The focus on meaningful production

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4. THE FOCUS ON MEANINGFUL PRODUCTION

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SUMMARY
Some writers have recommended that work on comprehension should take precedence over production when facilitating communication and language in children who are mentally handicapped. In contrast, the second article of this series suggested that the communication and language curriculum for children with severe learning difficulties should focus on meaningful production. This article seeks to justify this position, by discussing the relationship between comprehension and production in development, and by describing some of the drawbacks of working on comprehension.

Relationship between comprehension and production in development
McLean and Snyder-McLean (1978) state that, according to traditional wisdom, comprehension precedes production: that is, children understand words and grammatical features before they use them. Surprisingly, perhaps, this view is not reflected in what people do: researchers have paid more attention to production than comprehension (Bloom, 1974; Mittler, 1974b; Wheldall, 1976; Jones and Robson, 1979); and parents and teachers of children who are mentally handicapped are also more concerned with production (Mittler, 1974a, 1976; Jones and Robson, 1979). This is despite recommendations that work on comprehension should take precedence (Mittler, 1974a, 1974b, 1976; Jeffree and McConkey, 1976) and programmes based on that assumption (such as that of Fredericks et al., 1976).

The greater research interest in production is partly because of problems with measuring understanding (Bloom, 1974). Production is certainly the more obvious, being directly observable, whereas comprehension involves covert behaviour which must be inferred (McLean and Snyder-McLean, 1978). This may also explain why parents and teachers focus more on production. Additionally, it is often tempting to believe, as many parents do, that a non-verbal child understands everything he hears (Wheldall, 1976).

Many writers, including Renfrew (1964), Sheridan (1972), Horton (1974), Pateman (1974), Hargis (1977), and Stevens (1981), have claimed that comprehension precedes production. Unfortunately it is not always clear what is meant by this. Wells (1981) is more specific: he notes that between 12 and 18 months of age most children comprehend far more words than they produce. There is also research evidence supporting the comprehension-before-production view. A frequently cited piece of work, now something of a classic, is that by Fraser, Bellugi, and Brown (1963). They presented pairs of pictures to three-year-old children. For each pair the child was asked to: (a) imitate a sentence describing one picture; (b) point to one picture in response to a sentence spoken by the investigator; and (c) produce a sentence to describe a picture. Fraser, Bellugi, and Brown concluded that imitation precedes comprehension, which in turn precedes production. Lovell and Dixon (1967) obtained the same result with two-year-olds.

However, Fraser, Bellugi, and Brown's study has been widely criticised (Wheldall, 1976). Fernald (1972) believed that the scoring method favoured comprehension, and conducted his own research using a modified procedure. He found no significant difference between comprehension and production. Chapman and Miller (1973, 1978) have also criticised the Fraser, Bellugi, and Brown study because of its scoring procedure. They too conducted their own research, finding that the production of subject-object word order precedes its comprehension.

Another piece of research supporting comprehension before production has been criticised. Shipley, Smith, and Gleitman (1969, 1978) concluded that comprehension precedes production, but Bloom (1974) reviewed their work and disagreed with their conclusion, believing that their results

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cannot be taken to show that comprehension precedes production.

Subsuming which have concluded, on the other hand, that production precedes comprehension have not escaped criticism. For example, Bloom (1974) and Ingram (1974) have criticised a study by Keeney and Wolfe (1972).

Research evidence, then, is confused and confusing. It is not helped by the fact that there are several ways of expressing the relationship between comprehension and production. This has been discussed by Ingram (1974), whose views are worth summarising. He notes that the strongest claim favouring the comprehension-before-production position is that comprehension is complete before production begins. Ingram dismisses this, saying anyone who has observed a child acquiring language normally knows this to be untrue. A weaker version would be that all or much comprehension may be complete before production begins, and the converse is never found.

Ingram cites case studies of children with handicaps to show that this is sometimes the case, but argues that it is not the usual relationship between comprehension and production.

A further possibility is that each feature is fully understood before it is produced. Ingram believes this has sometimes been interpreted as the traditional view, but argues it can be proved to be untenable. He claims the most obvious evidence for opposing this is the way children "overextend" their early words. For example, a child may use "doggy" to refer to cows, horses, sheep, and cats and to dogs (de Villiers and de Villiers, 1979). De Villiers and de Villiers also report that some children "underextend", perhaps using "animal" only in relation to mammals. Ryan (1974) and Bloom and Lahey (1978) also refer to over- and under-extension. Clearly, children who over- or under-extend (or do both) are using words they do not fully comprehend.

Campbell and Bales (1970), Crystal, Fletcher, and Garman (1976), Donaldson (1978), Crystal (1979), and Clark (1980) all note that children use words they do not completely understand. The version of the relationship between comprehension and production adopted by Ingram is that there is some comprehension of a feature before it is produced.

Unfortunately there is a further complication which must be mentioned. Bloom (1974) noted some important differences between comprehension and production, which were taken up by Chapman (1974). These authors note that there are "multiple cues" for comprehension and production. The speaker's intention can be understood on the basis of: (a) the interplay between syntactic-semantic analysis; (b) the relations among objects and events in the environment; (c) the relations among objects and events previously mentioned; and (d) the usual relations among the objects and events in the listener's experience. In production, intention to speak and support from the non-linguistic context may play vital roles.

Chapman develops these ideas to restate four times the relationship between comprehension and production. Briefly, he shows that the view one adopts, of the relationship between comprehension and production, is governed by how the terms are defined: "comprehension" can be taken to include or exclude contextual cues; "production" can be taken to include or exclude linguistic cues.

The relationship between comprehension and production is complex: the issue is not as simple as many writers imply. The position adopted here is basically that of Ingram (1974), though with the addition of "usually": that is, there is usually some comprehension of a feature before it is produced. But it is important to remember that, initially, words may be used by young children with little (perhaps sometimes no) understanding. Bloom and Lahey (1978) believe that using words can be important in learning to understand them; and Clark (1980) states that the use of forms (presumably grammatical features) with only partial or no understanding may be necessary and useful.

Working on comprehension: the drawbacks

Mittler (1974b) believes that working on comprehension with children who are mentally handicapped may be easier and more fruitful than working on production. But there is doubt about this: the reasons are discussed in this section.

Generally, some of the difficulties which would be encountered in focusing on comprehension are discussed elsewhere by Mittler (1974a). In fact he refers here to the assessment of comprehension, though several of his points also apply to intervention. For example, he notes difficulties with exercises which require the child to point to one of four pictures in response to hearing a word. This is the procedure used in many vocabulary tests, such as the British Picture Vocabulary Scale (Dunn, Dunn, Whetten, and Pintillie, 1982), and is also used frequently in activities designed to teach word comprehension to children with mental handicaps. In such activities the child might be correct by chance: he might point to the right picture (say, horse, from an array also including cup, tree, and banana) but have only a partial understanding, thinking that "horse" means "animal" (de Villiers and de Villiers, 1979). Mittler also notes that incorrect responses may be caused by poor memory, attending to the wrong stimulus, and poor search strategies, as well as a lack of comprehension. Very young non-handicapped children cannot cope with more than two pictures, and even three-year-olds have difficulty with four (de Villiers and de Villiers, 1979). Tasks of this nature would therefore be inappropriate for many children who are mentally handicapped.

As Mittler and de Villiers and de Villiers show, using play materials may be no better: the child may well succeed with "put the spoon in the cup", that is one of the幼儿’s responses does not necessarily mean that the child has understood the language. However, giving unusual instructions to overcome the predictability problem may confuse the child, and in any case it is preferable to be realistic.

It is sometimes claimed that children who are mentally handicapped should be taught to respond to language alone. This seems to be a curious notion, for in everyday situations children often have a wide variety of cues which help them to understand the language used. For example, the context itself (as with the spoon and cup, above) may help, people giving instructions usually eye-point or gesture in some way, in a group situation many children respond correctly only because they copy their peers (Stengelofen, 1983). Guillaume (cited by Bloom, 1974; and Bloom and Lahey, 1978) provided a striking illustration of how gesture, emphasis, and repetition are used to help young children comprehend when words are repeated, in part or in full, with different emphases, accompanied by turning the child’s head and pursing the lips. By removing contextual supports for children who are mentally handicapped we may be able to teach them to respond to the language alone (although that would probably be very difficult). However, there may be little value in doing this when those supports are a natural and usual feature of the child’s (and everyone else’s) environment. Why teach children to do things which they are not normally required to do?

McConkey (1981a) has criticised attempts to teach comprehension, noting that the child might easily focus on the "wrong" element when pictures are used, and it seems that this could also happen with objects. Comprehension requires one to attend to the aspect of the situation referred to by the speaker. This aspect may not be clear to the listener (McLean and Snyder-McLean, 1978): hence the likelihood of a child who is mentally handicapped "tuning in" to an unintended aspect of the situation. In teaching comprehension we are imposing our understanding on the child, or attempting to. This is most undesirable (McConkey, 1981a, 1981b). Children acquiring language normally develop their own understandings, and this is something which should be reflected in work with children who are mentally handicapped: as noted above, full comprehension develops through use, so production must be encouraged.

A further drawback with comprehension work is that it requires the child to be very passive. Pointing to pictures, for example, as recommended by Rose (1982), or objects, as suggested by Ashdown (1984), does not require much activity.
Responding to instructions such as "put the spoon in the cup" is little better. There is a greater danger that such routines can become very boring both for the child and the teacher or parent. In such situations the child might not be motivated to attend, thus rendering the process ineffective. The comprehension programme devised by Gillham (1979) goes some way to overcoming this problem of boredom by using a variety of games which are intended to be enjoyable.

But all comprehension programmes suffer from an even more important flaw: they do not require the child to be active with language. Yet language acquisition is an active process (Snyder-McLean, 1976; Bloom and Lahey, 1978; Mehan and Snyder-McLean, 1976). It is difficult to see how children with mental handicaps can become skilful in any aspects of production unless they are constantly encouraged to be active with language: that is, to produce language. This will not happen sufficiently if comprehension is the focus of attention.

Furthermore, comprehension drills do not allow the child to exercise any control over people or events, though this could be vital (Bell, 1982). As McConkey (1981a) notes, language acquisition depends on interaction with others, usually the parents, in familiar, meaningful contexts: the child learns how to control events and people, and learns what communication is all about. Mothers and children strive for what Bruner (1975) calls "mutual understanding". Finally, Brown (1976) notes that without the desire to initiate, performance seems to be inhuman. An approach which concentrated on comprehension would do much to encourage children with mental handicaps to initiate. Indeed, as comprehension drills really require the child to be silent, focusing on comprehension might well discourage spontaneous production.

**Focusing on meaningful production**

There are, then, a number of serious drawbacks in concentrating on comprehension. In addition, our understanding of the relationship between the development of comprehension and production indicates that it is mistaken to attempt to establish full comprehension before working on production. The position adopted here, therefore, is that of the staff of Rectorry Paddock School (1981) who believe that, in practice, comprehension and production cannot be separated, and who aim to facilitate meaningful production. Bloom and Lahey (1978) claim that the goals of language programmes should be stated in terms of production rather than comprehension, as we know too little about the latter's development.

Although comprehension might be relatively more important for pre-linguistic children, production should still receive a great deal of attention. As Bloom and Lahey (1978) argue, it is essential to encourage pre-linguistic children in their attempts to communicate.

**References**


