Educational Responses to Varying Objectives of Parents of Deaf Children: A Dutch Perspective

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In 1999, Mary Brennan wrote “By recognising the child as, in effect, a ‘little linguist’ we are also recognising the power and effectiveness of the child’s linguistic capacity” (Brennan, 1999). The recognition of the power and effectiveness of deaf children’s linguistic capacity needs to be taken a step further. Focus should be on the conditions in the children’s environments necessary to develop their linguistic capacity to its fullest potential and to enhance the use of this capacity in academic and social learning. This leads to the issue of the identification of the right language and instructional mix for deaf children, the topic that is addressed in this article. Essential in this process of identification are the educational objectives parents of deaf children have and the choices they make. This is related to a second issue, that of professional advice. Both issues are characterized by several dilemmas. These dilemmas are illustrated and directions are put forward that will enable educators to negotiate these dilemmas.

Education of Deaf Children in the Netherlands

The Netherlands has an extended system of special education. Schools for special education are organized in four clusters (Ministry of Education, 2003). One of these clusters comprises 30 schools for children with a hearing loss or with specific language or communication impairments. Admission to these special schools or to mainstream education with support is regulated through the application of fairly strict classification criteria by independent admission boards. There has always been a rather sharp division between schools for deaf children and schools for children who are hard of hearing. The boundary between these two types of education is predominantly based on audiological criteria. A mean pure tone average hearing loss in excess of 80 dB for the better ear entitles a child to deaf education, albeit in a special school or in a mainstream setting with appropriate support. A hearing loss between 35 and 80 dB will allow a child to enter either a school for hard-of-hearing children and children with specific language impairments or a mainstream school with considerable support. This is with the understanding that without special education or mainstream support the hearing loss will result in a delay in language development and limited academic learning (De Snoo, 2005).

In general, deaf children may enter schools for the deaf at the age of 3. They may attend secondary education in special schools until they reach the age of 20. The number of pupils in special programs for deaf children is relatively low: 440 children attend primary education in schools for the deaf, whereas 210 pupils attend secondary schools for the deaf (Knoors et al., 2005).

Schools for the deaf in the Netherlands are challenged by a number of developments that take place at more or less the same time. Some of these developments are similar to those in other countries, others are somewhat more specific for the Dutch situation.

Sign Language in Education

Sign Language of the Netherlands is not legally recognized, but neither is the native Dutch language. Three regional minority languages, Frisian, Saxon,
and Limburgish, however have been formally recognized under the European Charter for Regional or Minority Languages. Many endeavors of the Deaf community, parent organizations, and schools for the deaf are directed at establishing a similar type of legal recognition for Sign Language of the Netherlands. The Ministries of Education and of Health Care and Welfare have, following a report of a governmental committee in 1997 (Commissie Nederlandse Gebarentaal, 1997), recognized the value of Sign Language for several domains in which deaf people participate, one of which is education. All major schools for the deaf established bilingual programs as a consequence of an agreement that was signed in 1998 with the Ministry of Education, parent organizations, and the organization of the adult deaf. In exchange for close cooperation between schools in the fields of teacher training and curriculum design, the Ministry of Education made available additional funding for the implementation of bilingual deaf education (Knoors & Renting, 2000). This is not to say that the actual bilingual programs are the same in each school for the deaf. Quite the contrary, there is considerable variation, especially with respect to the position of spoken and written Dutch, in part as a consequence of varying responses to the introduction of cochlear implantation.

Cochlear Implantation

Contrary to most other western countries, in the Netherlands it took a long time for cochlear implantation to become an established and more or less accepted technology. Until 2001, deaf children could only receive an implant if they participated in one of two academic research projects that were allowed to implant a very limited number of deaf children each year. In that year, the Health Council recommended that cochlear implants should become available to all deaf children, of course with appropriate funding (Gezondheidsraad, 2001). According to the Health Council, both implantation and rehabilitation should preferably take place within the context of early intervention programs for deaf children and their families that value both sign language and spoken language. Five years have passed since this advice and its adoption by the Ministry of Health Care and Welfare. There has been an increase in the number of implant programs from two to seven, the age of implantation has dropped to around the first birthday of a child, and most deaf children in preschool departments of schools for the deaf have now been implanted.

Increase in Educational Programs

The resistance of parents toward residential care or long taxi drives for their deaf children has contributed to a considerable increase in the number of educational programs for deaf children. Until the mid-90s of the last century, the Netherlands had five major institutes for the deaf. Several of these institutes combined education with full-time or part-time residential care. Nowadays, there are at least 11 educational programs for deaf children. As a consequence, the travel distance from home to the school for the deaf has been reduced considerably for most deaf children. However, the number of deaf pupils in some of these educational programs is very low.

Inclusion

Although the Netherlands with its elaborate system of special education has never been in the forefront of advocates of inclusion (Knoors & Valmaseda, 1996), inclusion is increasingly becoming an important topic. Traditionally only a limited number of deaf children were included in mainstream primary schools, mainly because some educators believed that this placement could stimulate spoken language development. Nowadays, inclusion is considered a viable option for a considerable number of deaf children with different linguistic backgrounds, mainly because, under very specific conditions, mainstream schools may constitute an educational environment that is challenging and stimulating for deaf children with respect to their academic and social development (Knoors, 2005). As a consequence, the number of pupils in schools for the deaf is decreasing even further.

Dilemmas in Parental Decision Making

In all the developments mentioned above parents have played a major role. Parents, their objectives and the educational choices they make for their children do
vary. Regardless of this variation, however, certain general motives underlying educational choices can be discerned.

In principle, Dutch parents tend to choose a school for their child on the basis of its educational quality (Herweijer & Vogels, 2004). In practice, however, the distance between home and school turns out to be a more decisive factor. To put it in other words, most parents tend to choose a school in their own area unless the quality of education is considerably better in a school at some distance. Dutch parents of hearing children in mainstream education are not the strongest supporters for inclusion of children with disabilities. Only a small minority of these parents actively supports a policy of inclusion. Many parents have no strong opinions about this topic, but a considerable minority is actively opposed to inclusion, mainly because they fear that this will lead to a loss of quality of education for their own children. These views are contrary to the opinions of parents of children with disabilities because many of them actively push for government policies to reconstruct mainstream education in ways that both children with and without disabilities can be included and can profit from mainstream education.

As a consequence of the introduction of universal newborn hearing screening, parents of deaf children have to make important decisions about the education of their child, including the eventual use of sign language and/or cochlear implantation, only months after the diagnosis of deafness has been made. This has led to an increased research interest in the process of choice parents of deaf children undergo (Meadow-Orlans, Dyssegaard, & Smith-Gray, 2004; Meadow-Orlans, Mertens, & Sass-Lehrer, 2003; Wever, 2002) and the information they use to guide and support their choices (Zaidman-Zait & Jamieson, 2004).

Oderwald, Klatter-Folmer, Goosen, Van Wietmarschen, and Wever (2004) studied this process of choice in depth at a Dutch school for the deaf. Participants in their study were 22 families who had to decide between an auditory–verbal or a bilingual educational program for their deaf child. The main conclusion was that all parents involved tended to view their deaf child primarily as a child with a disability. These parents were focused toward a normality view, expressed by their persistent wish for inclusion of their deaf child. However, according to the researchers, it is not this broad normality view that is crucial in the educational decision process but the way it is modified by alternative views on deafness. Most parents did combine a normality view on deafness with a more social and cultural view, thus advocating communication in sign language as well as contacts with the Deaf community. At the same time, they all supported cochlear implantation for their deaf children, also stating, however, that these children would remain deaf with or without the implant. This ultimately leads to a predominantly heterogeneous but also very flexible view on the deafness of their child. It is therefore understandable that the objectives and educational choices of parents of deaf children vary, a notion clearly supported by research (see also Meadow-Orlans et al., 2003).

This seems at odds, however, with the ongoing efforts in deaf education to concentrate on the identification of “a best model” for deaf education for many, if not all children. It leads to one of the dilemmas in deaf education, relating to the question how to reconcile “a best model approach” with the varying objectives and choices of parents. A second issue, related to the responsibility of a choice by proxy for deaf children and the concept of informed choice, sharpens this dilemma (see also Young et al., 2005). Parents make educational choices for their children because these children are too young to make these choices themselves. Parents feel very strongly about the fact that they ultimately are entitled to make educational choices for their deaf child. Most of these parents value the advice given by professionals in deaf education, and many also use information from other sources, for example, brochures from parent organizations and relevant Web sites on the Internet. Many professionals in deaf education feel they are responsible for the provision of complete and unbiased information and advice but that the parents are responsible for the ultimate educational choices. Others, including some prominent members of the Deaf community contest an exclusively parental responsibility with respect to educational choices. In a recently published book, titled Anders doof zijn (Another Way to be Deaf), Tijsseling writes that visual language development in
a visually constructed environment leads to optimal education for deaf children. All parents of deaf children, including those who are hearing, have, in her view, the moral duty to educate their child optimally and thus visually. Whenever parents do not succeed in educating deaf children appropriately in a visual way, deprivation or maltreatment of the deaf child is the result. Tijsseling, influenced by views expressed by Ladd (2003) about Deafhood and Ridgeway (1999) about communicative maltreatment, also states that genetic relations of deaf children with parents are not of more importance than the natural relations of a deaf child with the Deaf community. Where and out of whom a child is born is not crucial. Deaf children do not solely belong to their parents or their families but also to the Deaf minority because there the natural talents of the child are recognized and acknowledged (Tijsseling, 2006).

This raises the question whether parents indeed have the right to make educational choices for their child or whether they have the duty to make the right educational choices? Are parents obliged to consult professionals, including members of the Deaf community? And what if they ignore the advice given? Is advice given in the context of a relationship between professional and parent or is the primary relationship one between professional and child?

In the medical profession, the professional relationship is clearly defined with the child, not with its parents. This is not to say that doctors do not acknowledge the responsibility of parents for the care of their child. However, doctors may in specific cases overrule the decision of parents if their professional medical advice is at odds with the parents’ preferences, at least under Dutch law. Doctors are entitled to insist on their view. They may try to convince parents of the value of the medical advice and, in specific cases, even enforce their advice upon parents, provided that the decision of the parent is clearly detrimental for their child and the medical advice is supported by hard scientific evidence (Oderwald et al., 2004). In deaf education, professional relationships are less clear, and, at least in the Netherlands, legal requirements would make enforcement of pedagogical or educational advice virtually impossible. Insistence, however, may be appropriate in specific cases, if the negative consequences of parental educational choices are clear and the professional advice is scientifically supported, in other words, evidence based.

**Evidence Base of Deaf Education**

How realistic is it to assume that professional advice in current deaf education deserves the label “evidence based”? In order to answer this question, a distinction should be made between two types of evidence: evidence about the actual functioning of a child and evidence about the possible effects of a specific type of educational intervention.

The first type of evidence should result from a thorough and competent assessment of a deaf child’s communicative, academic, and social potential. Such an assessment should be carried out with a certain frequency in order to capture important developments in the child’s functioning. It should not only cover the child’s limitations or weaknesses but also the child’s strengths and possibilities, or to speak with Vygotsky the child’s zone of proximal development.

Several domains need to be assessed, ranging from communication through language and cognition to motor functions and behavior. An appropriate assessment should also be directed at the limitations and possibilities of the child’s immediate environment: its parents, peers, and the educational system (Knoors & Vervloed, 2003). In the Netherlands, important progress has been made in the introduction of systematic assessments in schools for the deaf, but there are still major obstacles to be overcome. Awareness by teachers of the importance of comprehensive assessment is one; appropriate funding is another. The real dilemma, however, is that many assessment instruments used with deaf children lack either validity for this group or standard norms (Maller, 2003; Miller, 2006). This issue is hard to tackle, especially because of the relatively small number of deaf children in some countries. This results in the dilemma that educators have to design educational programs for individual deaf children, based upon the identification of the best possible language and instructional mix with less than optimal assessment instruments.

To make matters worse, the evidence base of deaf education is rather weak (Bagga-Gupta, 2004;
Marschark, Lang, & Albertini, 2002) and the causes are manifold. At least six factors contribute to this situation.

Paucity of Research

There are important topics in deaf education about which research is simply lacking. One such area is the sign language proficiency of hearing parents and hearing teachers. Not so long ago, many researchers and educators dismissed forms of manually coded English. Research showed that it was very difficult, if not impossible, to combine spoken language and manual signs in such a way that the linguistic structure of spoken language was also entirely visible in the manual signs, the ultimate goal of some of these systems (Marmor & Petitto, 1979; Strong & Charlson, 1987). Therefore, it was argued by some that manual sign systems did not constitute proper input for optimal language development in deaf children. The use of sign language, and, as a consequence, the establishment of bilingual deaf education was put forward as a viable and potentially better alternative (Johnson, Liddell, & Erting, 1989; Mashie, 1995). This alternative starts from the premise that it is necessary to immerse deaf children with full, rich sign language input, from an early age. The apparent difficulty, however, is that 95% of all deaf children have hearing parents for whom sign language is their second or even third or fourth language. Most of these children eventually are educated by hearing teachers who are not native users of a sign language either.

It seems therefore essential for bilingual programs that hearing parents and hearing teachers are able to reach considerable fluency in sign language within a short time frame. Yet, it is known that second language learning in adults is not always an easy task and that the ultimate language proficiency may be limited because of environmental and personal factors (Mayberry & Lock, 2003). It is surprising to see that there is virtually no research available in which the actual levels of sign language proficiency in hearing parents and teachers are determined. In addition, there is a paucity of research into the consequences of limited parental sign language input on the sign language proficiency of deaf children (with the noticeable exception of Singleton & Newport, 2004). It is therefore not at all clear to what extent bilingual education for deaf children really results in the establishment of an effective linguistic environment.

Another important area in which educators are confronted with a paucity of research is teaching reading comprehension to deaf children. A recently published review of studies concerning effects of methods to improve reading comprehension in deaf children (Luckner, Sebald, Cooney, Young, & Muir, 2006) makes painfully clear how much there is still to study and learn. Searching for articles about methodologically sound research in peer-reviewed journals over a period of 40 years, the researchers came up with 22 studies. No two of these studies researched the same domain of reading comprehension, and none of the studies were a replication. The recommendations from these 22 studies vary considerably. As a consequence, teachers have to construct reading instruction for deaf children on a limited and fragile evidence base.

Incorrect Application of Theory

The incorrect application of theoretical frameworks contributes to the weak evidence base in deaf education. The use of the interdependency theory of Cummins as a basis for bilingual deaf education is but an example. Cummins’ theory (formulated in, e.g., Cummins, 1984) is often interpreted in the field of deaf education as implying that deaf children’s proficiency in sign language will automatically lead to proficiency in written or spoken language. The theory actually states that proficiency in a second language may profit from previously attained proficiency in a first language, provided that there is adequate exposure to the second language. In addition, transfer is mainly limited to cognitive–academic language skills and occurs in its strongest form if the languages involved share a script (Bialystok, Luk, & Kwan, 2005; Knoors, 1993; Mayer & Wells, 1996). Adequate exposure to a spoken and written language is, in case of many deaf children, especially those without cochlear implants, difficult to realize, and sign languages do not have written forms, which means that at least two important conditions for the application of Cummins’ theoretical framework are not fulfilled. In other words, although there are many good
reasons to incorporate sign language in deaf education, Cummins’ theory cannot be used as a support for this practice.

Ignoring Classroom Practices

Often comparative educational research on deaf children is reported without describing actual classroom practices. Some studies reporting the spoken language development in deaf children, with and without cochlear implants, placed in either auditory–verbal or total communication programs do not go beyond labeling programs (see, e.g., Pisoni, Cleary, Geers, & Tobey, 1999). Information about the actual language teaching in programs is lacking, thus making it virtually impossible to judge whether results do reflect differences in language policy or are a consequence of teaching practices.

Incorrect Interpretation of Research Results

Some research results are subject to mistaken interpretation. A clear example is the often-published conclusion that deaf children of deaf parents experience advantages in academic learning due to the fact that they presumably grow up in a signing environment. The conclusion itself may be disputed, but the interpretation is certainly incorrect in its scope (Marschark et al., 2002). In this type of research, deaf children of deaf parents are compared to deaf children of hearing parents, assuming that the linguistic environment of both groups of children varies systematically. However, there are many more factors that systematically differentiate both groups such as the nature of their early experiences. In addition, it is not correct to assume that all deaf parents communicate with their deaf children in sign language because there are deaf parents who use spoken or manually coded language with their children.

Lack of Application of Research Results

Contributing to a weak evidence base is also the failure to apply research results to educational practice. For example, there is some research available about the cognitive dimensions of deaf children’s learning (summarized in Marschark, 2003) such as the structure and use of working memory, the structure of semantic, long-term memory, problem-solving skills, and visual perception processes. Still, traditional classroom didactics in deaf education do not seem to take these research results into account.

Complex and Contradictory Outcomes of Research

Often outcomes of research are complex and sometimes even apparently contradictory. The preliminary results of three different studies about the relationship between language and reading proficiency in deaf children, carried out within the context of the research program “Variation in Communication and Cognition” at the Radboud University Nijmegen, may illustrate this. The first is a study of the relationship between reading comprehension, word identification, and mode of acquisition of words in deaf children (Wauters, 2005). All schools for the deaf in the Netherlands participated, leading to a study group of 446 deaf students. Deaf children with cochlear implants were excluded. The study group included 15 deaf children with two deaf parents, which is approximately 3% of the entire group under study. Wauters, Van Bon, and Tellings (2006) found that the mean reading comprehension score of Dutch deaf children is equivalent to the mean reading score of first grade hearing children in the Netherlands. This reading score is lower than scores in other countries (Conrad, 1979; Marschark et al. 2002; Powers, Gregory, & Thoutenhoofd, 1999), but this difference may well be due to the use of different test instruments. According to Wauters (2005), problems with word identification certainly contributed to this low mean reading score, but these problems do not entirely explain the research results. Only 4% of all deaf students read according to their instructional age, a percentage again comparable to the one Conrad found more than 25 years ago in the United Kingdom. Strikingly, deaf children with deaf parents did not read any better than deaf children with hearing parents.

A second, ongoing study concentrates on the reading comprehension and word identification in 50 deaf children with cochlear implants, placed in schools for the deaf, schools for the hard of hearing, or
mainstream schools (Vermeulen, Van Bon, Schreuder, Knoors, & Snik, submitted). No children from ethnic minorities are included. Preliminary analysis shows that the reading comprehension scores of deaf children with cochlear implants are significantly higher than those obtained by deaf children using conventional hearing aids. This result holds for all grades; the effect size is for all grades but one large. The comparatively better word identification skills of deaf children with cochlear implants certainly contribute to their better reading comprehension scores, but again, they do not explain all results. The hypothesis is that it is knowledge about semantic, morphological, and syntactic aspects of spoken Dutch that makes the more significant difference.

A third study was carried out within the context of an ongoing project, aimed at the development of a multimedia test to assess the sign language proficiency of deaf children in the Netherlands, ranging in age from 4 to 10 years (Hermans, Knoors, & Verhoeven, 2005). Almost all schools for the deaf in the Netherlands participated in this project; the deaf children were tested three times over 3 consecutive years. In the 2005 test period, 87 children participated, all placed in schools for the deaf. The children’s sign language proficiency, working memory span and capacity, and written language proficiency were assessed. All children also had to finish a test for Dutch language proficiency. Although the items are normally presented in spoken language, the test was delivered in written language, thus making it a test for written language proficiency. Preliminary analysis shows that deaf children of deaf parents outperform deaf children of hearing parents with and without cochlear implants in both sign language proficiency and written language proficiency. Deaf children with a cochlear implant are the least proficient in both languages, even compared to deaf children with conventional hearing aids. Deaf children with cochlear implants performed the worst on tasks that measure working memory capacity for written words, which may account for their unexpected low performance in written Dutch.

What to make of these apparently contradictory research results? It is not unreasonable to assume that some results, i.e. those related to the possible connection between cochlear implantation, access to spoken language, and reading proficiency, are a consequence of the application of different inclusion criteria for subjects. Deaf children with cochlear implants in the sign language study are all placed in special schools for the deaf, whereas many of the subjects in the reading study are placed in mainstream education. Proficiency in spoken and written Dutch is no doubt one of the criteria used to support placement of a deaf child in either a school for the deaf or a mainstream school, and therefore one may question the comparability of these groups. Looking at the results of both studies, one rather safe conclusion seems to be that cochlear implantation may contribute to improved reading comprehension in many deaf children, but certainly not in all. Another conclusion is that replication of these types of research is needed with different samples of deaf pupils.

Another apparently contradictory result, the reading proficiency of deaf children of deaf parents, may be a consequence of the tests and tasks that were used. In the sign language study, relatively simple, basic linguistic skills in written language were addressed, whereas in the reading comprehension study eventually, quite complex texts were used that require not only the application of linguistic skills but also cognitive skills. It is possible that some deaf children of deaf parents develop better linguistic skills in written language than deaf children of hearing parents but that the need to use linguistic and cognitive skills to comprehend difficult written texts confronts them with considerable difficulties. Contradictory results plague most of the outcome studies in our field. In order to limit this phenomenon, careful analysis of research designs and test instruments often is not enough. Replication of studies in similar or varying contexts is needed.

Negotiating Dilemmas in Deaf Education: General Principles

The conclusion that the evidence base for educational interventions is weak adds to the dilemma of how to identify the most effective linguistic and instructional mix for deaf children and how to design appropriate educational programs. A key aspect of all dilemmas is the impossibility to solve them in a straightforward manner. Rather, they have to be negotiated in
educational practice. In order to accomplish this in
deaf education, one may for a start adhere to a number
of general principles. Firstly, parents obviously have to
be taken very seriously with respect to their educa-
tional objectives and choices (Meadow-Orlans et al.,
2003). In doing so, it is also important to manage their
expectations. Appropriate professional advice to
parents presents them with perspectives rather than
miracles. Phrasing should be prudent, the perspectives
should be realistic, and uncertainties need to be men-
tioned (Young et al., 2005). Appropriately consulting
parents is an important way to involve them in the
education of their child. Involvement is not a moment-
ary issue, neither is consultation. Frequent consulta-
tion should be the standard because developments in
children are dynamic and require constant involve-
ment and regular checking of educational planning
with the parents. Frequent consultation adds to the
flexibility in programming, and it contributes to avoiding
mismatches between objectives of parents and profes-
sionals and consequently disappointments. Illustrat-
ing possible educational options as being more or less
appropriate given the development of a child at a particu-
lar moment in time is far better than using ideologically motivated labels. Educational choices have
no eternal value. They need to be evaluated and if
necessary changed. This process evolves smoothly if
parental feelings of guilt are avoided.

Secondly, deaf children vary widely in their capaci-
ties, making educational differentiation (in combina-
tion with other measures such as smart grouping of
pupils in small subgroups) a requirement. This entails
differentiation in, but also across, classrooms, balanc-
ing individual work with work in bigger or smaller,
heterogeneous groups of pupils and combining direct
instruction with active and cooperative learning
(Bosker, 2005; Creemers, 1994). Implementation of
educational differentiation is certainly not an easy task.
A core element of educational differentiation is diag-
nostic teaching. This teaching is based on educational
planning through the application of diagnostic cycles.
It is important to address in these cycles not only the
cognitive but also the social domain, to make use of
curriculum-dependent and -independent assessment in-
struments, to include tests and observations, and to gather
parental input by way of, for example, parental checklists.

Negotiating Dilemmas in Deaf Education:
Tricky Mixes

There are also more specific ways in deaf education to
negotiate existing dilemmas that may be called tricky
mixes. These mixes are all characterized by the avoidance
of sharp, discrete, and black and white choices. Instead,
choices along several continua should be preferred.

The first set of mixes concern the languages used
in deaf education (Nelson, Loncke, & Camarata,
1993). Firstly, a "no exclusion principle" should be
in place, in particular during the preschool period.
Parents and educators should be encouraged during
this period to incorporate in the linguistic environ-
ment both signed and spoken languages and to avoid
exclusion of one of these languages. During this pe-
riod, knowledge about the deaf child’s strengths and
weaknesses as a language learner is simply too limited
to allow an exclusive choice for either signed or spoken
language. A prolonged multilingual development is for
many children and adults an enrichment, so why not
for deaf children and adults? If, however, parental or
developmental objectives require a choice for mono-
lingual education, it is important to do so only after
the effects of this choice for the child may be reason-
ably safely predicted and documented. In addition,
a language mixing principle deserves support. Mixing
of spoken and sign languages in forms of English-
based signing deserves encouragement if it adds to
the enrichment and effectiveness of communication
between hearing parents or hearing teachers and deaf
children, provided that these children also receive un-
corrupted linguistic input (see also Stewart, 2006).
And finally a flexibility principle helps to negotiate
dilemmas. With respect to language input in deaf ed-
ucation, such a principle might rather provocatively be
formulated as “10% sign language and 90% spoken
language is also bilingual input.” In other words, dif-
ferentiation of the amount and type of language input
in bilingual programs for deaf children is advocated
depending on their linguistic and educational needs.
These needs are not the same for each and every deaf
child, and they are not the same during their entire
educational career.

Educators should not limit themselves to tricky
mixes in language use but also look for mixes in school
placement. There is not one school type ideally fitted for all deaf children. Some children thrive in schools for the deaf, others do very well in other types of special education or in mainstream programs (Stinson & Kluwin, 2003). Some deaf children start schooling in a special program and eventually hop over to a mainstream school, either on an individual basis or with other deaf children in a co-enrollment program. What seems important is that placement of deaf children in various school settings should take place within the context of one comprehensive, cohesive, and consistent educational program. The number of these programs needed depends on the total number of deaf children served. Each program should be delivered in various educational settings that need to be interconnected with respect to management, educational policy, curriculum content, and contact possibilities for deaf peers across school settings.

Tricky mixes also enrich curriculum design and effectiveness (Martin, Moores, & Luft, 2006). The language curriculum needs to be related to the reading curriculum. In bilingual programs, curriculum content in spoken and written language should be connected to the curriculum in sign language. An example may be found in Sprong Vooruit (literally “jump forward”) (Heineman et al., 2005), an initiative, financially supported by the Dutch government, to construct a bilingual curriculum and bilingual language and reading methods for deaf children on the basis of mainstream methods.

Finally, a tricky mix between education and research is welcomed, leading to the start of an innovative professional community in deaf education. This community needs to establish a research agenda that systematically fills in gaps in our current knowledge about learning processes in deaf children and about effects of various educational interventions. However, focus should also be directed at the often difficult and certainly time-consuming application and implementation of research results in educational practice (Marschark, Convertino, & Larock, 2006).

In conclusion, the linguistic capacity of deaf children is certainly powerful and effective. However, the conditions required for a deaf child to develop this capacity and to apply it to learning processes are not always entirely clear, are frequently subject to discus-

sions, and sometimes present considerable dilemmas. Appropriate actions do not include a continued search for the best educational model for all deaf children. The answer is not in quick program designs on the basis of ideologically motivated arguments. Identifying the most optimal language input and instructional mix for a deaf child at a particular moment in time resembles solving an intricate puzzle. Persistence, cooperation, adequate analysis, careful and cautious execution, frequent and appropriate feedback, and mixing strategies are the core elements of the educational responses to the varying objectives of parents of deaf children.

References


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