of English in the curricula of primary schools, which has recently become topical throughout Europe, also calls for the introduction of language-teaching methodology suitable for very young learners. Although there is currently a wide range of material parents and teachers have at their disposal that can assist them in improving their children's and pupils' linguistic potential, its amount may sometimes seem quite overwhelming. This can make the choice of the right activity rather complicated and thus the need for language-teaching aids that can be recycled several times arises.

The paper focuses on practical examples of how a magnetic book can be used repeatedly to develop a young child's language skills in their mother tongue or a second language and what methodology can be deployed in this respect that incorporates some of the principles of language acquisition theories. Special attention is being paid to behaviorism, Chomsky's ideas, Vygotsky's and Piaget's interactionist approaches (fostering Zone of Proximal Development and Scaffolding), and connectionism as well as how these can be put into operation when one is working with the book.

Introduction

Teaching English as a second language at an early age has lately become topical throughout Europe as the current trend towards internationalization and multiculturalism calls for users who are more proficient in the language than ever before. In this respect, an early start represents a facilitator of the language-learning process rendering it more natural for children, i.e. similar to their first language acquisition, and prepares a breeding ground for the adoption of other languages. Apart from the benefits early bilingualism manifests in the field of cognitive processes, it also fosters child's other abilities such as false-belief reasoning, executive attention, and potential to learn phonological regularities in subsequent languages. This paper discusses the use of a magnetic book as the first tool a teacher or parent can deploy to start their language education as well as a means of reinforcing the knowledge the children have already acquired and building on it at later stages.

Early bilingualism and its benefits

As numerous studies show, early bilingualism is associated with children's better performance in multiple areas. It has, for instance, been documented to enhance the "theory of mind" (ToM) development and other capacities required by ToM tasks [1], i.e. chiefly the ability to attribute mental states such as beliefs, desires, and intentions to oneself and others as well as predict and interpret behavior of others depending on these mental states. In this respect, Kovacs conducted a series of false-belief task tests [1], [2]. While most children succeed in false-belief tasks around the age of 4, Kovacs, performing the test involving two groups of subjects (monolingual and bilingual children of the age range 2.10-3.6), shows that "bilingual children have an important advantage over their monolingual peers" (p. 52) and outperform them in these. This confirms her hypothesis that "children living in a bilingual environment often encounter situations where they gain extra experience about conflicting mental representations" [1] (p. 49). This extra experience seems to stem from the situations where, for instance, a bilingual child addresses a monolingual one in the language the latter does not speak and he/she is forced to resolve the communication issue by switching between

languages – an act that makes the bilingual child aware of a difference in mental contents between him/her and his/her communication partner.

Yang, Yang & Lust [3], pointing out also other authors' research findings that bilingual preschoolers (aged 4-6) display advanced cognitive performance on a variety of behavioral attention tasks measuring cognitive control [4], [5], conducted a study so as to find out to what extent this observed bilingual cognitive advantage may be ascribed to other environmental factors such as socio-economic status, ethnic and cultural backgrounds, etc. Within the study, they performed an Attention Network Test (ANT) enabling them to "specify global attention performance in terms of accuracy and reaction time" [3] (p. 413). Their test shows that despite the fact their study subjects (Korean-English bilinguals) were still developing balanced bilingualism and English was their weaker language, they were more accurate and faster in overall executive attention accuracy than monolinguals.

Benefits of early bilingualism observable in the area of phonetics have been pointed by [6], who investigated "monolingual and bilingual children's ability to learn how phonemes combine to form acceptable syllables in a new language" (p. 455). The study they conducted involving 186 kindergarten children (first graders and second graders aged 4-7) and comparing bilingual's and monolinguals' ability to adopt experimentally manipulated phonotactic regularities shows that bilingual children, regardless of whether they actively used a second language at home or simply had exposure to it, manifested an advantage over their monolingual peers in learning phonological patterns in the new language.

Magnetic book as a recyclable means of starting and fostering early child bilingualism

The magnetic book the author himself used to teach English to his two children in a bilingual native-speaker simulated environment consists of a set of pictures depicting a range of settings (a jungle, a desert, an oasis, etc.), some short accompanying texts and magnetic animals which can be placed anywhere in the book.

Situating the animals in various locations enables the adult to teach the child their names, those of their natural habitat, food they eat, etc. The one working with the book can also tell his/her own stories involving the animals in the individual settings. At later stages, it is the children themselves that can work with the book in a manner similar to that of the instructor, including the creation of their own stories. The major advantage of the magnetic book over a regular paper one is that the animals stay on the page, so the book can be manipulated easily without disrupting the layout. Besides, due to its versatile character, it can be used repeatedly for a variety of purposes.

Regardless of whether a parent/teacher works with a first-language learner or a second-language one, the book allows them to provide a linguistic model the child subsequently imitates. In this respect, the book provides ample space for the implementation of behaviorist principles proposed by Skinner, i.e. that language learning is carried out through imitation and positive reinforcement.

Example 1: Model - Imitation - Reinforcement
Me: *"Look what we have here! A lion! Where will we put him? The lion!* (model)
Damian: *producing a sound resembling a lion* (imitation)
Me: *Yes, the lion!* (reinforcement)

At a later age, the child can repeat a longer part of its parent's utterance (not just individual words) or all of it.

Example 2: Longer Stretches - Imitation
Me: *There is a lion on the rock.* (model)
Damian: *Lion on the rock.* (imitation)
Me: *Yes, that's right, a lion on the rock.* (reinforcement)

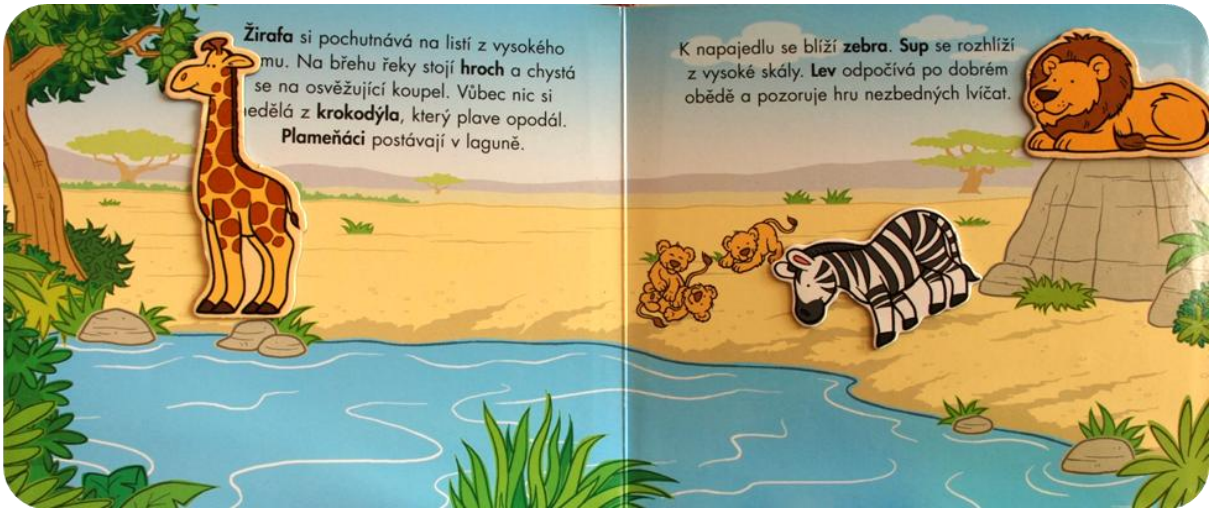

Fig 1: A lion on the rock [12]

The role of positive reinforcement emphasized by behaviorists represents an indispensable part of every learning context these days and thus should not be belittled even in the context of Chomsky's critical remarks [7] targeting behaviorists' overestimation of its importance:
"it seems beyond question that children acquire a good deal of their verbal and non-verbal behavior by casual observation and imitation of adults and other children. It is simply not true that children can learn language only through 'meticulous care' on the part of adults who shape their verbal repertoire through careful differential reinforcement" (p. 42).
Despite criticizing behaviorists' ardent advocacy of reinforcement, Chomsky still stresses the fact that "children learn much of their vocabulary and 'feel' for sentence structure from reading, watching television, and passively listening to adults" [8] (p. 161). Nevertheless, using any language teaching material this way, i.e. merely as a source of linguistic input without any teacher-pupil collaboration involved whatsoever, would be in sharp contrast with the principles of interactionist model, which views the children's language as built on their cognitive development, interactions with people and objects around them. That is, Piaget and Vygotsky "see language acquisition as similar to and influenced by the acquisition of other kinds of skill and knowledge" [9] (p. 19). Here is an example of a conversation a parent/teacher can have with a child while moving the magnetic animals around the pictures, thereby stimulating their mutual interaction:

Example 3: Interaction
Me: *Let's put the crocodile in the water? There. Where is he?*
Linda: *In the water.*
Me: *And what about the vulture? Let's put it in the water, too, huh?*
Linda: *No, no, no, on the ground!*
Me: *Ok, let's put it on the ground.*

As Example 3 shows, apart from using the language, the child also learns basic facts about animals, where they live, what they usually do, etc., participating in a process contributing to their overall cognitive development. Besides, the child is also interacting with the parent/teacher while the latter is constantly establishing rapport with him/her through questions and even by placing the magnetic animals in the locations the parent/teacher assumes the child will not want to see them for the purpose of maintaining their interaction. What is more, the book enables the interlocutor to switch between multiple difficulty zones and choose appropriate grammar phenomena depending on the child's linguistic competence, mood, and willingness to cooperate. This way, the interlocutor can always make sure they stay within Vygotsky's *Zone of Proximal Development,* i.e. the area within which the child can do more than they would be capable of independently [10] and, at the same time, recycle the material numerous times depending on the area they want to practice ranging from a simple vocabulary session to a story-telling one. In the example below, the

interlocutor (parent) also uses *scaffolding,* i.e. a process in which a more knowledgeable speaker helps a less knowledgeable learner by providing the latter with some assistance to achieve the learning goal.

Example 4: Zone of Proximal Development, Scaffolding - From Present to Present Continuous
Me (parent): *There is a parrot in the tree.*
Linda: *Hmm.*
Me: *What's it doing there?*
Linda: *Sitting.*
Me: *And anything else?*
Linda: *Yes.*
Me: *Yes what? ... Is it sleeping?*
Linda: ... *and eating some fruit?*

Just as the magnetic book incorporates some of the behaviorist, innatist and interactionist principles, so it encompasses those of connectionism in that it builds on the concept of the association in the child's mind between the word or phrase and what it represents. What fosters this association is the multimodal input the child receives in the form of combination of pictures and sounds linked to what these represent. Thus, the activities performed with the book follow the connectionist model proposed by Rivers in that they combine "skill-getting" and "skill-using" elements [11] (p. 12), where "the language teacher's goal is to link these two necessary poles through intermediary 'pseudo-communication' activities which demand of the student close attention, abstraction, and active construction" [11] (p. 60).

Conclusion

As this paper has attempted to demonstrate, the magnetic book seems to represent a convenient tool for teaching a language to babies and young learners due to its potential to incorporate principles of several language acquisition theories. Since it can be used in multiple ways, depending on the learner's Proximity Zone of Development, it functions as a recyclable material facilitating the parent's/teacher's constant quest for suitable teaching aids.

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