# What we know without knowing it: Sense and nonsense in respect of linguistic reflection for students in elementary and secondary education

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ABSTRACT: The teaching of grammar is discussed from an instrumental point of view: what beneficial effects does such teaching have for students' language abilities (especially writing)? Two ways of approaching grammar teaching are confronted with each other: the learning of explicit rules and meta-linguistic knowledge about language on one hand and learning without awareness of linguistic structure (implicit learning) on the other hand. The article shows that implicit learning is more important than is often realised for acquisition and for accurate and fluent mastery of linguistic structures. In addition, research evidence both in mother tongue and second/foreign language contexts shows that explicit learning of structures is not very effective. For the improvement of writing abilities, other forms of teaching are far more effective than explicit grammar teaching. Conceptual processes in writing presumably have a greater impact on text quality than students' explicit knowledge of linguistic structure. Although the explicit learning of linguistic structures is not very effective, there are many other topics for linguistic reflection in the classroom that may have more beneficial effects on students' language use. Some examples of these topics are given, together with theoretical reasons for their instrumental validity in elementary and secondary education.

*KEYWORDS:* Grammar, language, meta-linguistic knowledge, linguistic structure, writing, explicit grammar teaching.

#### Introduction

The issue of grammar education (with or without the addition of the word "traditional") has aroused much controversy in countries all over the world. Hudson and Walmsley (2005) have given a thorough description of the history of this controversy in twentieth-century England and have concluded their account rather optimistically from the linguistic point of view. According to their analysis, the improvement of the academic position of the linguistic discipline in English universities might hopefully function as a stepping-stone for a new attitude towards grammar teaching in schools.

In comparison with the situation in England, attitudes towards grammar teaching in the Netherlands are less extremely divided, but the main lines of the controversy are similar. Also similar is the ideological cleavage between opponents and adherents of what I prefer to call *linguistic reflection* in the classroom. Recently, I noticed that this cleavage is still alive and kicking when I gave a lecture for teacher educators from The Netherlands and Flanders. The lecture reported experimental studies directed at increased fluency in the use of linguistic structures for writing in Grades 5 and 6. I pointed out that the training in such structures (sometimes accompanied by explicit

meta-language about the structures) was intended to result in better content in texts written by students, because linguistic fluency would set their minds free to attend to the *meaning* level of texts. But, mentioning the G-word was sufficient to evoke negative reactions to such an approach. Protests against a back-to-basics ideology and "setting the clock back" sounded loudly. Apparently, many teacher educators fail to see the distinction between traditional grammar exercises, such as sentence parsing and labelling parts of speech on the one hand, and grammatical reflection directly related to language use with a primary focus on the meaning of texts (cf. Long, 1991).

Notwithstanding this negative attitude in circles of teacher educators and theoreticians of mother-tongue pedagogy, in *practice* the traditional grammar curriculum in The Netherlands by and large survived last century. It is important to keep this in mind as it contrasts with the English situation sketched by Hudson and Walmsley (2005). Although the official core objectives for elementary education defined a very limited set of structural concepts to be taught, an analysis of regular textbooks for elementary education revealed that by far the greatest part of L1 lessons aiming at language awareness was still devoted to the formal analysis of structure (Jacobs & Van Gelderen, 1997). Labelling word classes and parts of speech, morphological knowledge, idiom, sentence structure and conjugation were the most prominent parts of these objectives.

The same immunity against ideological discussion and official regulations about traditional grammar education in The Netherlands is observed in secondary education. Summarizing research of the Dutch Inspectorate (Inspection, 1999) and a review by Hoogeveen & Bonset (1998), Van Gelderen, Couzijn and Hendriks (2000) concluded: "Grammar education is (much) more extensive than required by the programme, whether measured in time spent or in subject matter. Teachers want their students to know and apply many more concepts of sentence analysis and labelling word classes. Most schools use special textbooks or developed their own syllabus for grammar" (p. 74). This is certainly not the only case in which the real content of education is concealed by official documents and rhetoric. Personally I wonder what would be found in English schools if we could look behind the official documents and discussions on which Hudson and Walmsley (2005) build their historical overview. Anyway, research into the legitimacy of this educational conservatism and into the pros and cons of a different role for linguistic reflection in the classroom is important in the Dutch situation and in other countries, such as Belgium, France and Germany. At least it is much more important than would be suspected on the basis of the few studies that have been carried out in the last decennium.

## THE CONTROVERSY ABOUT GRAMMAR TEACHING

The controversy about grammar teaching is a multifaceted one. The variety of arguments that have been brought to the fore for and against illustrates these facets. Examples of pro-arguments are given in Hudson and Walmsley's (2005) article, each of which can be – and has been – countered by con-arguments (for example De Glopper & Rijlaarsdam, 1983; Hillocks, 1984; Van Gelderen, Couzijn & Hendrix, 2000). In this article I limit myself to discussing just a few of these facets, which I believe are important in the debate from an educational point of view. Linguists of

course have their own say in this matter as subject matter specialists, but they tend to ignore issues of educational legitimacy and methodological feasibility. For example, there is no debate that the linguistic discipline has something to offer to students at universities and that it is a valuable science in its own right. However, the claim that linguistic discipline is also beneficial for students in elementary and secondary school is controversial and needs substantiation by theoretical insights from other points of view, such as educational psychology, psycholinguistics and applied linguistics.

From among the several facets of the grammar debate (see Table 1), I choose the two oppositions mentioned first: the question of *educational validity* of linguistic reflection in primary and secondary education and – in relation to the first – the question whether it is *explicit* or *implicit* linguistic knowledge that should be aimed at. Mother tongue curricula are based on historical and traditional grounds, but establishing the legitimacy of constituting parts becomes more and more important. This is the case, for example, for reading education, which is criticized for using inefficient pedagogy and resulting in reading failure for many students. In the same way, other parts of the mother tongue curriculum, such as grammar education, are scrutinized for their beneficial effects. It is no longer sufficient to maintain that linguistic knowledge is inherently important for children, or that children should be able to use meta-language. It also has to be demonstrated that students are able to understand the *meaning* of that knowledge and can use it in a *sensible* way.

- 1. **Inherent validity** (it is right and important that students learn linguistic knowledge and reflect upon language) versus **instrumental validity** (students benefit from linguistic reflection)
- 2. Explicit knowledge (students need explicit meta-language and rules for reflection) versus implicit knowledge (students develop grammatical intuitions, without meta-language and rules)
- 3. **Product-oriented reflection** (students use grammatical knowledge to correct errors or to improve texts) versus **process-oriented reflection** (students use meta-linguistic knowledge to reflect on language use)
- 4. **Prescriptive/deductive pedagogy** (teaching and applying rules for correct use) versus **descriptive/inductive pedagogy** (finding out regularities and irregularities in language on the basis of observation)
- 5. Systematic curriculum (linguistic reflection is based on a course, not related to other aspects of the language curriculum) versus incidental curriculum (linguistic reflection takes place in the context of meaningful language use)
- 6. The priority of topics (a long list instead of an opposition, for example: cultural values in mother-tongue language, analysis of sentences, intercultural comparisons, linguistic variety (dialects, spoken and written registers), sociolinguistics, comparisons between mother tongue and foreign languages, strategies for comprehension and use, attitudes towards speakers of other (variants of) language, pragmatic aspects of daily language use)

### Table 1. Facets involved in the grammar controversy

The first Table 1 facet concerns educational legitimacy in discussions about grammar teaching. Linguistic reflection can be regarded as an end in itself (stressing, for

example, the cultural or personal value of grammatical insights and terminology), but it can also be regarded as a *means* to an end (such as improving students' writing, logical thinking, or learning of foreign languages). In both cases, external evidence is needed to support the legitimacy of grammar teaching. Are students able to understand the linguistic knowledge that the curriculum prescribes? Can students actually use the knowledge for writing or for learning a foreign language?

Facets 2-5 concern more specific aims and related methodologies of grammar teaching for elementary or secondary students, with important methodological consequences. Do students need explicit meta-linguistic terminology and rules or is it sufficient to improve implicit grammatical knowledge, for example, by acquainting them with varied forms of language use (Facet 2)? Does linguistic reflection focus on correct language use according to certain models, or does it provide meta-linguistic knowledge to shape students' awareness of language (Facet 3)? Should the teaching be oriented to prescription in respect of how language *ought* to be used, or to description of how it is *actually* used in different contexts and by different people? A related question is whether the reasoning required is a deductive one in which rules are given or is it an inductive one in which students detect regularities themselves on the basis of selected examples (Facet 4)? Is grammar considered a separate topic within the language curriculum with its own logic, or is it seen as something that can be incidentally focused upon when students are involved in meaningful language use but seem to struggle with grammatical difficulties (Facet 5)? Finally, Facet 6 lists a number of topics for grammar teaching that have been put forward. This list is incomplete, because the number of topics can always be enlarged. Any of these topics - varying from the macro, such as the history of language, to the micro, such as morphology – can serve as legitimate topics for linguistic reflection. This makes the selection of topics a hard nut to crack, especially if linguistic reflection is looked at as an end in itself.

# EVIDENCE CONCERNING THE INSTRUMENTAL VALIDITY OF LINGUISTIC REFLECTION

In this section, I discuss some examples relating to the instrumental point of view, which states that linguistic reflection (or grammar teaching) improves (amongst other things) students' language abilities. The opposite view (that linguistic reflection is inherently valuable) will be touched upon later. The most controversial issue here is the learning of explicit linguistic knowledge about language structure. Although everybody agrees that knowledge of the structures of words and sentences is necessary for children's skilful use of language, there is no agreement on the need of their learning explicit linguistic rules (for producing these structures) or metalinguistic terminology (for talking about them). To many of us who grew up with one or other grammatical approach for learning a foreign language, it seems evident that explicit rules and terminology are at least helpful in learning to understand and apply language structures in that language. To many it also seems likely that explicit learning of rules is helpful for speaking and writing in general, even in the mother tongue, as Hudson and Walmsley argue (2005, p. 594). Although these claims are seldom specified, they suggest that there are not only beneficial effects in terms of avoiding errors, but also in more general terms, such as improving the efficiency of texts and their overall quality. However, there are empirical examples and theoretical

accounts of language learning that challenge these suppositions by pointing to the overriding importance of implicit learning *without awareness of structures* (cf. N. Ellis, 2002).

My first example comes from Dutch morphology. Dutch diminutives are formed in five different ways depending on the syllable preceding the diminutive part (*-je, -kje, - tje, -pje* and *-etje*).<sup>1</sup> It may come as a surprise for speakers of other languages, but this rather complex set of rules is not part of the Dutch grammar curriculum. In grammar textbooks for primary and secondary education, these rules will not be found, nor do I know of suggestions for teachers to acquaint students with these rules by training or awareness-raising exercises. Nevertheless, mastery of these rules is accomplished by virtually *all* native speakers of Dutch. Most students by the end of primary education make no errors in their use of diminutives.

A contrasting example is the spelling of the conjugation of verbs (with a stem ending on the letter d) in the second and third person present tense and perfect participle (ending on t or d). Learning how to spell these forms takes a lot of time in the Dutch grammar curriculum. This learning consists of elaborate explicit rules in which students use phonological (do you hear a "d"), morphological (What is the stem?) and syntactical knowledge (Is it a verb? Is it in its finite form or is it a perfect particle?). However, correct spelling of this type is not mastered in a satisfactory way by a large majority of the student population, not even in adulthood (giving rise to yearly recurring, public outcries that "They don't teach grammar the way they used to do it some 30 years ago").

So, what can we say about the usefulness of explicit linguistic rules for students based on these two extreme examples? The first example concerns oral language to which students are being exposed frequently, even before they enter school. Frequency of exposure is an important issue here, because it is one of the most important factors explaining acquisition (N. Ellis, 2002). In addition, it concerns regularities based on audible sounds. The second example concerns written language use to which students are exposed for the first time at school, with limited occasions for practice (although these forms are frequent in writing). Unlike diminutives that are often used in spoken language and for which correct forms are signalled by feedback of adults and peers, the spelling of conjugated verbs is not part of children's normal language use and is made relevant to them only in specially designed exercises. In addition, the spelling of the correct forms of these conjugations has no audible consequence in Dutch language. More importantly, the first type of rule (the diminutives) is learned without any awareness of the underlying linguistic structure. Only specialised linguists can explain these rules. Native speakers do not use the rules consciously and normally do not reflect upon them, because it would seriously disrupt their language production. In contrast, the second type of rule (spelling of conjugated verbs) is not learned, despite the fact that the explicit rules are discussed and exercised over many years of Dutch grammar education. Most students are confronted with these rules from Grade 3 up to Grade 10, and even later, because errors are still frequently made. Even experienced and highly educated writers keep on making this type of error, despite the fact that they know the rules well. So, even when linguistic rules are correctly understood, the correct form does not come automatically. We can conclude that for linguistic

<sup>&</sup>lt;sup>1</sup> For a complete explanation of Dutch diminutives, see Lagelands Grammar: <u>http://www.ucl.ac.uk/dutch/grammatica/diminutives.htm#INTRODUCTION</u>).

structures of Type 1 (frequent exposure/oral language/audible consequence) the learning mechanism seems to be implicit, with no need whatsoever for reflection on the structure, and that for structures of Type 2 (infrequent exposure/written language/ inaudible consequence) explicit knowledge of rules has no convincing effect on mastery of the structure.

The case for explicit linguistic reflection from an instrumental view of grammar education is thus not very strong on the basis of these two examples. The fact that forms that are frequently practised are perfectly learned without awareness of underlying linguistic rules illustrates that children do not *need* explicit reflection in the classroom. The fact that forms that are *in*frequently practiced are *not* learned by a majority of the population *despite* elaborate courses teaching linguistic rules illustrates that explicit rule knowledge should be helpful *especially* in situations where normal language use does not supply sufficient practice, making implicit learning less likely. (This is the argument that Hudson & Walmsley make on p. 594, where they refer to the expansion of grammatical competence to grammatical patterns that are needed in adult life but not found in children's casual conversation.)

Of course, these two examples do not settle the matter, because they are chosen as two extremes for demonstration purposes. However, there is much empirical research supporting the conclusion that teaching explicit knowledge of linguistic rules is not so beneficial for students as is often assumed. Let us first turn to the claim often made that explicit grammar teaching helps students to become better writers in their mother tongue. Tordoir and Wesdorp (1979), for example, reviewed 53 experimental studies (from 1931 to 1975) that probed the effect of different approaches to grammar education on language abilities (for the greatest part writing composition). Their conclusion was that the effect on writing composition - measured by intensive evaluation of writing products – of the "direct" approach (no grammar, but practice in writing and reading) was superior to grammar approaches. Hillocks (1984), in his meta-analysis of 39 studies related to the focus of instruction in teaching composition concluded: "The study of traditional school grammar (i.e. the definition of parts of speech, the parsing of sentences etc.) has no effect on raising the quality of student writing. Every other focus of instruction examined in this review is stronger" (p. 160).

Results of meta-analytic reviews can in their turn be criticized because of the heterogeneity of the studies reviewed, the narrowness of the measures taken (especially for composition skill) and other methodological shortcomings. However, there are still further reasons to doubt that explicit grammar teaching has a positive effect on writing composition. The empirical studies mentioned above probed the so-called transfer of explicit grammar knowledge to writing composition. From theories of the writing process, however, we know that writing consists of numerous sub-processes, such as idea generation, text organisation, selection of content, translation of ideas into language, evaluating, reviewing, rewriting and editing (Hayes and Flower, 1980; Bereiter & Scardamalia, 1987). Many of these sub-processes are on the conceptual level of the text and have little to do with linguistic structure. Only the translating process is predominantly oriented towards the linguistic knowledge of the writer. In addition, it is questionable how *free* composition can benefit from *specific* explicit knowledge about language structure. It is hard to explain the underlying mechanism of transfer when students are free to use any structure that suits their

ideas, whether or not these structures are part of the grammar teaching they have received.

Given the limited possibilities for experimental training programmes, strictly focused output measures are needed to detect beneficial effects from teaching explicit linguistic knowledge. That sort of research has been done in the context of L2 learning (Doughty & Williams, 1998; Norris & Ortega, 2000; Robinson, 1997; VanPatten, 2002). Typically, studies compare a condition in which explicit knowledge is taught about a few structures in the second language with a control condition (no instruction) and/or with a condition in which implicit instruction is given (repetitive presentation and/or production of the structures). The outcome measures are sometimes oral responses to stimuli that are designed to evoke the learned structures, but quite often they consist of written responses of a more or less restricted nature.

In contrast to the cited L1 reviews, the evocation of target structures in the outcome measures is essential in these studies, allowing a direct appraisal of the treatment effects. If explicit grammar teaching is beneficial from an instrumental view it should at least be demonstrated in such studies, where the primary goal of students is simple: learn to use unfamiliar structures in a language. A review by R. Ellis (2002) – using six out of the 49 studies analysed in Norris and Ortega (2000) and adding five more recent studies – seems to support the conclusion that teaching explicit rules directed at linguistic forms (so-called explicit, form-focused instruction) is effective. These results are – unlike Norris and Ortega's study – based only upon outcome measures with free language production tasks (spoken or written) evoking the target structures. Examples of such free language production tasks are oral interviews with questions, information gap tasks, science reports and short written essays based on pictures. Target structures were, for example, passive verb forms, past tenses, question forms and socio-linguistic expressions of politeness. It is hard to precisely evaluate the results reported by R. Ellis (2002), because it is not clear whether there were control groups involved in these studies and, if present, whether the control groups received any treatment at all. We can conclude, however, that it is rather disappointing that in five out of 11 studies, no positive results were found for the explicit grammar conditions. Apparently, even in such experiments directed at specific L2 target structures, expectations of effectiveness on the basis of explicit, form-focused teaching are often over-optimistic.

Moreover, results of other L2 studies do not unequivocally support the instrumental view of the explicit teaching of linguistic rules – even in the limited sense of enabling students to produce the learned structures correctly – and show mixed results (Ellis & Laporte, 1997; Robinson, 1997; Segalowitz, 2003). For example, in a recent study, Andringa (2005) taught Dutch degrees of comparison and subordinate clauses to 101 recently immigrated students aged 12-18. Although he found a difference in favour of the explicit condition in the case of a grammaticality judgement test (students evaluate whether given sentences are syntactically correct), no difference was found in terms of correct *use* of the target structures between groups that were trained explicitly and implicitly.

Another recent study probed the effect of explicit versus implicit training in linguistic structures in a L1 writing context (Van Gelderen & Oostdam, 2002 and 2005). In

contrast with the L2 studies, the target structures in this study were familiar to the students (Grades 5-6), although they were inexperienced in using them in writing. The purpose of the training was to improve students' linguistic writing fluency in order to facilitate their paying attention to meaning in the process of writing. Four types of linguistic operation were taught: adding commentaries to sentences (such as adverbs and adjectives), adding subordinate clauses to main clauses, combining sentences and using anaphora. Outcome measures were designed to evoke the target structures and consisted in the improvement of a given text and the writing of a text on the basis of phrasal elements. Although the students in the experimental conditions (implicit or explicit instruction of target structures) out-performed students in a control group (no instruction), no differences were found between the students that were given explicit rules and meta-linguistic terminology and students that were trained without explicit linguistic knowledge (implicit instruction).

### **CONCLUSIONS AND DISCUSSION**

Most of the above studies probing the beneficial effects of grammar teaching – in the narrow sense of knowledge about word and sentence structures – have shown that the direction instruction in explicit rules and meta-linguistic terminology has a very limited effect on students' skills. In many cases "implicit grammar teaching" – understood as not using explicit rules and terminology – is just as effective, even in short, experimental interventions with relatively few occasions for repetitive practice. The popular view on which the teaching of traditional grammar is based holds that linguistic reflection on language structure is a means to the end of improved language ability. This view is not corroborated by the research evidence and is at odds with prevailing theories of writing process and language learning. As far as the traditional content of the grammar curriculum is concerned, it would be advisable if a more rational choice were being made between time-consuming, explicit rule learning and implicit alternatives.

For example, unfamiliar or complex grammatical structures can be learned by the reading of texts containing these structures and undertaking follow-up writing assignments intended to evoke the same structures. This does not mean that reading and writing *in general* become instruments for learning grammar (see Myhill, 2005), turning the whole issue of the instrumental validity of grammar teaching upside down. What it does mean is that learning grammatical structures can only be successful when students use the structures in ways that are meaningful to them. In the absence of such meaningful applications of grammar (and the implicit learning accompanying these applications), explicit rule knowledge and meta-linguistic terminology offer no realistic alternative. This view of grammar learning poses a new challenge for textbook writers for mother tongue education. Although, in the studies mentioned above, exemplary experimental materials have been developed, it is not an easy task to combine meaningful reading and writing with implicit grammatical training.

Up to this point, the discussion has made it clear that for teaching focused on language structures to be beneficial for students' writing, this teaching needs to make stronger connections to teaching writing than is the case in the traditional grammar approach. Instead of using linguistic theory as backbone, *actual* usage of structures in relevant kinds of texts should guide teaching. Consequences of this "implicit grammar

approach" are different for L1 and L2 writing contexts. For example, in expository texts, writers must use several operations in order to convey information in an interesting way, without boring the reader with irrelevant pieces of information or unnecessary repetitions (Van Gelderen & Oostdam, 2002). For L1 writing, it is important to be fluent in using certain types of operations (adding and deleting information, for example by using adjectives, subordinate clauses, adverbs) to produce interesting expositions. It is better for the training in these operations to take place in the context of writing this sort of expository text than in isolated sentences in which concerns of connectivity and text coherence are absent, inhibiting transfer to textual contexts.

For L2 writing, however (speaking broadly about situations in which the students' mother tongue language is different from the language in which they are writing), fluency in using linguistic operations is not the first objective. L2 grammar education must focus on the correct use of structures first. Given the divergent results in the research in this field, it is difficult to advise on the role of explicit grammar teaching. At best, it has a complementary role in addition to sufficient practice and implicit learning. But it depends on other factors, such as complexity of structure, amount of L2 experience and possibly other learner characteristics, whether explicit rules and terminology can help accelerate the learning process.

However, as can be seen in Table 1 (Facet 6) and as has been debated in several articles in this double issue of *English Teaching: Practice and Critique*, explicit linguistic reflection in the classroom can be directed to a lot of other issues than formal structure, which may or may not have a profound effect on students' language use. In realising this, we leave the stage of traditional grammar and move into the arena of "language awareness". It is tempting to speculate on the areas for linguistic reflection that are defensible from an instrumentalist view as parts of the elementary or secondary curriculum. For example, on face value, it may seem plausible that reflection on pragmatic aspects of language – such as speech acts, manipulative language use and pragmatic aspects of word meaning – have an awareness raising effect. It can make students aware of the fact that taken-for-granted ways of expression that they (or others in their environment) often use are sometimes not the best ways of expression or can be undesirable means of manipulation.

Another example is individualised linguistic reflection on students' writing. In contrast to the approach outlined above, in which reading and writing activities are structured in the context of an implicit grammar approach, individualised linguistic reflection is based on open writing assignments, in which students pursue a circumscribed communicative goal. By discussing the links between rhetorical and linguistic levels of a student's text (text structure, word choice and sentence construction) with the teacher (or with peers), the student becomes aware of new linguistic means for increasing text effectiveness. Because the discussion is based on the students' own texts, the learning process is adapted to their conceptual *and* linguistic level of expertise, a good condition for meaningful learning experiences. Hence, this kind of individualised reflection can be seen as an example of the "incidental curriculum" as opposed to the systematic curriculum for grammar (see Table 1).

This line of thought is certainly worth pursuing, because it draws attention not only to inherently interesting fields of linguistics but also to the reasons why we decide that these fields are of interest for elementary and secondary education. In hindsight, we might argue that the discussion about the effectiveness of traditional grammar started at the wrong end of the problem. Instead of theorizing what knowledge about language would be of interest to students, the attempt was made to legitimate a traditionally given set of rules and terminology by claiming its beneficial effects on language use. There was, however, no theory guiding this quest for effectiveness. With the knowledge we now have about children's writing processes, the idea that the explicit teaching of linguistic structures improves students' writing is highly suspect. This is not only because empirical studies fail to show any effect, but also because the underlying mechanism is mysterious. If we find other topics for linguistic reflection for which we can formulate plausible theories explaining why awareness is beneficial and for what kind of language use exactly, this has the advantage that we can refine teaching in ways directed by our theory.

I believe that discussion about topics suited for linguistic reflection in the primary and secondary classroom is best guided by taking the instrumental view as a starting point. Let us first theorize on the basis of what the beneficial effects are of one or other type of linguistic reflection and how these effects are brought about. The alternative is that adherents of different views of grammar and grammar teaching all plead for their specific niche's inherent validity. In this latter type of discussion, the perspective of students and teachers and their interests will easily be lost. In contrast, testing theories about the beneficial effects of linguistic reflection will hopefully lead to clear and precise definitions of how specific topics can be taught effectively.

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Manuscript received: April 5, 2006 Revision received: April 20, 2006 Accepted: April 30, 2006