THE DECODING OF THE EDITORIAL CARTOON

by

Mark Winter
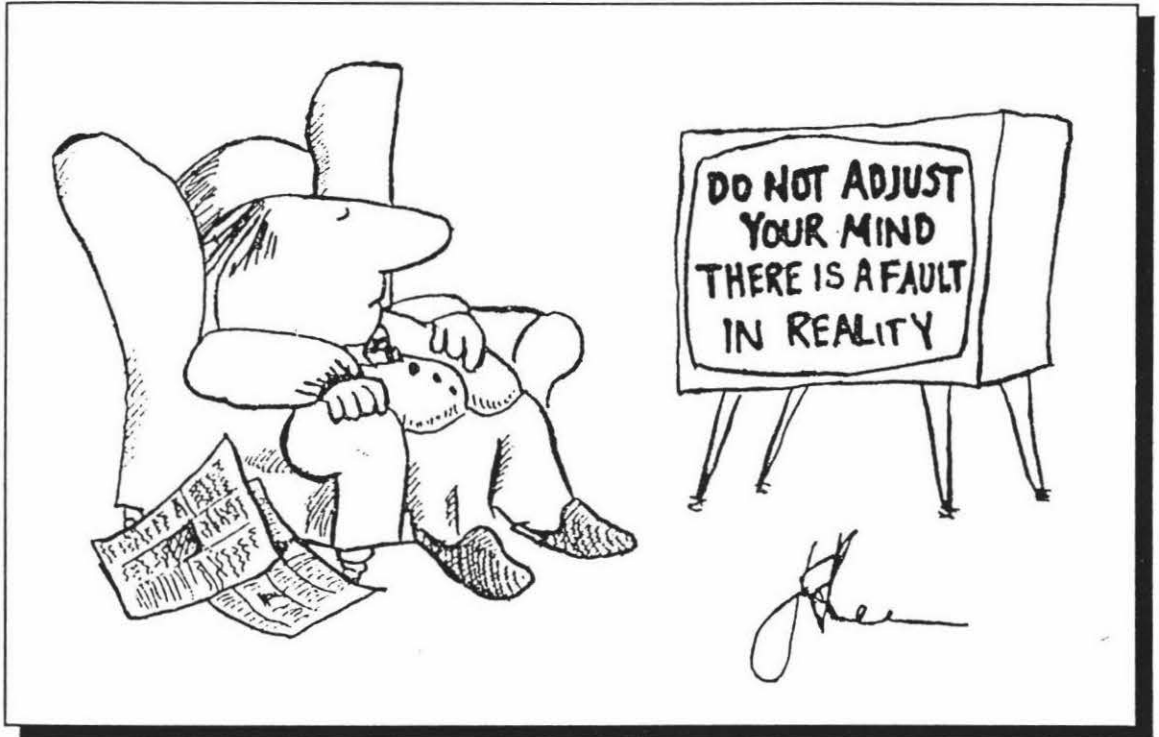
A Thesis presented in partial fulfilment of the requirements of the Degree of Master of Education

ABSTRACT

The cartoon is increasingly becoming an educational tool. It is used extensively at School Certificate and University Entrance level in New Zealand secondary schools to not only communicate ideas, but also to analyse how those ideas are translated to the *reader*.

For this study I have concentrated on the use of the editorial cartoon for the fifth form English syllabus and, in particular, the interpretation of the *static image* in the School Certificate examination.

My research design is based on a similar study by Dr LeRoy Carl which he completed at Syracuse University's School of Journalism, and entitled *Meanings Evoked in Population Groups by Editorial Cartoons.* [1]

Dr Carl's research concluded that very few readers of the cartoon actually understood the intended message. His study best sums up the *problem* of people misinterpreting the cartoon and its importance to this area of educational research. Dr Carl's 600 page thesis concludes that many forces are at work within individuals' *scrambling* of the messages, which may not always be clearly *sent* by the cartoonists in the first place.

The assumption has been made by many that editorial cartoons are easy to understand — easier than the written word. Some of the cartoonists quoted in Carl's study have indicated complete unawareness of the communication barriers between them and their public.

The interpretation of the cartoons used in the School Certificate examination and the resulting mark allocation are based on the Chief Examiner's *decoding*, (he also sets the questions). He and his panel do not contact the cartoonist for his or her *intended* meaning.

Therefore the basis for assessment may be found on *false* grounds. Considering Dr

Carl's study, it seems that misinterpretation of the cartoonist's intentions is a high possibility.

It would appear to me to be more appropriate to use the cartoonists' *intended message* as a basis for assessing the School Certificate paper, rather than the interpretation of *non-related* people. With this in mind, I have selected four editorial cartoons — each with a different style and context. Four fifth form classes at James Hargest High School in Invercargill were also selected as my sample group, which comprised of two *high band* groups and two *low band* groups (based on academic achievement).

One *high band* and one *low band* group were given a general lesson in *cartoon cognition* including ways of dissecting the cartoon in order to *decode* it. I used the bombing of the "Rainbow Warrior" in Auckland Harbour as a focus and then visually demonstrated how a number of New Zealand cartoonists interpreted that 1985 event.

A questionnaire was then completed by all four classes on each of the four cartoons and the answers were compared with those supplied by the cartoonists themselves.

My initial tentative theory was partly based on Dr Carl's conclusions to his study and partly on my own personal experience as a cartoonist. A number of variables occur when a *reader* decodes a cartoon and, therefore, is subject to misinterpretation depending upon those variables. Apart from one student scoring a possible five on one of the cartoons, noone was in complete agreement with any of the cartoonists' *intended messages*. As expected, students in the higher academic groups were able to interpret the cartoonists' *intended messages* better than those students from the lower academic groups.

A large percentage of the *high band* students were in partial agreement with the *intended message*. By comparison, the greater percentage of *low band* students were in complete disagreement with the cartoonists' intentions. These generalisations are applicable to three out of the four cartoons, with only Trace Hodgson's (Cartoon #3) image being the

exception. In all four sample groups, very few students achieved a high score, and the larger percentage of all scores was two or below.

(1) CARL, LeRoy M. (1968) *Editorial Cartoons Fail to Reach Many Readers*, Journalism Quarterly 45, pp 533-535

ACKNOWLEDGEMENTS

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INTRODUCTION

> **"Part of a cartoonist's job is to confront people with things they don't want to see."** *Tony Auth, Political Cartoonist for the* "Philadelphia Inquirer."[1]

My initial interest in the cartoon was as a practitioner. Having majored in education for my undergraduate degree, it seemed only a matter of time, however, before these two *components* met and had a relationship. This study chronicles that event. There is no definitive *text* on cartoon interpretation in New Zealand and very little research has been undertaken in this country on the *decoding* of this popular form of communication, nor on how to teach the subject.

For this study, I have focused on fifth form students and the School Certificate Examination — in particular, the section on *static images*, which often involves the interpretation of the cartoon. This *area* is small enough and sufficiently specific to work with satisfactorily.

There are six main research concerns that have formed the foundation of this thesis:

(1) The students' cartoon interpretation scores in relation to the cartoonists' *intended meanings*.

(2) The comparison between the *high band* and *low band* students and their cartoon interpretation scores.

(3) The comparison between the students' genders and their cartoon interpretation scores.

(4) The frequency of cartoon observation compared with the students' cartoon interpretation scores.

(5) The comparison between the students who received a lesson in cartoon cognition and those who did not, with their cartoon interpretation scores.

(6) The comparison between the students' cartoon interpretation scores and their parents' occupations.

My primary concern was the basis from which students' answers in the *static images* section of the School Certificate Examination were assessed. The students' responses are judged on the interpretation of the Chief Examiner and his panel who set the paper. Their *decoding* may or may not be accurate in terms of the artists' *intended meanings*. It would, therefore, seem logical and sensible in the interests of accuracy to use the cartoonists' *intended meanings* as a basis for assessment, rather than the interpretation of the Chief Examiner and his assessment panel.

I have no direct evidence to suggest that the panel's interpretations vary from those of the cartoonist, but the possibility that an *interpretative error* could occur appears high when one compares it with the relevant research, which suggests that few people are actually in complete agreement with the cartoons' *intended messages*. I am not saying that errors have occurred in the marking of past School Certificate papers, but a *fairer* system would, in my opinion, be to use the cartoonists' *intended meanings* as a basis for the marking schedule. This may also provide a platform for further study to compare the panel's *model* answers with those of the cartoonists and then correlate them with the students' responses.

The Chief Examiner's reply to me (Appendix 1), states that the *static images* question is always popular, but he did not know whether this was because the topic is widely taught or because it looks easy or interesting. "My impression is that generally School Certificate candidates do not understand many cartoons well. They can cope with the obvious, but struggle with the visual metaphor and lack familiarity with many cartoon conventions and cliches that seem commonplace to educated adults."

When setting questions, the Chief Examiner and his panel's main objective is to "rank students in order of ability and provide a score distribution approximating the normal curve." But there is no *valid yardstick*, which proves that any answer is of a particular standard. Indeed, the Chief Examiner confirms this with his statement, "there are no absolute standards in competence in English." He concludes that ". . . if the job of

setting the examination is done well, candidates will handle **all** questions equally well. As I have a panel of *experienced* and *competent* people, we set good examination papers."

His statements are, as he points out, subjective. But it leaves me with the impression that a number of assumptions have been made about examinations and their candidates by the Chief Examiner and his panel, in order to achieve their main objective, which is to rank students in order of ability. Words such as *experienced, competent,* and *good* have no real value unless they are used in relation to some relevant terms of reference. Are the panel members *experienced* and *competent* in setting the examination questions or in the case of the *static images* section, are they *experienced* and *competent* in *decoding intended messages*? What is meant by a *good* examination paper? — *good* in relation to what? I suspect it is *good* in relation to assessing the candidates' abilities and then ranking them, nationally, so they can produce a *normal curve* score distribution.

The Chief Examiner's final comment is that ". . . students handle this question quite well", which seems an apparent contradiction to his earlier statement when he said that "candidates do not understand many cartoons well". The common denominator is the word *well*, it's the adjective that qualifies it which is vague. What is meant by the word *quite* in this context? I was unsuccessful in trying to obtain statistical information on how well students perform in this section of the English examination. A number of requests to the New Zealand Qualifications Authority went unanswered, so I have no empirical data to clarify this vagueness.

My interpretation is that most candidates who attempt this question are able to produce a *satisfactory* answer that encompasses the main points, but not necessarily all the required responses, to receive a maximum grade.

For this study I have used the *intended meanings* of the cartoonists themselves as a basis to judge the students' interpretations. My primary source is LeRoy Carl's (1968) doctoral

dissertation, *Meanings Evoked in Population Groups by Editorial Cartoons*.[2] Dr Carl's study compared the interpretation of 340 cartoons by the public with the cartoonists' *intended meanings*. His results concluded that a large percentage of the sample group was in complete disagreement with the cartoonists' *intended meanings*. I would assume that it would depend on the complexity of the cartoon itself and its context as to the level of understanding.

As the Chief Examiner did point out, ". . . most students who attempt the *static images* question in the School Certificate English examination can *decode* the more obvious aspects of the image, but struggle with the more subtle and ambiguous cartoons, which results in a larger interpretation variance." What is *obvious* and what is *subtle* are also subjective terms and depend upon a number of variables so what is *obvious* to some may not be clear to others.

Carl believes that "one's ability to perceive details, their ethnic background, environment, psychological set, knowledge of current and past events, ability to see analogies or knowledge of allegories, plays a role in interpreting editorial cartoons".[3] Therefore responses from such a study, with all these *forces* at work, could vary considerably.

My tentative theory is that very few, if any, participants in this study will be in complete agreement with all the cartoonists' *intended meanings*. There will be significant variations depending upon the complexity of the cartoons. As a cartoonist, I assume, along with many of my colleagues, that the reader can understand all the symbols, visual metaphors, cliches and captions chosen to convey a message in cartoon form. That assumption may be ill-founded.

For example, in order to fully understand the cartoon of Bob Jones as the leader of the New Zealand Party leaving a tent in a blizzard stating, "I am just going outside, I may be some time", the viewer not only has to recognise the main character, but understand the caption in relation to the central character's plight and the historical analogy used.

The reader would have to be familiar with the fact that the defeated political party's leader, Bob Jones, stated after the election that he was taking a *temporary rest*, but it was obvious he was leaving his fledgling group on a more permanent basis. The cartoonist uses the analogy of Scott's fateful expedition to the South Pole, when one of his team, Oates, intentionally walked out into a snowstorm and made the same comment as that captioned in the cartoon, knowing he would never return. To understand the *intended meaning* of the cartoon, the reader would need to be aware of these crucial pieces of information. From my experience with intermediate and secondary school students, the "Scott expedition" analogy is rather obscure today because very few of them are familiar with that historical event. I have been asked to conduct a number of lessons on cartoons and how they *communicate* their message to students over the past six years, and have used the Jones cartoon often. Very few students actually grasp the historical significance and with Bob Jones fading from the media spotlight, his caricature becomes less recognisable

At this point it seems appropriate to define the main subject — what is a cartoon? They

have been described as the most powerful and pithiest form of communication used universally in many forms. Webster (1971), defines the cartoon as a "drawing, as in a newspaper or magazine, caricaturing or symbolising, often satirically, some action, situation or person of topical interest".[4]

Mischa Richter (1980), defines a cartoon as a "visual, humorous comment about something that is familiar to all of us."[5] Ed Koren (1963), views a cartoon as "a combination of visual and verbal jokes — a convention of life turned on end, done quickly and succinctly. If you don't *get* a cartoon right away, you don't hang around to find out why."[6] Cartoonist Jules Feiffer simply sees the cartoon as "a form of therapy".[7] New Zealand's most distinguished cartoonist, Sir David Low, defines the cartoon in the *Encyclopedia Americana* as "a drawing, representational or symbolic, that makes a satirical, witty or humorous point. It may or may not have a caption and may comprise more than one point."

Harrison (1981), comments, "Certainly, as typically used, the term *cartoon* conjures up connotations of fun and entertainment, but some have questioned whether the cartoon has to be humorous. Perhaps it is simply a drawing, which distills and distorts. The effect may leave the viewer in tears and trauma, rather than in smiles and laughter."[8]

The cartoon appears in many guises and is divided into a number of sub-sets and they need to be identified for the purpose of this study. The four cartoons used in this research study are described as *editorial* cartoons because they usually appear on the editorial page of their respective publications or accompany appropriate text and serve to illustrate the point being made. They are sometimes labelled *political* cartoons because the majority of them that appear in newspapers concentrate on political activity and its consequences. They can also use social, historical, economic and other relevant themes, to comment on current events. The format is usually a single panel, but they can use multiple panels (such as the Scott cartoon in this study), which is more readily utilised for the *cartoon* or *comic strip*.

Gerberg (1983), also makes some observations about the various forms the cartoon takes. "*Political cartoons* are also called *editorial cartoons* since they are usually found on editorial pages of the newspapers which are vehicles of strong opinion. Political cartoonists are a special breed, who seem motivated by anger. In addition to a negative attitude, a political cartoonist should have several other strong traits, among them a genuine interest in politics, a good sense of history and sharp journalistic instincts. Where a *gag cartoon* or *comic strip* is instant communication of a *funny* idea, on any subject, a *political cartoon* is instant communication of a provocative idea on a topical subject, often done funny."[9]

Gerberg points out that the prime purpose of a *gag cartoon* is to be humorous on one level and may comment on some current condition on another level. The *political cartoon* however, works in reverse, according to Gerberg. Its prime purpose is to make the comment and in the process it may be humorous. He also states that the outstanding element of political cartooning is *caricature* and a good cartoonist can not only maintain the essence of personality, but can render the *victim* with readily-accepted images.[10]

The basic magazine *gag cartoon* mentioned in Gerberg's previous quote is defined by him as instant communication of a funny idea that is usually presented in a single panel. It uses the *visual cliche* more than the *editorial cartoon*. The cliches, such as stop signs, escalators, bicycles and telephones, are used by the cartoonists to send their messages. They enable the cartoonists to attract the readers' attention and interest with the familiar in words as well as pictures.

In captions, the cartoonist uses fashionable colloqualisms and catch-phrases. *Spot* cartoons are usually decorative or conceptual and while there are many varieties, all serve the same purpose to provide visual support to the editorial text.[11]

However, of all the cartoon forms, the *comic strip* is the most widely read. They fall into two broad categories — the continuity/adventure strip and the gag-a-day humour

strip according to Gerberg. An example of the former category is "Little Orphan Annie", and an example of the latter is "The Wizard of Oz" or "Peanuts".

Gerberg states that there are conceptual differences between *gag* panel cartoons and *comic strips*. "

(1)   A *comic strip* has the added dimension of time — it is sequential.

(2)   The comic strip always deals with the same world — it repeats characters and themes for a lifetime, unlike the *gag* cartoon, which always presents different characters and themes.

(3)   The *comic strip* appeals to a broad general audience — a vast readership that shares common interests."[12]

There may well be exceptions to these generalisations, but in the main, Gerberg's observations are an accurate assessment of the cartoon variations. He also comments on the formats of the various cartoon styles: "In the multi-panel cartoon, it is essential to the humour for the reader to experience some time sequence. If the single-panel cartoon is a freeze-frame depicting the quintessential moment in an action, the multi-panel is several freeze-frames depicting several quintissential moments of an action, usually ending with a final twist. The multi-panel frames do not always occur consecutively, they occur selectively and represent some lapsed time."[12]

One of the important factors in my study was the limited sample size — 81 students, incorporating 54 females and 27 males from James Hargest High School in Invercargill. When I approached the school with my research study request, I asked to use the entire fifth form as a sample. That proved impractical and would have resulted in major disruptions. Therefore, the sample size was determined by the Principal and the head of the English department. It was a compromise that allow me to collect my required data without too much interference in the school's routine.

Students in the top two classes (*high band*) and bottom two English classes (*low band*)

participated in this study. Fifth form class membership at James Hargest High School is determined by the academic results of the students in their third and fourth form years.

My lesson in cartoon interpretation and subsequent questionnare were administered in February 1991 before the academic year moved into full stride, which also made it easier to accommodate the school's timetable. Although the sample size was smaller than I had hoped, it did allow me to cover the six research areas that I listed earlier in this introduction, and did provide me with a cross-section of the fifth form population at James Hargest High School.

In terms of the study and drawing conclusions from the results, I anticipated difficulty applying any complex statistical analyses to the small sample. Therefore, any conclusions must be tentative when drawing comparisons between the four groups and their cartoon interpretation scores.

However, since the primary purpose of this study is to compare the students' responses with the cartoonists' *intended meanings*, I believe the sample size was satisfactory to give a general indication of fifth formers' *decoding* ability in relation to the *intended messages*.

Obtaining information from every unit of a small population is not as difficult compared with data collection from a total population, but the findings are not really applicable to any population other than the group studied. I can draw generalisations from the data, but cannot necessarily claim that these generalisations would be *true* or *accurate*, in any other school. The 81 students who participated in this study, in spite of the small unit size, accurately represented the characteristics of the population and generalisations based on the data obtained from them may be applied to the entire group.

While I did not seek data on the ethnic composition of the sample group, I did collect information regarding gender and socio-economic status in order to establish whether or

not the group was representative of the population. Female students outnumbered male students by a ratio of nearly 2:1, but the parents' occupations did reflect a *representative* cross-section.

In relation to the background and knowledge required in order to interpret a cartoon, intelligence or assimilation of all the information given and assessment of the image to determine the message(s) is important. For this study, the four sample groups were selected on the basis of their academic performance in the third and fourth forms, especially in the core subjects — English, Science and Maths.

My hypothesis is that *high band* students should perform better than *low band* students. To add a further dimension, a *high band* and a *low band* class were given a lesson on *cartoon interpretation* to equip them with some concepts to assist them to decode the four cartoons. I assumed that the *taught* students' scores would reflect a better understanding of the cartoons compared to the students in the remaining two groups, albeit it marginally, because it was only a single lecture. It is important to note that none of the sample group had attended any *cartoon classes* before my lesson was delivered to the two groups.

Carl's (1968) study also took into consideration the correlation between gender and the scores as well as employment levels and class status, which separated into *white collar* and *blue collar* groups. His study sampled people from three centres — Ithaca, where the population is dominated by Cornell University; Candor; and Canton. With regard to gender, Carl concluded from his extensive data that men in the Ithaca sample (containing a high percentage of professional and academic people) grasped the cartoonists' meanings to a greater degree than women. The reverse applied in the other two sample centres. Carl also concluded that interpretations by *white collar* groups were in closer agreement with the cartoonists' intentions than those of the *blue collar* groups.[14]

My theory concerning the comparison between gender and cartoon interpretation is that

gender makes no difference; it may only be relevant in terms of some sensitivity to certain subjects, but I do not believe one could make a hard-and-fast rule regarding the importance of gender in *decoding* static imagery.

The degree of exposure to cartoons may or may not affect their *decoding* by a reader. I have no evidence to suggest that the amount of *cartoon consumption* helps the viewer understand the meaning of the image any more than it helps those who only occasionally glance at the cartoon in their daily newspaper.

McMahon and Quin (1984) suggest that it would be useful for students to develop the habit of reading at least some of the newspaper each day. "Familiarity with current events will ensure that most newspaper cartoons will be understood. Regular attention to the cartoons will make it possible to recognise even the most distorted caricatures. In addition, recognition of the simplified symbol systems of cartoons will make them more comprehensible to the reader."[15]

I would assume that constant, conscious cognition of a cartoon allows the reader to analyse its various components and then assess these to formulate an understanding of the cartoonist's intentions. It should *sharpen* the reader's perception of the *codes*, *contexts* and *conventions* utilised in cartoon construction. But this does not necessarily allow the reader to interpret the *correct* or *intended meaning*. My expectations of the data collected on the frequency of cartoon observation would be that more students would possibly read *comic strips* than the *editorial cartoons*, because they appear to be more popular and easier to understand. Murray Ball's "Footrot Flats" for example, has a large readership, both here and in Australia, and this is reinforced by the sales of his books each year. Similarly, "Peanuts" and "Garfield" enjoy the same success.

My tentative theory regarding the correlation between the frequency of cartoon observation and the sample group's responses 'is that constant exposure to cartoons should marginally assist students to develop a better understanding of the image. The

data collected should give an indication as to whether or not there is a significant difference within the restricted parameter of a small sample size.

The final consideration was to compare the occupations of the sample group's parents with the students' cartoon observation scores in a similar way to Dr Carl's study. The popular assumption is that parents with *higher status* occupations and resulting higher incomes were able to afford more books and resources to *broaden* their children's general knowledge. Much more problematic is the assumption that in order to attain such vocations, one needs to be intelligent, which could be genetically transferred. For this study I have used the **Elley-Irving Socio-Economic Scale** as the basis to compare the parents' socio-economic status with their children's scores.[16]

My interest in this area of the research is influenced by the work of Pierre Bourdieu and his theory of *cultural capital*. Bourdieu's basic theses on education and culture is "Durkheimian" in that he sees the school functioning to reproduce the social order through its legitimation of the world view of the dominant class (Bourdieu 1972, 1977). It is a *cultural reproduction* theory that allocates to schooling a central role in the replication of the social order. The emphasis is on the *power* that certain groups have through control over symbols (Bourdieu, 1973). Through *symbolic power* a group or class can impose their own view of reality on society through the school. The student acquires, quite unconsciously, a whole system of categories of perception and thought.[17]

Bourdieu is concerned not only with the reproduction of the social order, but with the reproduction, specifically of a *class society*. It is through its control of the education system that the *dominant* class ensures the reproduction and legitimation of its own culture. Bourdieu refers to this as *cultural capital*.

This *capital* is concentrated in the families that make up the dominant class, so that children from this class come to school already enjoying a relationship to cultural pursuits denied to children of other social classes.[18]

Capital, in the sphere of material production, gives its owners power over non-owners, and so does *cultural capital*. Both can be inherited.[19]

I would expect that the cartoon interpretation scores of those students with parents who have *high status* occupations (according to the **Elley-Irving** scale) would be higher than their *low status* counterparts.

A number of other possibilities could also have been looked at such as age, ethnic comparisons or the responses of urban students compared with their rural counterparts, but then do urban cartoonists predominantly use *urban* imagery, or are they more universal in their choice of symbols? Such concerns could provide the basis for further study in cartoon cognition.

(1) GERBERG, Mort, (1983), *The Arbour House Book of Cartooning*, Prism Books, N.Y.
(2) CARL, LeRoy M. (1968), *Editorial Cartoons Fail to Reach Many Readers*, Journalism Quarterly 45, pp 533-535.
(3) *Ibid*
(4) GERBERG, *op. cit*, p 33
(5) *Ibid*
(6) *Ibid*
(7) *Ibid*
(8) HARRISON, Randall, (1981), *The Cartoon — Communication to the Quick*, The Sage Commtext Series, London, Vol. 7, p 43.
(9) GERBERG, *op. cit* p 179
(10) *Ibid*
(11) *Ibid*
(12) *Ibid*, p 161
(13) *Ibid*, p 80
(14) CARL, *op. cit*
(15) McMAHON, B.; QUIN, R., (1984), *Exploring Images*, Bookland Pty. Ltd, Perth, Australia, p 160
(16) ELLEY, W. B.; IRVING, J. C. (1985), *The Elley-Irving Socio-Economic Index*, 1981 Census Revision, N.Z. Journal of Educational Studies, Vol. 20, #2, Nov. 1985, Dunedin, pp 115-128
(17) APPLE, M., (1979), *Ideology and Curriculum*, Routledge and Kegan Paul, Part 1, ch 15.
(18) HARKER, R. K., (1982), *Bourdieu and Education*, N.Z. Cultural Studies Working Group Newsletter, No. 4, Winter, p 37.
(19) HARRISON, *op. cit*, p 46
    APPLE, M., *op. cit.*

LITERATURE REVIEW

For this Literature Review I have not included all the texts available on the subject, but have concentrated on the literature that has directly influenced this study.

The primary source for this study is an article by Dr LeRoy Carl, entitled *Editorial Cartoons Fail to Reach Many Readers!* [1]

Dr Carl was Assistant Professor of Journalism at Temple University in Philadelphia. This article reviews his doctoral dissertation, completed at Syracuse University's School of Journalism, entitled *Meanings Evoked in Population Groups by Editorial Cartoons.*

In the autumn of 1966, Dr Carl conducted a door-to-door random sample using editorial cartoons from major United States newspapers in two small towns and a university city, over a period of nine weeks. The centres sampled were Ithaca, New York, where the population is dominated by Cornell University; Candor, New York, and Canton, Pennsylvania.

Nineteen major newspapers from 18 cities in the United States were used. The total number of cartoons studied was 340, selected according to the method related by Budd and Thorp in *An Introduction to Content Analysis.* [2]

Public interpretations were judged against the meanings submitted by the 18 cartoonists used in the study. These meanings were used as a basis against which to judge the interpretations.

Those responses which were in agreement with the cartoonists' meanings were graded A. Those not quite understanding the cartoon, but grasping some aspect of the meaning, were graded B. And those completely failing to interpret the cartoonists' intended meanings were graded C.

A and B ratings were combined for the testing of statistical significance of results to

deliberately handicap the C category. But as results show, C ratings, which indicate a complete lack of communication between cartoonists and respondents, far outnumber A and B ratings combined.

The results concluded that messages received by the public often differed markedly from the cartoonists' intended meanings.

In the Candor-Canton sample, 600 (70%) individuals were in complete disagreement with the cartoonists' intentions. Only 15% were in complete agreement and a similar percentage in partial agreement.

In the Ithaca sample, which contained a high percentage of professional and academic people, the number of persons understanding the cartoonists' messages was, as expected, higher, but 63% of interpretations were in disagreement with the cartoonists' meanings. Only 22% were in agreement, while another 15% gave a partial reflection of the artists' intentions.

Employment level and resulting class status among the town residents did appear to influence the outcome. Interpretations by white-collar groups were in closer agreement with the cartoonists' intended meanings than the interpretations of blue-collar groups. Men in the Ithaca sample grasped the cartoonists' meanings to a greater degree than women. However in the Candor-Canton study, the reverse applied.

'It is believed that many forces are at work within individuals' *scrambling* of the messages, which might not always be clearly *sent* by the cartoonists in the first place. One's ability to perceive details, his ethnic background, environment, psychological set, knowledge of current events and history, ability to see analogies, knowledge of allegories, and so on, play a role in interpreting editorial cartoons." [3]

Carl concludes by stating that the *fault* lies not only with the audience. One cartoonist

apologised for his poor analogy, while another said he was embarrassed by the diverse, surprising, and even opposite meanings engendered by his creation. This study was the first to probe into this area.

Randall Harrison's (1981) *The Cartoon — Communication to the Quick*, describes the cartoon as *communication to the quick* because "It is fast, it grabs the reader on the run. It is lively; it sorts out the *quick from the dead*." [4]

"In the total spectrum of modern mass media, the cartoon seems a relatively happy and harmless element. Yet critics have raised questions about what the cartoon does and doesn't do in society. These concerns have stimulated research in the past, and seem likely to influence the research agenda of the future. In spite of its seeming simplicity, the cartoon presents a complex potential and a rich assortment of research questions."[5]

The cartoon shares, with all other communication symbols, basic advantages and certain disadvantages. The cartoon is an invention which can be put to many uses. However, there have been a number of concerns expressed about the cartoon because it is the particular and peculiar symbol that it is. These concerns have served as a crude research agenda for thinking about the cartoon in the past and they provide a starting point for exploring the impact and potential of the cartoon in the future.

Harrison outlines some of these concerns. [6]

- The cartoon portrays and perhaps stimulates violence. It shows violence in a way that makes it seem more amusing and less serious than reality.
- Basically, the cartoon is frivolous, escapist, and low-brow. It diverts attention away from *useful knowledge*.
- Similarly, the cartoon undermines literacy; like television, it provides easy pictures in place of more abstract and difficult symbols.
- The cartoon presents an unrealistic fantasy world; young children, especially, may confuse cartoon fantasy with reality.

- As a commentator, the cartoon is unfair; by its very nature, it distorts and exaggerates. It is also essentially negative, it pokes fun which means, overall, it is likely to be destructive.

- The cartoon typically deals in stereotypes which oversimplify complex issues; it does not provide the details which may be vital to understanding.

- The cartoon deals in racial, ethnic and sexual stereotypes which are out of date; it conserves and perpetuates some of the worst elements of popular culture.

- The cartoon appeals to the emotions rather than to reason; it short-circuits *intelligent* discourse.

- The cartoon is a powerful, but largely unexamined cultural force; it provides messages which constantly remind us of role models, of universal human experiences, of cultural archetypes. We don't know how well it samples or selects.

While these are *errors of commission*, the cartoon is also charged with *errors of omission*, for example — the cartoon could be used more effectively in education, research, health, cognitive development, the stimulation of creativity, and for better personal and interpersonal communication; but it isn't.

Researching some of these assertions would be a lifetime endeavour. Some are stated in such sweeping terms that empirical research would be difficult to frame.

In framing a research question, the cartoon can be divided into three broad areas: [7]

(a) *The Cartoon Code:* Some of the concerns arise because the cartoon is an iconic symbol, pictorial rather than verbal. It simplifies and exaggerates as well as poking fun and drawing laughter.

(b) *The Cartoon Content:* The cartoon can provide certain types of content — such as political commentary, commercial messages, stories of crime and violence, portraits of sex roles and ethnic and racial minorities.

(c) *The Cartoon Context*: In the broader communication framework, the cartoon

is used as a message to reach specific audiences.

As one learns more about the cartoon code, one may learn more about its impact and potential. In turn, as one learns more about the uses and influence of the cartoon, one is likely to gain insights into the cartoon code and the way it is processed.

Harrison states that there are a number of basic techniques which the cartoonist manipulates to create a symbolic world of make-believe. Each cartoon varies in *content*, *complexity* or *code*.

During World War II, Gordon Allport and Leo Postman (1945) used cartoon-like illustrations to study the diffusion of rumours and were able to assist with understanding the basic processes of perception, recall and communication. [8]

Allport and Postman showed one individual a complex picture, then asked that person to tell someone else the content of the picture. The second person then told a third person and so on. Researchers carefully observed what was happening to the information being transmitted. They noted three processes:

    (i)   levelling

    (ii)   sharpening

    (iii) assimilation

Levelling: the story was simplified as it was *moving* from person to person.

Sharpening: involved selective perception, retention and reporting of a limited number of details from a larger context. As some items were left out, the remaining ones gained importance.

Assimilation: the story was *refined* and words were used which *made sense* for the communicator.

Harrison argues that a cartoonist simplifies or radically *levels* what we usually see in our perceptual field and in the process *drops* needless objects and details.

After this *surgery* the remaining elements are *sharpened* before finally the cartoonist *assimilates* through exaggeration and interpolation or stereotyping.

"The cartoon is a *form*, which does not *conform*, but rather *deforms*; and in doing so, it *informs*. The cartoon is a *form*, a make-believe world created out of iconic and verbal symbols by the artist *for* the viewer." [9]

The cartoon selects and abstracts from a two-dimensional format and achieves its three-dimensional illusion by a series of *artistic tricks*. It also *deforms*, not only simplifying, but also exaggerating, and *informs*, like a statistic — the cartoon can summerise a vast body of data into a succinct symbol.

The cartoon has served as both a research tool, and a subject for research. As a target for research, the cartoon has been examined as a *code*; for its *content*, the messages it makes available; and for its relationship to the larger society and culture, including its function as art.

The cartoon emerges from time to time as a research instrument, as a means of exploring other communication concerns. For example, the cartoon was an incidental participant in the Allport and Postman (1945) study of rumour transmission. In that study, it appeared that different amounts of *levelling* occurred if people were going from verbal to verbal. To test that hypothesis, the cartoon itself would have to come directly under analysis. It would require careful examination of the information available in a given picture, and it would require *sampling* different types of cartoons.

A more explicit use of the cartoon as a research tool can be found in Meyer et al (1980). These researchers studied **Women in July Fourth Cartoons**, over a 100-year period.

"Cartoons were chosen for analysis for several reasons. Firstly, since political cartoons have appeared continuously in American periodicals since the 1860s, they provide a consistent source of long duration. Secondly, cartoons appeared a rich source of information because the complexity and completeness of their primary visual, signs plus secondary signs allowed for complex messages about women. Cartoons also provided a medium which would reflect woman's place in American culture without specifically intending that theme. Finally, because cartoons portray social trends, reflect attitudes, and reproduce phases of universal culture, it seemed that political cartoons designed for Fourth of July publication would reflect prevailing views of American culture." [10]

The researchers were building on the theories of earlier investigators, who examined the *sociology of the cartoon*, (Bogardius 1945).

At the basic *code* level, the cartoon has occasionally been the specific target of research. Ryan and Schwartz (1956) for example, compared cartoon drawings with accurate line drawings, shaded drawings, and photographs. When a familiar object is presented in all four modes, the cartoon representation is usually decoded quickly.

Other research has checked the reliability of at least a few of the common cartoon *code conventions*. For example, the basic cartoon expressions of emotion have been tested empirically by Harrison (1964) and Cuceloglu (1970). Other cartoon instruction books offer suggestions which are intriguing, but may be idiosyncratic, culture-bound, or tied to the visual experience of the individual viewer. Dan O'Neill (1974) states that adding eyelids to the cartoon face can change happiness to satisfaction, meanness to evil, annoyance to resentment, and innocence to guilt. Some of O'Neill's illustrations are convincing. With others it seems quite likely that an empirical test would show a wide range of interpretation. Some viewers might make the same interpretation as the cartoon communicator; others might not. Research is limited on how reliable these cartoon cues are. We don't know what leads some people to make one interpretation, while others find a different, or no meaning.

Mort Walker provided a humorous list of what he calls *the lexicon of comicana*, [11] the cartoon conventions such as thought balloons, or action lines, which the cartoonist uses to get a message across.

A serious research question is just how large is this lexicon and how well is it understood. At what point do children master this cartoon *code*? How well is it understood cross-culturally? Communicators who have tried to get messages about health, sanitation or technology to low literacy groups have found the cartoon effective; but even the cartoon requires a degree of *graphic literacy* to be understood properly, (Fonseca and Kearl 1960). Understanding the cartoon *code* may be important in predicting who will learn what from a cartoon; which image will have impact.

As Salomon (1979) points out, communication researchers have usually been concerned with the content of messages. Barcus (1973) built on earlier studies for an extended content analysis of the Sunday comics. He found that *domestic relations* were the number one content, dominant in slightly over 30% of the strips. *Crime* was the second largest content category (17%). The cartoon characters (92% human) pursued a variety of goals: pleasure (17%), power (13%), love (12%), justice (11%) and a range of lesser goals including self-expression, wealth, prestige and revenge. To attain their goals, the cartoon characters worked (27%), used cunning (15%), charm (13%), or violence (10%) and relied on other authority, or luck [12]

Once the content has been identified, researchers have asked: What does it mean? An example of the study of specific consequences can be found in Rose (1963). He studied the change in attitudes about mental health among readers of a "Rex Morgan, M.D." episode about an individual having, and recovering from, a psychotic breakdown. Rose found that most readers thought the strip was educational, and that did not discourage readership. He found favourable attitude change on specific items dealt with in the strip and concluded that comic strip episodes helped to sharpen and clarify perceptions and definitions of mental problems.

Today a growing body of research delineates the cartoon, its historical roots, and its aesthetic profile. The research picture is still sketchy. Scholars are just beginning to appreciate the cartoon's psychological impact and social consequences. In the early decades of this century, the humble cartoon seldom ventured into the academic world. Occasionally, a cartoon would make a demure guest appearance in a history text. Today the cartoon is a frequent visitor to the classroom. Scholars are looking at the cartoon as a phenomenon worth studying. Researchers are moving out of the classroom to catch the cartoon in its native haunts.[13]

Under this scrutiny, the cartoon turns out to be not as innocent as it first appears. The seemingly simple cartoon can turn out to be a surprisingly complex intellectual problem. At a very basic level, it is not easy for us to explain how the human organism processes a caricature. As Harvard Professor David Perkins (1976) asks: "What sort of picture is this? It is deliberately inaccurate, yet the subject is often quite recognisable — perhaps more recognisable than in an accurate portrait or photograph."[14]

To examine the cartoon as communication, Harris provideds a simple communication model. The cartoon is a message which can be described in terms of *code*, *content*, and *complexity*, but it also operates in a larger communication *context*.

Within this larger framework, we can look at the cartoonist and the social forces which influence cartoon creation. One can look at the channels which distribute the cartoon; explore the audiences and the feedback which influence further cartoon production, and begin to frame broader questions about the cartoon's impact and functions in society.[15]

Berger (1979), in his analysis of "Peanuts" brings to bear the critical notions of Northop Frye, who suggests that comedy arises from four types — *imposters*, *self-deprecators*, *buffoons*, and *churls*. Berger argues that Schultz, ("Peanuts" originator) has used a masterful blend of character and story and has "transformed a comic strip into part of the very essence of American life."[16]

While Meyer (1980) took a sociological look at the political cartoon to explore the changing role of American women, many other scholars have used the editorial cartoon to document or examine general political and historical change. Many cartoonists had a long career so their cartoons became a unique document, covering a whole era from a single viewpoint. Some authors such as Shikes (1969) have examined the artist as social critic from the 15th century to the 20th century.

Cartoonist Jules Feiffer says: "Cartoons are more likely to be effective when the artist's attitude is hostile, to be even better when his attitude is rage, and when he gets to hate, he can really get going."[17] Jeff MacNelly says he knows "many great cartoonists who, if they couldn't draw, would be hired assassins."[18]

"The editorial cartoon has a long and honourable history. But its social and psychological impact remains obscure. The editorial cartoon appears to be increasingly humorous, popular and perhaps increasingly angry. It appears to be a rich reflection of cultural history, but it remains a relatively unexamined aspect of mass media commentary. "The cartoon is seen as educator and editorialist, as seller and seducer. It's seen as a purveyor of culture, or a perverter of culture; as art or literature or both or neither. The cartoon can educate or irritate, tickle or tease, inform or reform."[19]

Harrison states that underlying the main viewpoints about the cartoon is the single proposition: the cartoon is communication.

The basic elements in the cartoon communication framework include:
- (a) the cartoonist;
- (b) the writer; who may or may not be the cartoonist;
- (c) the editor;
- (d) the sponsor; the person or persons who underwrite, reproduce and distribute;
- (e) the cartoon itself;
- (f) the medium;

(g)   the audience(s) and finally

(h)   feedback channels — which inform the cartoon creators about relative success or failure and hence influence further productions.

Harrison also comments on *cartoon education* and points out to the reader that researchers such as Pallenik (1977) and Shaffer (1930) have tried to identify precisely what children learn from cartoons. The cartoon can be used in the classroom in many of the ways it is used in the larger society. The cartoon attracts attention which is "the first step in a communication chain of effects that continues on through comprehension, acceptance, recall and finally, use of new information."[21] Harrison cites Bryant's (1980) study which explored whether humour is used in text books merely as a soft-sell to attract the attention of students, or as a vehicle to actually teach something of substance. An examination of introductory textbooks in communication highlighted the large amount of *visual* humour used. Single panel cartoons and comic strips were the most popular form. Less than 5% of the cartoons were drawn specifically for the text, but more than 90% of the reprinted cartoon humour was evaluated by *codes* as "making the educational point", not merely as entertainment or attention-getters.

To understand the media and relate them to cognition and learning through the *symbol systems* they employ would seem to require an explanation of what *symbol systems* are.

Gavriel Salomon (1979) in **Interaction of Media Cognition and Learning** , states that a "*symbol system* consists of two classes of components; the *syntactic* component and the *semantic* component." The *syntactic* component involves the rules or conventions of combining them to constitute the *symbol scheme*. The *semantic* component (or the correlation of the *symbol scheme* with a field of reference) makes the *scheme* into a system.

Salomon based his work on the research of Nelson Goodman (1968), and central to his theory is the concept of *notionality* which involves the analysis of the differences

between *symbol systems*. The dimension of notionality provides a yardstick for classifying *symbol systems*.[23]

"Symbols become *symbol schemes* by means of specific rules of prescription (language) or conventions of coherence (art), according to which symbols can be combined, chained, arranged and organised. A *symbol scheme* becomes a *symbol system* when corelated with a field of reference with which both the symbols and the rules of combining them apply".[24]

Goodman believes that *symbol systems* can be ranked according to their degree of notionality. *Specific*, *syntactic* and *semantic* criteria allow us to classify a *symbol system* along a *notational-nonnotational* continuum. To be *notational*, a system must consist of separate and differentiated elements that correlate with equally separate and differentiated referents in the *symbol systems* field of reference. Goodman cites the example of musical scores and the field of references of pitches, which "allows a faithful mapping back and forth to its field of reference". (Gardner 1978). *Nonnotational* systems such as drawings, do not allow unambiguous mapping back and forth between elements and referents and their reading is more context-dependent.

The difference between *depiction* and *description* is seen in terms of *notationality* rather than in terms of similarity or resemblance to referents. Therefore *depiction* is yielded by nonnotational and replete systems and *description* by notational ones.

The term *expression* is also defined and is based on a quality that a coded message has grey colour, which is denoted by a predicate (greyness), and is taken to metaphorically denote a feeling or mood (sadness).

Eisnar (1970) divides symbols into four classes:

(a) *Conventional symbols:* arbitrary forms taken to stand for events or ideas in a particular culture;

(b) *Representational symbols*: forms designed to represent the empirical aspects of reality which are depicted realistically;

(c) *Connotative symbols:* result from morphological distortion of representational symbols to emphasise or highlight.

(d) *Qualitative symbols:* organisation of qualities designed to represent some idea or feeling that has neither an objective referent nor arbitrarily assigned meaning.[26]

Underlying Eisner's classification of symbols is the implicit dimension of *resemblance* between symbol and represented object or quality.

Salomon argues that *symbol systems* address themselves to different aspects of the world. Some systems render specific aspects better than others. He asks the question, does one mode of representation convey an idea better than another because it is similar to the referent? In answering it, he rejects this notion, stating that *symbol systems* vary as to the cognitive systems they address and that given a particular content, person, task or situation, the information they carry requires different amounts of mental recoding and elaboration. Easier communication and less recoding is needed if better correspondence occurs between the way information is presented and how it is mentally represented.

Symbol systems call upon different sets of mental skills for the extraction and processing of the coded information.

"The extent to which different symbolic renderings of the same content yield different meanings is a function of the content's subjective novelty."[27]

John Morgan and Peter Welton (1986) in their book *See What I Mean — An Introduction to Visual Communication* explores the *meaning*, *connotation* and *empathy* as pivotal visual communication concepts.

"The meaning of a message is not fixed and absolute: it is produced by an interaction between the communicator, the recipient and the context. Furthermore, people differ in their sensitivity to meanings, especially if these are implied rather than unambiguously expressed. This responsiveness is related to personal and psychological factors as well as to experience and training."[28]

The authors expand on this by stating that we give labels to things in order to classify them and make the meaning clearer to convey.

They outline the difference between *denotation* and *connotation* using the example of a family photograph, which *denotes* them — their images are defined in the picture. *Connotations* are stimulated by factors such as the viewer's prior knowledge and experience of the people portrayed.

"A sign *denotes* that to which it explicitly refers. The *connotations* of a sign are the totality of recollections evoked by it." [29]

Morgan and Welton then introduce the concept of *semantic differential*, which involves the shifting nature of *connotation* in searching for new ways to represent their meanings.

Charles Osgood developed a system for testing *connotations* of individual words in which the *semantic differential* asks the receiver to rate each item on a series of scales such as good/bad; healthy/unhealthy; young/old. From the replies, Osgood argues that the actual *connotations* could be measured. This gives a sounder basis to discussions which would otherwise be impressionistic and often unrelated to the responses of the target audience.

I. A. Richards (1923) worked within a tradition of literary scholarship when he analysed the term *meaning* into four elements: *sense, feeling, love* and *intention*. These elements are defined as follows:

(a)   *Sense:* a message is the external reality which it denotes;

(b)   *Feeling:* a message of the attitude which is expressed towards the designated reality involving how the artist handles the subject matter;

(c)   *Tone:* reveals the sender's attitude to the audience;

(d)   *Intention:* of any signal is the effect which it aims to produce in the receiver.[30]

Morgan and Welton suggest that the weakness of such analyses is that we cannot attempt to enter into the mind of the communicator in any direct sense. We make inferences about intentions by combining our subjective response with such background information as we can obtain about the circumstances of the message's production and the personality of its creator.

See What I Mean also covers *structural meaning* and explores the *semiology* and its associated concepts which Ferdinand de Saussure defines as "the science which studies the life of signs in our social interaction".[31]

A *sign* is defined as any physical entity to which a community attributes meaning. It has two aspects — the *signifier* and the *signified*. The *signifier* is the physical existence which expresses the sign. The *signified* is the concept or emotions conveyed by the sign. *Signification* is defined as the link between expression (*signifier*) and concept (*signified*) and depends upon rules and codes, which are tacitly accepted by a community and these rules are the area which *semiology* seeks to explore.[32]

Structural meaning is that part of the meaning of a sign which is established by examining its relationship with other signs. It ignores any reference which the sign might make to *reality.* There are two aspects to *structural meaning:*

(a)   *Paradigmatic meaning* is the relationship between one sign and the others which could correctly occupy its place within the rules of this system of communication.

(b)   *Syntagmatic meaning* is the relationship between a particular sign and the

others with which it is combined to produce a single act of communication.[33]

The term *empathy* according to Morgan and Welton is the ability to project oneself into the mind of another person. Responding to the visual arts for example, depends upon empathy of a very similar kind, and creative or innovative communicators depend upon novel ways of presenting new messages. The authors suggest that the old adage: "I don't know much about art, but I know what I like" is an admission of a failure of *empathy*.[34]

"Few, if any signs which we use have meaning in themselves, they have the meanings which we or our societies have given them."[35]

In order to achieve this, Morgan and Welton outline further concepts:

(a) *Codes* are systems into which signs are organised that express rules agreed (either explicitly or implicitly) by a community. Examples of *codes* are genres, languages and legal systems.

(b) *Conventions* are therefore *codes* which are obviously arbitrary. They are governed by the choice of a community rather than by a necessary connection with reality.

(c) *Perspective* is a *code*. It is an arbitrary way in which we choose to record and communicate our experiences. It is purely conventional and depends upon tacit acceptance by the members of a given culture. The authors believe that perceptions are likely to have been regulated by the same sets of conventions since childhood and are likely to believe that their *codes* have absolute validity.

(d) *Visual codes* have the advantages over *verbal messages* in that they are more quickly *read* and less subjected to differences of language or reading ability. Provided that allowance is made for cultural differences and provided frequent opportunities are offered for learning the *code*, words should where possible, give way to images.[36]

Morgan and Welton go on to state that some signs acquire a power, which seems more than accidental and partly explained by their connotations. They use the example of the American flag and the emotions of pride, belonging, anger and patriotism associated with it.

The power of a sign can be increased by using it in two ways — as a *metaphor* and as a *metonym*. The *metaphor* uses a physical object to represent an abstract idea or emotion and depends upon a conventional link between the *connotations* of the object and those of the idea. *Metonymy* is the use of an attribute of something rather than the thing itself to convey its meaning.[37]

Further to this, the *icon* is a sign which, through frequent repetition, gains a central position in the communication systems of a culture and can acquire rich and relatively stable *connotations*. In association with these concepts are the *symbol*: a sign which implies more than its obvious and intended meaning; and the *myth*: which is the use of signs and symbols by a community to explain central beliefs and can give reasons for its values and customs.[38]

Under the heading: *Extracoding, Undercoding and Overcoding*, Morgan and Welton review the process on which *empathy* depends (*extracoding*) and divide it into two elements:

(a) *Undercoding:* which is a move from potential code to actual code such as modifying your behaviour to adjust to a new culture in a new country;

(b) *Overcoding:* reflects the fact that the message is usually greater than the sum of its parts. The receiver makes connections between the different features of a message so that we can infer meanings which are not present in any of the separate units.[39]

Louis Althusser (1971) in *Ideology and the Stage* outlines the concept of *representation* which is communicated to individuals and is premised upon a distorted relation to the

real world. "It forms a fundamental means for reinforcing the existing structure of social relations between individuals and becomes the starting point for the understanding of our world."[240]

The relationship between *ideology* and *representation* is made clear by Althusser who defines ideology as a "representation of the imaginery relationships of individuals to their real conditions of existence." The media *represents* their view of reality so accordingly it becomes an *ideological medium.*[41]

Richard Dyer (1985) distinguishes four different connotations of *representation* in his book *Television and Schooling — Taking Popular Television Seriously.* [242]

(a) *Representation* suggests *re-presentation* of *reality* via many codes. It is a *window on the world* — not simply a mirrored image of reality, but an interpretation that can present a *distorted* message.

(b) Representation also suggests *being representative of* and involves stereotyping — presenting the *typical* image of individuals, groups or situations which would involve value judgments and may often be used to promote the ideology of the dominant group.

(c) *Representation* can by *speaking for* or *on behalf of* people which involves the assumptions that views are universal and acceptable.

(d) *Representation* includes *understanding the audience* and what the image means to different viewers. The receivers and their own ideologies can add or even reject the preferred reading embodied in the message.

In *Exploring Images* McMahon and Quin (1984) view a symbol as something that stands for, or represents, something else.

They believe that people can communicate quite complex messages in symbolic form, but communication depends upon everyone interpreting the symbol in the same way. Cartoons tend to use a simplified *symbol system.*

They can be analysed in a similar manner to any other mass media picture and they use a *picture interpretation model* to assist this process. This model involves three stages:[44]

OBSERVE

**Component Identification
Context**

INTERPRET

**The Codes
Technical Symbolic Written**

CONCLUDE

**Ideology
Linkage**
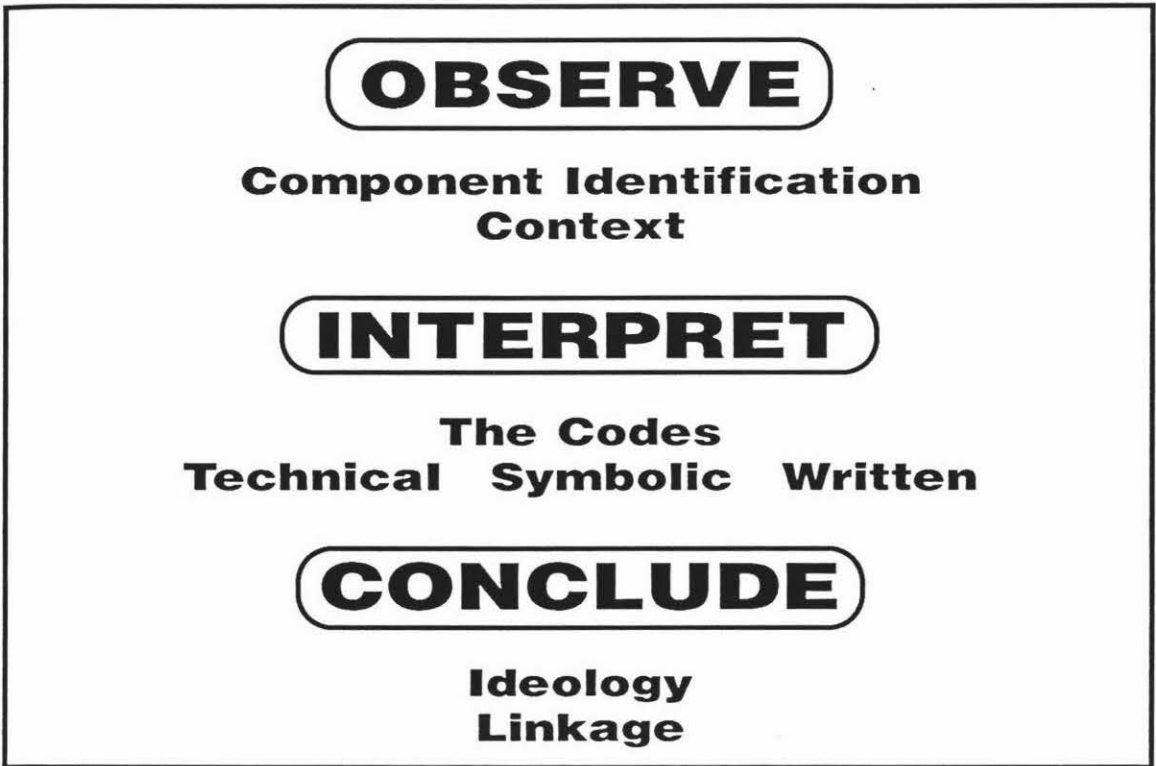
The first task is to OBSERVE — to identify as many of the fixed or certain aspects of the image as possible. The two elements to be observed are *context* and *components*. A picture's *context* is the circumstances surrounding its reception. These circumstances have an important bearing upon the manner in which the message is interpreted. *Context* in its simplest form is source.

Then it is necessary to INTERPRET. For example, a photograph is a coded message because most of the elements in the photograph require interpretation. In McMahon and Quin's book the term *code* is used to describe a system of meaning common to members of a culture or sub-culture. Three *codes* are used — the *technical code* is the meaning associated with the construction of the image. The *symbolic code* is the system of meanings represented by the objects in the image and the *written code* is the meaning associated with any writing that accompanies the image.

Finally, there is the CONCLUSION, which brings all the elements together, analyses

them and establishes the meaning(s) which are linked to an ideology.

Ryan and Schwartz (1956) in *Speed of Perception as a Function of Mode of Representation* believe that when one is designing illustrations for a text book, a training manual or a film strip, they have a choice of several different modes of representation — the four principal modes being *photographs of the object*; *shaded drawings*; *live drawings* or *cartoons*. Differences in effectiveness among these methods could be expected to be most marked where critical characteristics of the objects are three-dimensional. This study is a preliminary research into the comparative effectiveness of these methods. It is preliminary and the conclusions are tentative, because the authors could study only a limited number of objects and their representations, and because it was necessary to develop a methodology for the purpose.[45]

In *The Information Available in Pictures* , James Gibson (1971), reviews two current conflicting theories about what a picture is:

- that it consists of a *sheaf* of light rays coming to a station point or perceiver;
- that it consists of a set of symbols and the perceiver must learn to *decode* it.

Gibson points out the fallacies of both theories, shows that they cannot be combined and suggests a new theory based on the radical assumption that light can convey information about the world and, hence, that the phenomenal world does not have to be constructed by the *mind* out of meaningless data. His theory accounts for the difference between verbal and visual thinking. As every artist knows, there are thoughts that can be visualised without being verbalised.[46]

Gibson's earlier publication, *The Perception of the Visual World* (1950) covers some theories of perception and covers the subject by looking at the distinction between *sensation* and *perception*; *nativism* and *empiricism*; *extensity* and *location*; *form*, and *shape* in two dimensions; *depth* and *distance*; *The Theory of Cues*; *Gestalt's Theory*;

and the fact of *perceptual constancy*. Gibson claims that everything we are aware of comes through stimulation of our sense organs, and if some things nevertheless have no counterparts in stimulation, it is necessary to assume that the latter are in some way synthesised. How this synthesis occurs is the problem of perception.[47]

Gousbrich (1974) in *The Visual Image* states that "what a picture means to the viewer is strongly dependent on his past experience and knowledge. In this respect the visual image is not a mere representation of *reality*, but a *symbolic system*."[48]

The chance of a correct reading of the image is governed by three variables: *the code*, *the caption* and *the context*. The information extracted from an image can also be quite independent of the intention of its maker, so Gombrich argues that it may be convenient to range the information value of such images according to the amount of information about the prototype that they can encode.

An article in "Journalism Quarterly" (No. 52) entitled *Response to Before and After Watergate Caricatures* by Mary Wheeler and Stephen Reed investigates the hypothesis that the extent to which political caricature is a negative characterisation is related to the specific topics of the cartoon and the general popularity of the politician. Their results support the hypothesis that political caricatures are not static, but can evolve over a relatively short period of time to reflect more positively or more negatively on the person being caricatured. In this study, Wheeler and Reed concentrated on President Richard Nixon and compared his caricature during Watergate and non-Watergate periods. The results revealed that the 1973 caricatures of four cartoonists — Lurie, Mauldin, Oliphant, Osrin — were judged significantly less favourably than their 1972 caricatures.[49]

A research article by Del Brinkman, Assistant Professor of Journalism at Kansas State University, entitled: *Do Editorial Cartoons and Editorials Change Opinions?* looked at whether editorial cartoons could change readers' opinions or not. The study is based on research completed at Indiana University. Previous findings indicate there may be

ways to strengthen the effectiveness of cartoons, but the conditions under which they can be strengthened have never been firmly established. In general, this study shows that editorials and cartoons do bring about opinion change and that there are means available to cartoonists and editorial writers to strengthen the communications tools as modes of achieving opinion change. Much of the importance of this study is the implication for suggesting research that possibly will lead to an increase of the attitudinal process and opinion change through the use of cartoons.

Dick Harker's article in the *N.Z. Cultural Studies Working Group Newsletter* (1982), surveys Pierre Bourdieu's ideas on education — in particular his early empirical work on educational equality and his later work toward a general theory of practice. The article is an "attempt to reassemble a coherent account of Bourdieu's writing on education from the diverse fragments of his work that have been translated into English.[51] One of the central concepts of Bourdieu's educational philosophy is *cultural capital* and the reproduction of the social order by the *dominant* class who controls the education system.

In the article entitled *Bourdieu and Education*, Harker begins with the term *habitus* which Bourdieu calls the cultural capital of the middle classes. Bourdieu develops the concept of *habitus* in *Outline of a Theory of Practice* (1977). *Habitus* is "a system of dispositions, which acts as a mediation between structures and practice." [52]. *Structures* are defined as systems of objective relations, which are imparted to individuals whom they pre-exist and survive.

"The primary thrust of the agreement is that the *habitus* of the dominant group or elite, permeates every aspect of schooling. The school demands competence in the language and culture of that group . . . the school does not explicitly make this culture available to its pupils, but implicitly demands it via its definition of success." [53] This is developed further by Bourdieu in his *Cultural Reproduction and Social Reproduction* (1973) paper.[54] *Habitis* therefore is a general matrix of perceptions shared by individuals who

occupy a similar social structural location. Harker makes the point in his article that Bourdieu confines the term *culture* in his educational writing to its non-anthropological sense of the *high* culture of French society.[56] *Habitis* then becomes the term used to denote the heritage and ethos of the various sub-groups within society as a whole and which is endangered through socialisation. [57]

"The culture of the elite is so near to that of the school that children from the lower middle class can acquire only with great effort something which is *given* to the children of the *cultivated classes* — style, taste, wit."[58]

Such a situation, according to Bourdieu, immediately places at a disadvantage all those children from groups other than that whose *habitus* is embodied in the school. For these individuals, "the school remains the one and only path to culture (in his special use of the term), at every level of education."[59]

Bourdieu argues that the *cultural capital* stored in schools acts as an effective filtering device in the reproduction of a hierarchial society. *Cultural capital* is also unequally distributed throughout society and this is dependent in a large part on the division of labour and power in that society — schools serve to reproduce the distribution of power within that society.

For my study, the concept of *cultural capital* is applicable when comparing the cartoon interpretation scores of the students with the socio-economic status of their parents. It appears that, like economic capital, *cultural capital* can be used to attain success. Understanding a number of concepts in the cartoon is dependent on the *cultural base* of the school. As Bourdieu states, the dominant culture controls the school curriculum and its delivery, so the students of the *dominant* class should have an advantage because of their access to *cultural capital*.

(1) CARL, Leroy M., (1968), *Editorial Cartoons Fail to Reach Many Readers*, Journalism Quarterly 45: pp 533-535.

(2) BUDD, R. W., THORP, R. K., (1963), *An Introduction to Content Analysis*, University of Iowa, p 7.
(3) CARL, *op. cit.* p 535.
(4) HARRISON, Randall, (1981), *The Cartoon — Communication to the Quick*, The Sage Commtext Series, London, Vol. 7.
(5) *Ibid*, p 112.
(6) *Ibid*, p 113.
(7) *Ibid*, p 114.
(8) *Ibid*, P 56.
(9) *Ibid*, p 57.
(10) *Ibid*, p 59.
(11) *Ibid*, p 93.
(12) *Ibid*, p 133.
(13) *Ibid*.
(14) *Ibid*. p 134.
(15) *Ibid*.
(16) *Ibid*. p 135
(17) *Ibid*.
(18) NEWSWEEK (1980), 83.
(19) HARRISON *op. cit.*
(20) *Ibid*.
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(52) BOURDIEU, P., (1977), *Outline of a Theory of Practice*, Cambridge University Press, (First published in French, 1972).
(53) HARKER, *op. cit*

(54) BOURDIEU, P., (1973), *Cultural Reproduction and Social Reproduction*, in R. Brown (Ed.), *Knowledge, Education and Social Change*, London, Tavistock, (First published in French, 1970).

(55) BOURDIEU, P., (1968), *Structuralism and Theory of Sociological Knowledge*, Social Research 35(4), p 706.

(56) HARKER, *op cit*, p 84.

(57) *Ibid*, p 85.

(58) BOURDIEU, P., (1974), *The School as a Conservative Force: Scholastic and Cultural Inequalities*, in J. Eggleston (Ed.), Contemporary Research in the Sociology of Education, London, Methven, (First published in French, 1966).

(59) BOURDIEU, P.; PASSERON, J. C., (1967), *Death and Resurrection of a Philosophy Without Subject*, Social Research, 34(1), p 163.

METHODOLOGY
■ Introduction

For this study I have used *descriptive research* methodologies as instruments to collect my data. *Descriptive research* principally employs the test, the questionnaire, the interview schedule, and the interview guide to derive data.

Descriptive research describes and interprets *what is.* [1] It is concerned with conditions or relationships that exist; practices that prevail; beliefs, points of view, or attitudes that are held; processes that are going on; or trends that are developing. At times, *descriptive research* is concerned with how *what is* or *what exists* is related to some preceding event that has influenced or affected a present condition or event. The process of *descriptive research* goes beyond the mere gathering and tabulating of data. It involves an element of analysis and interpretation of the meaning or significance of what is described. Thus, description is often combined with comparison or contrast, including measurement, classifications, analysis and interpretation.

Questionnaires are widely used in education to obtain information about current conditions and practices and to make enquiries concerning attitudes and opinions. [2] In Drevers (1956) **Dictionary of Psychology,** the questionnaire is defined as: ". . . a series of questions dealing with some psychological, social, educational etc. topic or topics, sent or given to a group of individuals, with the object of obtaining data with regard to some problems, sometimes employed for diagnostic purposes; or for assessing *personality traits.* In fact, any formally organised list of questions, which is presented in a uniform manner to a number of persons is a questionnaire and in certain circumstances this is the most effective method of eliciting information."

The questionnaire has the advantage of applying certain restrictions upon a situation:
1.   It asks specific questions, which call for specific answers.
2.   These answers can be classified.
The information contained in the responses can sometimes be quantified.

Thus, the questionnaire has the advantage of providing information quickly, and in a

precise form.[3] Not all people, however, respond to this situation. Some may be unable to express themselves in *written* words, others may be unwilling, or may not be *qualified* to provide information which is sought. Certain questions may be ignored and answers to others may be falsified. This is especially true if the self-interests of the respondents appear to be attacked, or if they feel the need to protect themselves, to please the research worker; or to conform to what they consider are socially acceptable forms of behaviour.

One way of classifying questionnaires is in terms of the information which is being sought, so one type of questionnaire is that which seeks information which is known only to the respondents, such as information about attitudes and beliefs. It is difficult to check such information by reference to any other source. A second type is more objective, seeking to obtain factual information. The last type of questionnaire may seek information on past or present events for which written records have been made and which could be used to check the information given by the respondent.

Another way in which questionnaires may be classified is in terms of the nature of the questions which are used. Questions may be asked in *closed* or *open* form, and a researcher may use one type exclusively or in combination. Questionnaires which consist of a set of questions to which the respondent can reply in a limited number of ways is a *closed* type. The *open* form of questionnaire contains questions to which the respondents can reply as they like and are not limited to a single alternative. My research design will predominantly incorporate the *open* questionnaire. The advantages of this type is the freedom that is given to the subjects to reveal their attitudes or motives, and to qualify or clarify answers. There are certain disadvantages. *Open* questions are often easier to phrase than *closed* questions, but they may be more difficult to answer. Respondents may find it more difficult to reply without the clues to guide their thinking, particularly if the questionnaire is designed to elicit information about a subject with which they are unfamiliar, or seeks their opinions on an issue on which they may have no views. The tabulation and interpretation of the information gathered may also be both difficult and

time consuming. There will be a need to put some *clues* into my research design to assist the respondents, so to this end it will need to include some *closed* forms, but not to the point of limited responses.

Some respondents may find it difficult to express themselves in *written* form, so the *interview* could be used to collect data. Methods of interviewing vary from those used in *oral questionnaire* types of surveys such as public opinion polls or census reports to the therapeutic and/or non-directive interview used in psychiatry and social work. Generally, the interview is the most appropriate method to use for the purpose of obtaining subjective data in the realm of values, attitudes and social perceptions. (4) The strengths and weaknesses of this method lie in its dependence upon the establishment of rapport between the interviewer and the respondent. The respondents must feel comfortable and free to express their *true* beliefs and opinions, if the study based on the information is to be valid.

(1) BORG, Gall, (1979), *Educational Research*, Longman, N.Y., London, pp 116-118.
(2) LOVELL, Lawson (1970) *Understanding Research in Education*, Unibooks, University of London Press Ltd.
(3) *Ibid*, p22.
(4) SKAGER, Winberg (1971) *Fundamentals of Educational Research — An Introductory Approach*, Scott, Foresman and Company, Illinois.

Four editorial cartoons were selected to be decoded, including one from the author. The other three are cartoons from well-known and experienced practitioners, namely Bob Brockie, Trace Hodgson and Tom Scott. The four cartoons represent a variation in styles, not only in the illustration technique, but in the interpretation of events and how a point is conveyed visually to the viewer. Chicane's **Robot and Plant** cartoon (#1) has no caption, so relies on the image to convey its meaning, which could be open to a wide rage of interpretations, depending on the *symbols* used and the meanings associated with them from the respondent's point of view. Tom Scott's **Bush and Bolger** cartoon (#2) on the other hand is *cluttered* with words and is in a *comic strip* format to allow a conversation to follow a logical sequence between the two leaders. While the New Zealand Prime Minister's name is mentioned, the viewer has to rely on Scott's ability to *caricature* Bush that portrays not only his likeness but the viewer's perceived likeness of the United States President. Trace Hodgson's cartoon (#3) is also captionless, (apart from a sound effect — "Halt!") and relies on the draughting skill of the artist to use the correct symbols in such a way in order to convey the intended meaning. Bob Brockie's cartoon (#4) uses visual metaphors and a *voice bubble* caption. Ronald Reagan as Uncle Sam representing the United States is using the *world* as a football against the Russian Bear. These two symbols almost attain *icon* status because of their repeated use over a long period of time.

While the subject matter appears varied, there are some thematic threads connecting the various images and the time frame in which they were used in the research survey. The significant event that dominated world attention in early 1991 was the Gulf war crisis which involved Iraq's invasion of Kuwait, and the United States' successful "Desert Storm" campaign.

The Scott cartoon is a direct result of that event. Media saturation enabled the world to view, first-hand, the military movements in the Gulf. President George Bush's image was constantly on our television screens. Because of New Zealand's modest contribution to the war effort, Jim Bolger obviously felt it was time to *defuse* the *nuclear-free* issue,

which saw the end to the ANZUS alliance and New Zealand's military intelligence isolation, due to our ban on nuclear-powered vessels. This theme is also central to Brockie's cartoon, stressing the smallness of New Zealand's threat against the two superpowers, but conveying its seriousness in the continuation of the world and its inhabitants.

Hodgson's cartoon is linked because it involves the military, but he views it from the point of view that money spent on arms could be better used to feed the "starving millions". His *gallows* humour is anti-war, which is really similar to Brockie's motivation.

Chicane's cartoon relies on context more than the others. It could quite easily represent *warfare technology* against the earth's living entities. While the *robot* is not aggressive, it certainly appears to dominate and a *power play* is in evidence. Given that this cartoon appears with the other three which are *war* related, the students decoding them could be influenced by this context. However, it was positioned first in the questionnaire, so this may eliminate that possibility.

Indeed, all four cartoons deal with a *power struggle*. The identification of *winners* and *losers* varies depending on the viewer's interpretation of those concepts and how well they are portrayed in each cartoon.

The questionnaire was administered the day after Scott's cartoon was published in "The Southland Times", which was in the middle of the Gulf war crisis. Therefore, it was *fresh* and current with events at the time, which makes decoding it easier. Brockie's cartoon was published in 1988, while Ronald Reagan was President of the United States. As he himself pointed out, its interpretation could be contaminated because of the *time delay*. Some of the symbols used may not be readily identifiable because they are not familiar to the respondent.

Both Chicane and Hodgson's cartoons were drawn in 1985, but have more of a *timeless*

quality because they render situations that are ongoing and non-specific, hence no need for captions.

CARTOON #1

The Robot and the Plant (Chicane) was drawn to illustrate an article on technology and the environment. It was selected as part of the New Zealand exhibition at the World Cartoon Festival in Knokke-Heist, Belgium in 1985.

Chicane comments:

"The development of technology (robot) appears to be overpowering the environment (plant). The comparative sizes of the robot and the plant and the *raised boot* signifies that modern technology dominates the natural world and its continued growth. But the plant has broken through the concrete *base*, so maybe its strength has been underestimated?"

CARTOON #2

Jim Bolger's Phone Call to President George Bush (Tom Scott). New Zealand made a small contribution to the United States' Gulf war campaign against Iran's Saddam Hussein's invasion of Kuwait. Scott drew this cartoon during the conflict and after New Zealand's Prime Minister Jim Bolger announced that he had been in contact with the President.

Scott comments:

"My intention was to take the piss out of Bolger's obvious delight at getting through to Bush — such a fuss was made — some analysts thought it signalled a thaw in relations — others weren't so sure etc. — so I thought I'd take liberties with the truth and have Bush utterly perplexed by this call from a complete stranger, who acted all the time as a close intimate." (Appendix 2)

CARTOON #3

Halt! (Trace Hodgson). This military *incursion* into a famine-stricken country was also selected for the New Zealand Exhibition at Knokke-Heist, Belgium, 1985.

Hodgson comments:

"I hope the message of the cartoon is clear but of course my lessons are anti-war — the exploitation of the innocent for political and aggressive actions. Consider the amount of money spent on arms and military research and compare it to starving people of the third world. I feel the cartoon is still currently appropriate (maybe now more than ever) but I can only hope that one day it will be redundant." (Appendix 3)

Trace Hodgson attended a peace camp in the Gulf, leaving to return home only days before the war began.

CARTOON #4

Please Can We Have our Ball Back? (Bob Brockie). This cartoon was drawn for the New Zealand Ministry of Foreign Affairs 1989 desk diary.

Brockie comments:

"The cartoon of the U.S. and the Bear kicking the globe around was an attempt to crystallise the importance, naievety, idealism and innocence of the N.Z./Lange anti-nuclear policy in the face of *superpower real politik*. Unless you put the date on these cartoons, the poor kids doing the exams could be all at sea — or rather they'd lack vital clues and landmarks!" (Appendix 4)

Bob Brockie is a Wellington-based scientist who has contributed a weekly cartoon to "The National Business Review" for 16 years. Brockie, a committed socialist who has mellowed over the years, first took political sides during the Vietnam war and still sees his cartoon in the Friday edition of the national business daily primarily as a political activity. It also provides relaxation from the rigours of scientific work. But there are, Brockie says, links between the two stands in his working life. "There's no doubt that the many hundreds of hours of anatomical drawing I did as a student developed an eye-brain-hand discipline and gave me a grip on line and perspective. Also, I believe scientific enquiry and political cartooning are both very much concerned with making connections or mental links between the seemingly unrelated."

Caricature is central to Brockie's interest in cartooning; he sees it as a shock tactic that adds weight to a point. "I do faces elaborately, stretching and experimenting with them, because I enjoy exploring layers of personality, and also because it lets me double up on a cartoon's impact." Bob Brockie was named Qantas Cartoonist of the Year twice and has published two cartoon collections. (1)

Chicane Invercargill-based Mark Winter studied at the Otago School of Art in Dunedin and completed a social science degree at Palmerston North's Massey University. A graphic artist and part-time Polytechnic art tutor, Mark Winter has been cartooning for "The Southland Times" and the Wellington-based "P.S.A. Journal" for several years. He says his nom-de-plume is derived from motor racing's *chicane* or deceptive bend. "It's an appropriate description of me as a cartoonist," he says.

Mark Winter, an Invercargill City Councillor for the last nine years (including a term as the county's youngest Deputy Mayor), has also been a runner-up in the Qantas awards.[2]

Trace Hodgson contributed political cartoons to the Christchurch "Press" and "New Zealand Times" before becoming the "Listener"'s political cartoonist in 1984. A quiet and retiring nature belies a savage pen and uncompromising ideas. Trace Hodgson's

preference is for exaggerated caricature. "A cartoon can be opinionated, rude, vicious, nasty, serious, distorted, exaggerated, funny, truthful, disturbing and offensive," he says. "It's a means of attacking society, institutions, politicians, governments and leaders. A cartoonist could be considered a psychopath with a pencil." Hodgson, who also contributed a comic strip to the *Listener*, has had two collections of his cartoons published, one to accompany a touring exhibition. He has been Qantas Cartoonist of the Year twice, most recently in 1987.[3]

Tom Scott studied for a physiology degree and, after several years freelance cartooning in Wellington, accepted a writing assignment from the "Listener", and became a political correspondent with permission to illustrate articles with cartoons. He left the "Listener" after more than a decade in 1984 to work for the "Auckland Star" and "Sunday Star" as columnist/cartoonist. More recently he has been editoril cartoonist for Wellington's "Evening Post".

Tom Scott was politicised by the Vietnam War and the anti-apartheid movement. He has found cartooning cathartic — a way of releasing his frustrations and anger over issues that concern him. "I'm a verbal person, so I do verbal cartoons," he says. "But I still consider myself a cartoonist who writes rather than the other way around." He has won two Qantas awards and has also written television scripts and he co-wrote the "Footrot Flats" movie with originator Murray Ball.[4]

(1) GRANT, I. F. (1989), *Drawing The Line*, Ministry of External Relations and Trade, Wellington, N.Z.
(2) *Ibid*
(3) *Ibid*
(4) *Ibid*

METHODOLOGY
■ The Questionnaire

The questionnaire (Appendix 5) was divided into two main parts — general information and specific questions on each of the four cartoons.

Students were asked their names (not compulsory); their class; age; and gender. If students wished to follow up their written answers with an interview then they were asked to indicate their intentions and an interview would be arranged. No student requested an interview. The interview was a possibility in my methodology if some students did not have enough time to complete the written survey, or their literacy skills did not allow them to express themselves adequately or correctly. On reflection, interviewing some of the students, particularly 5AB and 5I could have produced slightly different results because their oral responses may have expressed their actual answers more accurately. However, all students were given the same questionnaire with the same amount of time to complete it. The conditions were similar for all respondents.

Question #1 simply established that all the sample group started without any *formal* cartoon interpretation instruction, apart from the one lesson 5P and 5AB received prior to the survey. This ensured that no *contamination* occurred amongst the 81 students sampled.

Questions #2 to #6 were designed to establish the respondents' newspaper and magazine readership habits in terms of frequency, and how the cartoon (both editorial and strip) featured in that frequency. The second part of the questionnaire was divided into four sub-sections, relating to each of the four cartoons selected for the study. The cartoons were collated in the following order: Chicane; Scott; Hodgson and Brockie. All the questions were designed to get the student to identify the main point or points of each cartoon. In order to do this, some of the *elements* contained within each cartoon had to be separated and identified before the *intended message* could be decoded.

Chicane's cartoon involves two *visual participants* — a plant and a robot. Students were asked to identify both in terms of what they represented and to qualify their answers. By

asking what was happening between the two, the respondents followed a logical sequence that may have assisted them to identify the main point of the image.

Scott's cartoon also centred on two main characters. Students were asked to identify them and the event that created the situation before identifying the main point of the cartoon. Once again the questionnaire was designed to separate elements in a sequence before interpreting the overall message.

For Hodgson's cartoon, I did not separate any of the elements and simply asked what was its main point. The students would either mentally separate each element before concluding the cartoonist's intention or tackle the question without going through the sequencing stages of the previous two cartoons.

I returned to separating each element of Brockie's cartoon before asking the main point of the image. The question about the recognition of a world leader in the cartoon is dependent on students' recall. Ronald Reagan was the President of the United States at the time the cartoon was originally published, but his *caricature* (and possibly its poor reproduction) and its recognition may have suffered because of unfamiliarity to the students. It was not intended to be a key point of interest, but the cartoonist did point out that unless a date or context accompanied the cartoon, the students may have struggled with its identification.

The original questionnaire was administered to ten 15-year-olds (not part of the sample group) to assess comprehension. Some slight modifications to the wording to make each question clearer were made before the final questionnaire was given to the sample group.

METHODOLOGY
■ The Questionnaire
Application

The questionnaire was administered to all four classes in their respective form rooms by their form teachers. They were given one hour to complete the questionnaire with additional reading and question time. The form teachers were instructed by myself prior to the questionnaire's application, to clarify any part of the survey.

The *low band* class — 5AB — which received the lesson, completed their questionnaire the afternoon of the lesson. The other three classes filled in their survey the next day.

METHODOLOGY
■ The Sample Group

Four fifth-form English classes were selected from James Hargest High School, Invercargill's largest co-educational school. The two *high band* classes, 5A and 5P, and the two *low band* classes, 5AB and 5I, were chosen (Appendix 6). 5P and 5AB (a *high* and *low band* class) were the recipients of the lesson; the other two classes received no tuition on the *decoding* of the cartoon. For the purposes of this study, I have labelled each class with a letter of the alphabet as follows:

A   =   5P (lesson)

B   =   5I (no lesson)

C   =   5A (no lesson)

D   =   5AB (lesson)

The total number of participants in the study was 81; 27 males and 54 females:

Group	Total	Males	Females
A	28	8	20
B	13	7	7
C	25	7	18
D	15	5	10

The criteria for *class* selection is based on academic performance over a two-year period. An initial selection is made on entry, based on examinations in Science, Maths and English.

Adjustments are made at the end of the third form and again in the fourth form.

For School Certificate Year (fifth Form) subject preference can influence the selection for a particular class, the main criteria is performance in the junior school.

The hierarchial division of the fifth form separates the classes into *high band, middle band* and *low band* sections. The *high band* is divided into four classes; three studying six subjects for School Certificate and one taking five subjects. The *middle band* comprises

average students divided into five classes. The *low band* has three classes, one of which does not sit all School Certificate subjects. They do sit School Certificate English, but not Maths or Science, replacing them with Performance Certificates.

Based on information from question #1 in the questionnaire, none of the students had taken part in a formal lesson on cartoon interpretation, other than the students in 5P and 5AB, who were recipients of my one-period lesson on interpretations of "Rainbow Warrior" cartoons.

METHODOLOGY
■ Main Points and Allocation of Marks

The main points of each cartoon and the allocated marks are as follows:

Cartoon #1 — Chicane:

- Modern technology is represented by the *robot*. (1 mark)

- The natural environment/nature is represented by the *plant*. (1 mark)

- The *robot* is bigger and appears to be in control, but is not aggressive — appears to have already won, so is blase about his actions, (to stamp out the *plant*). (2 marks)

- Word of warning — if the *plant* can break through concrete, its strength may have been underestimated by the *robot*. (1 mark)

Cartoon #2 — Scott:

- *Take the piss* out of Bolger's delight at getting through to Bush. (2 marks)

- Some saw it as a thaw in relations between the United States and New Zealand since the earlier nuclear-free/ANZUS debate. (1 mark)

- Bush and Bolger identified. (2 marks)

Cartoon #3 — Hodgson:

- Anti-war. (1 mark)

- Exploitation of the innocent for political/aggressive actions. (2 marks)

- Compare amount of money spent on arms and military research to that spent on the starving people of the third world. (2 marks)

Cartoon #4 — Brockie:

- Impotence, naievety, idealism, innocence of the N.Z./Lange anti-nuclear policy. (3 marks)

- Superpowers represented; Uncle Sam (United States) and the Bear (Soviet Union). (2 marks)

In order to access the students' responses to the questionnaire, the *main points* of each

cartoon were listed and a five-point marking system was correlated with these points. The cartoonists' own *intended meanings* were used as the basis for marking the answers.

Carl's research for his doctoral dissertation *Meanings Evoked in Population Groups by Editorial Cartoons* [1] also judged the subjects' interpretation of a cartoon against the actual meanings given by the cartoonists. He used an A, B, C grading system. Those responses in agreement with the cartoonists' meanings were graded A. Those completely failing to decode the cartoonists' meanings were graded C and those grasping part of the meaning received a B grade. This was somewhat limiting when applied to my study.

According to the *School Certificate English Marking Schedule* (1990) [2], there are five broad categories for marking:

5 — Excellent	Direct, detailed answer to question, perceives theme/ relevance/skill, sound explanation of main points
4 — Good-Very Good	Sound answer to question, competent and controlled, some depth, detail, distinction
3 — Fair-Reasonable	Does answer question, goes beyond plot, some understanding, lacks detail, balance
2 — Poor	Vague reference to question, good account of plot, dubious/shallow, accuracy and interpretation
1 — Very Weak	Question barely or not addressed, muddled/partial answer

In the *Statuc Image* section of the School Certificate English Examination paper, marks are awarded if each of the elements of the *image* are identified.

I have used the same system to assess students' responses in this study. The cartoonists' *intended meanings* have been divided into a five-point marking system related to the questions asked. If a student identifies all the points listed, then that student will score a possible five out of five, which demonstrates complete understanding of the cartoon. Conversely, a one or two grade would indicate a lack of understanding of the cartoonists'

intentions.

Identification of key elements in the cartoon carried less weight than identifying the *intended meaning* which these elements convey. For example, a student may identify the Bear in the Brockie cartoon as representing Russia, but may think the meaning of the cartoon was America's cruelty to Russian animals! A hierarchy of response with a corresponding numerical reward was used and the understanding of the *intended meaning* is the major objective, therefore carries more points.

The allocation of marks to the points made by the cartoonists as the basis for the scores was subjective. I tried to weight the marks towards the main points but where in my opinion they were more than one point, the marks were distributed equally. Carl simply used an A, B, C grade system, but I felt it was more appropriate to use the School Certificate scoring system, which allowed more flexibility. Being able to distribute five marks to the cartoonists' explanations enabled the respondents to cover all the points of the cartoon and be marked accordingly.

Where there were two or more points being made and I was unable to give equal mark allocation, I determined the main point and weighted the marks accordingly. My interpretation of the main point could be open to criticism, but I don't believe it is a significant factor. I did not change any of the cartoonists' meanings, simply the marks allocation, which over five points was limited.

The points made by each cartoonist however, seem relatively clear-cut and precise and appeared to *naturally* divide themselves up into a five-point scoring scale.

For example, Trace Hodgson makes three clear points about his cartoon, namely its anti-war message — it shows the exploitation of the innocent for political and aggressive reasons and compares the amount of money spent on arms and military research to that spent on the starving people of the third world.

In my opinion the two main points are the exploitation and monetary themes, so accordingly they receive equal marks, and one point for the anti-war sentiment.

(1) CARL, LeRoy M., (1968) *Editorial Cartoons Fail to Reach Many Readers*, Journalism Quarterly 45; pp 533-535.
(2) NEW ZEALAND QUALIFICATIONS AUTHORITY (1990), School Certificate English Marking Schedule, Wellington, N.Z.

I chose the "Rainbow Warrior" affair as the central theme and then used 11 New Zealand cartoons to show how different cartoonists used the medium to depict the same event. The objective was to demonstrate how a cartoon can be decoded by looking at the various *visual* and *textual* devices available to the cartoonist in order to convey his intended message or messages.

The cartoonists and their cartoons are:

1. **Eric Heath** (Wellington), *Fashion Parade.*

2. **Bill Wrathall** (Auckland), *On the Trail of the Pink Panther.*

3. **Tom Scott** (Wellington), *Thank You, Gentlemen — That Will be All!*

4. **Trace Hodgson** (Wellington), *When the Earth is Sick.*

5. **Trace Hodgson** (Wellington), *Whoompfh!.*

6. **Peter Bromhead** (Auckland), *Whitewash.*

7. **Malcolm Walker** (Auckland), *French Secret Service.*

8. **Sir Gordon Minhinnick** (Auckland), *Compensation.*

9. **Chicane** (Invercargill), *The Rambo Warrior.*

10. **Chris Slane** (Auckland), *The French Arrive in N.Z.*

11. **Bob Brockie** (Wellington), *The Frog and the Rainbow.*

The lesson was one hour in duration.

After a brief introduction outlining the "Rainbow Warrior" bombing in Auckland Harbour, and the subsequent chain of events, I concentrated on each of the 11 cartoons, highlighting the various ways each cartoonist interpreted the event using a variety of *techniques*. Students were shown how to dissect the elements making up each cartoon in order to *decode* the intended meaning.

A summary of the comments relating to each cartoon is as follows:

Peter Bromhead's simplistic, *lineal shorthand* illustration style for **Whitewash** ("Auckland Star", 27 August 1985), uses a number of visual metaphors relating to the French stereotype. Firstly, France is famous for champagne and it is used here to *bribe* New Zealand. It is labelled "Whitewash", suggesting a coverup — simply have a drink and forget the incident. The *typical* Frenchman is depicted, employing the French beret, the large nose and unshaven appearance. There is also an air of arrogance about the Frenchman and the cork goes "plop" instead of "pop" indicating a flat beverage — no need for celebration.
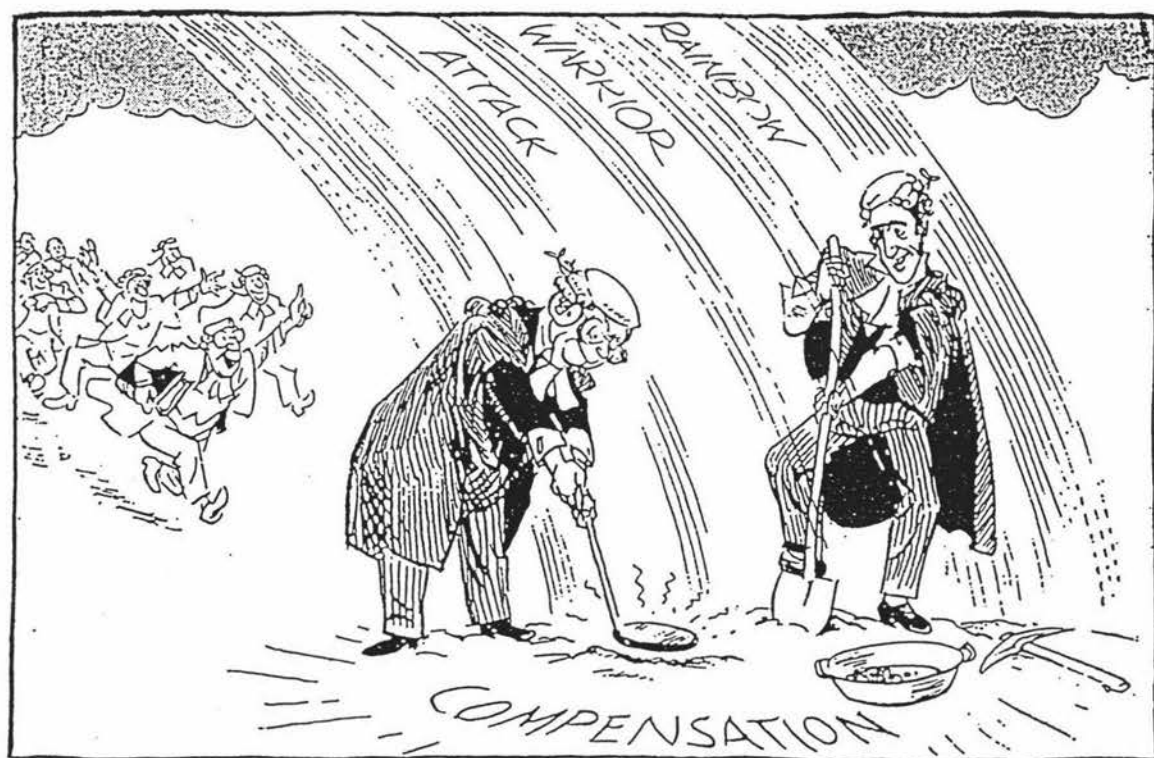
AT THE FOOT OF THE RAINBOW

Sir Gordon Minhinnick's *Compensation* cartoon ("N.Z. Herald", 26 September 1985) takes a look at the event from another perspective. The real winners are the lawyers, who have struck a *gold mine* (the pot of gold at the end of the rainbow) when compensation for the bombing was announced. His cynical interpretation of the affair demonstrates Minhinnick's disgust at the legal profession, who gleefully scavenge from others' misfortunes.

Panel labels: ·MORUROA·, ·NEW CALEDONIA·, ·GREENPEACE·, ·FRENCH SECRET SERVICE·; PACIFIC, KANAKS, RAINBOW WARRIOR; signed Malcolm Walker

Malcolm Walker's *French Secret Service* cartoon ("New Outlook", September/October 1985), used four panels to depict the French "sticking their finger" in to Pacific affairs before inflicting the same damage to themselves — similar to "shooting themselves in the foot!"

The first panel depicts France "blinding" the Pacific with its nuclear testing; the second is its treatment of the Kanaks in New Caledonia; the third is the bombing of the "Rainbow Warrior" and the fourth is the French Secret Service, jabbing itself by the clumsy operation and its feeble attempt at a coverup. Walker also uses the beret and "extended" nose to represent the Frenchman.
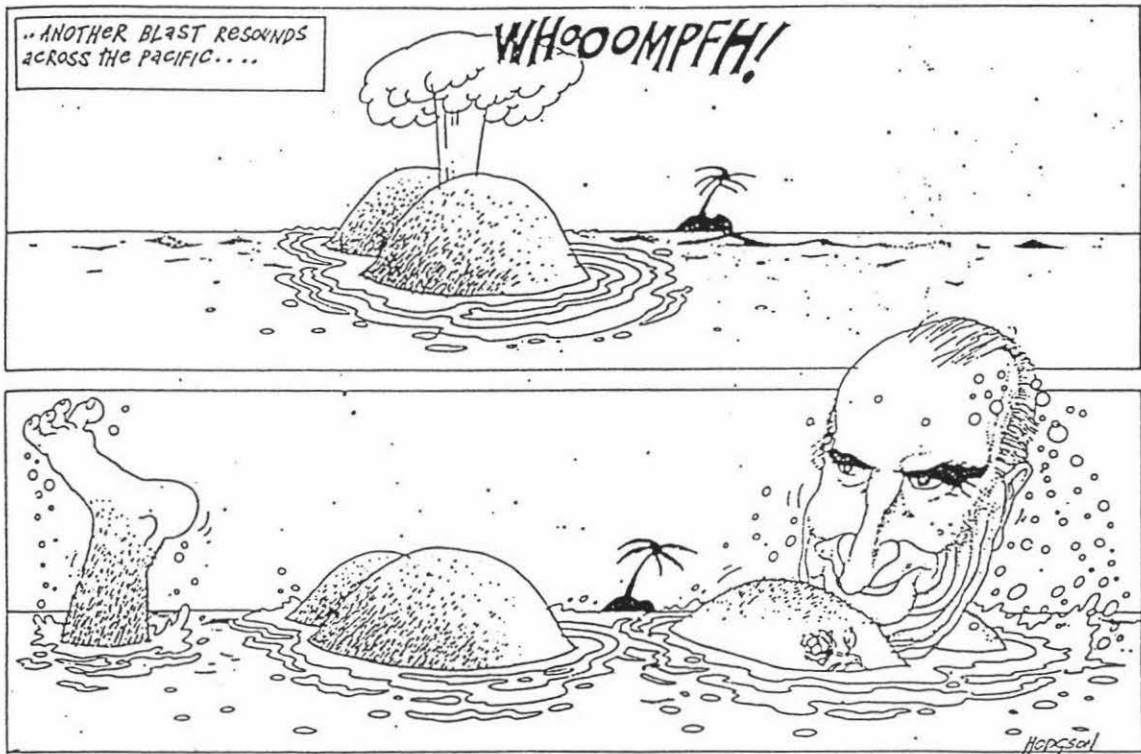
Trace Hodgson's second cartoon *Whoompfh!* ("Listener", 5 October 1985) could be considered to be an example of *toilet humour*, relying on human flatulance for the point of the gag and relating it to the French nuclear testing at Muraroa Atoll. In September 1985, President Mitterand made a lightning visit to Muraroa. This was a grossly provocative gesture internationally, but a largely successful publicity coup at home. He announced that France would continue testing on the site for as long as necessary in the interests of the country's defence. Hodgson employs the two-panel approach — the top panel depicting an apparently straight forward image and the bottom panel revealing the point of the cartoon.

Trace Hodgson's *When The Earth Is Sick* cartoon ("Listener", 3 August 1985) is simply a graphic of a whale and the exploding bomb (presumably a French nuclear test over Muraroa) to illustrate a Greenpeace poem. The whale represents all living creatures inhabiting the Pacific, who will need the "Warriors of the Rainbow" to save them. The image is an example of a *non-humorous* cartoon that makes a salient point, allowing the solemn drawing to make its impact. Many readers associate the *cartoon* with *humour*, but that is not always the case and many cartoonists can express their opinion onf *serious* subjects with a *serious* illustration.

Tom Scott's *Thank You, Gentlemen — That Will Be All!* ("Auckland Star", 31 August 1985) cartoon centres around the official "inquiry" by Bernard Tricot, which cleared the D.G.S.E. of any responsibility for the sabotage in spite of the overwhelming evidence to the contrary. Scott *recreates* the casual atmosphere of the inquiry and the farcical situation of the investigation. The implication of this cartoon is that Tricot completely ignored the obvious French involvement. His report was viewed by the rest of the world as a fabrication. Scott over-emphasises the point by adorning the "spies" with excessive weaponry. The French accent is added for authenticity by replacing all the words beginning with "s" with a "z" in the voice captions.

ERIC HEATH

Eric Heath's *Fashion Parade* ("Dominion", 28 August 1985) demonstrates the "Dominion" cartoonist's *brush-line* style and the use of *letratone* to add three-dimensional shading to the image. The French agents left a surprising trail of evidence — specialised oxygen cylinders with French markings, an outboard motor, a Zodiac dinghy, fuse wire, receipts and an overall militaristic aura.

Heath translates the "trail of evidence" as a Parisian fashion parade with "New Rainbow Colours", the various items displayed by the "spies" hiding behind dark glasses, (a visual coverup).
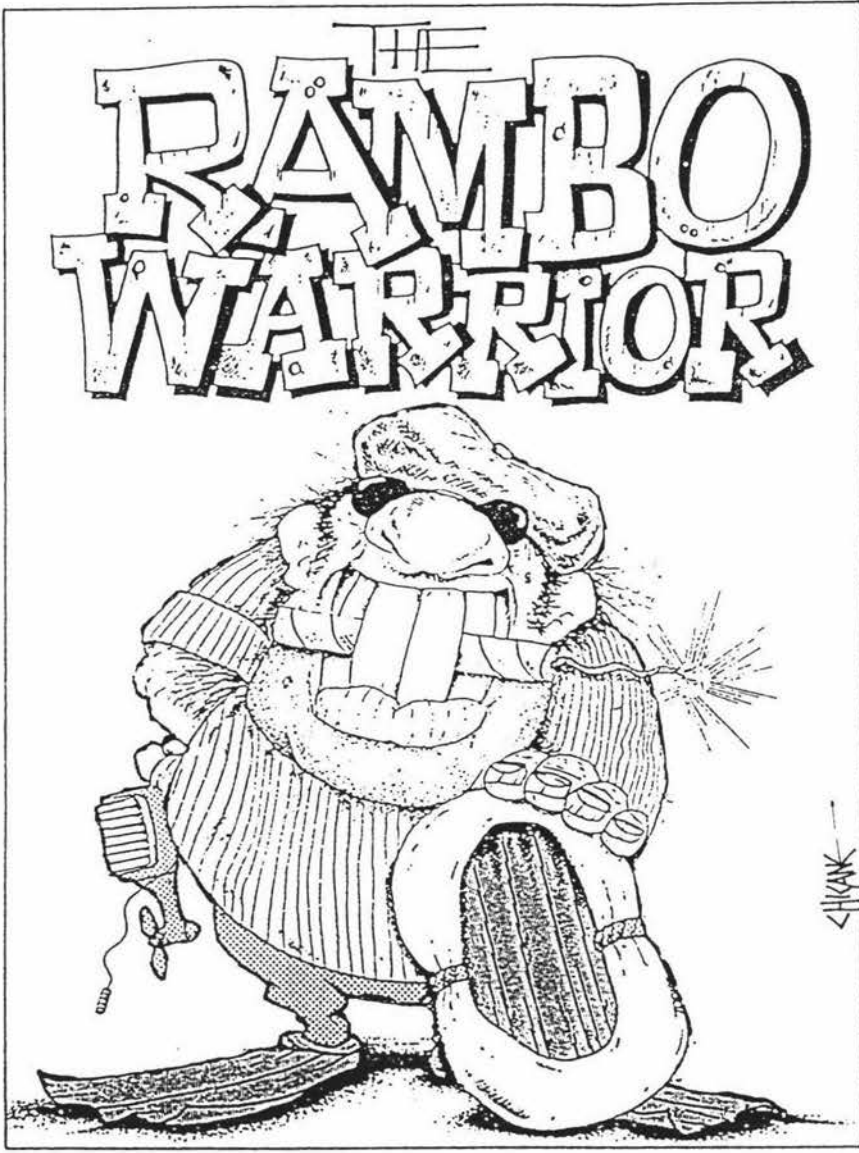
Chicane's *The Rambo Warrior* ("Rainbow Warrior Collection", 1986) is a play on the popular and violent Sylvester Stallone "Rambo" movies, likening the French saboteurs to the aggressive depiction in the film. Once again the Frenchman is recognisable by the beret, the large nose and the five o'clock shadow, along with the "trail of evidence"; elements such as the Zodiac, outboard motor and a stick of dynamite.

Chris Slane's cartoon ("Rainbow Warrior Collection 1986) demonstrates the apparent ease at which the French agents slipped in to New Zealand. Shadowy little frogmen, flying the French tricolour (for identification) scamper up the hill, past a sleeping New Zealand farmer and his grazing sheep. Slane uses the *typical* black singlet, shorts and gumboots — made famous by Fred Dagg — to symbolise the New Zealander.

Bob Brockie's captionless image ("The Rainbow Warrior Collection 1986) of an evil toad ripping out a piece of the rainbow and devouring it graphically depicts the "Rainbow Warrior" bombing in a single image. Apart from the rooster, the frog is a familiar symbol representing the French race. It is more appropriate here because frogmen were used to secure the bombs to the "Rainbow Warrior" hull on the night of 10 July 1985 in the Auckland harbour. The brightly coloured rainbow represents the Greenpeace organisation (as well as the "Warrior"), providing a colourful interlude to the dull and murky world of nuclear testing.

ON THE TRAIL OF THE YELLOW PANTHER

Bill Wrathall's *On The Trail of the Yellow Panther*, ("N.Z. Truth", 27 August 1985), utilises the infamous French detective Inspector Clousseau from the "Pink Panther" films. President Francois Mitterand learned of accusations of a French connection with the "Rainbow Warrior" bombing and instigated his Government's own investigation. It gave an account of the D.G.S.E. (the French Secret Service) agents' "spying" activities in New Zealand, the funding of the operation and the infiltration of Greenpeace. It found no sinister intentions and no policital responsibility. It cleared the Secret Service of any blame, but gave no explanation of the cause or perpetrators of the sabotage. Wrathall uses the bumbling Clousseau to head the investigation to imply incompetency and even has the third gendarme tell the D.G.S.E. "panther" to keep quiet while they hunt his trail, signifying an apparent coverup. The panther is holding a common symbol throughout the cartoons — the circular bomb and attached fuse. Wrathall also uses colour symbolism, changing the pink panther to yellow, which is the D.G.S.E. colour and the colour associated with cowardice.

Wrathall's cartoons are clearly identifiable with the addition of a small Kiwi character at the lower right-hand side. This added device allows the cartoonist to have "another bite at the cherry" and he uses another film metaphor, subtly changing the detective film, "The French Connection" to "The French Disconnection".

RESULTS AND DISCUSSION

In this section I have used the six main research concerns (listed in the Introduction) as the basis for discussion.

The first consideration is the students' cartoon interpretation scores in relation to the cartoonists' *intended meanings*.

TOTAL CARTOON INTERPRETATION SCORES* AS PERCENTAGES
(Appendix 15)
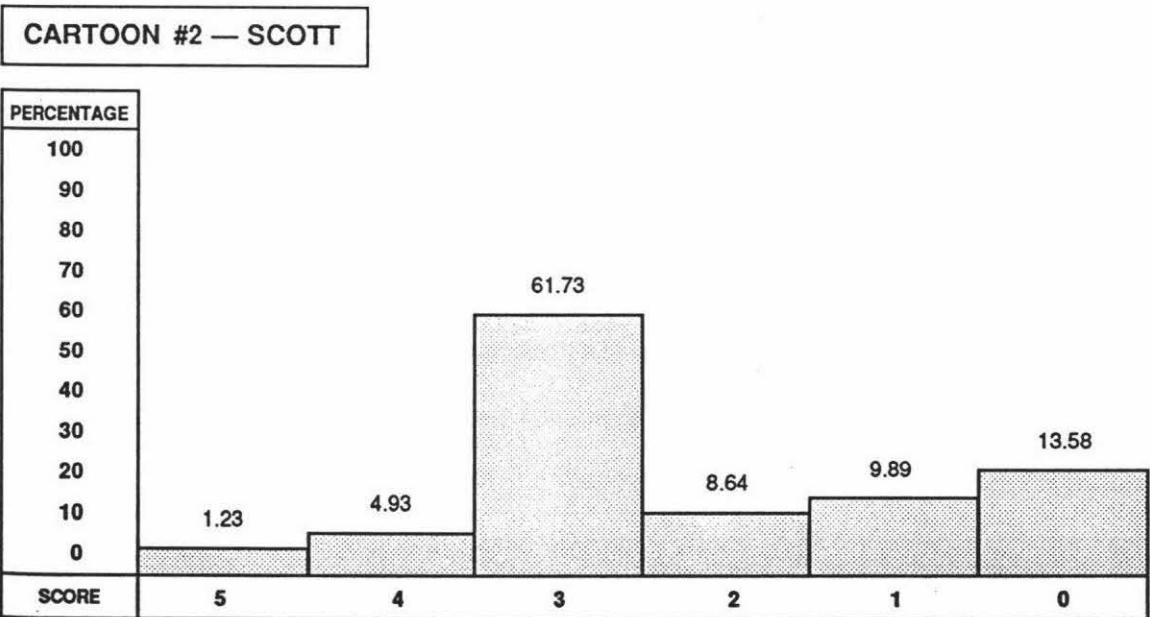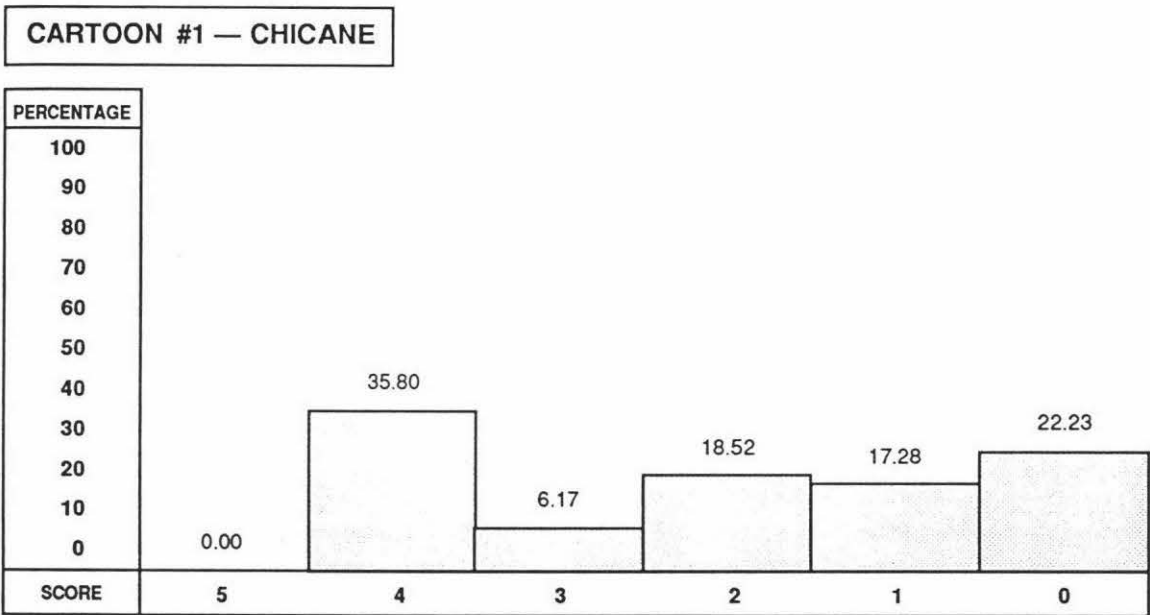
CARTOON #1 — CHICANE
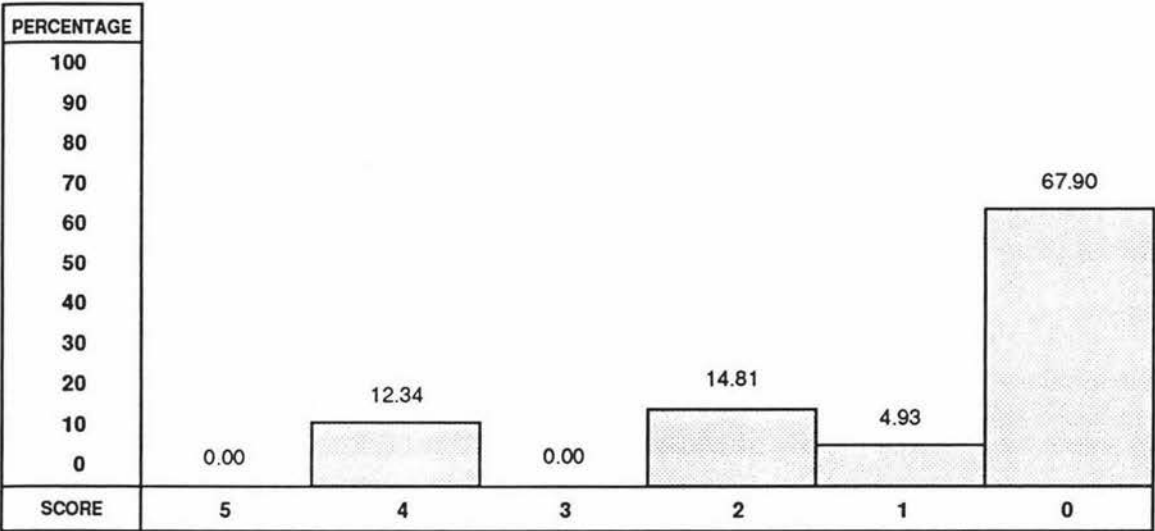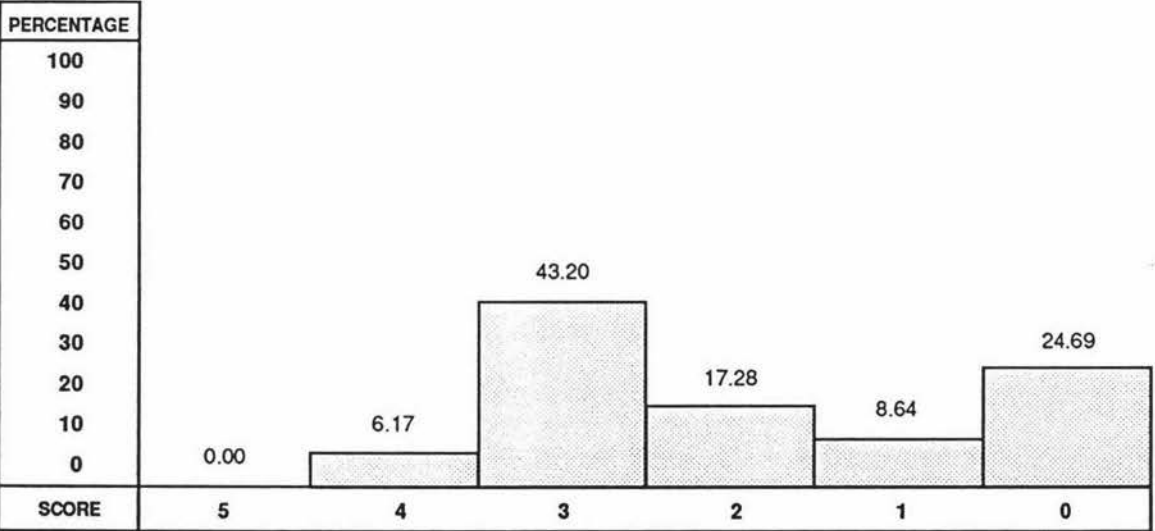
PERCENTAGE						
100						
90						
80						
70						
60						
50						
40		35.80				
30						22.23
20				18.52	17.28	
10			6.17			
0	0.00					
SCORE	5	4	3	2	1	0

CARTOON #2 — SCOTT

PERCENTAGE						
100						
90						
80						
70			61.73			
60						
50						
40						
30						13.58
20					9.89	
10	1.23	4.93		8.64		
0						
SCORE	5	4	3	2	1	0

CARTOON #3 — HODGSON

PERCENTAGE						
SCORE	5	4	3	2	1	0
	0.00	12.34	0.00	14.81	4.93	67.90

CARTOON #4 — BROCKIE

PERCENTAGE						
SCORE	5	4	3	2	1	0
	0.00	6.17	43.20	17.28	8.64	24.69

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology chapter, p 65.

In terms of the scores, Tom Scott's cartoon (#2) was the most successfully interpreted in comparison with the cartoonists' *intended meanings*. Not only was one student in complete agreement with Scott, but 67.89% of the responses scored 3 or above. The maximum score for each cartoon is 5. This is based on marks allocated to the points made by each cartoonist who listed their *intended meanings* (see page 65).

By contrast, Trace Hodgson's (#3) was the cartoon which caused a problem with 67.90% of students recording a zero score, signifying a complete disagreement with the cartoonist's intentions. Scores of 2 or less accounted for 87.64% of answers. Both Chicane and Brockie's cartoons also caused some problems with interpretation, but not to the degree of Hodgson's. Over half the students recorded a 2 or less — Chicane 58.03% and Brockie 50.61%. However, that appears balanced by students scoring a 3 or 4, which accounts for 41.97% (Chicane) and 49.37% (Brockie). More students, however, scored a 4 with Chicane's cartoon, compared with 6.17% for Brockie's; 43.20% of students did score 3 compared with 6.17% for Chicane's. Therefore, in general terms, there seems to be an even score spread with both Brockie and Chicane's cartoons.

Cartoon cognition is dependent on a number of variables, such as knowledge of current and past events, ability to see analogies, psychological set and how the cartoonist conveys his message with image and text. Context is also an important element — not so much in where the cartoon is used, but its timing. It's not surprising that Scott's cartoon had the most accurate response of all the four images used because its subject — the Gulf war — was current, and was the subject of substantial media coverage.

While Hodgson's cartoon had a war theme, its message regarding military spending went unnoticed. The majority of students correctly identified the two main characters in the *editorial strip* as the President of the United States, George Bush; and New Zealand's Prime Minister, Jim Bolger. Most respondents also identified the Gulf war as the event behind the cartoon — with some stating that the relationship between the United States and New Zealand was the overriding factor, which are both correct. The students provided some interesting comments, a selection of which follows:

> "Jim thinks Bush is a buddy, but he doesn't know the truth." — "N.Z. is a small place in the middle of nowhere." — "Yanks take N.Z. for granted." — "Bush doesn't give a shit about N.Z." — "Bolger is a greaser." — "Jim sucking up to the U.S." — "Bolger is a greasing pratt."

The consensus of opinion was that New Zealand was too insignificant for the United States to bother with, as was New Zealand's war effort.

I believe that one of the difficulties with Hodgson's cartoon is his *artistry*, which has attracted a number of comments. Many felt his characters looked more like rats or some other rodent, so they couldn't identify the essential ingredient, which makes it difficult to decode. The military metaphors, such as the *tank* or *helmet* appeared to be more easily recognisable. Some comments were:

> "Military misuse of public resources." — "Ignoring hunger for military gain." — "Americans using people for military purposes." — "Need safety equipment, especially in war." — "Army guy takes all." — "Clever cartoon; gets point across, but I don't know what it is."

Quite a number of students did identify the *anti-war* sentiment in the cartoon, but could not clarify it further with regard to the military spending priority over the feeding of the *starving millions*.

The majority of students clearly identified the *robot* and *plant* visual metaphors in Chicane's cartoon. This image could have been very difficult to decode, because there is no text or *context* to correlate the visual elements of the cartoon. However, the response was more accurate than I had anticipated. The theme of *technology* versus *nature* or *the environment* was interpreted by most of the respondents. It was the little twist that obviously was not picked up regarding the conclusion of this power struggle. Many believed it was the *robot* who was the dominant figure, but as the cartoonist pointed out, if the *plant* could break through concrete, it had the right attributes to *take over* or at least survive.

Student comments for the most part were similar, such as:

> "Technology destroying the environment." — "People destroying planet." — "What will it be like in 2050?" — "Not all things can live

on this earth." — "Let plants grow; not robots."

Brockie's cartoon also relies on context. Some could mistake it as a comment on cruelty towards animals, or animals being maltreated in the circus arena, and indeed, a number did. However, most did identify the main characters as being the United States and the Soviet Union. Brockie used the very popular symbol of the bear to represent the U.S.S.R. and Uncle Sam (with a Ronald Reagan face) represented the United States. It is interesting to note that ten students thought that the bear represented Saddam Hussein or Iraq which can probably be explained by the timing of the questionnaire, which was administered while the Gulf war-associated media saturation dominated the news. Many students identified the superpowers *playing* with our planet, while others can only stand on and watch like children, but few linked that with New Zealand's anti-nuclear stance as a naive act. A collection of comments is as follows:

> "Big powers do what they want." — "Superpowers have a scant regard
> for the views of other nations." — "United States/Russia playing with
> the world with nuclear weapons." — "N.Z. policy is futile." — "Not
> everyone cares for small people." — "Kick a ball at a bear and he'll
> kick it back." — "Teasing children." — "Clowning around with the
> world."

The School Certificate Chief Examiner's observation that candidates "can cope with the obvious, but struggle with the visual metaphor and lack familiarity with many cartoon conventions and cliches. . ." (Appendix 1) seems to be a reasonable comment in the light of results.

With this small sample and their response to the four cartoons chosen, there seems to be more understanding of the *intended meanings* that Dr Carl found in his study.[1] While Carl (1986) used a simpler A, B, C rating scale, with more definitive categories — either in complete agreement, partial agreement or no agreement with the cartoonists' intentions, it appears that this group of fifth form students at least had more partial

agreement, but Carl's sample, which was more comprehensive, had a higher percentage in total agreement and disagreement.

For this study I used a 5-point scoring scale, based on the marks allocated to the cartoonists' *intended meanings* for each of their cartoons (see page 69). So, *partial agreement* would equate to a 3 or 2 score on that scale.

I am not familiar with all the cartoons Carl used in his study, so it is also difficult to compare his results with mine. Carl's choice of editorial cartoons may have been easier in terms of images used or events cartooned. One can only make tentative generalisations or comparisons because of these factors and the vast difference in sample sizes.

It may mean that a more selective choice of images and participants would result in a different set of data collected. For example, if students have just completed a series of lessons on a particular political event and then were given some cartoons based on that same event to decode, a higher percentage would obviously interpret them more accurately. None of my sample groups had experienced a lesson in cartoon interpretation prior to this study, but many obviously had varying amounts of knowledge regarding the subject matter of the cartoons and that variable would be difficult to qualify. In that regard, intellect and cognition may be significant factors. The comparison of scores between the *high band* and *low band* students certainly supported my tentative theory that students with higher *academic status* scored better than their counterparts in the lower academic classes.

AVERAGE GROUP CARTOON INTERPRETATION SCORES* FOR EACH CARTOON
(Appendix 16)

TOTAL AVERAGE GROUP CARTOON INTERPRETATION SCORES*
(Appendix 16)
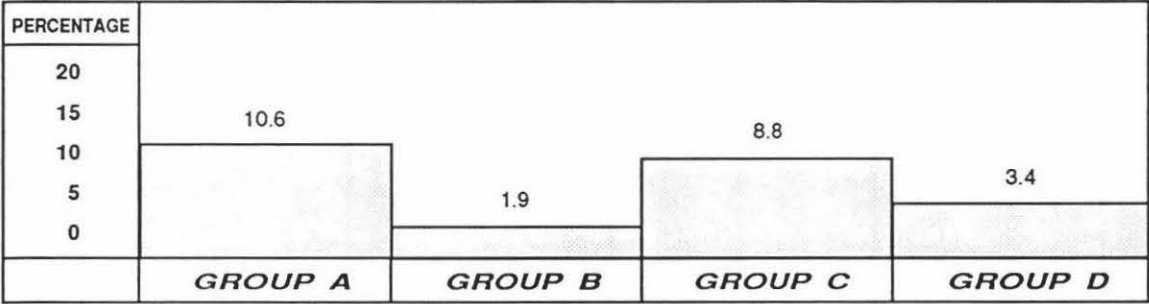
| PERCENTAGE				
20				
15	10.6		8.8	
10				3.4
5		1.9		
0				
	GROUP A	GROUP B	GROUP C	GROUP D

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology chapter, p 65.

GROUP CARTOON INTERPRETATION SCORES* AS PERCENTAGES
(Appendix 17)

CARTOON #1 — CHICANE

GROUP A: score 5: 0.00, score 4: 71.42, score 3: 3.58, score 2: 17.86, score 1: 7.14, score 0: 0.00
GROUP B: score 5: 0.00, score 4: 0.00, score 3: 0.00, score 2: 0.00, score 1: 30.77, score 0: 69.23
GROUP C: score 5: 0.00, score 4: 32.00, score 3: 16.00, score 2: 12.00, score 1: 24.00, score 0: 16.00
GROUP D: score 5: 0.00, score 4: 6.66, score 3: 0.00, score 2: 46.66, score 1: 12.50, score 0: 33.33

CARTOON #2 — SCOTT

GROUP A: score 5: 0.00, score 4: 7.14, score 3: 89.28, score 2: 0.00, score 1: 3.58, score 0: 0.00
GROUP B: score 5: 0.00, score 4: 0.00, score 3: 15.38, score 2: 7.60, score 1: 46.15, score 0: 30.78
GROUP C: score 5: 4.00, score 4: 8.00, score 3: 84.00, score 2: 4.00, score 1: 0.00, score 0: 0.00
GROUP D: score 5: 0.00, score 4: 0.00, score 3: 13.35, score 2: 33.33, score 1: 6.66, score 0: 46.66

CARTOON #3 — HODGSON

GROUP A — 5: 0.00, 4: 28.57, 3: 0.00, 2: 21.43, 1: 3.57, 0: 46.43
GROUP B — 5: 0.00, 4: 0.00, 3: 0.00, 2: 7.69, 1: 15.38, 0: 76.93
GROUP C — 5: 0.00, 4: 8.0, 3: 0.00, 2: 16.00, 1: 0.00, 0: 76.00
GROUP D — 5: 0.00, 4: 0.00, 3: 0.00, 2: 6.67, 1: 6.67, 0: 86.66

CARTOON #4 — BROCKIE

GROUP A — 5: 0.00, 4: 14.29, 3: 50.00, 2: 25.00, 1: 7.14, 0: 3.57
GROUP B — 5: 0.00, 4: 0.00, 3: 0.00, 2: 7.69, 1: 7.69, 0: 84.62
GROUP C — 5: 0.00, 4: 4.00, 3: 76.00, 2: 20.00, 1: 0.00, 0: 0.00
GROUP D — 5: 0.00, 4: 0.00, 3: 13.00, 2: 6.66, 1: 28.66, 0: 53.33

The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology chapter, p 65.

Groups A and C are the *high band* groups and clearly decoded the four cartoons more accurately than Groups B and D which were the *low band* students. An example of the *cognitive gap* between these groups can be seen in the results of Group A and Group C when interpreting Chicane's cartoon. The *high band* students scored very well with 71.42% recording a 4. By comparison, no *low band* students in Group C scored a 4, but 69.23% registered a zero and no Group A students recorded a similar result.

As discussed, Hodgson's cartoon caused problems for all groups, including the *high band* students. But, as previously discussed, their results were significantly better than

the *low band* students' scores.

An example is the 46.43% of Group A who scored zero compared with the 86.65% of Group D who recorded the same score. However, it is interesting to note the similarity between Groups B and C on the zero score, but the *high band* group did score higher overall. That zero score result for the Hodgson cartoon appears to be an exception. As a generalisation, the scores from the *high band* group are consistently better than the corresponding scores of the *low band* students.

I have used Chi squared tests on the comparisons of the students' cartoon interpretation scores with *high/low bands*; gender; and students who received a cartoon lesson and those who did not.

In every Chi squared test, the assumed hypothesis is that the factor under consideration has no effect on the score. If this were true, then the ratio of entries in any column to the total of that column should be similar for all columns. On the basis that they are the same the *expected* values are calculated. The Chi squared value is then found by squaring the differences between the *observed* and *expected* values, dividing each by the expected value and adding them together. The resulting value for Chi squared would be close to zero if the hypothesis were true. When it is too far from zero, then the hypothesis is false. Just how different from zero it has to be depends on the required *significance* level (usually either 5% or 1%), and the number of degrees of freedom, which in turn depend on the amount of observed data.

For cartoons #1, #2 and #4, the Chi squared test results were all significant at both a 5% and 1% level (Appendix 18). Hodgson's cartoon (#3) produced an interesting result. At a 5% level it was significant (7.82), but only just. At a 1% level, it was not significant (11.35). From this, it can be said that intelligence has a highly significant effect on the cartoon interpretation score with the possible exception of Cartoon #3 which caused *decoding* problems for all groups. This might say more about Hodgson's ability as a

cartoonist to convey his intended message rather than the intelligence of the sample group.

The third research concerned was the comparison between gender and the cartoon interpretation scores. The sample size and the male/female ratio does distort the results somewhat, but does support my theory that gender does not have an affect on the students *decoding* ability. All the Chi squared tests for each cartoon returned a *not significant* result (Appendix 21).

Regarding Newspaper Readership (Appendices 22 and 23), both genders had similar frequencies with the majority reading their local newspapers on a daily basis — 78% male (n = 21) and 85% female (n = 46).

However, less than half of them observed editorial cartoons on a daily basis with 45% of the male students and 40% of the female students actually *reading* a daily newspaper cartoon. Comic strips were more popular and the majority of both genders only occasionally observed cartoons in magazines or other similar media.

As expected, the *high band* groups (A and C) read their newspaper on a daily basis more than the *low band* groups (B and D). Students in Groups A and C recorded a 96.42% and 96% daily readership level as opposed to the 69.24% and 60.01% daily readership level from the students in the *low band* groups. Editorial observation between the two bands was even more decisive with over half of each of the students from Groups A and C observing editorial cartoons on a daily basis. By comparison, only 15.38% from Group B and 6.66% from Group D *read* daily editorial cartoons. A higher percentage in all groups read comic strips daily, and only occasionally looked at non-newspaper cartoons (Appendix 24).

Thirty-one of the students who scored above their respective average in each group read their local newspaper on a daily basis, leaving only six students — two who were

weekly readers and four who only read occasionally. Therefore nearly 84% of the top-scoring students read their newspaper on a daily basis. Of those students, 13 daily observed the editorial cartoon, which represents 41% of the top scoring group. An interesting feature of this set of data is the five students who never read the editorial cartoon, which represents just over 10%. This is quite a significant proportion of those top scoring students who claim to read their daily newspaper but never look at the editorial cartoon, but three out of the five do read comic strips — two on a daily basis and one monthly, which gives them some *cartoon consumption* and *decoding* time. From that group of five, four of the students occasionally read cartoons in non-newspaper mediums, which may not be a high frequency, but once again indicates a certain level of *cartoon cognition*.

However, it is a small sample number and even if they did observe cartoons on a daily basis, there is no evidence to show that their interpretations are correct.

Students who scored below their group average similarly recorded a high percentage of daily newspaper readership and approximately 35% of the students who did not score their group's average and below read editorial cartoons on a daily basis. Fifteen out of the 44 students only occasionally looked at the editorial cartoon. There is no significant difference between the scores of the students above their group average and those below who observed daily editorial cartoons. Fifteen per cent claimed to never read the editorial cartoon, but as in the top-scoring group, the majority have some *cartoon consumption* by way of either comic strips or cartoon observation in mediums other than newspapers.

From the results, it seems that somewhere between 35-40% of students have a marginal advantage in this study with their scores if they frequently observe cartoons, especially the editorial ones. It is not a large percentage, but it has some significance, and once again is distorted by the small sample size. A larger population may have given a more accurate assessment of the value of frequency of cartoon observation.

The fifth research concern is the comparison between the groups that received a *cartoon lesson* (A and D) and those that did not (B and C). As with the frequency of cartoon observation, I expected a marginal difference but, because the lesson was only for one hour's duration, it wasn't enough time to *equip* the students with enough decoding ammunition to score consistently high with all the cartoon interpretations.

This appeared to be the case if one looks at the average group scores (Appendix 16). They indicate that Groups A and D scored higher on average than their respective *non-lesson* groups, but not by a *significant* amount. Apart from Cartoon #1, which had a *significant* level at both 5% and 1% (9.49 and 13.28), all the other cartoon scores recorded were *not significant* (Appendix 25). It may be of interest to note that the teacher of the lesson was also the producer of Cartoon #1. I am unaware of my slant or bias in my lesson towards a procedure for *decoding* a particular *type* of cartoon, but it cannot be totally dismissed as a possible factor.

Two exceptions occurred. Firstly, the only student to score a maximum five was from Group C, but, as pointed out before, he scored well with all the cartoons and seemed to have a *natural flair* and a liking for the subject, which probably explains his good results. Secondly, Group A outscored all the other groups in every cartoon except Scott's when they were equalled by Group C, but only by 0.1%.

It appears that the lesson had some effect, but in retrospect could have been extended to a number of lessons with a more thorough coverage of the cartoon decoding concepts. If that had occurred, the level of difference may have been significantly wider.

The final research concern was the comparison between the students' scores and their parents' occupations. Each occupation was *rated* for *socio-economic status* by the *Elley-Irving Socio-Economic Scale*[2] and then compared with each participant's cartoon interpretation score. The *Elley-Irving* index uses a six point scale with 1 representing the highest socio-economic status and 6 representing the lowest. My theory was that

students with a parent or parents who rated 1-3 on the socio-economic scale should score well. Likewise, students with parents whose occupations rated 4-6 shouldproduce low scores.

With the exception of four students, the parents from the two *low band* groups (B and D) rated a 4 or below. Their low socio-economic status correlated with their low scores. It is interesting to note that those students who did have parents with high socio-economic status occupations scored poorly. In Group A, 14 students scored above the average score; ten of these students had parents with high socio-economic status. A similar pattern occurred in the other *high band* group (C). Ten scored over the average and eight of them had parents with high socio-economic status.

With a small sample group, the exceptions can distort the results, but it is clear that socio-economic status affects the cartoon interpretation scores.

(1) CARL, LeRoy M., (1968) *Editorial Cartoons Fail to Reach Many Readers*, Journalism Quarterly 45, pp 533-535.
(2) ELLEY, W.B.; IRVING, J.C., (1977), *A Socio-Economic Index for the Female Labour Force in New Zealand*, N.Z. Journal of Educational Studies, Vol 12, #2, November 1977, Dunedin, N.Z., pp 154-163.
(1985) *The Elley-Irving Socio-Economic Index: 1981 Census Revision*, N.Z. Journal of Educational Studies, Vol 20, #2, November 1985, Dunedin, N.Z., pp 115-128.

CONCLUSION

To consider my tentative theories in the light of the results from the six main research concerns, I can conclude the following:

Firstly, if one was to view the interpretations of the sample group with the cartoonists' *intended meanings* from an overview, the results support the theory that cartoon decoding is not an easy task. The Average Group Scores — Group A: 10.6%; Group B: 1.9%; Group C: 8.7%; Group D: 3.3% — suggest that the respondents had difficulty with all of the cartoonists' *intended meanings*. Individually, however, some cartoons were easier to decode than others. Cartoon #2 (Scott) proved to be the image that was interpreted more correctly than the others. Conversely, Cartoon #3 (Hodgson) caused problems and was the most difficult to decode. My tentative theory was supported to a degree by the data — that is, that very few were in full agreement with all of the cartoonists' *intended meanings*. Many decoded the obvious and were in partial agreement with some of the points, but a significant proportion of the responses overall were not in agreement with the cartoonists' intentions.

Secondly, as expected, the *high band* groups (A and C) scored higher than the *low band* students (B and D).

Thirdly, there is no significant difference between male and female scores which indicates that gender is not a factor in cartoon interpretation.

Fourthly, the frequency of newspaper readership and cartoon observation has a marginal effect on the results. Students who attended a single lesson on cartoon interpretation also had a marginal advantage over their counterparts who did not.

Fifthly, there was no significant advantage for students who received the cartoon lessons as opposed to those who did not when decoding the four cartoons.

Finally, the majority of students with parents who have a high socio-economic status scored better than students of lower socio-economic parents.

My primary concern with this study was the basis from which students' answers in the

static images section of the School Certificate Examination were assessed. The candidates' responses are judged on the interpretation of the Chief Examiner and his panel who set the paper. As I stated in the Introduction, there is no evidence to support any *interpretative error* in the assessment of students' answers. However, the possibility of such an error occurring appears high when one looks at the results of this study. The sample group was small and conclusions can only be tentative, but I believe their responses are indicative of the fifth form population at James Hargest High School, if not the entire fifth form School Certificate candidates.

The results indicate that many viewers do not *decode* all the *intended meanings* of the cartoon. If that is the case, then the Chief Examiner and his panel could also miss out some of the points or indeed misinterpret an image completely. As I stated, there is no empirical evidence to suggest that this has occurred, but in the interests of accuracy, I would suggest that the cartoonists' intentions become the basis for assessment. The marking schedules indicate a number of answer options and allocate marks accordingly. It may be that the panel has missed out a subtle point or two and if students *correctly* respond, but it has been left off the schedule, then they miss out on those marks.

Because of the many variables involved in *decoding* the cartoon as discussed in previous chapters, it seems logical to base assessment on the originator's intentions. In many cases, the viewer can *read* extra messages into the cartoon that the artist did not even intend and that is their preogative. But that is not the issue here, since the School Certificate paper usually asks what is the point the cartoonist is making. They therefore ask, what is the Chief Examiner's interpretation of this image, which puts a different complexion on the question.

This is a small scale study with a small sample. Its intention is simply to *explore* some tentative generalisations on how some people — in this case a fifth form population — *decode* cartoons. Because of all the variables involved, it would be impossible to accurately make conclusive statements about *decoding* images without clearly defining

parameters with specific sample groups and cartoons. It is for that reason that I believe the School Certificate *static images* question is open to misinterpretation and needs to be *tightened* to be fair to the candidates.

As a practising cartoonist, this research has affected my production of the cartoon, in respect to my awareness of the messages being received and how they are perceived in relation to my intended signal. I now spend more time on the imagery and text in an attempt to reduce the *interpretative error*.

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APPENDICES

NEW ZEALAND QUALIFICATIONS AUTHORIT

Mana Matauranga Motuhake o Aotearoa

8 March 1991

Mark Winter

Dear Mark

Thank you for your letter of 3 February concerning School Certificate English. To take your questions in order:

1.   The examining panel (Chief Examiner and two Assistant Chief Examiners at present) sets the paper. This includes setting each question and selecting material.

2.   The examining panel writes the marking guidelines. These may be modified if necessary at the first markers meeting.

3.   The marking schedule sets out how the question is to be marked.

4.   The Chief Examiner has kindly supplied the following notes:

"Peter Morrow sent me a copy of your letter and asked me to comment on Q4.

1.   First of all note the Prescription refers to Static Images, not cartoons, so that cartoons are only a part of the topic. An examination of the School Certificate paper over the years will show you this.
And of course, what you refer to as "editorial cartoons" are a smaller sub-set still.

2.   I have not kept any of the statistical analyses of past papers - these would have given some indication of the reliability etc. of the question.

3.   A further problem is that some of the questions require students to write about their own work during the year, so don't test the interpretive skill of candidates.

All this by way of preamble to explain why I can't do more than offer some subjective impressions.

1.   This is always a popular question. I have no way of knowing whether this is because the topic is widely taught or because it looks easy or interesting.

2.   My impression is that generally School Certificate candidates do not understand many cartoons well. They can cope with the obvious, but struggle with the visual metaphor and lack familiarity with many cartoon conventions and cliches that seem commonplace to educated adults.

3.   Second language students are normally totally bewildered by cartoons.

But you see there is a basic problem in all this - there are no absolute standards in competence in English. I cannot provide any valid yardstick which proves that any answer in drama/reading/writing/film etc etc. is of a particular standard.

Instead we endeavour to set questions which:
*   rank students in order of ability
*   provide a score distribution approximating the normal curve.

Thus if the job of setting the examination is done well, candidates will handle <u>all</u> questions about equally well. As I have a panel of experienced and competent people, we set good exam papers.

The result - yes, students handle this question quite well.

But as I have explained, the statement has no real value. I'm sorry I can't be more helpful."

Marking schedules are only available for 1989 and 1990. They cost $6 each. If you want them, send a request and a cheque to the NZQA, Private Box 160, Wellington, Attention: Scripts Officer.

I hope that this information will be of use to you, and wish you well in your studies.

Yours sincerely

Peter Morrow

Peter Morrow
Assessment Officer
Assessment and Certification Division

Dear Mark,

My intention was to take the piss
out of Bolgers obvious delight at
getting through to Bush — such a
fuss was made — some analysts
thought it signalled a thaw in
relatons — others werent sure etc — so
I thought I'd take libertis with the
truth and have Bush utterly perplexed
by this call from a complete stranger
who acted all the time as a close
intimate.

cheers

Tom

Dear Mark,

Good to hear from you — hope things are going OK.

I hope the message of the cartoon is clear but of course my reasons are anti-war. The exploitation of the innocent for political and aggressive actions. Consider the amount of money spent on arms and military research and compare it to starving people of the third world. I feel the cartoon is still currently appropriate (maybe now more than ever) but I can only hope that one day it will be redundant

Best wishes for '91

TRACE HODGSON.

Sorry about the delay, I have been out of the county for the last month.

The other cartoon, of the US & the bear kicking the globe around, was an attempt to crystalise the impotence, naivity, idealism, and innocence of the NZ/Lange anti-nuclear policy in the face of superpower RealPolitik.

Unless you put the date on these cartoons, the poor kids doing the exams could be all at sea — or rather they'd lack vital clues & landmarks.

Very busy here at the moment as I'm filling in for Tom Scott on the Evening Post while he's on holiday, plus my usual DSIR & Business Review work.

Happy New Year
Cheers & Best wishes

Bob Brockie

CARTOON QUESTIONNAIRE

Name _____ (It is not compulsory
to wriite in your name)

Class: _____ Age: _____ years _____ months

Gender: Male _____ Female _____

Parents: Mother_____ Father_____

1.   Have you taken a class or a course in cartoons and their meanings
     before? Yes _____ No. _____. If you answer "Yes", could you briefly
     write down some details about it, such as the number of lessons and
     topics covered. _____

     _____

     _____

     _____

2.   How often do you read your local newspaper? "The Southland Times".

     Never _____ Occasionally _____ Monthly _____ Weekly _____

     Daily _____

3.   How often do you look at the "cartoon strips"? ("Footrot Flats" or "Wizard
     of Id")

     Never _____ Occasionally _____ Monthly _____ Weekly _____

     Daily _____

4.   Do you look at the "editorial cartoons"? (The cartoon on the same page_
     as the editorial).

     Never _____ Occasionally _____ Monthly _____ Weekly _____

     Daily _____

5.   Do you read other newspapers or magazines? Yes _____ No _____

     If you answer "Yes", could you list some of them and how often you read
     them, e.g. "The N.Z. Listener" — once a day.

     _____

     _____

     _____

     _____

     _____

6.   When reading other newspapers and magazines, how often do you look at
     the cartoons?

     Never _____ Occasionally _____ Monthly _____ Weekly _____

     Daily _____

What does the "robot" stand for? _____

Write down your reasons for the above answer_____

_____

What does the "plant" stand for? _____

Write down your reasons for the above answer_____

_____

What is happening between these two?_____

_____

_____

What is the main point the cartoonist is trying to make in this cartoon?

_____

_____

_____

_____

Is the cartoonist trying to make any other points and, if so, please write them down _____

_____

_____

Who is the main character shown in this cartoon? _____

Who is Jim?_____

What event caused Jim to 'phone the main character? _____

_____

What is the main point the cartoonist is trying to make with this cartoon?

_____

_____

_____

_____

_____

_____

What point is the cartoonist trying to make? _____

_____

_____

_____

Is the cartoonist trying to make any other points and, if so, please write them down? _____

_____

_____

_____

_____

_____

_____

What does the "bear" stand for?_____

Who does the man in the hat with the striped pants stand for?

_____

Is he a recognisable world leader? Yes _____ No _____ If so, who is he?

_____

What is the main point the cartoonist is trying to make in this cartoon?

_____

_____

How does he get his point across to the viewer? _____

_____

_____

_____

Is the cartoonist trying to make any other points and if so, please write them down? _____

_____

_____

_____

**FIFTH FORM HIERARCHY AT
JAMES HARGEST HIGH SCHOOL**

| 1 | 2 | 3 | + | 4 | **HIGH BAND** |

3 CLASSES OF STUDENTS
TAKING 6 SUBJECTS

1 TOP BAND CLASS
TAKING 5 SUBJECTS

| 1 | 2 | 3 | 4 | 5 | **MIDDLE BAND** |

5 MIDDLE BAND CLASSES

| 1 | 2 | 3 | **LOW BAND** |

2 LOW BAND
CLASSES

+

5AB SIT SOME SCHOOL
CERTIFICATE PAPERS
(INCLUDING ENGLISH), BUT
NOT MATHS AND SCIENCE
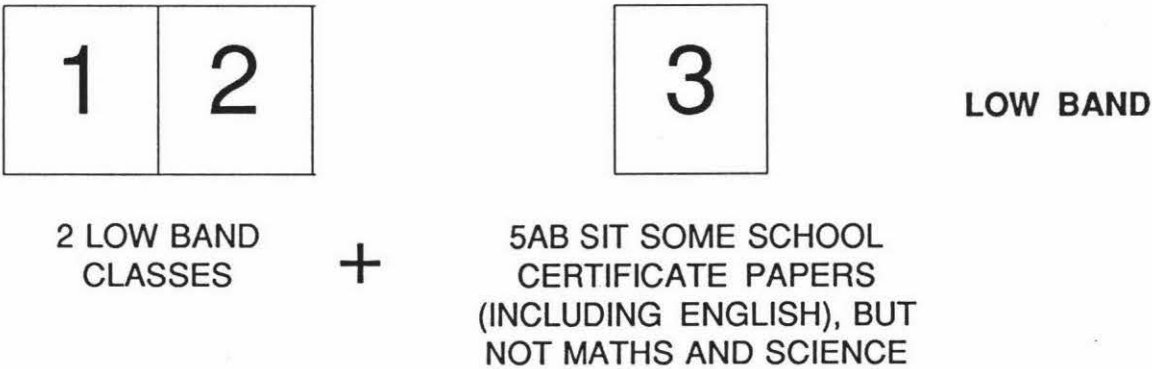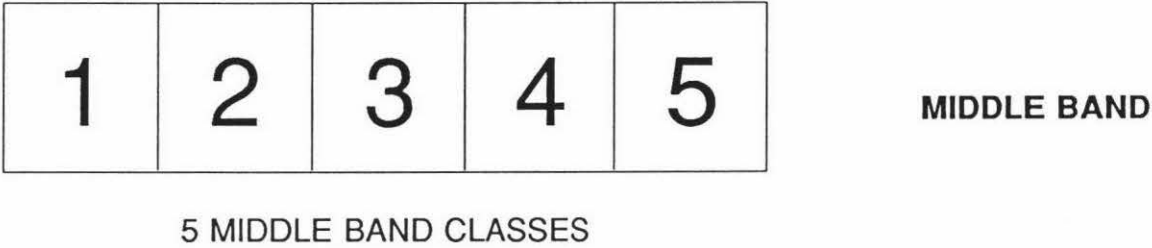
SAMPLE GENDERS, AGES AND PARENTS' OCCUPATIONS
GROUP A — 5P (LESSON)

	GENDER	AGE (YEARS)	PARENTS' OCCUPATIONS (Socio-Economic Levels in Brackets)* MOTHER	FATHER
1.	M	15.8	—	Mechanic(4)
2.	M	15.8	Child Care Worker(2)	Teacher(1)
3.	M	15.3	Housewife	Salomon(4)
4.	F	15.7	Nursing Tutor(1)	Dentist(1)
5.	F	15.4	Farmer(4)	Farmer(4)
6.	M	15.9	Merch. Rep.(3)	Courier(3)
7.	F	15.5	Child Care Worker(2)	Educ. Psychologist(1)
8.	F	15.7	Nurse(3)	Marine Engineer(1)
9.	F	15.4	Office Worker(4)	Engineer(1)
10.	M	15.6	Student	Restaurant Prop.(4)
11.	F	15.8	Nurse(3)	Company Director(2)
12.	F	15.2	Librarian(1)	Teacher(1)
13.	F	15.10	Nurse(3)	Builder(4)
14.	F	15.8	Factory Worker(6)	Sales Rep(4)
15.	F	15.7	Housewife	Shop Prop.(4)
16.	M	15.5	Teacher(1)	Primary School Principal(1)
17.	F	15.1	Typist(4)	Policeman(2)
18.	F	14.10	—	—
19.	F	15.3	Housewife	Farmer(4)
20.	F	14.10	Doctor(1)	Personnel Manager(2)
21.	F	16.0	Doctor's Receptionist(4)	Manager(2)
22.	F	15.9	Housewife	Vet(1)
23.	F	15.1	Housewife	Manager(2)
24.	F	15.7	Housewife	General Manager - Smelter(1)
25.	F	14.7	Kindergarten Teacher(2)	Insurance Agent(3)
26.	M	15.2	Supermarket Worker(5)	Tiwai Worker(6)
27.	M	14.10	Teacher(1)	Farmer(4)
28.	F	15.10	Teacher(1)	Farmer(4)

Total: 28   Males: 8   Females: 20

*Levels based on *The Socio-Economic Occupation Scale* by W. B. Elley and J. C. Irving.

SAMPLE GENDERS, AGES AND PARENTS' OCCUPATIONS
GROUP B — 5I (NO LESSON)

	GENDER	AGE (YEARS)	PARENTS' OCCUPATIONS (Socio-Economic Levels in Brackets)* MOTHER	FATHER
1.	F	15.11	—	—
2.	F	15.4	—	—
3.	F	16.6	—	—
4.	F	16.2	Cook(5)	Labourer(6)
5.	F	14.0	Shop Assistant(4)	Unemployed
6.	F	15.0	—	—
7.	M	15.1	—	—
8.	M	—	Jewellery Worker(5)	Labourer(6)
9.	M	16.0	—	Restaurant Owner(4)
10.	M	15.7	—	Retired
11.	M	15.9	Housewife	Freezing Worker(5)
12.	M	15.7	Secretary(2)	Electrician(3)
13.	M	15.10	—	—

Total: 13   Males: 7   Females: 6

*Levels based on *The Socio-Economic Occupation Scale* by W. B. Elley and J. C. Irving.

SAMPLE GENDERS, AGES AND PARENTS' OCCUPATIONS
GROUP C — 5A (NO LESSON)

GENDER		AGE (YEARS)	PARENTS' OCCUPATIONS (Socio-Economic Levels in Brackets)* MOTHER	FATHER
1.	F	15.7	Teacher(1)	Hydrologist(1)
2.	M	15.8	Housewife	Farm Manager(5)
3.	F	15.7	Accountant(1)	Mechanical Engineer(1)
4.	F	15.10	Secretary(2)	Electrician(3)
5.	F	14.11	Farmer(4)	Farmer(4)
6.	F	15.5	Nurse(3)	Electrical Engineer(1)
7.	F	15.2	Clerk(4)	Shipping Manager(3)
8.	M	15.8	Personnel Manager(2)	Photographer(4)
9.	M	14.10	Postie(3)	Post Bank Manager(4)
10.	M	15.5	Teacher(1)	Surgeon(1)
11.	F	14.11	Clerk(4)	Signwriter(4)
12.	F	14.11	Clerk(4)	Livestock Wholesaler(3)
13.	F	14.11	Secretary(2)	Deceased
14.	M	15.1	Occupational Therapist(3)	Manager(3)
15.	F	15.8	Teacher(1)	Lawyer(1)
16.	F	15.6	Nurse(3)	Farmer(4)
17.	F	15.8	Librarian(1)	Teacher(1)
18.	M	14.11	Nurse(3)	Interior Decorator(3)
19.	F	15.4	Polytech Tutor(1)	—
20.	F	15.6	Housewife	Doctor(1)
21.	F	15.6	Secretary(2)	Signwriter/Drummer(4)
22.	M	14.11	Assistant Sheep Farmer(4)	Sheep Farmer(4)
23.	F	15.1	Teacher(1)	Company Director(2)
24.	F	15.7	Teacher(1)	Farmer(4)
25.	F	15.7	Secretary(2)	Insurance Agent(3)

Total: 25   Males: 7   Females: 18

*Levels based on *The Socio-Economic Occupation Scale* by W. B. Elley and J. C. Irving.

SAMPLE GENDERS, AGES AND PARENTS' OCCUPATIONS
GROUP D — 5AB (LESSON)

	GENDER	AGE (YEARS)	PARENTS" OCCUPATIONS (Socio-Economic Levels in Brackets)* MOTHER	FATHER
1.	F	15.10	Teacher(1)	Farmer(4)
2.	F	17.2	Clerk(4)	Meat Inspector(2)
3.	F	16.3	Home Aid(6)	Carpet Cleaner(5)
4.	M	16.0	Nurse(3)	Farmer(4)
5.	F	15.2	Student	Teacher(1)
6.	F	15.1	Housewife	Freezing Worker(5)
7.	F	15.11	Housewife	Self-employed
8.	F	16.1	—	Freezing Worker(5)
9.	F	16.1	Widow	—
10.	F	16.2	—	—
11.	F	16.11	Housewife	Telecom Worker(4)
12.	M	16.5	Waitress(5)	Electrical Inspector(3)
13.	M	16.7	Housewife	Farmer(4)
14.	M	16.5	Shop Assistant(4)	Labourer(6)
15.	M	16.4	—	—

Total: 13   Males: 7   Females: 6

*Levels based on *The Socio-Economic Occupation Scale* by W. B. Elley and J. C. Irving.

SCORE* SHEET
GROUP A

STUDENT	CARTOON # 1	2	3	4	TOTAL
1.	4	3	2	3	12
2.	3	3	0	3	9
3.	4	3	4	3	14
4.	4	4	2	3	13
5.	4	3	0	2	9
6.	4	3	0	2	9
7.	4	3	2	3	12
8.	2	3	0	4	9
9.	2	3	0	2	7
10.	1	3	0	1	5
11.	4	3	1	3	11
12.	4	3	2	0	9
13.	4	3	4	4	15
14.	2	3	4	3	12
15.	4	3	0	2	9
16.	4	3	0	3	10
17.	1	3	4	2	10
18.	4	3	0	4	11
19.	4	3	2	3	12
20.	4	3	4	2	13
21.	2	3	0	3	8
22.	4	3	0	4	11
23.	2	3	4	1	10
24.	4	1	0	2	7
25.	4	3	4	3	14
26.	4	3	2	3	12
27.	4	4	0	3	11
28.	4	3	4	3	14
AVERAGES	3.3	3.0	1.6	2.6	10.6

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

SCORE* SHEET
GROUP B

STUDENT	CARTOON # 1	2	3	4	TOTAL
1.	0	1	0	0	1
2.	0	2	0	0	2
3.	0	0	1	0	1
4.	0	0	0	0	0
5.	1	1	2	0	4
6.	0	0	0	1	1
7.	1	3	0	0	4
8.	0	0	0	0	0
9.	0	1	0	0	1
10.	1	1	1	2	5
11.	0	1	0	0	1
12.	0	1	0	0	1
13.	1	3	0	0	4
AVERAGES	0.3	1.0	0.3	0.2	1.9

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

SCORE* SHEET
GROUP C

STUDENT	CARTOON # 1	2	3	4	TOTAL
1.	0	3	2	3	8
2.	2	3	0	3	8
3.	3	3	0	3	9
4.	3	2	2	3	10
5.	4	3	0	3	10
6.	1	3	0	3	7
7.	1	3	0	2	6
8.	3	3	0	3	9
9.	3	3	0	3	9
10.	0	3	0	4	7
11.	1	3	0	3	7
12.	1	3	0	3	7
13.	2	3	0	3	8
14.	4	3	4	2	13
15.	4	3	2	3	12
16.	2	3	0	3	8
17.	0	3	0	3	6
18.	1	4	0	3	8
19.	0	3	0	3	6
20.	4	3	0	3	10
21.	4	3	0	3	10
22.	4	5	4	2	15
23.	4	4	0	2	10
24.	1	3	2	2	10
25.	4	3	0	3	10
AVERAGES	**2.2**	**3.1**	**0.6**	**2.8**	**8.7**

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

SCORE* SHEET
GROUP D

STUDENT	CARTOON # 1	2	3	4	TOTAL
1.	2	0	0	1	3
2.	0	1	0	0	1
3.	0	2	0	0	2
4.	0	3	0	1	4
5.	2	0	0	0	2
6.	2	0	0	0	2
7.	2	0	0	0	2
8.	2	0	0	0	2
9.	0	0	1	0	1
10.	2	0	0	0	2
11.	2	3	0	3	8
12.	1	2	0	3	6
13.	0	2	2	1	5
14.	1	2	0	1	4
15.	4	2	0	2	8
AVERAGES	1.3	1.0	0.2	0.8	3.3

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

TOTAL SCORES* AS PERCENTAGES

CARTOON #1 — CHICANE

SCORE	5	4	3	2	1	0
PERCENTAGE	0	35.80%	6.17%	18.52%	17.28%	22.23%

CARTOON #2 — SCOTT

SCORE	5	4	3	2	1	0
PERCENTAGE	1.23%	4.93%	61.73%	8.64%	9.89%	13.58%

CARTOON #3 — HODGSON

SCORE	5	4	3	2	1	0
PERCENTAGE	0	12.34%	0	14.81%	4.93%	67.90%

CARTOON #4 — BROCKIE

SCORE	5	4	3	2	1	0
PERCENTAGE	0	6.17%	43.20%	17.28%	8.64%	24.69%

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

AVERAGE GROUP SCORES*
(Maximum totals in brackets)

CARTOON	#1	#2	#3	#4	AVERAGE TOTAL
GROUP A	3.3(5)	3.0(5)	1.6(5)	2.6(5)	10.6(20)
GROUP B	0.3(5)	1.0(5)	0.3(5)	0.2(5)	1.9(20)
GROUP C	2.2(5)	3.1(5)	0.6(5)	2.8(5)	8.7(20)
GROUP D	1.3(5)	1.0(5)	0.2(5)	0.8(5)	3.3(20)

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

GROUP SCORES* AS PERCENTAGES

CARTOON #1 — CHICANE

GROUP A	0	71.42	3.58	17.86	7.14	0
GROUP B	0	0	0	0	30.77	69.23
GROUP C	0	32.00	16.00	12.00	24.00	16.00
GROUP D	0	6.66	0	46.66	12.50	33.33
SCORE	*5*	*4*	*3*	*2*	*1*	*0*

CARTOON #2 — SCOTT

GROUP A	0	7.14	89.28	0	3.58	0
GROUP B	0	0	15.38	7.69	46.15	30.78
GROUP C	4.00	8.00	84.00	4.00	0	0
GROUP D	0	0	13.35	33.33	6.66	46.66
SCORE	*5*	*4*	*3*	*2*	*1*	*0*

CARTOON #3 — HODGSON

GROUP A	0	28.57	0	21.43	3.57	46.43
GROUP B	0	0	0	7.69	15.38	76.93
GROUP C	0	8.0	0	16.00	0	76.00
GROUP D	0	0	0	6.67	6.67	86.66
SCORE	*5*	*4*	*3*	*2*	*1*	*0*

CARTOON #4 — BROCKIE

GROUP A	0	14.29	50.00	25.00	7.14	3.57
GROUP B	0	0	0	7.69	7.69	84.62
GROUP C	0	4.00	76.00	20.00	0	0
GROUP D	0	0	13.00	6.66	28.66	53.33
SCORE	*5*	*4*	*3*	*2*	*1*	*0*

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

CHI SQUARED TEST TABLES FOR THE COMPARISON BETWEEN HIGH BAND AND LOW BAND STUDENTS AND THEIR CARTOON INTERPRETATION SCORES*

CARTOON #1

SCORE	OBSERVED		EXPECTED		TOTAL
	H	L	H	L	
0.00	4.00	14.00	11.78	6.22	18.00
1.00	8.00	6.00	9.16	4.84	14.00
2.00	8.00	7.00	9.81	5.19	15.00
3.00	5.00	0.00	3.27	1.73	5.00
4.00	28.00	1.00	18.98	10.02	29.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	53.00	28.00	53.00	28.00	81.00

Degrees of freedom: 4.00
Chi Sq: 31.31
Significance Levels:
5% = 9.49 Significant
1% = 13.28 Significant

CARTOON #2

SCORE	OBSERVED		EXPECTED		TOTAL
	H	L	H	L	
0.00	0.00	11.00	7.20	3.80	11.00
1.00	1.00	7.00	5.23	2.77	8.00
2.00	1.00	6.00	4.58	2.42	7.00
3.00	46.00	4.00	32.72	17.28	50.00
4.00	4.00	0.00	2.62	1.38	4.00
5.00	1.00	0.00	0.65	0.35	1.00
TOTAL	53.00	28.00	53.00	28.00	81.00

Degrees of freedom: 5.00
Chi Sq: 57.07
Significance Levels:
5% = 11.07 Significant
1% = 15.09 Significant

CARTOON #3

SCORE	OBSERVED		EXPECTED		TOTAL
	H	L	H	L	
0.00	33.00	23.00	36.88	19.12	56.00
1.00	1.00	3.00	2.63	1.37	4.00
2.00	10.00	2.00	7.90	4.10	12.00
3.00	0.00	0.00	0.00	0.00	0.00
4.00	10.00	0.00	6.59	3.41	10.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	43.00	28.00	54.00	28.00	82.00

Degrees of freedom: 3.00
Chi Sq: 31.31
Significance Levels:
5% = 7.82 Significant
1% = 11.35 Not Significant

CARTOON #4

SCORE	OBSERVED		EXPECTED		TOTAL
	H	L	H	L	
0.00	1.00	19.00	13.09	6.91	20.00
1.00	2.00	5.00	4.58	2.42	7.00
2.00	12.00	2.00	9.16	4.84	14.00
3.00	33.00	2.00	22.90	12.10	35.00
4.00	5.00	0.00	3.27	1.73	5.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	53.00	28.00	53.00	28.00	81.00

Degrees of freedom: 4.00
Chi Sq: 54.57
Significance Levels:
5% = 9.49 Significant
1% = 13.28 Significant

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

KEY: H = High
L = Low

GROUP CARTOON INTERPRETATION SCORE* SUMMARIES
MALE/FEMALE RATIO IN PERCENTAGES

CARTOON #1

	5		4		3		2		1		0	
	F	M	F	M	F	M	F	M	F	M	F	M
GROUP A	0	0	70.00	75.00	20.00	12.50	25.00	0	5.00	12.50	0	0
GROUP B	0	0	0	0	0	0	0	0	16.66	42.86	83.34	57.14
GROUP C	0	0	33.35	28.57	11.11	28.52	11.11	0	27.77	14.28	16.66	14.28
GROUP D	0	0	0	20.20	0	0	70.00	0	0	40.00	30.00	40.00

CARTOON #2

	5		4		3		2		1		0	
	F	M	F	M	F	M	F	M	F	M	F	M
GROUP A	0	0	5.00	12.50	90.00	87.50	0	0	5.00	0	0	0
GROUP B	0	0	0	0	0	28.57	16.66	0	33.33	57.15	50.00	14.28
GROUP C	0	14.28	5.56	14.28	88.88	71.44	5.56	0	0	0	0	0
GROUP D	0	0	0	0	10.00	20.00	10.00	80.00	10.00	0	70	0

CARTOON #3

	5		4		3		2		1		0	
	F	M	F	M	F	M	F	M	F	M	F	M
GROUP A	0	0	35.00	12.5	0	0	20.00	25.00	5.00	0	40	62.50
GROUP B	0	0	0	0	0	0	16.66	0	16.66	14.28	66.66	85.71
GROUP C	0	0	0	28.57	0	0	22.22	0	0	0	77.77	71.42
GROUP D	0	0	0	0	0	0	0	20.00	10.00	0	90	80

CARTOON #4

	5		4		3		2		1		0	
	F	M	F	M	F	M	F	M	F	M	F	M
GROUP A	0	0	20.00	0	40.00	75.00	30.00	12.50	5.100	12.50	5.00	0
GROUP B	0	0	0	0	0	0	0	14.28	16.66	4.28	83.33	85.71
GROUP C	0	0	0	14.28	83.33	57.14	16.66	28.57	0	0	0	0
GROUP D	0	0	0	0	10.00	20.00	0	20.00	10.00	60.00	80.00	0

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

KEY: F = Female
M = Male

TOTAL CARTOON INTERPRETATION SCORE* SUMMARIES
MALE/FEMALE RATIO IN PERCENTAGES

CARTOON #1

	5	4	3	2	1	0
FEMALE	0	37.04	3.70	25.93	12.96	20.37
MALE	0	33.33	11.11	3.70	25.93	25.93

CARTOON #2

	5	4	3	2	1	0
FEMALE	0	3.70	64.84	5.55	7.40	18.51
MALE	3.70	7.43	55.55	14.81	14.81	3.70

CARTOON #3

	5	4	3	2	1	0
FEMALE	0	12.9	0	16.66	5.55	64.84
MALE	0	11.11	0	11.11	3.70	74.08

CARTOON #4

	5	4	3	2	1	0
FEMALE	0	7.28	44.44	16.66	5.55	26.00
MALE	0	3.70	40.74	18.53	14.81	22.22

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

CHI SQUARED TEST TABLES FOR THE COMPARISON BETWEEN THE STUDENT GENDER AND THEIR CARTOON INTERPRETATION SCORES*

CARTOON #1

SCORE	OBSERVED		EXPECTED		TOTAL
	F	M	F	M	
0.00	11.00	7.00	12.00	6.00	18.00
1.00	7.00	7.00	9.33	4.67	14.00
2.00	14.00	1.00	10.00	5.00	15.00
3.00	2.00	3.00	3.33	1.67	5.00
4.00	20.00	9.00	19.33	9.67	29.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	54.00	27.00	54.00	27.00	81.00

Degrees of freedom: 4.00
Chi Sq: 31.31
Significance Levels:
5% = 9.49 Not Significant
1% = 13.28 Not Significant

CARTOON #2

SCORE	OBSERVED		EXPECTED		TOTAL
	F	M	F	M	
0.00	10.00	1.00	7.33	3.67	11.00
1.00	4.00	4.00	5.33	2.67	8.00
2.00	3.00	4.00	4.67	2.33	7.00
3.00	35.00	15.00	33.33	16.67	50.00
4.00	2.00	2.00	2.67	1.33	4.00
5.00	0.00	1.00	0.67	0.33	1.00
TOTAL	54.00	27.00	54.00	27.00	81.00

Degrees of freedom: 5.00
Chi Sq: 57.07
Significance Levels:
5% = 11.07 Not Significant
1% = 15.09 Not Significant

CARTOON #3

SCORE	OBSERVED		EXPECTED		TOTAL
	F	M	F	M	
0.00	35.00	20.00	36.67	18.33	55.00
1.00	3.00	1.00	2.67	1.33	4.00
2.00	9.00	3.00	8.00	4.00	12.00
3.00	0.00	0.00	0.00	0.00	0.00
4.00	7.00	3.00	6.67	3.33	10.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	54.00	27.00	54.00	27.00	81.00

Degrees of freedom: 3.00
Chi Sq: 0.78
Significance Levels:
5% = 7.82 Not Significant
1% = 11.35 Not Significant

CARTOON #4

SCORE	OBSERVED		EXPECTED		TOTAL
	F	M	F	M	
0.00	9.00	6.00	10.00	5.00	15.00
1.00	5.00	5.00	6.67	3.33	10.00
2.00	10.00	4.00	9.33	4.67	14.00
3.00	24.00	11.00	23.33	11.67	35.00
4.00	6.00	1.00	4.67	2.33	7.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	54.00	27.00	54.00	27.00	81.00

Degrees of freedom: 4.00
Chi Sq: 2.89
Significance Levels:
5% = 9.49 Not Significant
1% = 13.28 Not Significant

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

KEY: F = Female
M = Male

FREQUENCY OF NEWSPAPER READERSHIP AND
CARTOON OBSERVATION
(Percentages in Brackets)

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
NEWSPAPER READERSHIP	67(82.71)	6(7.42)	0(0)	8(9.87)	0(0)
EDITORIAL CARTOON OBSERVATION	30(37.05)	10(12.34)	2(2.47)	29(35.80)	10(12.34)
COMIC STRIP OBSERVATION	45(55.55)	7(8.66)	2(2.47)	24(29.62)	3(3.70)
MAGAZINE AND OTHER MEDIA CARTOON OBSERVATION	0(0)	15(18.54)	17(20.98)	45(55.55)	4(4.93)

FREQUENCY OF NEWSPAPER READERSHIP AND
CARTOON OBSERVATION — GENDERS

NEWSPAPER READERSHIP

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
FEMALE	46	4	0	4	0
MALE	21	2	0	4	0

EDITORIAL CARTOON OBSERVATION

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
FEMALE	18	7	1	19	9
MALE	12	3	1	10	1

COMIC STRIP OBSERVATION

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
FEMALE	29	6	1	17	1
MALE	16	1	1	7	2

MAGAZINE AND OTHER MEDIA CARTOON OBSERVATION

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
FEMALE	0	8	13	31	2
MALE	0	7	4	14	2

FREQUENCY OF NEWSPAPER READERSHIP AND
CARTOON OBSERVATION — GROUPS
(Percentages in Brackets)

GROUP A

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
NEWSPAPER READERSHIP	27(96.42)	2(7.14)	0(0)	0(0)	0(0)
EDITORIAL CARTOON OBSERVATION	14(51.85)	3(10.71	2(7.14)	9(30.30)	0(0)
COMIC STRIP OBSERVATION	17(60.72)	3(10.71)	1(31.57)	7(25.00)	0(0)
MAGAZINE & OTHER MEDIA CARTOON OBSERVATION	0(0)	4(14.28)	10(35.73)	13(46.42)	1(3.57)

GROUP B

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
NEWSPAPER READERSHIP	9(69.24)	3(23.07)	0(0)	1(7.69)	0(0)
EDITORIAL CARTOON OBSERVATION	2(15.38)	3(23.07)	0(0)	6(46.17)	2(15.38)
COMIC STRIP OBSERVATION	7(53.86)	3(23.07)	0(0)	2(15.38)	21(7.69)
MAGAZINE & OTHER MEDIA CARTOON OBSERVATION	0(0)	2(15.38)	1(7.69)	9(69.24)	1(7.69)

GROUP C

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
NEWSPAPER READERSHIP	24(96)	0(0)	0(0)	1(4)	0(0)
EDITORIAL CARTOON OBSERVATION	13(52)	2(8)	0(0)	8(32)	2(8)
COMIC STRIP OBSERVATION	17(68)	1(4)	0(0)	6(24)	1(4)
MAGAZINE & OTHER MEDIA CARTOON OBSERVATION	0(0)	8(32)	6(24)	11(44)	0(0)

GROUP D

	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER
NEWSPAPER READERSHIP	9(60.01)	1(6.66)	0(0)	5(33.33)	0(0)
EDITORIAL CARTOON OBSERVATION	1(6.66)	2(13.33)	0(0)	7(46.68)	5(33.3)
COMIC STRIP OBSERVATION	4(26.67	0(0)	1(6.66)	9(60.01)	1(6.66)
MAGAZINE & OTHER MEDIA CARTOON OBSERVATION	0(0)	1(6.66)	0(0)	12(80.01)	2(13.33)

CHI SQUARED TEST TABLES FOR THE COMPARISON BETWEEN STUDENTS WHO RECEIVED A LESSON AND THOSE WHO DIDN'T WITH THEIR CARTOON INTERPRETATION SCORES*

CARTOON #1

SCORE	OBSERVED		EXPECTED		TOTAL
	T	NT	T	NT	
0.00	5.00	13.00	9.56	8.44	18.00
1.00	4.00	10.00	7.43	6.57	14.00
2.00	12.00	3.00	7.96	7.04	15.00
3.00	1.00	4.00	2.65	2.35	5.00
4.00	21.00	8.00	15.40	13.60	29.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	43.00	38.00	43.00	38.00	81.00

Degrees of freedom: 4.00
Chi Sq: 18.92
Significance Levels:
    5% = 9.49 Significant
    1% = 13.28 Significant

CARTOON #2

SCORE	OBSERVED		EXPECTED		TOTAL
	T	NT	T	NT	
0.00	7.00	4.00	5.84	5.16	11.00
1.00	2.00	6.00	4.25	3.75	8.00
2.00	5.00	2.00	3.72	3.28	7.00
3.00	27.00	23.00	26.54	23.46	50.00
4.00	2.00	2.00	2.12	1.88	4.00
5.00	0.00	1.00	0.53	0.47	1.00
TOTAL	43.00	38.00	43.00	38.00	81.00

Degrees of freedom: 5.00
Chi Sq: 5.13
Significance Levels:
    5% = 11.07 Not Significant
    1% = 15.09 Not Significant

CARTOON #3

SCORE	OBSERVED		EXPECTED		TOTAL
	T	NT	T	NT	
0.00	26.00	29.00	29.20	25.80	55.00
1.00	2.00	2.00	2.12	1.88	4.00
2.00	7.00	5.00	6.37	5.63	12.00
3.00	0.00	0.00	0.00	0.00	0.00
4.00	8.00	2.00	5.31	4.69	10.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	43.00	38.00	43.00	38.00	81.00

Degrees of freedom: 3.00
Chi Sq: 3.80
Significance Levels:
    5% = 7.82 Not Significant
    1% = 11.35 Not Significant

CARTOON #4

SCORE	OBSERVED		EXPECTED		TOTAL
	T	NT	T	NT	
0.00	9.00	11.00	10.75	9.25	20.00
1.00	6.00	1.00	3.76	3.24	7.00
2.00	8.00	6.00	7.53	6.48	14.00
3.00	16.00	19.00	18.81	16.19	35.00
4.00	4.00	0.00	2.15	1.85	4.00
5.00	0.00	0.00	0.00	0.00	0.00
TOTAL	43.00	37.00	43.00	37.00	80.00

Degrees of freedom: 4.00
Chi Sq: 7.91
Significance Levels:
    5% = 9.49 Not Significant
    1% = 13.28 Not Significant

*The maximum score for each cartoon is 5. The marking scale for each cartoon is listed in the appropriate Methodology Chapter, page 65.

KEY: L = Lesson
NL = No Lesson