Individual Differences in Word Recognition Acquisition: A Path from an Interactive Model of Reading to an Interactive Instructional Setting

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The present research attempts to demonstrate that it is possible and instructive to combine classroom observational procedures with theoretically guided reading concepts. It explores the application of an interactive processing model to classroom word recognition acquisition, in a longitudinal case-study design. Five first graders were observed four times in an instructional setting where they had to search for words in a reference text. From the various behaviors observed, it was possible to infer five different types of searching strategies: Context-oriented; Code-oriented; Unmediated; Copying; Passive. The results show a great inter- and intra-individual variability in the use of the different types of strategies. In particular, there are different patterns of occurrence of the code-oriented and context-oriented strategies (simultaneous versus alternate). The results also show that word by word planning of the search was difficult for very beginning readers.

About fifty years ago, an observer entering a Genevan school to investigate beginning reading probably would have described children engaged in collective letter-name identification tasks and reading aloud activities. A few decades later, the picture would not have changed very much, with the exception that letter-names might have been replaced by letter-sounds, and the collective setting by individual assignments. Along the way, our observer might have described interesting oral reading errors. Today, the same observer would be impressed by the diversity, and sometimes also the complexity of classroom pre-reading and reading activities. These activities have evolved in a wide range of settings which brought learning to read and learning to write closer together. They tackle, simultaneously, various linguistic and metalinguistic skills.

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Presumably, this sketchy description of changes in reading instructional settings can fit in many other schools than the Genevan. Therefore, various kinds of responses that children develop to adapt themselves to the requirements of these complex tasks should be interesting to both psycholinguists and educacional psychologists.

In particular, I think classroom observations can address both theoretical issues about word recognition and its manifestation in a specific classroom setting. This approach assumes that it is possible and instructive to combine classroom observational procedures with theoretically guided reading concepts (Rieben, in press). The research presented here explores the degree of fitness of an interactive processing model to classroom observations. It provides a longitudinal perspective on the child's learning processes, and presents the opportunity to examine word recognition acquisition within a theoretical approach.

In the first two sections of the introduction, traditional theoretical frameworks for skilled reading and recognition acquisition are recalled. In the third section, relevant research from word recognition development is overviewed. The instructional setting from which the present data issued is described in the fourth section, and finally research questions are raised.

Choice of theoretical background for studying reading acquisition

The study of reading acquisition has been attempted through developmental-cognitive approaches by describing discontinuous changes. In particular, the idea of stages that are common to all areas of knowledge has been applied to learning to read (Mounoud, 1986). General accounts of reading development from kindergarten to college were also proposed (e.g. Chall 1979, 1983; Marsh, Friedman, Welch & Desberg, 1981). However, the usefulness for early education of such broad stage-related perspectives can be questioned. Fine-grained models that could explain the qualitative changes which occur during a period of a few months corresponding to the move from a non-reader to a beginning reader state may prove to be more helpful.

During the same time, models of reading acquisition were built on the basis of skilled reading information processing theories (e.g. Perfetti, 1985; Perfetti & Curtis, 1986; Stanovich, 1980, 1984). Although such theories have been useful for understanding skilled reading and individual differences among readers, they only indirectly address acquisition issues. They provide a characterization of the target competence, but not of how it might be acquired. However, since early reading and skilled reading share at least the common characteristic of processing written language, skilled reading models can allow specific hypotheses on the development of components. In particular a key development in learning to read is recognition of words. Understanding how children come to achieve competence in word recognition has to take some account of word recognition processes at higher skill levels.

Word recognition and skilled reading theories

The domain of skilled reading is better endowed with theories than that of early reading. Advances in information processing have contributed many models about the processes used in skilled reading with more or less consensus among them. Skilled reading theories describe components of the reading process which can be classified as belonging to one of two classes: lexical access or comprehension (Perfetti, 1985; Perfetti & Curtis, 1986).

In some theories and instructional perspectives, recognition of words in isolation has been denied the status of «true reading». However lexical access remains a critical junction where graphemic, phonemic and semantic information are most closely related, since reading a single word usually has a significant function. The main information processing models of reading have tried to describe the process by which lexical access occurs because of its centrality to reading. It is possible to distinguish three types of lexical access models, and they will be reviewed before discussing their implications for the study of reading acquisition.