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GRAMMAR, STUDENTS' ERRORS AND INFORMATION TECHNOLOGY

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SYNOPSIS

This paper will focus on research into students' errors in the 1980s and 1990s in order to assist interested primary and secondary English Language teachers to identify areas to focus on in grammar teaching and error correction. The issue of incorporating Information Technology (IT) into error correction will also be explored.

BACKGROUND

As teachers of English Language, correcting students' essays is a major aspect of our language teaching. Week after week, month after month, we underline the mistakes, correct the errors, and even rewrite chunks for the students in the hope that they will produce error-free essays. Yet, the same errors in subject-verb agreement and tenses seem to recur. The question we ask is: Is there a way to ensure students produce error free work? To answer this question, I have decided to embark on a search for strategies which can help teachers identify and rectify students' errors. In the process I hope to explore the possibility of using Information Technology as well.

DESCRIPTION OF STRATEGY

Since the issue of rectifying students' errors is one major concern of English Language teachers, one way of demonstrating teacher leadership in the area of instruction is to reflect on what error correction involves and read up and decide on possible strategies to adopt.

Firstly, research studies on grammar and error correction will be studied in order to derive the theoretical underpinnings. In my sharing, fellow teachers will be led to examine their own

approaches to error correction and to make informed choices on how they will use Information Technology to tailor to students' needs in order to rectify students' errors.

1. Definition of grammar

According to Tonkyn (1994) grammar is a complex phenomenon :

'For a start, grammar can be seen as descriptive – the stuff of reference grammars and linguistic theory – or pedagogical – the stuff of lessons and textbooks. Beyond both of these lies the learner's own 'psycholinguistic' grammar... in formal terms, grammar comprises both syntax and morphology... In addition, grammar operates both within sentence and also beyond it, where it is involved in text building and interpretation distinctions of grammatical form can have very different degrees of functional meaning: some forms, such as the English present tense third person singular –s ending, are rules of formal correctness with little functional import: others, such as tense and aspect forms, may signal important meaning distinctions and do so in ways which are difficult to describe without reference to context. (Tonkyn pp. 1-2)

2. Varieties of Grammar and Pedagogical Considerations

Leech (1994) has also made a distinction between 'three varieties of grammar' for a teacher teaching English Language. He tabulates the distinctions as:

| Types of grammar | | |
|---|-------------------|--------------------------|
| A | B | C |
| Academic grammar (for university students) | Teacher's grammar | Grammar for learners |
| Theoretical and descriptive | -----?----- | Practical, selective, |
| ← | -- | sequenced, task-oriented |
| * Descriptive | Pedagogical | Psycholinguistic |

He states that it is possible to argue that teachers should ideally be well versed in both A and C: that they should have a sound, detailed academic knowledge of the language: and that they should also be thoroughly skilled in the methodologies of mediating language to learners at different stages' (1994:17). According to Mitchell (1994: 221), teachers need

- to diagnose and monitor the developmental stages through which their learners pass
- to correct and / provide feedback on their learners' language production

For instance, in identifying students' errors (e.g. in the area of use/misuse of articles) in order to decide on the strategy to rectify the errors, he or she would need to have academic knowledge of articles [Refer to Appendix A for an example by Hu (p.318)]. Teacher's grammar is thus 'some kind of mediation between A and C' (Leech, 1994).

The teacher also has to decide on the approach to mediation. Should he or she use traditional grammar instruction where there is 'explicit learning – through the presentation of rules, and so on' or should he or she use *implicit* learning of grammar through 'exposure to, and practice in , the language in use'(Leech, 1994)? In other words, he or she has to decide on a product or process approach. According to Batstone (1994), in the product approach,

- language is seen as structured and systematic - there can be a prior analysis of language into form and function and learners are given a clear framework or models

- learners can explicitly notice particular features of grammar' because 'learners are afforded repeated opportunities to structure and restructure target forms'(Batstone, 1994:226)

In a process approach,

- language is seen as dynamic or as a 'resource which language users exploit as they navigate their way through discourse' in order to develop meanings
- the emphasis is on the 'creative use of language by the learner.'(Batstone, 1994:224-225)

Therefore, even before a teacher can start thinking of strategies to rectify students' errors, the teacher has to

- a) grapple with the issue of which type of grammar he or she is using: descriptive/ academic; pedagogical / teacher's grammar; psycholinguistic / learner's grammar:
- b) decide on explicit or implicit approach to rectify syntactical or lexical errors which can occur at the word, sentence or text level. If the teacher decides on the explicit approach, he or she has to generalise or simplify the academic knowledge to suit the different needs of students like presenting a simplified 'rule of thumb' (necessitating use of metalanguage) which might be described as '60 per cent or 85 per cent or 95 per cent true'(Batstone, 1994:22). The choices a teacher faces can be represented in the table below:

| INDUCTIVE LEARNING | DEDUCTIVE LEARNING |
|--|---|
| Implicit learning | Explicit presentation of rules of thumb |
| Bottom –up approach Learning grammar through exposure to textual instances | Top-down approach Give 'rules of thumb' or simplified assumptions Metalanguage to be used |
| Process approach Learners to use language effectively and with a focus on meaning – 'meaning focused' activity / language in use for meaning and self expression | Product approach Learners to explicitly notice the forms and functions of grammar' through repeated opportunities to structure and restructure target forms through models / framework of rules |
| Types of errors: Lexical / Syntactical Form / Function Word / Sentence / Text level | |

Teachers need to examine their theoretical underpinnings regarding grammar because their beliefs will have an impact on the strategies adopted for error correction.

3. Definition of errors

Edge (1989) classifies mistakes into 'slips, attempts and errors'. 'Slips' are 'careless mistakes' which student can self correct. Students will need help from peer or the teacher for 'errors' [i.e. due to profound misunderstanding of a principle while 'attempts' indicate unsuccessful communication because of inability to express meanings [i.e. a kind of language exploration (Higgins, 1986)]. Teachers should see the correction of errors as a way of giving information or feedback to students to support their learning (Mitchell, 1994:221) and as a way of reminding students of the forms of Standard English. As Walz (1982:1) puts it, 'errors are "evidence that the learner is testing hypotheses of underlying rules, categories and systems.'

4. Types of errors and criteria for selection for correction

Hendrickson (1981) and Walz (1982) prioritised the following as errors deserving attention:

- high frequency errors
- errors affecting a large group of learners / students
- errors relevant to a specific pedagogic purpose i.e. errors in forms that students have recently learnt in class
- errors that impede the general intelligibility of a message/comprehensibility i.e. can cause misunderstanding or lack of comprehension.

According to them, errors can also be classified into local and global errors too.

- Local errors are linguistic errors that makes a form or structure in a sentence appear awkward but the intended meaning can be understood (Hendrickson, 1981) or they are errors that 'appear in isolated sentence elements [inflections, articles, auxiliaries, etc](Walz, 1982)
- Global errors are errors that 'impede the intelligibility of a message' (Hendrickson, 1981). Hendrickson found that most global errors included in compositions written by intermediate students of English as a second language resulted from inadequate lexical knowledge, misuse of prepositions and pronouns, and seriously misspelled lexical items. Walz (1982:8), quoting Burt and Kiparsky (1974), sees global errors in terms of 'overall sentence organization, and the relationship among clauses' such as inability to use the correct connectors, tense continuity, wrong word order.

A summary highlighting the common types of errors indicated by teachers in an informal survey as well as researchers (using traditional grammatical terms) is provided in Appendix B.

5. Who should correct errors?

According to James (1994:205), 'Teachers are expected to explain. Grammars have to 'explicate' or be explicit'. In his view a classroom has to be 'an acquisition-rich linguistic environment providing evidence of two sorts: positive, revealing which sentences do occur in the language, and negative, revealing which don't' (1994:207). James echoes Corder's (1971) view: 'The 'correction' of error provides precisely the sort of negative evidence which is necessary for discovery of the correct concept or rule' (1991:70). A teacher has to explain why something is wrong besides saying that it is wrong i.e. one important requirement of grammar explanation is that it has a remedial objective (1994:206).

However, once students are made aware of their errors, they may learn more from self-correction. According to James (1994) texts which are pedagogically authentic should be produced by learners themselves i.e. examining errors produced by learners is a form of negative evidence which complements the provision of direct positive evidence through the prescriptive teaching of grammar rules.

Peer correction strategies can be used in conjunction with self-correction. In this context, the teacher can use 'whole class correction, immediate feedback and rewriting, problem solving and correction of modified and duplicated essays' (Hendrikson, p. 16)

PROCESSES

1. Suggestions for stages of error correction

Based on the literature for grammar and error correction, the suggested stages for error correction are:

Stage I: Indication / Identification of errors

Teachers to identify the types of errors that individual or all learners produce frequently.

Stage II: Analysis of errors

Analyze the source of learner's error: Careless slips? Incorrect generalization? Influence of mother tongue? Inappropriate lexical choice? Local or global mistakes? Individual or class correction?

Stage III: Selection of errors for rectification

Teachers to decide on what to correct: form (e.g. inflexions for singular verbs) or function / lexical meaning. Is the error a matter of lexical choice? Is the error a local or global one?

Stage IV: Selection of error correction strategies

For frequently occurring errors, the discovery approach can be used. This approach will help students to 'make inferences and formulate concepts about the target language and might help them to fix this information in their long-term memory' (Hendrikson, 1981:13). In self-correction, the student reads his written work to search out and correct errors which occur frequently e.g. identifying subject-verb agreement. Alternatively, the teacher can underline the errors for students to correct. According to Edge, peer correction can also be used for this purpose. In this context, the teacher will give out pieces of marked work where the errors have been highlighted. In pairs, students will correct the errors and explain to the original writers the rationale behind the corrections. The teacher can also make a collection of mistakes from a class's writing and use a whole class correction approach. In the discovery or inductive approach, the teacher provides students with more examples of errors and ask them to explain how to avoid such errors in future.

In the deductive approach (direct/explicit teaching), the teacher offers weak students a general 'rule' on the assumption that the error arises from the learner's wrong generalization. Only when they have grasped the rules then the teacher can talk about exceptions.

As for infrequent errors, they can be corrected on an individual basis. In error correction, a teacher must be flexible and sensitive to the different ability levels of the students. A fine balance has to be achieved between correcting all errors or selected errors.

2. Using IT for error correction

McGarrell (1998) has classified software used to teach grammar into three major categories.

- The computer is seen as *a tutor or "knower-of-the-right-answer"*. The computer acts as a 'drill master': keeps track of both correct and incorrect answers.' (1998:122); gives learners feedback on their comprehension without requiring an instructor to spend time commenting on or marking learner's work and helps learners develop facility in various aspects of form by going over the same material repeatedly. This type of material seems particularly appropriate for learners who have a strong desire to feel that they know the 'correct' form of language constructions (1998:124).

- The role of the computer is to provide *stimulus*, possibly through simulations. However, though users are engaged in a task, there is little or no focus on grammar.
- The computer is *a tool* 'where the software enables the learner to do something...that results in a product but may not be language intensive.' (1998:123)

According to McGarrell (1998), all three users of the computers are valid. Though the computer as tutor is invaluable, learners need to be encouraged to use software that uses the computer as a stimulus and as a tool. This is because they will then be engaged in realistic language use though such software 'will likely require discussion and instructor's input for feedback on learner's progress.' (1998:124)

Based on Connell (2000), Higgins (1986), McGarrell's suggestions and commercial programmes (Appendix C), the following categorised activities can be considered:

Computer as tutor:

- Using word processing software and commercial software – drill activities to manipulate syntactically fixed patterns if the errors are local or errors in forms. For example:
 - Cloze exercise – focus on the frequently made errors e.g. inconsistent tense.
 - Jumbled up sentence activities – if the errors are in sentence formation
 - Inserting words into full sentences e.g. inserting adverbs
 - Word order activities
 - Spell and grammar checkers/ thesarus in the computer
 - Commercial: *Logicus Inc's Perfect Copy & Times Commercial software*
 - *Dreamweaver* – using Java script and webpage editor (Michael Vallance)
 - *Hyperstudio* – multimedia approach

Computer as tool:

- Using Concordancing / the corpus linguistics to show that in real life usage, certain verbs or words are used in certain typical situation.
- Using the World Wide Web, students and teachers download texts for drill activities.
- Giving a group discussion task such as correcting the errors in a text and explaining the rationale for the correction/ offering hypotheses for correction of errors.

Computer as stimulus:

- Writing letters using e-mail and focus on specific structures for error correction.
- Commercial programmes: *Grammar for the Real World*
- Computer provides questions for discussion

The sample exercises designed by Michael Vallance for error correction shown in the session are: Cloze Exercise, Jumble words, Crossword, Find the Error, Multiple choice and Matching exercise.

Most of the demonstrated exercises for error correction have used the computer as a tool. In the process of using computers to highlight errors, teachers can use both the inductive and deductive methods. The designed exercises show the necessity of self – made exercises using programmes like Hot Potatoes and Hyperstudio in order to accommodate both the varied needs of the students and pedagogical considerations.

REFLECTIONS

Given the time constraint of a one-hour sharing session and the class size of 89, the session can only offer glimpses into the rich possibilities of applications. Hopefully, teachers are led to reflect on their strategies in error correction. The lack of opportunity for an in-depth discussion with teachers on issues arising from error correction in the actual classroom context is a source of regret. In fact the issues arising from the topic of the session merit more in-depth studies. It would have been more satisfactory to have a 2-3 hour session on error correction and another 2-3 hour session on examining the IT resources available for the teaching of grammar and the application to error correction. What this session offers is a quick overview of research studies—highlighting findings on the topic. Some of the findings may already be familiar to teachers who have delved into the issues of grammar, error correction and the use of IT.

Though teachers are not able to reflect during the session due to time constraint, they are strongly encouraged to ponder on what has been presented in the session. The success of the implementation of the suggested strategies for error correction by the individual teachers cannot be underscored adequately. In error correction, teachers have to assess what strategies to use to cater to the varying needs of their learners. Teachers still have to decide how to use the computer programmes – whether as a tutor to give students drill and practice exercises or as stimulus. As the session has demonstrated, in using IT, teachers must prepare some form of backup in case the programmes cannot operate. Therefore, in the use of IT, it is timely to remember that the computer is a tool and ‘the human brain, with its flexibility and capacity to imagine, is still superior in many ways... The computer is ‘wonderful at remembering and observing rules... but can’t find in them loopholes and options’ (LaRocque,1999). Teachers have a vital role in leading students to learn from errors and computer will only be a tool to enable students to do that.

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APPENDIX A

Uses of the Indefinite Article (Hu, 1999: 318)

1. The indefinite article is used before a singular count noun to indicate that the referent is not identifiable in the shared knowledge of the speaker and the hearer, that is, the referent has not been mentioned before and is assumed to be unfamiliar to the speaker or hearer.
2. The indefinite article is used before a complement, especially a noun phrase in a copular relationship, that is, non-referring descriptive use.
3. The indefinite article is used as an unstressed form of the numeral *one*, that is, numerical function.
4. The indefinite article is used before a singular count noun to refer to a class of thing as a whole, that is, generic reference.
5. The indefinite article is used before a premodified and / postmodified abstract mass noun to refer to a quality or other abstraction that is attributed to a person.
6. The indefinite article is used with a proper noun reclassified as a common noun to mean *a certain* or *a person like*.

APPENDIX B

Types of errors – according to traditional grammatical terms

| Connell (2000) p. 102 | Hendrickson(1981) | Walz (1982) p. 35 |
|--|--|--|
| Severity of errors is a more important factor than frequency | Categories using Global and Local Taxonomy | Categories according to frequent errors(not in order) |
| <p>Errors causing sentences to be incomprehensible</p> <ul style="list-style-type: none"> ○ Parts of speech – mixing up or omitting nouns, adjectives, verbs, adverbs ○ Word order – unacceptable grammatical pattern ○ Omission of subject | <p>Lexicon</p> <ul style="list-style-type: none"> ○ Nouns ○ Verbs ○ Adjectives ○ Adverbs | <ul style="list-style-type: none"> ○ Subject – Verb Agreement ○ Articles and determiners ○ Comparisons ○ Nouns ○ Prepositions ○ Punctuation ○ Sentence ○ Verbs- incorrect tense and form |
| <p>Errors causing sentences to be somewhat incomprehensible</p> <ul style="list-style-type: none"> ○ There is / are ○ Comparatives ○ Verb tenses ○ Modals | <p>Morphology</p> <ul style="list-style-type: none"> ○ Tense markers ○ Negative marker ○ Plural markers | <ul style="list-style-type: none"> ○ Word order |
| <p>Errors but sentences are still comprehensible</p> <ul style="list-style-type: none"> ○ Articles ○ Quantifiers ○ Linking words ○ Infinitive forms ○ To have / be ○ Negatives ○ Plurals ○ Word choice | <p>Syntax</p> <ul style="list-style-type: none"> ○ Articles ○ Modals ○ Quantifiers ○ Conjunctions ○ Subordinators ○ Word order ○ Subject verb agreement ○ There is / There are ○ Prepositions | |

APPENDIX C

Notes on Commercial Computer Programmes for Grammar Teaching

Spell-checker and grammar-checker

- The computer's spell-checker is good at flagging misspelled or repeated words but can't distinguish among homophones such as there, their, and they're, or to, two, and too.

(LaRocque,1999)

- The computerized spell-checker is cut- and-dried. It offers three basic alternatives: the accepted spelling of a word; alternate spellings (programmed / programmed); or nothing if the word is missing from the program's dictionary of between 60,000 and 1,000,000 words. (Shuman, 1995)

Grammar for the Real World

- Designed for youngsters in grades 4 through 9, this innovative program sends kids off to Hollywood, where they put their grammar, reading, and writing skills to work in various creative assignments, including writing a resume, developing a commercial, and ultimately creating a television show. Difficulty levels advance automatically, and an on-line grammar book is available to assist players along the way (Oh,1999).

Logicus Inc's Perfect Copy

Ideal program for teaching sentence editing skills in the context of a passage. There are 500 articles to edit and each article is of varying levels of difficulty and most are problem-specific, having one type of grammar or punctuation error. (Dollieslager, 1996)

- The grammar checker is good at flagging long sequences of noun modifiers. It also catches many 'that' and 'which' errors. It also dependably flags overused or frequently misused expressions such as basically, in fact or literally. (LaRocque,1999)

Times Multimedia: Ship's Tiddle's Primary English: A Thematic Approach (1999) 5A

- The section on 'Language in Use' has grammar exercises using Cloze passages. Fill in the blanks and Multiple Choice questions. Students will be engaged in drill practices on items like conjunctions, pronouns, punctuation and spelling

Times Multi-media: English Grammar: An Interactive Grammar Program for Learners of English (Ages 10-15)

- It is designed to help the intermediate English Language Learners to improve their use of grammar. The program focuses on the use of verbs. Entertaining slideshow, authentic texts and challenging exercises are used to help learners learn about the different tenses.

* **Writer's own addition**

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