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SITTING ON THE FENCE OR JUMPING IN AT THE DEEP END? APPROACHES TO DEVELOPING READING SKILLS IN EAP AND ESP

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Introduzione

Essere in grado di leggere l'inglese come una seconda lingua è di indubbia importanza in un contesto universitario internazionale. In molti campi specialistici la traduzione di testi di rilievo, scritti in inglese, non è sempre accessibile, di conseguenza studenti e docenti sono costretti a spendere tempo e energie sia nella traduzione che nello studio del materiale.

Il sistema della lettura, con particolare riguardo alla produzione di materiale per l'insegnamento progettato per migliorare la capacità di leggere in ambito accademico, è stato oggetto di molte ricerche e quest'articolo si propone di analizzare due tesi riguardanti il processo della lettura, di discuterne alcuni aspetti per ciò che attiene alla loro applicazione pratica, e infine di offrire suggerimenti utili per sviluppare le strategie di lettura nell'ambito dell'inglese specialistico (English for Academic Purposes - EAP - e English for Specific Purposes - ESP).

Theoretical considerations

Research carried out in the 1970s and 1980s focused attention on the psychological processes involved in reading a text or what could be termed a "psycholinguistic approach"[1]. In such an approach the linguistic content of the text provides only a partial aid to comprehension, while the reader's knowledge of the subject area is essential firstly to accessing the content and secondly to confirming or modifying knowledge which already exists. As Grellet[2] asserts,

> "What we already know about the subject and what we are looking for are probably just as important as what we actually draw from the text."

Thus, the reader who is an expert in a given field of study may be assumed to have a good knowledge of his or her subject and will therefore

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[1] Paran, A. (1996) *Reading in EFL: facts and fictions*, in *English Language Teaching Journal*, vol. 50/1, p. 25.

[2] Grellet, F. (1981) *Developing Reading Skills*, Cambridge: Cambridge University Press, p. 18.

make use of this knowledge in order to gain an understanding of what i being read. Research by Bransford et al[3]. into how the reader tackles th problem of processing obscure or difficult reading passages, where it wa difficult to make a direct link between linguistic content and world knowl edge, led to the conclusion that

> "less successful students often fail to activate relevant knowledge that would clarify the significance of factual knowledge."

This means that the more difficult or inaccessible the text, the more the reader will make use of world knowledge in order to arrive at possible meanings.

The theory that the ability to make logical connections with regard to content and not only linguistic form has a certain appeal to the practising English teacher, and indeed in most text books[4] over the last fifteen years this approach has been used extensively. This appeal is based on the fact that it is possible to avoid repetitive or grammatical or comprehension type exercises and it allows a great variety in teaching strategies for accessing a text, thereby increasing the student's interest and motivation.

In practice the reader is trained to follow a certain procedure when tackling a text. In the first place he or she should be aware of the type of text to be read, on the basis of where it is printed (in an academic journal, newspaper, specialised magazine and so on), its title, layout and illustrations. The reader will then make assumptions about the possible content, how this is organised and where to find the information needed to carry out the task in hand. This will depend on the why the reader is studying the text, i.e. *scanning* for specific information, e.g. in processing tables, graphs and statistics, or *skimming* through for a general understanding of the content, in processing the overall argument of a paper.

A practical example is illustrated below of how a text may be accessed and processed by a non-native English language user, employing Grellet's[5] psychlinguistic hypothesis-prediction model. Use is made of an imaginary

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[3] Bransford, J.D., Stein, B.S. and Sheldon, I. (1984) *Learning from the perspective of the comprehender*, in Alderson, J.C. and Urquart, A.H. (eds.), *Reading in a Foreign Language*, London: Longman, p. 42.

[4] See the *Headway* series (Soars, J. and L.), published by Oxford University Press, *Intermediate Matters* and *Upper-Intermediate Matters* (Bell, J. and Gower, R.), published by Longman, the New *Cambridge English Course* (Swan, M. and Walter, C.), published by Cambridge University Press and the *Flying Colours* series (Garton-Sprenger, J. and Greenall, S.), published by Heinemann.

[5] Grellet (1981), op. cit., p. 7.

article in a quality English newspaper in order to focus attention on a non-specialised text. In the later part of this paper same examples are examined with reference to a specialised ESP and EAP context.

AFRICA ARMS DOG PREMIER

The British Prime Minister, Harold Smiles, was questioned by the police this morning in connection with the Libyan arms scandal.
The scandal broke last October when an attachè case belonging to the ex-Cabinet Minister John Brown was found in a rubbish bin in south London. It had been stolen the night before from his car parked outside his home in Hampstead. The documents in the case were handed to our offices in Fleet Street and on examination they revealed that Mr Brown was involved in the illegal exportation of nuclear weapons to Third World countries, including Libya.
The ensuing Downing Street crisis has threated to topple the Smiles government on several occasions, but Mr Brown's resignation and the Prime Minister's guarantee that neither he nor the government is not directly involved in illegal arms deals seem to have appeased public opinion.
After this morning's police questioning, which involved all Cabinet Ministers, Mr Smiles explained that Scotland Yard was carrying out routine investigations and he was quite happy to help them in any way he could.

The following analysis is based on three elements. Firstly accessing the text through the study of the title[6], secondly a closer examination of a sentence taken from the text itself and thirdly an examination of the organisation of the text.

According to the psycholinguistic model, the reader will first examine the title or headline and formulate a hypothesis as to the possible content of the text. Immediately a first problem may be identified, since to the untrained eye the linguistic content of the title seems to be nonsense. It is difficult to find a logical link between *arms* (part of the human body) and *dog* (an animal). Spoehr and Schuberth[7] define this kind of collocation as "incongruous", i.e. it does not satisfy the expectations of the reader in terms of a logical interpretation of the world. However, according to this model, an effective reader will automatically discard this initial hypothesis and formulate a new theory where *arms* is interpreted as *weapons*, while *premier* is probably a *leader* of some international standing. A careful reader

[6] Taken from Jones, L. (1986) *Progress to Proficiency*, Cambridge: Cambridge University Press, p. 68.

[7] Spoehr, K.T. and Schuberth, R.E. (1981) *Processing words in context*, in Tzeng, O.J.L. and Singer, H. (eds.) *Perception of Print*, New Jersey: Lawrence Erbaum Associates, p. 105.

may also note the softer tone in the choice of *premier* rather than *leader*, and thus conclude that the person involved is of European origin, bearing in mind the fact that the article appears in an English newspaper. Other alternatives would be *president* (often associated with the United States), *leader* (quite neutral) or even *dictator* (negative and authoritarian). A more plausible hypothesis can now be formulated from the fragmentory information available, possibly concerning some kind of scandal involving the illegal exportation of arms to an African country, for example Libya, Ethiopia or Ruanda. This hypothesis is a form of prediction, a way of anticipating the content of the text and, as Smith[8] forcefully asserts, "prediction through meaningfulness is the basis of language comprehension". In a certain sense, the reader constructs his or her own meanings even before processing the the linguistic content of the text.

At this point the reader will skim quickly through the newpaper article in order to confirm or modify the hypothesis formulated above, continuing to predict content as progress is made through the text, through the use of knowledge already acquired regarding the subject area, from previous newspaper articles, for instance. A cycle of prediction and confirmation will take place throughout this process. Finally the reader will scan the text, if necessary, studying specific details and in particular those details which are new or of particular interest.

It is possible to note in the above process that the lexical item *dog* has not been analysed. Indeed it has become superfluous to the overall message of the text, and the effective reader would not be unduly concerned about this detail. In other words it becomes redundant. This type of redundancy is a further important aspect of this model for reading. A good reader is assumed to process the text in sections and not word for word, he or she

> "seeks cues in a text and creates relationships which form part of a complex pattern of meaning"[9].

In the following example, adapted from Doff[10], we see how a possible first sentence of the above newspaper article would be comprehensible to most proficient readers, in spite of the fact that certain letters are missing.

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[8] Smith, F. (1978) *Making sense of reading and of reading instruction*, in Chapman, L.J. and Czerniewska, P. (eds.), *Reading from Process to Practice*, London: Routledge and Kegan Paul, p. 108.

[9] Harri-Augstein, S. and Thomas, L.F. (1984) *Conversational investigations of reading: the self-organised reader and the text*, in Alderson and Urquart (eds.), op. cit., p. 268.

[10] Doff, A., (1988) *Teach English: A Training Course for Teachers*, Cambridge: Cambridge University Press, in Paran (1996), op. cit., p. 27.

T—Brit--- P---- M-------, H--- S---r was qu------ed by t-- --lice th-s m—ning in conn------ with t—Lib--- a-ms ---ndal.

According to Doff comprehension comes about through a combination of prediction and guessing rather than a close analysis of the linguistic form of the text itself. In this particular case *Brit* would be associated with *Britain* or *British*, P M with *Prime Minister or premier* and from this acquired information the reader will assume that the article refers to *Mr Harold Smiles*. Obviously, the name is invented, but it may be assumed at this point that the reader's world knowledge will come into play and if he or she is well versed in British politics the name of the Prime Minister will be of common knowledge. We should also note that the phrase *was questioned by the police in connection with* is often seen as a complete unit in itself and detailed consideration on the part of the reader becomes superfluous. In the final part of the sentence the reader finally discovers that the *arms scandal* in the headline regards *Libya*.

Furthermore, the reader will not only follow cues at a sentence level, but also take into consideration the whole text structure, across sentence and paragraph boundaries. Different types of texts are organised in different ways according to the purposes of the writer. In his analysis of research articles, for example, Swales[11] identifies a relatively standard presentation format which follows the sequence Introduction, Method, Results and Discussion. Certainly students and researchers need to be sensitive to these factors, as knowing where to find the information required for a particular study can be a significant time-saving factor. What is more important is that there may be differing conventions or approaches to logical exposition from one language group to another with regard to the organisation of information or what Widdowson[12] terms "cognitive styles which appear to typify different cultural patterns of thinking". An unawareness of such factors may lead to difficulties of comprehension. Some of these aspects will be examined in more detail later. Nevertheless, in relation to a short newspaper article the overall text would typically be structured in the following way:

(1) Headline or title.
(2) Summary of headline detailing the situation as it stands at present.
(3) Flashback to clarify how this situation has arisen.
(4) Concluding comments with quotations from persons directly involved.

[11] Swales, J.M. (1990) *Genre Analysis*, Cambridge: Cambridge University Press, p. 135.

[12] Widdowson, H.G. (1983) *Learning Purpose and Language Use*, London: Oxford University Press, p. 103.

The first aspect to be noted is that the events are not necessarily presented in chronological order. The less proficient reader may not take this into account, and therefore not understand clearly the correct sequence of events. The writer has a specific aim in structuring the text in this way. It is possible to render it more immediate and alive starting with the present situation and, thus, stimulating the reader's interest. At the same time the overall structure is predictable in terms of a newspaper article and, therefore, facilitates the initial skimming process *if the reader is familiar with such a structure.*

In conclusion, according to the psycholinguistic model, on accessing such a text an effective reader will have expectations regarding textual organisation and make use of them in processing the content. He or she will see the text as a complete organisational unit and attempt to glean a "global"[13] understanding of its content, possibly even skipping complete paragraphs if the content is supposedly predictable. The example given above for the sake of simplicity is a newspaper article, but the principle of predictability can be applied, theoretically, to most types of writing. Therefore, students and researchers need to be familiar with the organisational aspects of text relevant to their field of study.

At this point, however, it is necessary to examine more closely some of the less convincing aspects of this reading model. Although the psycholinguistic approach has dominated the teaching scene for many years, it by no means answers all the questions that can be raised about the reading process. One significant problem may be identified in the inherent unpredictabilty of many texts. In the newspaper article above, for example, it cannot be assumed that Harold Smiles is actually directly involved in the scandal. It would be reasonable to conclude from the information we acquire in the title and the introductory sentence that this was the case, but on reading the flashback section of the article, it is discovered that a high-ranking Cabinet Minister is directly involved, thus causing a goverment crisis and the police have questioned all government ministers including the Prime Minister himself. In an ESP context this type of unpredictability could be applied to the interpretation of unexpected experiment results or even identifying erroneous data. This is even more the case or EAP regarding the study and analysis of literary texts where the reader is required to deal with such aspects of language as metaphor, irony or distinguishing between fact and opinion. In particular readers at this level need to be trained to develop

[13] Gough, P.B., Alford, J.A. and Holley-Wilcox, P. (1981) *Words and Contexts*, in Tzeng and Singer (eds.), op. cit., p. 86.

"an ability to criticize the opinions and models of others, weigh up arguments and form judgements about them"[14].

This would imply the need for a closer linguistic examination of the text and an ability to interpret as well as understand. Consequently, the prediction-hypothesis approach does not seem to provide an entirely adequate model for the reading process, particularly at higher levels of language training.

Finally, and probably most importantly, there is little scientific evidence that hypthesis and prediction improve reading ability. On the contrary, after a series of experiments into the reading ability of users of English as a first language, Mitchell[15] concludes that there is no evidence to suggest that prediction improves reading time.

Therefore, emphasis swings towards the linguistic content of the text and the reader's ability to decode what appears on the written page, ie. To use an analytical aapproach. To what extent is it possible to quantify the degree of hypothesis and prediction as opposing that of linguistic analysis in the examples given above? It seems evident that a combination of both elements is needed. Without the necessary lexical knowledge it would be impossible to successfully interpret or guess the content of the incomplete first sentence of the newspaper article, using Doff's model[16], even with the application of an extensive world knowledge. Linguistic analysis goes further than this, however. It implies the ability to recognise individual lexical items, how these items fit together to produce longer units of text and how these units create the whole text. This approach is far more complex than the traditional sentence level analysis, which we see in many course books for the teaching of English. It has been observed[17] that in certain cases when the reader knows all the words and understands the syntax of a given text at a sentential level, he or she may still have difficulty understanding the overall meaning of the text itself.

For this reason, the training of reading skills should perhaps go beyond mere sentence boundaries in what is often termed a rhetorical analysis of

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[14] Wall, D. (1981) *A Pre-Sessional Academic Writing Course for Post-Graduate Students in Economics*, University of Lancaster.

[15] Mitchell, D.C. and Green, D.W., (1978) *The effects of context and content on immediate processing in reading*, in *Quarterly Journal of Experimental Psychology*, 30, in Paran (1996), op. cit., p. 27.

[16] Doff, A., (1988) op. cit., in Paran (1996), ibid., p. 26.

[17] Swales, J.M. (1988) *Episodes in ESP*, Cambridge: Prentice Hall International, p.119.

text[18]. At a paragraph level, for instance, Trimble[19] defines the typical, traditionally perceived, paragraph in an ESP text as follows:

> "It consists of (1) a stated or clearly implied generalization, usually found in the first sentence or sentences of the paragraph, and (2) a development of this generalization by supporting information, which ranges from lower-level generalizations to specific details."

According to Trimble[20] the above definition of a paragraph is unsatisfactory with regard to the organization of information in a text, as very often the less proficient reader will expect such a traditional "physical paragraph" to be a complete entity in itself, while the complete entity, in terms of the information transmitted, may exist across two or three physical paragraph boundaries. This he defines as a "conceptual paragraph", i.e. a complete unit of information in itself. The difficulty a reader encounters in comprehending such a text is not necessarily due to a lack of world knowledge, but to an inability to recognise the purely linguistic cues and markers which hold a text together or, more precisely, render a text *cohesive*.

The cohesion of text is achieved through grammatical and lexical cues. Palmer[21] defines three grammatical markers, *reference, ellipsis and conjunction*, Henceforth, the last item will be referred to as *linking*, since *conjunction* could easily be misinterpreted on its sentence level grammatical function, while in this case a wider suprasentential concept needs to be expressed. To these three elements we may also add *tense* and *aspect*. From a lexical point of view, he identifies three elements, *synonymy, repetition* and *superordination*. Each of the above elements will now be examined in turn, in order to analyse how they act in rendering a text cohesive. Reference will be made to both the newspaper article previously examined from a psychlinguistic point of view and also specific examples from an ESP context.

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[18] See in particular: Lackstrom, J., Selinker, L. and Trimble, L. (1972) *Grammar and technical English*, in Swales (1988) op. cit., pp. 58-68; Lackstrom, J., Selinker, L. and Trimble, L. (1973) *Technical rhetorical information and grammatical choice*, in TESOL Q, vol. 7 no.2, Washington D.C.; Allen, J.P.B. and Widdowson, H.G. (1974) *Teaching the communicative use of English*, in Swales (1988) op. cit., pp. 69-89; Selinker, L., Todd Trimble, R.M. and Trimble, L. (1976) *Presuppositional rhetorical information in EST discourse*, in TESOL Q, vol. 10 no. 3, Washington D.C.

[19] Trimble, L. (1979) *A rhetorical approach to reading scientific and technical English*, in *English Teaching Forum*, vol. unknown, Washington D.C., p. 3.

[20] Trimble, L. (1979) ibid., p. 3.

[21] Palmer, J.D. (1980) *How a paragraph hangs together*, in *English Teaching Forum*, vol. XVIII/2, Washington D.C., p. 16.

Reference aids the reader in tracking backwards and forwards in the text and in making the necessary logical connections to construct meaning from the text. Essentially, these grammatical cues serve to stand in for nouns, noun phrases, verb phrases or even whole clauses in order to avoid unnecessary repetition. In particular this regards:

personal pronouns (*I, you, he, she, it, we, they*)
object pronouns (*me, you, him, her, it, us, them*)
relative pronouns (*who, which, that, when, where*)
possessive pronouns (*mine, yours, his, hers, its, ours, theirs*)
impersonal pronouns (*one, everyone/body, everything*)
locative pronouns (*here, there*)
temporal proform (*then*)
articles (*a/an, the*)
quantifiers (*all, some, any, none etc.*)
demonstratives (*this, that, these, those*)
possessive adjectives (*my, your, his, her, its, our, their*)

The pronoun plays an important role in rendering the text cohesive, both with their anaphoric function (referring to an element previously mentioned in the text) and deictic function (relating the reader to time, place and person)[22]. In the newspaper article given as an example above, it is noted that the demonstrative *this* alongside *morning* provides the reader with an initial temporal context, the pronoun *it* refers back to *attachè case*, *he* and *his* refer either to Mr Smiles or Mr Brown throughout the text, while *they* refers to the documents found in the case and *them* to *the police*. Similarly, the relative pronouns *when* and *which* refer respectively to *last October* and *police questioning*.Attention should also be drawn to the transfer from *an attachè case* (newly provided information with the use of the indefinite article) to *the documents* found in the case (use of the definite article in reference to an element previously mentioned, even though this may be indirectly, since they were *in the case*).

A further form of reference is the pro-verb *do*[23] which is also used to avoid the repetition of a previously employed verb, although it is necessary to distinguish between its referential use and its elliptical use which is illustrated below.

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[22] Huddlestone, R. (1988) *English Grammar: an Outline*, Cambridge: Cambridge University Press, p. 98.

[23] Swan, M. (1995) *Practical English Usage* (Second Edition), Oxford: Oxford University Press, p. 161.

(1) Mary studies physics, but I don't know if Peter does.

In the above example *does* substitutes studies and physics, i.e. the complete verb phrase. This type of substitution may also be effected with the addition of so or so with the verb be, which may also stand in for a complete clause:

(2) It is not certain that Professor Willis will complete the experiment by tomorrow. If she does so, you will be duly informed.
(3) It has been proved that this was not so.
(4) Although measures taken in the early 1990s were extremely successful, they have recently proved to be less so.
(5) I think so.

Example *(2)* illustrates the common usage of *if* along with *do so*, carrying the reference across a sentence boundary, in much the same way as example *(3)* showing *be* combined with *so* in reference to *this*, which in turn refers to something previously mentioned. Example *(4)* is commonly found in comparative forms, *less so*, in this case drawing a comparison between the success of the measures taken and the lack of recent success. This could equally be substituted by *more so*, in order to express the idea of increased success. Finally, example *(5)* illustrates the substitution of a complete *that* clause, again in reference to an element previously mentioned[24].

Ellipsis consists of the omission of a word or words superfluous to the completion of the intended message of the text. Huddlestone[25] examines how clauses are coordinated even though features may be omitted. The following examples illustrate *coordinated* ellipsis:

(6) He carried out the experiment, but she didn't.
(7) He carried out the experiment, and Bob, too.
(8) He carried out the experiment, although she didn't want him to.

In the above cases it is clear that the omitted information refers to the carrying out of an experiment. In example *(6)* there is a straightforward negative form. Note how this could easily be confused with the use of the pro-verb *do*. In example *(7)*, however, only the new subject, *Bob*, is provided. Example *(8)* illustrates the common use of an incomplete *to* infinitive[26].

[24] Swan, M. (1995) ibid., p. 539.

[25] Huddlestone, R. (1988) op. cit., p. 204.

[26] Swan, M. (1995) op. cit., p. 179.

After many time reference conjunctions (for example, *after, before, since, when, while, until*)[27] it is possible to substitute a subject and full verb either with a gerund, an adjective or a past participle.

(9) You may not approach the lab instruments while smoking.
(10) You may start the experiment when ready.

In the newspaper article there is an example of a form of *truncated* ellipsis, where the sense of the preceding text content is modified by the use of a modal verb, in this case *could* expressing the idea of *being able*.

(11) He was quite happy to help them in any way he could.

The modification of the sense of preceding information through the use of modal auxiliaries implies expanding its meaning and often adding an emotional, personal or subjective element to the interpretation of the message. Huddlestone[28] divides the functions of modal verbs into three typologies:

(a) *Epistemic* modal auxiliaries, which concern the speakers extent of knowledge at the time of formulating an utterance (possibility, probability, certainty, futurity) and *include can/cannot, could, may, might, must and will.*

(12) At present the apparatus does not produce satisfactory results, but with the necessary modifications it may.

Example *(12)* illustrates how possibility may be expressed in terms of a hypothesis as yet unproved, i.e. modification may improve results.

(b) *Deontic* modal auxiliaries, which concern the expression of obligation, prohibition or permission, typically including *must, should, ought to, can, could, may.*

(13) This point of view has never been seriously considered, but in the light of recent research, we believe it should.

In example *(13)* we note how a suggestion is formulated, for instance in the introduction to a research paper.

(c) *Subject-oriented* modal auxiliaries, which express particular characteristics of the subject, living or inanimate, such as ability (*can*), willingness

[27] Swan, M. (1995) ibid., p. 130.

[28] Huddlestone, R. (1988) op. cit., pp. 78-79.

(*shall, will, would, could*) or being possessed of a specific property or not. Example *(11)* would be placed in this category, as it expresses the idea of willingness to help.

The reader's ability to distinguish these correctly or not may lead to a more or less accurate interpretation of the writer's intention and thus the message of the text, particularly when expressing degrees of certainty, doubts or subjectivity.

Finally ellipsis often occurs in comparative and superlative constructions[29], where it is clear from previously mentioned items what is being referred to.

(14) Smith's theory is interesting, but Jones' is more convincing.
(15) Many studies into metal fatigue have been carried out, but this is probably the most thorough.

In example *(14)*, Jones' theory is *more convincing than Smith's theory*, and in example *(15)* one particular study, identified in *this*, i.e. at present the focus of the reader's attention, is *the most thorough of all the other studies* carried out up to this point.

Linking may be defined as the joining together of parts of sentences or longer sections of text and providing links across sentence boundaries as well. Palmer[30] identifies five classes of linking which tend to overlap somewhat, and therefore have been reduced to four which are listed and redefined below, along with examples.

(a) *Additive* linking represents the class which provides further information in order to support an argument or give concrete evidence for a hypothesis or model,
e.g. *and, furthermore, moreover, in addition, what is more, similarly*
This class may also present to the reader alternatives or options,
e.g. *either...or, neither...nor, alternatively*
or be employed for exemplification in order to clarify,
e.g. *for example, for instance, such as*

(b) *Adversative* linking serves to contrast or balance information or opinions,
e.g. *on the contrary, on the other hand, in contrast, while, whereas*
or express a concessive function with regard to elements which may be criticised, which contain drawbacks and frequently to soften a negative

[29] Swan, M. (1995) op. cit., p. 124.

[30] Palmer, J.D. (1980) op. cit., p. 17.

judgement.

(16) Although Smith's theory is interesting, there is no scientific evidence to prove it.
(17) There is no scientific evidence to prove Smith's theory, although it is interesting.

In example *(16)* the interesting nature of Smith's theory is conceded, while in example *(17)* the negative opening is softened by the addition of the second clause. These constructions are extremely common in academic writing, where the balancing of information is essential to the construction of a logical argument,
e.g. *but, although, despite, however, yet, nevertheless, notwithstanding*
Alternatively, it may place certain conditions on a given opinion, act or process,
e.g. *if, unless, provided that*
(c) *Causal linking* expresses either the consequence of a previous action or situation,
e.g. *so, consequently, therefore, thus, hence, as a result*
or it may also express the cause,
e.g. *because, since, as*
or the reason for a particular action or decision,
e.g. *in order to*
(d) *Temporal linking* aids the reader in following a sequence of events or acts either physically on the page, i.e. when a series of points in an argument are presented or when there is a change of direction in the discourse,
e.g. *firstly, secondly, in the first place, initially, lastly, finally, subsequently, in conclusion, at this point*
or temporally to express an actual time sequence,
e.g. *before, after, until, from...to, meanwhile*

Here it should be noted that there is a certain amount of overlap in these two aspects of temporal linking. This is due to the fact that both time and discourse are perceived as flowing or moving. The following examples,

(18) Time passed slowly as we waited for the results.
(19) I don't follow what you are saying.

illustrate this quite clearly and this has implications when some of the underlying semantic features of discourse are examined.

Tense may be defined as locating a given situation in a particular time[31] and is crucial in giving the reader a sense of orientation within the text. In the newspaper article used as an example a number of tenses are used, and although the physical organisation of the text does not represent the chronological sequence of events, the verb tenses aid the reader in understanding what this sequence is. Thus, the article starts in the past simple (*was questioned*), specifically contextualised with the support of the temporal qualifier *this morning*, continues so, but transferred to *last October* to arrive finally at the present simple (*is, seem*) situation at the end of the third paragraph. In the meantime it is understood that Mr Brown's car was stolen before the attachè case was found, by virtue of the fact that the past perfect tense (*had been stolen*) is used for the first action and the simple past tense (*was found*) for the second, even though the physical placement of these elements is the contrary in the text. In the final paragraph it is also possible to note the false past used in the indirect speech (*were carrying out* and *was*).

Turning to more specialised texts, Swales'[32] analysis of research articles identifies not only a typical organisation, discussed previously, but also a standard use of tenses. In the Introduction and Discussion sections of such a paper, the tenses used will vary greatly, but will consist mostly of past and present to equal measure, while in the Method and Results sections the predominantly used tense will be the past, in the former largely passive and in the latter largely active.

Aspect regards the "temporal flow or segmentation"[33] of a situation, rather than its mere location. This is important, since it gives a text an internal dynamism and aids the reader in following the actual passing of time or transitions within the text itself. The use of the present perfect in the newspaper article, for example focuses attention either on the recent nature (*has threatened*) the situation being described or on the situation itself rather than when it happened (*to have appeased*), while the use of the progressive form *were carrying out* gives the reader the idea of an ongoing act.

Synonymy is the replacement of one lexical item for another with a similar meaning. In the newspaper article it is possible to find, for example *arms* and *weapons*.

This concept may be developed further, however, in a more culturally bound framework which occurs in the text. *Downing Street* is used in refer-

[31] Huddlestone, R. (1988) op. cit., p. 69.

[32] Swales, J. (1990) op. cit., p. 135.

[33] Huddlestone, R. (1988) op. cit., p. 73.

ence to *the Prime Minister* or *government, Scotland Yard* refers to *the police* and *Fleet Street* refers to a newspaper headquarters. These references are culturally bound in the sense that the reader must be able to make these connections in relation to a culturally specific context, i.e. Great Britain. Effectively, this means that a place, person, institution or object may take on a symbolic meaning in a metanymic sense, for instance *crown* for *king*[34]. It is possible to find significant differences across diverse cultural boundaries. In certain cultures it is possible that the symbol *crown* is not associated with *kingship*, and, therefore, comprehension difficulties could arise from a lack of background knowledge or cultural awareness and not only from a purely linguistic point of view.

Repetition refers to the repeated use of, predominantly, noun forms, titles, names or institutions in order to avoid ambiguity, especially across paragraph boundaries. Thus, in the newspaper article *Harold Smiles* is referred to as *Mr Smiles* in the fourth paragraph and *John Brown* as *Mr Brown* in the second and third paragraphs. The repetition of *scandal* is also noted between the first and second paragraphs.

Superordination concerns the organisation of words into "lexical sets"[35], and how these sets may be defined as a class in themselves. Therefore,the lexical item *sports* may refer to the lexical set *football, tennis, rugby, cricket* and so on. In the following example we see how superordination may be used in connecting two sentences.

(20) Mix the potassium nitrate, ground charcoal and sulphur. Under no circumstances should these substances be handled near a burning flame.

Substances refers to the ingredients (*potassium nitrate, ground charcoal* and *sulphur*) necessary for the production of gunpowder. This usage is common, for example, in the giving of instructions or explaining a process.

Having described these specific elements of textual cohesion and how a text may technically be constructed, it is now necessary examine their limitations in terms of how the reader arrives at comprehending the text. The various physical elements of the text are indeed held together both backwards and forwards by means of the devices described in this section,

[34] Yule, G. (1996) *The Study of Language* (Second Edition), Cambridge: Cambridge University Press, p. 122.

[35] Palmer, J.D. (1980) op. cit., p. 17.

i.e. anaphorically cataphorically and, to create a unity of written communication. Nevertheless, not even this type of analysis gives a complete insight into how that communication is achieved. The following example,

(21) Houses vary in life and death from the tastiest morcels found in the pencil cases around such worlds as Peter and Mary to delicate monsters like the Moon.

illustrates a perfectly cohesive text, observing all the necessary rules of syntax. However, it does not make sense. While the syntax is perfectly logical the content does not correspond with a standard perception of the world or "common frame of reference"[36] The reason is that it lacks *coherence*[37]. A coherent version of the text would be as follows[38]:

(22) Houses vary in size and style from the crudest huts found in the shanty towns around such cities as Brasilia and Johannesburg to magnificent palaces like Versailles.

where the underlying theme or framework is *housing*, lacking in example *(21)*

Hutchinson and Waters[39] criticise a purely analytical or grammatical approach as it only

> "establishes patterns but does not account for how these patterns create meaning."

The coherence of a text goes deeper than its mere surface form. In example *(22)*, coherence is achieved by the association of logical sets which are able to create associations based on world reality, "by inferring a bridge between the information given and the current state of his knowledge"[40]. The deep structure of text is a complex area of study, which extends further than the reader's factual knowledge. Deep structure is systematic and con-

[36] Widdowson, H.G. (1983) op. cit.

[37] Widdowson, H.G. (1983) ibid., pp. 69-72.

[38] Adapted from English Language Centre Teaching Materials, Varese 1989.

[39] Hutchinson, T. and Waters, A. (1987) *English for Specific Purposes*, Cambridge: Cambridge University Press, p. 37.

[40] Widdowson, H.G. (1983) op. cit., p. 69.

cerned with meaning[41]. This deep meaning can be considered to consist of a metaphorical undercurrent implicit in all communication[42]. In a conventional sense a metaphor represents an abstract concept in terms of something which is readily understandable, tangible or concrete. Take as an example the somewhat overused "All the World's a Stage"[43], where life is likened to a theatrical production, with its entrances (births) and exits (deaths). Metaphor may go further however, in providing an underlying meaning for text in the sense that it may

> "contribute significantly to many important language related activities, or dimensions of language use."[44]

As observed above, in reference to *temporal linking*, this aspect of text construction concerns not only time in its real sense, but also the logical progression of an argument. Lakoff and Johnson[45] provide an example of underlying metaphor, ie"Theories are buildings". They e noting that "theories" often have a "framework", "foundations" or "support". These underlying factors will influence the structure of a text as well as the lexical choices which a writer will make. There is little doubt that a surface structure metaphor may cause comprehension problems since, as Hayakawa[46] observes,

> "a well-understood metaphor in one culture may have entirely different meanings in another part of the world."

This may well have more subtle implications with regard to deep level structure, and certainly more work needs to be carried out in this area, particularly with regard to teaching approaches.

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[41] Widdowson, H.G. (1974) *The deep structure of discourse and the use of translation*, in Brumfit, C.J. and Johnson, K. (eds.) (1979) *The Communicative Approach to Language Teaching*, Oxford: Oxford University Press, pp. 64-65.

[42] Lakoff, G. and Johnson, M. (1980) *Metaphors We Live By*, Chicago: University of Chicago Press.

[43] In William Shakespeare's *As You Like It, in The Concise Oxford Dictionary of Quotations* (Second Edition), Oxford: Oxford University Press, p. 205.

[44] Low, G.D. (1988) *On teaching metaphor*, in *Applied Linguistics*, vol. 9 no. 2, p. 127.

[45] Low, G.D. (1988) ibid., pa. 130

[46] Hayakawa, S.I. (1974) *Language in Thought and Action*, London: George Allen and Unwin, in Lazar, G. (1996) Using *Figurative language to expand students' vocabulary*, in *English Language Teaching Journal*, vol. 50/1, p. 46.

Conclusions

Considering the theoretical background outlined above it is possible to argue that both prediction-hypothesis skills (global comprehension) and analytical skills (interpretation) may be used in accessing and extracting information from a text, providing the reader with a variety of strategies for accessing and processing what is being read. Consequently, a *multi-layered approach* to the teaching of reading is proposed, which aims at avoiding too much emphasis on either one approach or the other and which takes into consideration all aspects of the reading process from technical (analytical) to cognitive (psycholinguistic). This is illustrated briefly below.

Unfortunately, there is a tendency in language teaching to follow fashions and to give too much weight to the latest theory, often discarding out of hand previous approaches to a particular problem. A careful analysis of all the theoretical background that is available to the teacher and its appropriate adaptation for classroom use is necessary to avoid the worst excesses. In reading development I would argue that both the psycholinguistic and a more analytical approach can be used in tandem, firstly to stimulate the student's interest and secondly to provide a sound theoretical-grammatical basis for the reader who needs to study texts more closely for purposes of study. Thus, with regard to developing reading skills, I would propose "sitting on the fence" and carefully analysing all aspects of the question rather than "jumping in at the deep end" in the blind acceptance of what appear to be revolutionary solutions to old problems.

Implications for the teaching of reading skills in EAP and ESP

In the following section some practical approaches to the teaching of reading skills are described. A multi-layered approach to such training would require two points to be considered. Firstly, whatever activities are carried out in the classroom, they should be motivating for the learners. This implies using a variety of techniques and possibly avoiding an exclusive focus on reading itself. All skills (reading, writing, speaking and listening) could be integrated. In reality, we very rarely make use of one skill alone. Hutchinson and Waters[47] point out:

> "Using a range of skills greatly increases the range of activities possible in the classroom. This makes it easier to achieve a high degree of recycling

[47] Hutchinson, T. and Waters, A. (1987) op. cit., p. 141.

and reinforcement, while maintaining the learners' interest."

The second point is that this will influence how a reading lesson is structured. This may include the following elements:

(a) Contextualisation activities.

These are often referred to as pre-reading activities, for instance discussion about the general topic area of the reading matter, a listening activity, consideration of the title, layout or illustration of the passage concerned or asking the learner what he or she wants to know about the subject area and subsequently seeing if these questions are answered in the text.

(b) Accessing the text

The purpose of the reading exercise is important at this point. The reader may be asked to look for specific details, i.e. *scan* the text, or report on the general content, i.e. *skim* through the text[48].

(c) Examining meaning

A more careful examination of the text to understand the real message communicated. This would apply more specifically to literary texts, where an analysis of style and writer's intention may be required. In a scientific context this may involve matching text with illustrations[49], graphs or charts.

(d) Text construction

An analysis of how the text is put together in order to achieve meaning. This is closely linked to the above point, and similar exercise types may aid readers in both regards. At a local level, gap-filling exercises which focus attention on cohesive devices and at a whole text level sentence or paragraph substitution exercises. This may be taken further to include text reorganisation exercises, where paragraphs should be placed in the correct order. In this way the reader becomes sensitive to the way in which a text is organised and how this organisation contributes to constructing meaning[50].

(e) Follow-up

Learners could be encouraged to follow up their classroom work with further reading activities, summaries, translations and discussions.

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[48] For these two sections see Grellet, F. (1981) op. cit. for an extensive range of ideas and suggestions.

[49] See in particular Comfort, J., Hick, S. and Savage, A. (1982) *Basic Technical English*, Oxford: Oxford University Press and Moore, J. et al. (1980) *Reading and Thinking in English. Concepts in Use*, London: Oxford University Press.

[50] See, among others, Gude, K. and Duckworth, M. (1994) *Proficiency Masterclass*, Oxford: Oxford University Press and Foll, D. and Kelly, A. (1994) *First Certificate Avenues*, Cambridge: Cambridge University Press.