CAUSAL ATTRIBUTIONS FOR OUTCOME IN SCHOOL CERTIFICATE ENGLISH

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This thesis is dedicated to my father

James McKay 1896-1968

Abstract

Attributions offered for success and failure in School Certificate English were investigated with 400 Fifth Form pupils. The effect of confirmation or disconfirmation of expectations for examination outcome were examined and the results were analysed for sex differences (male/female), and ethnic differences (Maori/Pakeha). As predicted, pupils whose expectations were confirmed (pass-pass or fail-fail) attributed their results more to stable/internal causes. Unexpectedly, they also attributed their results to unstable/internal causes more than pupils whose expectations were disconfirmed (pass-fail or fail-pass). The direction of outcome (pass or fail) for pupils whose expectations were disconfirmed, did not significantly affect their causal perceptions. As predicted, males who failed made significantly more unstable/external attributions than females. In addition, males also made stronger attributions to stable/internal causes for failure than females. Males who succeeded, in contrast to what was predicted, did not make stronger attributions to stable/internal factors than females. No significant sex differences in attributions made for success were evident. There was no significant difference in causal attributions offered by Maoris for their successes and failures, and those offered by Pakehas. Analysis of both the structured and the open-ended sections of the questionnaires showed that pupils attributed their results (success or failure) more to effort (stable and unstable) than to any other causes. The findings were discussed in terms of their application to educational settings, and their relationship to other studies.

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CHAPTER I

INTRODUCTION

Attributions that individuals make regarding the causes of behaviour or event outcomes play an important role in their understanding and interpretation of their own behaviour and that of others (Weiner, Frieze, Kukla, Reed & Rosenbaum, 1971). In turn, these causal attributions can influence future behaviour (Valle & Frieze, 1976). The actual nature of attributions typically made by individuals in important social and academic situations, therefore, can have an effect on subsequent behaviour or event outcomes.

Heider (1958) was the first of a number of attribution theorists to formulate and make explicit the rules people use in attempting to infer the causes of behaviour and events. Heider also sought to discover the biases and errors that frustrate individuals' attempts at creating such causal influences. This earlier theorising has influenced subsequent work in the attribution field.

In recent years attribution theory has been applied to the study of the psychology of terminal illness, the justice system, lonliness, clinical decision making, and education. Research in the educational context has been undertaken to investigate the ways in which pupils differ in their beliefs about the causes of their successes and failures in achievement tasks, and how these different explanations mediate future achievement.

Several researchers claim that the types of causes pupils use to explain their successes or failures in school are important determinants of subsequent achievement-related behaviour (e.g., Bar-Tal, 1979; Bar-Tal & Darom, 1979; Davis & Stephan, 1980), and such claims have particularly important implications for failure prone children

If the causal attributions for failure are identified early in a child's schooling, remedial programmes may be implemented to modify any dysfunctional patterns of causal perceptions that may have developed. Some studies suggest that there is a possibility of maximising achievement behaviour by providing pupils with instructions and feedback after successful task outcomes that encourage them to make attributions to internal factors such as ability and effort. Further, they suggest that for failure outcomes the feedback should encourage attributions to factors that can be modified or controlled such as lack of effort, rather than to uncontrollable elements such as ability, task difficulty, or luck (Andrew & Debus, 1978; Chapin & Dyck, 1976; Dweck, 1975; Wilson & Linville, 1982).

Despite the large number of studies investigating patterns of attributions following success and failure, few have been carried out in the classroom setting using a real achievement situation. Indeed, many studies are limited because they were conducted in a laboratory setting, and because of the restricted number of causal attributions investigated. Further restrictions on the generalizability of attribution studies arise from the frequent use of white middle class university students as subjects and from the use of tasks which were often not directly relevant to the subjects (e.g., block designs, solving anagrams, or determining the probable causes of success or failure of others). In response to these shortcomings, one purpose of the present study was to investigate causal perceptions of success and failure in a school-based test situation (School Certificate English Examination), with a naturally occurring cross-section of subjects.

Additional problems exist in the attribution literature beyond that of sampling and generalizability. Researchers (e.g., Gilmor & Minton; 1974; Meyer, 1980; Valle & Frieze, 1976; Weiner, Nierenberg, & Goldstein, 1976) investigating individuals' perceived causes of outcomes along with their initial expectations of success or failure, have indicated that outcome attributions are a function of the person's initial expectations of success or failure at the task. Confirmed expectation lead to stable attributions, while disconfirmed expectations lead to unstable attributions. But these researchers have not differentiated whether disconfirmed expectations were for a success or a failure. There is a need to examine whether attributions following disconfirmation of expectations differ for successful or unsuccessful outcomes.

In terms of sex effects, results from previous research (e.g., Bar-Tal & Frieze, 1977; Deaux & Farris, 1977; Dweck, Davidson, Nelson & Enna, 1978; Levine, Reis & Turner, 1976) document differential attributions for success and failure in males and females. Some studies indicated that there was a tendency for females not to take responsibility for success or failure, whereas other studies indicated that while females did not take responsibility for successes, they did take responsibility for failure. The types of attributional trends identified in both these groups of studies may be detrimental to females' future achievement because such attributions may result in females labelling themselves as "low ability students". In order to investigate gender effects in an important real-life testing situation, sex differences in the causal perceptions of achievement outcomes were investigated in the present study.

Of additional interest in the present study was the relationship between ethnic background and causal attributions. There is a lack of studies in New Zealand investigating Maori/Pakeha differences in their causal attributions for successes and failures.

To recapitulate, the source to which individuals attribute the causes of their successes and failures has been an active area of study, yet, research carried out in the classroom setting, investigating attributions for outcomes in examinations which are of importance to students, is lacking. In view of this situation, the purpose of the present research was to study Fifth Form pupils' attributions for success and failure in School Certificate English. Related to this, sex differences (Male/Female), and ethnic differences (Maori/Pakeha) were investigated. Knowledge of the attributional patterns of females may offer an explanation as to why they inhibit their achievement potential. Further, information from this study may aid in the understanding of the underachievement of Maori children in New Zealand schools.

CHAPTER II

REVIEW OF LITERATURE AND RESEARCH

In order to clarify some of the issues of the present study, the following account will systematically review recent research related to a number of areas. First, the attributional model of achievement behaviour will be examined. Second, evidence that indicates there are sex differences between males and females in making attributions will be reviewed. Third, studies which have investigated ethnic differences in making attributions will be considered. Finally, methods of assessing causal attributions will be briefly discussed.

Achievement Attributions

Causal Dimensions

People are continually attempting to understand and interpret their own behaviour and that of others. This involves searching for the underlying causes of the behaviour in an effort to render it more predictable. Heider (1958) attempted to outline the rules people use when they infer the causes of behaviour. He based his analysis on the phenomenology of the lay person, because he contended that the study of common-sense psychology was of value for the scientific understanding of interpersonal relations.

> If a person believes that the lines in his palm fortell his future, this belief must be taken into account in explaining certain of his expectations and actions. (Heider, 1958, p. 5)

Thus, Heider (1958) indicated that the subjective meaning of the cause to the individual must be taken into account when analysing causes of behaviour.

Heider's ideas were the cornerstone for the various causal

dimensions elaborated by later theorists. Heider (1958) distinguished between causes that are seen as originating from within the person (internal), and those originating from outside the person (external). This dimension which indicates whether an outcome is attributed to an internal or an external cause is known as locus of causality.

In addition, Heider distinguished between the invariances and temporary states of the environment, as well as consistent and less persistent personal characteristics. This second dimension relates to "stability", that is, whether causes vary over time or whether they are relatively invariant.

Heider identified a third dimension of causality, that of "intention", which he saw as a central factor in person causality. He distinguished between intentional causes and unintentional causes (Heider, 1958, p. 100). Intentional causes were believed to be under the conscious control of the person, whereas unintentional causes were those over which a person had no conscious control.

Following from the work of Heider, Weiner (1972) postulated a two dimensional scheme which classified causal attributions into locus of causality (internal or external), and stability (stable or unstable). In Weiner's model, success perceived as being caused by ability, would be classified as internal and stable because it originates from within the person and remains relatively fixed over time. However, if success was attributed to effort it would be classified as internal and unstable, because, although effort originates from within the person, level of effort exerted may fluctuate from time to time. On the other hand, if success was attributed to task difficulty it would be classified as external and stable, because the difficulty

level of a task generally is considered to be stable. However, if success was attributed to luck it would be classified as external and unstable.

Rosenbaum (1972), Elig and Frieze (1975), and Frieze (1981) elaborated on Weiner's model by incorporating Heider's dimension of "intention" into a three dimensional model for classifying causal attributions. Weiner (1974, 1976) initially accepted this intentionality dimension, but in later writings (1979, 1980) he proposed that the intentionality dimension should be more appropriately labelled controllability (controllable-uncontrollable). Weiner (1979) argued that while Rosenbaum classified effort as intentional and mood as unintentional

> Failure attributed to a lack of effort does not signify that there was an intent to fail. Intent connotes a desire, or want. Rather, effort differs from mood in that only effort is perceived as subject to volitional control. (Weiner, 1979, p. 5).

Hence Weiner (1980) adapted from Rosenbaum (1972) a three dimensional taxonomy of the perceived causes of success and failure, which included locus, stability, and controllability.

Another dimension of causality suggested by Abramson, Seligman and Teasdale (1978), and adopted by Miller and Norman (1979) has been labelled globality (global or specific). Attributions may be global and far reaching (e.g., "I failed because I have low intelligence"), or task specific (e.g., "I failed because I have low ability in English").

The dimensions of causality discussed above were derived from Heider's examination of logically perceived causes of success and failure, and later by investigators such as Rosenbaum, Frieze and

Weiner. Recently, a number of empirical investigations using factor analysis or multidimensional scaling have been carried out to check the validity of the classifications (Meyer, 1978; Passer, 1977). However, neither of these studies have identified all four dimensions.

Most researchers have classified causal attributions using the Weiner (1972) two dimensional model (internal/external, stable/unstable). An advantage of this model, pointed out by Weiner (1974), is that the locus dimension is orthogonal to the stability dimension. Further, St George (1982) pointed out that when models incorporating more than two dimensions are used there can be a difficulty in getting subjects to place causes on all dimensions. That is, subjects may not offer causes which can be classified on all four dimensions. Also, there are difficulties in constructing questionnaires which comprise causes for an outcome, each of which can be classified on all four dimensions. An additional problem of using a four dimensional model is that without knowledge of the subject's perspective, errors may be made by the researchers in assigning causes to dimensions. Thus, the more dimensions used the less likely that the researcher will correctly assign the causes according to how the subject perceives them. Given these difficulties the present study will use Weiner's two dimensional model which focuses on locus and stability.

Causal Attributions for Success and Failure

One of the purposes of the present study is to look at the relative importance of the different causal attributions used by pupils for their performance in an examination. Thus, it is valuable to review studies which have investigated the causal attributions used in

achievement related contexts.

Weiner, Frieze, Kukla, Reed and Rosenbaum (1971) postulated that understanding individuals' beliefs about causes of their successes and failures was of major importance in understanding their achievement oriented behaviour. In their study they identified the four causal factors of success and failure discussed by Heider (1958) ability, effort, task difficulty and luck.

Other researchers examining causal attributions in achievement related contexts have restricted causality to the above four causes by using structured questionnaires (Feather & Simon, 1971; Frieze & Weiner, 1971; McMahon, 1973; Luginbuhl & Crowe, 1975). However, Weiner (1974) stated that the listed four causes were not intended to be portrayed as the only perceived determinants of success and failure, nor were they necessarily the most salient ones in all achievement situations. Further, Weiner (1979) points out that research restricting causality to these four areas may produce incorrect conclusions.

In an attempt to obtain naturally derived causal explanations, Frieze (1973) asked university students about causality without suggesting the four causes from the Weiner (1971) model. The subjects were asked in an open-ended manner to state their causal perceptions of success and failure. The data suggested that as well as offering the causal categories ability, effort, task difficulty, and luck, subjects also reported mood, and the interest the person had in doing well as perceived determinants of success or failure. In another study (Frieze, 1976), college students were asked why someone might do well or poorly in a hypothetical examination, and an unspecified game. The most frequently cited causes were effort, ability, the

difficulty of the examination and the teaching skill of the teacher. Luck, one of the four original causes, was only cited on one or two occasions. Elig and Frieze (1975) also indicated that causal factors other than the original four are frequently used by people in explaining achievement success and failure. These factors included stable/unstable effort, mood and fatigue. Bar-Tal, Ravgad and Zelberman (1978) derived a list of perceived causes of success and failure in a test from students in the third, sixth, ninth, and twelth grade. The answers were coded using the Elig and Frieze (1975) Coding Scheme of Perceived Causality (CSPC). The results indicated that pupils used a variety of causes to explain success and failure, and did not restrict themselves to the four causes of the Weiner model. The majority of coded responses were attributed to effort and mood. In terms of locus, pupils used more internal than external causes for explaining test outcome, whereas, more unstable than stable causes were used to explain both success and failure. There was no significant difference between attributions offered for success and failure situations.

In another open-ended study, Falbo (1979) recorded the causes cited by undergraduate students in response to questions about the success and failure outcomes of others. Only 23% of the 2495 explanations obtained could be classified in terms of the Weiner model. Effort constituted 13% of the total number of responses, ability 8%, task difficulty 1%, and luck less than 1%. Other explanations for success and failure in this study were interest, good training, calmness, friendliness, apathy, health, nervousness, and too much work.

Frieze and Snyder (1980) interviewed children from the first,

third, and fifth grades to determine what they saw as probable causes for success or failure in four situations: a school testing situation, doing well or poorly in an art project for the classroom, playing football, and catching frogs. The open-ended data were coded into 19 categories using a modified version of the CSPC (Elig & Frieze, 1975). For the school testing situation 65% of all codable responses were attributed to effort, ability contributed 15%, leaving only 20% of the causal explanations used by the children belonging to other categories such as personality factors, interest, and physical factors. Thus the majority of the codable responses were attributed to internal causes.

The Weiner model assumes that the same four causes (ability, effort, task difficulty, and luck) are used to explain both success and failure. However, in a number of studies it became evident that different causal categories were used for success and failure. This finding resulted in investigations of whether success and failure elicit different attributions. Falbo (1979), for example, found that half of the 20 failure categories compiled from students' replies were external, while only one of the 20 success categories compiled was external.

Other research on self-attributions also suggests that people are more likely to give external explanations for their own failures than for their own successes (Davis & Stephan, 1980; Luginbuhl, Crowe & Kahan 1975; Miller, 1976; Nicholls, 1975; Snyder, Stephen & Rosenfield, 1976).

Contrary to the above findings, however, Bar-Tal and Darom (1979), using a structured questionnaire regarding a test situation in a

classroom setting, found that fifth and sixth grade pupils tended to attribute success mainly to teachers' explanations, home conditions, easy subject materials, easy test, and high interest. They attributed failure to insufficient preparation at home, low ability, insufficient effort, and difficulty of subject matter. Thus, Bar-Tal and Darom's results indicate that pupils tend to attribute success mainly to external causes, and failure mainly to internal causes.

When considering the results of these studies it is necessary to take into account the different procedures used. One group of studies required subjects to offer causal attributions in response to the success or failure of other individuals in hypothetical situations which included other individual's success and failure in various occupations, or on tasks such as an unspecified game and examinations (Bar-Tal, Ravgad & Zelberman, 1978; Falbo, 1979; Frieze, 1976; Frieze & Snyder, 1980). Another group of studies (Luginbuhl, Crowe & Kahan, 1975; Miller, 1976; Nicholls, 1975) required subjects to make attributions about the causes of their own outcomes on such non-academic tasks as a social perceptiveness scale, angle matching, and signal identification. A third group consists of two studies which investigated the patterns of attributions following success and failure of subjects in an examination (Bar-Tal & Darom, 1979; Davis & Stephan, 1980).

Because the first two groups of studies involved hypothetical situations, the judgement of other individuals' attributions, or non-academic tasks, they have limited relevance to real-life achievement situations. In terms of the present study, however, the third group of studies are of interest. Bar-Tal and Darom (1979) indicated that pupils tend to attribute success mainly to external causes, and failure

mainly to internal causes. Contrary to these findings, Davis and Stephan (1980) obtained results which showed that success was attributed more to internal factors, while failure was attributed more to external factors. Both studies used a structured questionnaire, were carried out in educational settings, and required subjects to offer attributions regarding their performance in an examination. However, the subject groups used in the two studies differed. The university students in the Davis and Stephan (1980) study were a select group of individuals who due to their past success had carried on with tertiary education. Thus these subjects had experienced a significant degree of success in their past, and may have had high expectations for future success. On the other hand, the 10 and 11 year-old pupils in the Bar-Tal and Darom (1979) study would have been a more heterogeneous group in terms of their success and failure experiences, and also with respect to their expectations for school performance outcomes.

Hence, many studies investigating patterns of attributions have been carried out in a laboratory setting, with tasks not typical of real-life situations. Only two studies have been carried out in an educational setting, and they produced conflicting results. The present study was designed to provide more information on student attributions in an educational setting, in an attempt to resolve the present confusion in this area.

Expectations and Outcomes

Weiner (1980) pointed out that causes within dimensions are not invariant over time or between people. Other researchers have indicated that causal attributions following success or failure are a

function of the person's initial expectations of success or failure at the task.

Feather (1969), and Feather and Simon (1971a, 1971b) found that first year university students, when offered the causal categories of luck (external/unstable) and ability (internal/stable), attributed unexpected outcomes to good or bad luck, and expected outcomes to ability.

A number of other studies have yielded similar results. Data from an investigation by Frieze and Weiner (1971) indicated that subject's present outcome, if consistent with past performance, was attributed to the stable factors of ability and task difficulty, while inconsistent outcomes were attributed to unstable factors, effort and luck. Similarly, in a study conducted by McMahon (1973), Grade 6, Grade 10, and college students attempted to solve anagrams, and stated their expectations of success prior to the task, and their causal attributions for success or failure after the task. Disconfirmed expectations led to higher attributions to effort and luck (unstable factors), and lower attributions to ability (stable factors). Attributions to ability and the task were associated with confirmation of students' expectations. Results from a study by Gilmor and Minton (1974) involving male college students and anagram tasks indicated a significantly higher attribution of luck for unexpected outcomes than for expected outcomes.

Another investigation which demonstrated that subjects' perceived causes of success were related to the initial expectations for success was carried out by Valle and Frieze (1976). Their results indicated that higher initial expectations were associated with more stable

attributions for success, while disconfirmation of initial expectations were attributed more to unstable factors.

The above studies indicate that subjects whose expectations were confirmed attributed their results more to internal/stable causes than those subjects whose expectations were disconfirmed. A limitation of the majority of these studies was that they were carried out in a laboratory setting, and the task that the subjects were required to perform was restricted to that of solving anagrams. Simon and Feather (1973), however, investigated the causal attributions of university students when their expectations were confirmed and disconfirmed with regard to a one hour university examination. Hence their study was carried out in the university setting rather than a laboratory, and was concerned with an examination which was of importance to the students. Results indicated that expected outcomes tended to be attributed to ability (internal/stable), and unexpected outcomes to good or bad luck (external/unstable). A limitation of this study was that there were only two classifications of causal dimensions (internal/stable and external/unstable). Causal attributions such as effort, which is classified as internal/unstable, and place of study (external/stable) were not offered to the subjects.

Meyer (1980) also carried out his research in a university setting. However, rather than offering attributions for their own results, these subjects offered attributions about a hypothetical situation concerning a university entrance examination. It was found that consistent performance was attributed to stable causes (intelligence, study habits, test taking ability), whereas, inconsistent performance was attributed to unstable causes (luck, mood).

On the basis of the studies reviewed above, there is strong evidence to suggest that causal attributions following success or failure at a task are a function of the person's initial expectations of success or failure. Thus, in the present study it is predicted that causal attributions regarding success and failure in School Certificate English will vary according to the confirmation or disconfirmation of the expected outcome.

There is disagreement concerning the theoretical interpretation of studies which have investigated causal attributions. This controversy arises from the different focuses of two theoretical models. In recent literature, investigations have been interpreted both in terms of locus of causality which explains attributions for expected and unexpected outcomes differently with respect to internal versus external factors, and causal stability which explains the effects of expectations on attributions in terms of stable and unstable factors. Heider (1958) referred to these models as the naive action model and balance theory respectively. According to the locus of causality explanation, success is attributed internally (e.g., ability) when there is a high expectation for success, but is attributed externally when there is a low expectation for success. In contrast, according to the causal stability explanation, confirmation of expectations leads to attributions to stable factors (e.g., ability), disconfirmation of expectations leads to attributions to unstable factors (e.g., luck and/or effort).

It can be seen that locus of causality theory and causal stability theory make the same predictions regarding ability (internal/stable) and luck (external/unstable). However, they make conflicting pre-

dictions about effort (internal/unstable), and task difficulty (external/stable). Thus Weiner, Nierenberg and Goldstein (1976) tested the locus of causality versus the stability hypotheses by developing an attribution self-report questionnaire which differentiated between the locus of causality and the stability dimension of causality. The subjects in the study were male undergraduates, and the achievement task was a block design test. The results of the study indicated that expectancy changes were related to the dimension of stability rather than locus of causality. Five studies reviewed by these authors, as well as other studies, have also related expectancy changes to the dimension of stability (Feather, 1969; Feather & Simon, 1971a, 1971b; Frieze & Weiner, 1971; Gilmor & Minton, 1974; Meyer, 1980; Simon & Feather, 1973; Valle & Frieze, 1976). Thus outcomes that are consistent with initial expectations are attributed to stable causes, and unexpected outcomes are attributed more to unstable causes.

Davis and Stephan (1980) offer another interpretation of attributions in achievement settings which is concerned only with post-performance attributions, and the degree of success and failure at a task. This is the egotism approach,

> valence of the actual outcome --success or failure-- is the primary determinant of post-performance attributions. The more successful the outcome, the greater will be the perceived beneficial effect of internal factors (ability, effort); the less successful the outcome ahe more the deleterious effects of external factors (task difficulty, luck) will be implicated. (Davis & Stephan, 1980, pp. 236-237).

Davis and Stephan (1980) tested this approach against the expectancy confirmation approach (stability hypothesis). Two classes of undergraduate students were required to complete a pre-performance questionnaire estimating the level they would achieve on a test, and

also the amount that each of the four causal factors (ability, effort, test difficulty, and luck) would contribute to the outcome. Immediately following the examination a post-performance questionnaire was administered. Davis and Stephan (1980) reported that their results supported the egotism approach, and only gave limited support to the expectancy confirmation approach. However, it could be argued that Davis and Stephan did not differentiate adequately between the stable-unstable dimension of causality on their questionnaire. For example, in their discussion they consider "difficulty of test" to be an unstable dimension, while in their analysis "difficulty of test" is considered to be a stable dimension. Further Meyer (1980) suggests that when task difficulty refers to a university examination --as it was in this instance-- it should be considered unstable. As a consequence of these shortcomings, the results produced by Davis and Stephan (1980) are debatable.

On the other hand, there is a considerable body of empirical evidence, as indicated by the studies reviewed above, which support the view that outcomes that are consistent with initial expectations are attributed to stable causes, and unexpected outcomes are attributed more to unstable causes.

In line with these findings then, it is predicted that in the present study pupils whose expectations are confirmed (pass/pass or fail/fail) will attribute their results more to <u>stable/internal</u> causes than those pupils whose expectations are disconfirmed (fail/pass or pass/fail).

The results of research cited above concerning disconfirmed expectations indicate that when subjects' expectations were disconfirmed they attributed the outcome to <u>unstable/external</u> causes. However,

a criticism of these studies is that many of them involved non-academic tasks or hypothetical situations. A further limitation of these studies is that they only offered a limited number of attributions which did not vary along all locus of causality and stability dimensions. In addition, the researchers did not differentiate whether attributions for disconfirmed expectations were in response to a success or failure situation. Clearly, there is a need for further research concerning disconfirmed expectations.

In the present study, attributions offered vary along both the locus of causality and the stability dimensions, also in the open-ended section of the questionnaire there are no restrictions on the attributions subjects may offer. Thus it is predicted that disconfirmed expectations will vary according to the direction of the disconfirmed expectation(pass-fail or fail-pass). Pupils whose expectations are disconfirmed and who pass School Certificate English (fail-pass) will attribute their result more to unstable/internal causes than those whose expectations are disconfirmed but who fail School Certificate English (pass-fail). Further, pupils whose expectations are disconfirmed and who fail School Certificate English (pass-fail) will attribute their result more to unstable/external causes than those whose expectations are disconfirmed but who pass School Certificate English (fail-pass).

Sex Differences

Research documenting differential attributions for success and failure in males and females can be divided into two different approaches. One approach has endeavoured to determine whether the

attributions made by others about males and females vary according to the sex of the person being assessed (Deaux & Emswiller, 1974; Feldman-Summers & Kiesler, 1974). The other approach has investigated whether males and females make different causal attributions about their own successes and failures. Because the present study investigated individuals' causal attributions about their own successes and failures, this review was concerned with literature resulting from the latter approach.

In line with previously cited research indicating that causal attributions following success or failure at a task are a function of the individual's initial expectations of success and failure at the task, it would follow that if males have higher expectations of success, success would be an expected outcome, and subsequently would be attributed to a stable cause, namely high ability. Failure, an unexpected outcome would be attributed to an unstable cause. In contrast, if females have lower expectations of success, success would be an unexpected outcome and would be attributed to unstable causes. Failure, an expected outcome would be attributed to a stable cause, typically lack of ability.

Findings that females have lower performance expectations than males have appeared in many studies, using subjects from a variety of age groups. Female college students anticipated performing less well than their male peers at a test of manual dexterity (Rychlak & Lerner, 1965). Girls in 7th and 9th grade expected to do less well than boys in their English classes (Battle, 1966). Girls in 5th grade expected to do less well than boys at a novel marble-dropping game (Montanelli & Hill, 1969). Males reported higher expectancy scores than females at anagram tasks (Bar-Tal & Frieze, 1977; House, 1974;

Stipek & Hoffman, 1980). Maccoby and Jacklin (1974) concluded that self confidence defined in terms of both performance expectancies and self evaluations of abilities and completed performances is lower among females than among males.

Expectations for success or failure have been shown to affect behaviour in a variety of achievement situations (Frieze, Parsons, Johnson, Ruble & Zellman, 1978). Thus, females' low expectations of success may lead to poor performance on achievement tasks. Further, low expectations tend to be self-perpetuating because they lead to attributions that contribute to low performance levels (Frieze, Fisher, Hanusa, McHugh & Valee, 1978). This in turn may lead to females having lower educational aspirations than males. This is of concern, because Maccoby and Jacklin (1974) revealed very few differences between the sexes in most achievement-related characteristics. For example, females were found to be equal to males in overall intellectual and academic ability (pp. 65-69). Also, Frieze, Parsons, Johnson, Ruble and Zellman (1978) found little support for the belief that there are many strong and consistent differences in ability between males and females. Burstein, Bank & Jarvik (1980) point out that because of the reluctance of psychological journals to publish studies reporting no difference between groups, published research may be unrepresentative of the findings of studies looking at sex differences in cognitive ability.

While some studies have revealed small differences between the sexes, for example, in the area of spatial skills or verbal ability, other studies of this type have revealed larger differences within the sexes. Thus, focusing on the average level of ability of each sex

may be detrimental to individuals, male and female, who may have unique skills in an area not considered appropriate for their sex.

Several studies have reported that males and females make different causal attributions for their successes and failures. Feather (1969) asked first year psychology students to assign, on bipolar attribution scales, the causality of their success or failure on anagrams. Luck was at one pole and ability at the other. Results indicated that females were more inclined to assign their outcome to external factors (good or bad luck) than were males. Also, females were lower in initial confidence and higher in feelings or inadequacy than were males.

Other studies have yielded similar results. For instance, Simon and Feather (1973) had first and second year psychology students complete a questionnaire relating to examinations, just before they sat an examination. They were required to rate their ability, amount of preparation, task difficulty, and initial confidence. About two weeks after the examination they completed a post-performance questionnaire which required them to assign the causes of their outcome on the examination. They were offered the causal categories of ability, luck, preparation, and task. The results suggested that there was a tendency for females more than males to attribute the results of the examination to external causes. Further, Feather and Simon (1973) found that males attributed success more internally and failure more externally than did females when they worked on anagrams.

Nicholls (1975) reported that when 10 year-old boys and girls were asked to account for their success or failure on an angle matching test, girls tended to attribute failures more internally to

low ability than did boys. However, girls did not attribute success to high ability. Similarly, findings from two studies (Dweck, Davidson, Nelson & Enna, 1978; Dweck & Repucci, 1973) indicated that there was a greater tendency for girls more than boys to attribute failure to internal stable factors such as lack of ability.

A study by Bar-Tal and Frieze (1974) selected male and female students who were either high or low on a measure of achievement. Causal attributions were made following success or failure on an anagram task. The use of ability to explain success was found among high achievement men, and not among high achievement women. High achievement women were more likely than high achievement men to explain their failure as resulting from lack of ability.

Results from a study by Levine, Reis, and Turner (1976) indicated that after completing an anagram task, male undergraduate college students were more likely than female undergraduates to attribute their success to ability, and their failure to luck. Females attributed both their successes and their failures to ability. Deaux and Farris (1977) also found that male and female university students differed in their explanations of their performance. Although both male and female students performed equally well on an anagram task, female students were more likely than male students to explain their performance, whether successful or unsuccessful, in terms of luck.

A number of studies have indicated that females more than males attrubuted outcomes to external sources. Bar-Tal and Frieze (1977), for example, found that after finishing an anagram task, high-achievement motivated female college students tended to attribute their

success more to external sources than high-achievement motivated males. Also, Bar-Tal and Darom (1979) found that 5th and 6th grade boys more than girls believed that they had higher ability after a successful outcome on a school examination. Similarly, Frieze and Bar-Tal (1980) found that girls (9 to 17 year-olds) attributed their successes and failures more externally (task) than boys.

It can be seen from these studies that the results of some of them (Bar-Tal & Frieze, 1977; Deaux & Farris, 1977; Feather, 1969; Frieze & Bar-Tal, 1980; Simon & Feather, 1973) have suggested that there is a tendency for females not to take responsibility for success or failure. Several other studies (Bar-Tal & Frieze, 1974; Dweck et al, 1978; Dweck & Repucci, 1973; Levine et al, 1976; Nicholls, 1975) indicated that while females were more likely than males to attribute their successes to external factors such as task ease or luck, they were more likely than males to attribute their failure to lack of ability. Although the results of the two groups of studies are contradictory, both sets of attributions (external for both success and failure, and external for success internal for failure) may be detrimental to females' future achievement. The tendency not to take responsibility for success or failure may result in females giving up more easily on a difficult task, or perhaps influence them to avoid achievement situations. On the other hand, the tendency to attribute failure to internal stable causes may inhibit future achievement. Females who label themselves as "low ability students" are unlikely to be motivated to try harder, or to have high aims with regards to academic achievement.

On the basis of the studies reviewed above, it is predicted that

males and females will differ in the causal attributions they make for their results in School Certificate English. While the majority of the studies reviewed indicated that females were more likely than males to attribute their successes to external sources, a large proportion of the studies also indicated that females were more likely than males to attribute their failure to an internal source (ability) Thus it was hypothesized that males would make more stable/internal attributions for success in School Certificate English than females, but males would make more external/unstable attributions for failure in School Certificate English than females.

Ethnic Differences

There is a lack of studies in New Zealand investigating Maori (a Polynesian minority) and Pakeha (the white majority) differences in their causal attributions for successes and failures. There appears to be only two studies investigating Maori/Pakeha attributions for outcomes in achievement tasks. In the first study children who were aged 7 - 10 years viewed films showing Maori and Pakeha children working on arithmetic problems (Nicholls, 1978). The children then apportioned the causes of the actors' performances to ability, effort, or luck. Results indicated that children of both ethnic groups were less likely to attribute success to high ability in Maori than in Pakeha actors. In the second study, after a test on social studies, Polynesian and Pakeha pupils offered explanations for their success or failure. Ethnicity had only one effect on attributions namely, Polynesians attributed success more to luck than Pakehas, (Nicholls, 1980).

Looking at overseas attribution studies, there is some evidence that attributions regarding task outcome differ between ethnic groups. Friend and Neale (1972) compared the causal perceptions of outcome of U.S. black and white 5th grade children following the completion of a brief reading test. Prearranged feedback (success, failure, no feedback) was provided, and the children evaluated the importance of ability, effort, task difficulty, and luck in relation to their performance. Friend and Neale (1972) reported that white children judged ability and effort as more important causes for their performance than task difficulty and luck, while the reverse was true for black children. However, these figures were calculated by adding causal attributions across all three conditions (success, failure, no feedback). When success and failure are considered separately, the results indicate that black and white children did not differ in their causal attributions for success, both groups attributed their successes to ability and effort. On the other hand, white children offered significantly more internal attributions (ability and effort) for failure than black children.

Other researchers have investigated whether different ethnic groups make different causal attributions for their successes and failures. Raviv, Bar-Tal, Raviv and Bar-Tal (1980) asked 6th grade children in Israel to attribute causality for their success or failure in a mathematics test. The pupils were of European-American, Israeli (a balance of origins between European-American and Asian-African), and Asian-African origin. The results of the study indicated that all three groups of pupils tended to make higher attributions to stable/ internal causes (interest and ability) for success. In the situation

of failure European-American pupils tended to make higher attributions to unstable/internal causes (effort and preparation), while Israeli and Asian-African pupils tended to make higher attributions to stable/internal (interest and ability) and stable/external causes (difficulty of material). The tendency for Israeli and Asian-African pupils to attribute failure more to stable causes than European-American pupils may mean that the Israeli and Asian-African pupils expect to fail in future similar examinations. This is in line with results from a study by Dweck (1975) which indicated that when failure was attributed to stable causes no change in outcome was expected in the future.

Two studies comparing achievement judgements between people in different countries (Rodrigues, 1980; Salili, Maehr & Gilmore, 1976), demonstrated that a difference in achievement perceptions exists between different societies. Salili, Maehr and Gilmore (1976) repeated in Iran a study carried out by Weiner and Peter (1973) which involved subjects in the U.S.A. They administered a task to 291 Iranian children between the ages of 7 and 18 years. The subjects were presented with stories involving a child, the stories varied according to effort (trying or not trying), ability (present or absent), and outcome (success or failure). The results showed that Iranian children rated effort as the most important factor, and ability the least important. In the U.S. study carried out by Weiner and Peter (1973), outcome was judged more important than effort, but effort decreased in importance with age of the students, whereas in the Iranian study, effort increased with age of the students.

Rodrigues (1980) duplicated in Brazil a study carried out by Weiner and Kukla (1970) in the United States looking at how the causal attributions of an outcome may influence the allocation of

rewards and punishments. The results indicated that Brazilian college students were similar to U.S. subjects in valuing good examination performance. However, there was a difference between Americans and Brazilians in their emphasis on the importance of effort. In the U.S. sample high effort resulted in a more positive evaluation than low effort. The Brazilians, on the other hand, did not value effort as much as the American subjects, but rather they tended to value ability. These results differ from Salili, Maehr and Gilmore's (1976) study in Iran, where effort was rated as the most important factor, and ability the least important. The findings from these studies indicate that broad generalizations about the way people respond in a situation cannot be made from one culture to another. However, this does not necessarily indicate that causal attributions are determined by situations, but rather, that cultural beliefs will influence the causal attributions of all those within a culture.

The studies reviewed in this section indicate that different ethnic groups make different causal attributions for their successes and failures. Thus it seems possible that Maoris and Pakehas in New Zealand will offer different causal attributions for success and failure in School Certificate English. The reasons for this hypothesis are as follows.

An important aspect in considering ethnic effect on attributions is that there are achievement differences between Maoris and Pakehas in the New Zealand school system. Taking into account all New Zealand school pupils who sat School Certificate English in 1981, 54% of all Pakeha pupils passed, and only 37% of all Maori pupils passed. Maori females achieved better results than Maori males, 32% of Maori

females who sat passed, and only 22% of Maori males passed (Department of Education, 1982).

Research attempting to explain the school achievement differences between Maori and Pakeha pupils has produced mixed explanations. Some researchers explain the differences in terms of the low occupational status, large families, and rural residence of Maoris (Gregory, 1974). Other researchers see the differences resulting from cultural differences. Two of the explanations advanced by Walker (1973) for the underachievement of Maori pupils are as follows.

> 1. Maori children see little of relevance to them in the education system. They succeed at sport, but fail at school. School becomes a place of little value, to leave as soon as possible.
> 2. Maoris have an ambivalent attitude to education. The Maori desires education as a means to improve his life chances, yet at the same time he fears education for its alienating effect on the individual. In short Maoris are afraid of their children becoming monocultural and of losing them to the Pakeha world. (Walker, 1973, p. 112).

This indicates that Maoris differ from Pakehas in their attitude toward schooling. They may not consider effort as an important factor in school achievement. Further, Harker (1980) pointed out that in studies where environmental factors such as socio-economic status, family size, and urban location have been taken into account, there is usually still some variance left to ethnicity. This points to the probability that cultural differences is an independent factor in the lower achievement of Maori children in New Zealand schools.

St George (1978) found in her naturalistic observational study that teachers had lower expectations for Maori children than they did for Pakeha children. However, she also observed that teachers on the whole did not discriminate against Maori children. They were not viewed as being more disruptive in class than Pakehas, and teacher-

pupil interactions showed no ethnic group differences. Further, there were no significant relationships between pupil's ethnic group, and teachers' perceptions of their popularity with classmates, their physical attractiveness, neatness of appearance, or confidence. Findings from Nicholls and Barrett (1977), and Harker (1978) also indicated that teachers in New Zealand schools did not overtly discriminate against Maori children.

In spite of these findings, racial stereotypes in New Zealand include the idea that Maoris are less intelligent and less motivated to do well in school than Pakehas. Further, Nicholls (1978) suggests that the stereotype of Maoris as less able than Pakehas might influence judgements of ability in real life with detrimental consequences for Maori' self perception.

The Coleman Report (1966) in the United States indicated that amongst minority students a sense of control over the environment was more strongly related to academic achievement than any other variable. Thus, it seems probable that the extent to which children believe that they have control over the environment, affects their motivation to perform within that environment. It follows that individuals who believe themselves to have control over the environment will more readily see themselves capable of influencing, in a positive way, their outcomes in achievement situations. On the other hand, Stipek and Hoffman (1980) suggest that children who consistently perform at a relatively low level --as do Maori children in the New Zealand school system-- may begin to attribute their past failures to stable factors (low ability), and these stable attributions for past failures may result in low expectations for future success. In addition, Ames

and Felker (1979) reasoned that for low self-concept 6th grade children a failure outcome would confirm their low expectations, and would be logically attributed to a stable cause, while unexpected success would be logically attributed to an unstable cause.

Individuals who label themselves as "low ability students" are unlikely to have a high academic self-concept, and Ranby (1979) indicated that Maori secondary pupils' academic and general self-concept was on average lower than that of comparable non-Maori pupils. Further, numerous researchers have indicated that there is a significant correlation between academic or general self-concept and school failure (e.g.,Ames & Felker, 1978; Calsyn & Kenny, 1977; Chapman & Boersma, 1980; Johnson, 1981, Kifer, 1977, Purkey, 1970).

Overall, studies reviewed imply that there are ethnic differences in attributing the causes of events or task outcomes. Regarding the New Zealand studies, one indicated that Polynesians attributed success more to unstable/external causes (luck) than Pakehas, and in the other study it was noted that Maoris did not tend to attribute success to ability in other Maoris. Accordingly, it was predicted that among pupils who succeed in School Certificate English, Maori pupils will make more unstable/external attributions for their success than Pakehas. Overseas studies indicated that minority cultures offered more stable attributions, both internal and external, for failure than the predominant culture. Looking at the New Zealand scene, teachers have low expectations for Maori pupils, and Maoris themselves tend to have lower academic self concept than Pakehas. In light of these findings it seemed likely that Maoris would internalize their failures, thus it was tentatively predicted that among failing students Maoris

would make more stable/internal attributions for their failure than Pakehas.

Measurement of Causal Attributions

A number of instruments have been developed to assess individuals' causal attributions (Elig & Frieze, 1979). Some of them comprise structured questionnaires, and others open-ended questionnaires. Structured questionnaires restrict subjects to a set of factors defined in advance by the experimenters as important for that situation. On the other hand, open-ended questionnaires ask subjects to respond in their own words why a particular event has occurred. These responses may then be classified into previously defined attributional categories. Coding systems for dealing with attributions from open-ended questionnaires have been developed by Elig & Frieze (1975), Bar-Tal and Darom (1979), and Cooper and Burger (1980).

According to Elig and Frieze (1979) most studies use structured ratings rather than open-ended data. In an effort to answer the question of how causal attributions should best be measured, they compiled a list of causal attributions for a manipulated success-failure event (solving anagrams) from college students on five different measuring instruments. Results indicated that unstructured response measures of causal attributions have poorer inter-test validity and reliability than structured response measures. Frieze (1981) pointed out that if the researcher wished to see how attributions varied in different conditions it would be necessary to use a structured format. However, Elig and Frieze (1979) indicated that unstructured questionnaires are invaluable for the researcher who wished to generate a

list of causes for a particular situation or group of people. Thus, they suggested that the format used for measuring attributions should depend upon the goals of the study.

The aim of the present study was to investigate the causal attributions for examination outcome in School Certificate English by the following groups of pupils: females, males, Maoris, and Pakehas. Questionnaires which contained both open-ended and structured sections were constructed by the author. The use of structured scales has been found to have the advantage of good inter-test validity and reliability, and mainly for this reason structured scales formed the basis of this research. The open-ended scales provided a possible means of validation for the structured scales, but more importantly they gave pupils the opportunity to offer their own, perhaps unique attributions, rather than restricting them to a pre-selected set of possible causes.

Summary and Hypotheses

The attributional explanation of achievement related behaviour indicates that in order to understand such behaviour in individuals it is important to know what beliefs they hold about the causes of their successes and failures. While the review of relevant studies suggests that the causal attributions individuals offer for outcome are varied, they may all be classified along two dimensions: internality and stability.

In terms of instrumentation, research using both structured and open-ended formats has been reviewed. Many studies used structured questionnaires, which have been found to have superior inter-test validity compared to open-ended questionnaires. However, at the out-

set of the review it was pointed out that no matter what belief a person has about the causes of their successes and failures, this belief must be taken into account. Thus it was considered important that individuals be given the opportunity to offer their own attributions. Accordingly a questionnaire with both a structured and an open-ended section was utilized in the present study. It was hoped that this procedure would allow ecologically bound outcome explanations to emerge. Finally, consideration of the context in which the attributions were made was viewed as important.

Despite the large number of studies which investigated patterns of attributions following success and failure, few have been carried out in the classroom setting using a real test situation. Thus the disadvantage of many of the studies is that they have been conducted in a laboratory setting, often involving a task not directly relevant to the subjects. Accordingly, the present study undertook to investigate in the classroom setting, Fifth Form pupils' attributions for success and failure in the School Certificate English examination. This is generally held to be an important examination in the New Zealand school system, with significant employment and career-related implications.

Field research investigating the causal attributions made in achievement related contexts has yielded diverse results (e.g., Bar-Tal & Darom, 1979; Davis & Stephan, 1980). Thus one of the purposes of this study was to investigate the relative importance of the different causal attributions made by pupils for their performance in an examination.

Many laboratory studies (e.g., Gilmor & Minton, 1974; Meyer,

1980; Valle & Frieze, 1976; Weiner, Nierenberg & Goldstein, 1976) investigating individuals' perceived causes of outcomes, along with their initial expectations of success or failure, have indicated that causal attributions following completion of a task are a function of the individual's initial expectations of success or failure at the task. Therefore, it was predicted that:

> 1.1 Those pupils whose School Certificate English examination outcome expectations are confirmed (pass-pass or fail-fail) will attribute their result more to stable/internal causes than those pupils whose expectations are disconfirmed (pass-fail or fail-pass).

Previous studies investigating the attributions of individuals whose expectations had been disconfirmed did not differentiate between attributions made for a success and those made for a failure. Yet, it seems logical to expect that individuals whose disconfirmed expectations result in a success will offer different causal attributions for the outcome than those disconfirmed expectations resulting in failure. Accordingly, it was hypothesized that:

> 2.1 Pupils whose expectations are disconfirmed and who pass School Certificate English (fail-pass) will attribute their result more to unstable/internal causes than those whose expectations are disconfirmed but who fail (pass-fail).

> 2.2 Pupils whose expectations are disconfirmed and who fail School Certificate English (pass-fail) will attribute their result more to unstable/external causes than those whose expectations are disconfirmed but who pass (fail-pass).

Studies were reviewed which found that females had lower performance expectations than males, and also that males and females differed in the causal attributions they offered for their successes and failures in achievement tasks. A number of studies (e.g., Bar-Tal & Darom, 1979; Bar-Tal & Frieze, 1977; Frieze & Bar-Tal, 1980)

have indicated that females more than males attribute successful outcomes to external sources. Other studies (e.g., Dweck, Davidson, Nelson & Enna, 1978; Dweck & Repucci, 1973) indicated that there was a tendency for females rather than males to attribute failure to internal sources. Accordingly, it was hypothesized that:

> 3.1 Males will make more stable/internal attributions for success in School Certificate English than females.
>
> 3.2 Males will make more unstable/external attributions for failure in School Certificate English than females.

There is a lack of studies in New Zealand investigating Maori/Pakeha differences in their causal attributions for successes and failures. However, it was noted by Nicholls (1978) that Maoris did not tend to attribute success to ability in other Maoris. In another study, Nicholls (1980) obtained results which indicated that Polynesians attributed success more to unstable/external causes (luck) than Pakehas. In light of these findings, the following prediction was made:

> 4.1 Among pupils who succeed in School Certificate English, Maori pupils will make more unstable/external attributions for their success than Pakehas.

In a study carried out in an educational setting Raviv, Bar-Tal, Raviv, and Bar-Tal (1980) found that minority cultures offered more stable attributions, both internal and external, for failure than the predominant culture. In New Zealand, St George (1978) pointed out that teachers have low expectations for Maori pupils, and results from a study by Ranby (1979) indicated that Maori secondary pupils have a lower academic self concept than Pakehas. With these points in mind, it was tentatively predicted that:

4.2 Among failing pupils, Maoris will make more stable/internal attributions for their failures in School Certificate English than Pakehas.

CHAPTER III

METHOD

Sample Selection

Four hundred and sixty-nine Form Five pupils (228 males and 241 females) completed a Pre-Examination School Certificate English Questionnaire in November 1981. The pupils who completed the questionnaire were enrolled in two co-educational high schools in a medium sized North Island city (95 pupils, School "A"; 113 pupils, School "B"), and one co-educational high school in a medium sized rural town (261 pupils, School "C"). Of this sample, 319 pupils (68 percent) returned to school in February 1982, and completed the Post-Examination School Certificate English Questionnaire. Eleven of these questionnaires were incorrectly answered, reducing the number to 308 correctly completed Post-Examination Questionnaires.

One hundrend and fifty (32%) of the original sample did not return to school in 1982. Nine of these pupils had an incomplete address on their Pre-Examination Questionnaire and were not sent a Post-Examination Questionnaire. One hundred and forty-one Post- Examination Questionnaires were sent out on March 3, 1982. Ten of these questionnaires were returned "address unknown". Sixty-six (47%) completed questionnaires were returned within two weeks. On March 17, 1982 a reminder letter was sent out to the remaining 75 pupils who had not returned their questionnaires, and a further 26 questionnaires were returned. Thus, after one reminder 65 percent of the 141 questionnaires sent out were returned correctly completed. Thirty-nine pupils did not return a questionnaire. The final sample therefore, comprised 400 subjects, which is 85 percent of the original

sample that completed the Pre-Examination Questionnaire in November 1981. Table 1 summarizes the manner in which questionnaires were distributed and collected.

Table 2 presents an analysis by school of the number and percentage of respondents to the survey. Twenty-one percent of the final sample came from School A, 22% from School B, and 57% from School C. Although 57% of the final sample was drawn from a rural community, this does not show a strong bias towards the rural group, and the author does not consider that the two communities differ substantially in character.

An important point that should be noted is that there was a similar level of return of completed questionnaires for each school in the survey (Table 2).

Checks for Bias in Final Sample

The 69 pupils who did not complete both the Pre-Examination Questionnaire and the Post-Examination Questionnaire comprised nine pupils who presented an invalid Pre-Examination Questionnaire, 11 pupils who presented and invalid Post-Examination Questionnaire, 10 pupils who did not complete a Post-Examination Questionnaire because the Post Office was unable to trace them, and 39 pupils who did not return a posted Post-Examination Questionnaire. Four of these 69 pupils had omitted to supply any demographic data on the questionnaire, therefore, demographic data on only 65 pupils were available.

Chi Square (χ^2) Tests of Independence were computed for the two groups of pupils, namely the 400 pupils comprising the final sample, and the 65 pupils omitted from the survey, in order to investigate

Table 1

Schematic Representation of Sample Selection

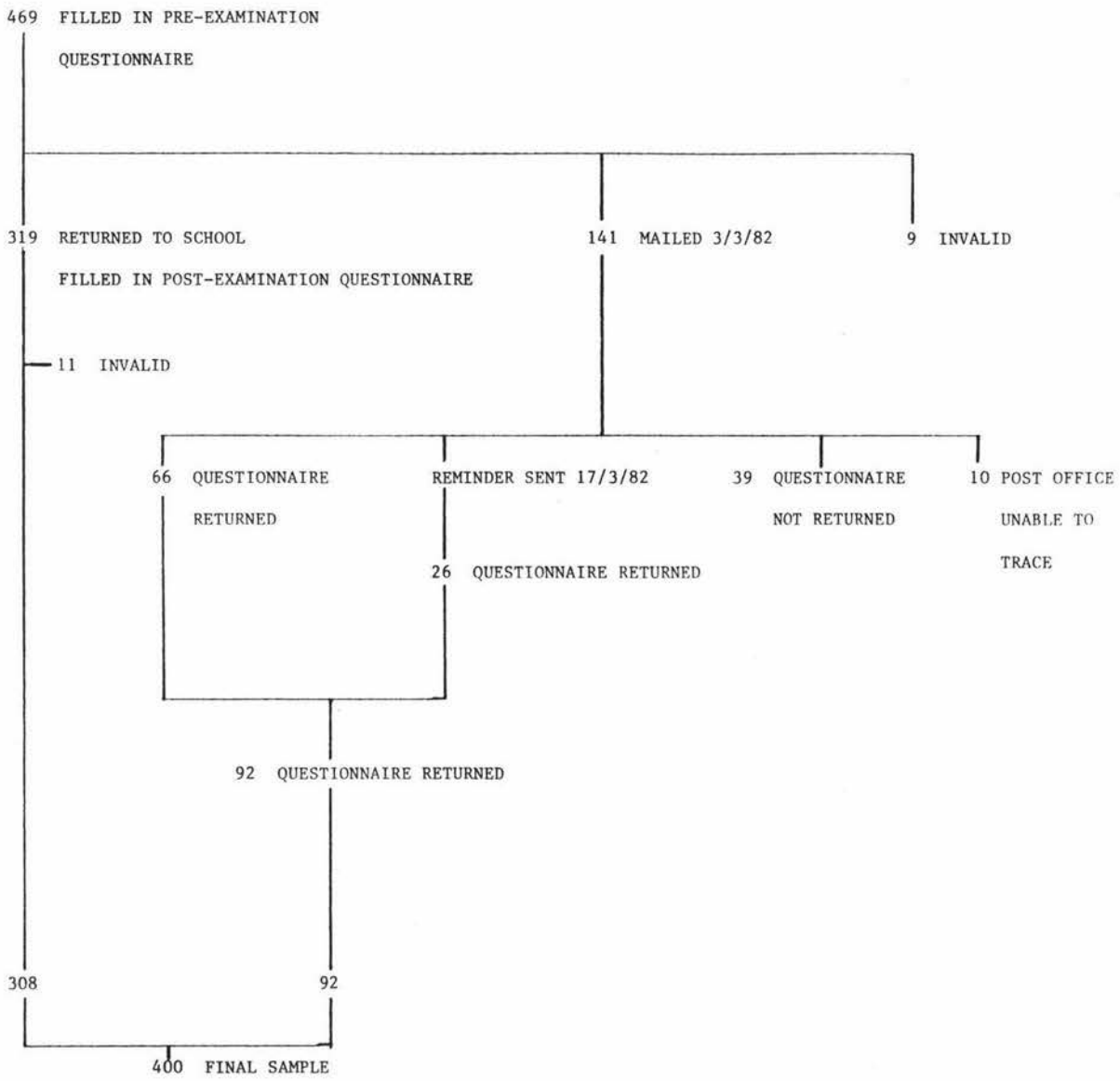

Table 2

Number and Percentage of Respondents to School Certificate English Questionnaire as a Function of School

	Pre-Exam Survey	Post-Exam Survey (Valid Questionnaires)			
School		Completed at school	Completed at home	Total % return	% of Pupils participating
A	95	63	21	88	21
B	113	64	24	78	22
C	261	181	47	87	57
Total	469	308	92	85	100

possible sampling biases as a function of either ethnic background, gender, or performance on a mid-year school English examination.

It was shown that the two groups of pupils did not represent two different populations on the basis of race, χ^2 (1) = .051, NS. Numbers of Maori and Pakeha pupils in both the 1981 national study (Department of Education, 1982), and the present 1981 sample (N=400) were similar. In the Department of Education (1982) study 11% of the pupils were Maori, and 88% were Pakeha, and in the present 1981 sample 9% were Maori, and 91% were Pakeha.

Concerning sex of pupils in the final sample, 43% were males, and 57% were females. However, in the group of pupils who were omitted from the survey 72% were males, and 28% were females. Chi Square computations indicate that there was a difference on the basis of sex χ^2 (1) = 19.27, $p < .001$. This result indicates that males were over-represented in the excluded group.

Because of missing names on a number of the 65 questionnaires it was not possible to obtain information on whether these pupils had passed or failed School Certificate English. However, it was possible to compare outcome on a mid-year English examination which was held approximately five months prior to the School Certificate examination. In the final sample (N=400) 74% pupils passed and 26% failed this examination. In the group of pupils who were omitted from the survey (N=65) 32% passed and 68% failed the mid-year English examination. A Chi-Square (χ^2) Test of Independence indicated that the two groups differed in their outcome of the mid-year examination. A larger number of pupils in the group participating in the survey passed this examination χ^2 (1) = 43.42, $p < .001$, suggesting a bias towards success-

ful pupils taking part in the survey. Despite this, Table 4 indicates that for the final sample (N=400) 50% passed and 50% failed School Certificate English.

Description of Final Sample and Comparison with National Data

The final sample of pupils who had completed both Pre and Post-Examination Questionnaires comprised 400 pupils (172 males and 228 females; 363 Pakehas and 37 Maoris), which is 85% of the original sample who completed Pre-Examination Questionnaires. Table 3 presents data on the outcome in School Certificate English for these pupils by school, sex, and race.

Table 4 presents the results of New Zealand school pupils who sat School Certificate English in 1981 and passed (Department of Education, 1982), compared to the results of pupils in the present study. In both the national study, and the present sample of 400 pupils, more Pakehas passed School Certificate English than Maoris. In the national study Maori females achieved more passes than Maori males, however, in the present study Maori males achieved more passes than Maori females. It is not possible to account for the differences in Maoris' performance in the two surveys. Of the Maoris in the national study (Department of Education, 1982), 52% were females and 48% were males, similar to the present sample, where 54% of the Maoris were female, and 46% were males.

Instruments

Pre-examination and Post-examination attributions were assessed using questionnaires constructed by the author, (Lawes School Certifi-

Table 3

School Certificate English Ouctome as a Function of School, Sex, and Race

	Males (N=172)				Females (N=228)				
	Maori		Pakeha		Maori		Pakeha		
School	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Total
A	1	4	10	18	3	2	30	16	84
B	2	1	14	19	0	3	21	28	88
C	4	5	41	53	2	10	71	42	228
Total	7	10	65	90	5	15	122	86	400

Table 4

Comparison National 1981 and Sample School

Certificate English Passes

	National Passes (%)	Sample Passes (%)
All Pupil	50.81	49.75
Pakehs Pupils	53.89	51.50
Maori Pupils	27.05	32.43
Pakeha Females	60.68	58.65
Pakeha Males	46.84	41.93
Maori Females	31.78	25.00
Maori Males	21.86	41.93

cate English Attribution Questionnaires), which contained both an open-ended and a structured section.

Space for the provision of biographical data was included on the questionnaire, and a statement stressing the confidential nature of the information was also presented.

Pupils were asked to enter the mark they received in English in their last examination (mid-year). They were then asked if they thought they would pass School Certificate English. Those pupils who thought they would pass School Certificate English were then requested to complete Part A of the booklet, and those who thought they would fail to complete Part B (see Appendix A).

The first section in both Parts A and B asked pupils to list up to five reasons why they thought they would pass/fail School Certificate English. The pupils were then asked to rank these reasons in order of importance, by placing a "1" next to the most important reason, a "2" next to the second most important, and so on, until all five reasons had been ranked in order.

Attributions offered in the open-ended section of the questionnaire were examined by two coders independently. Thus the second coder was unaware of the earlier categorization of the causes by the first coder.

Both coders used the Cooper and Burger (1980) coding scheme for free responses. Criteria keywords provided by Cooper and Burger (1980) were used to assist in coding.

The coders agreed on 92% of the responses, a figure that compares favourably with earlier studies (e.g., Cooper & Burger, 1980; Frieze, 1976). The responses to which the coders were not in agreement were

examined by a third coder, and a consensus was reached.

The second measure in the questionnaire consisted of 33 items. Each item was cast as a simple declarative sentence which was a possible reason for passing or failing School Certificate English. For example, Part A "Because I will try hard in English", or in Part B "Because I will probably not try hard in English". Each sentence was accompanied by a 5-point Likert-type scale which ranged from "No effect" to "Very strong effect". Pupils were asked to signify to what extent each was a reason that they would pass/fail School Certificate English.

The questionnaire was constructed in the following manner. Studies which have investigated attributions in educational settings have listed a large number of causes used by students to explain outcomes (Bar-Tal & Darom, 1979; Cooper & Burger, 1980; Frieze, 1976). Taking into account the lists of causes generated by previous studies, the author prepared a list of 49 possible reasons that students might offer for their success or failure in School Certificate English.

Three researchers actively involved in the area of attribution theory evaluated these reasons, along with the manner of wording. As a result of their evaluation modifications were made, and three reasons were withdrawn. The questionnaire, consisting of 46 reasons, was pilot tested with a sample of 5th form students not otherwise involved in this study. The responses were then examined independently by three researchers to assess how pupils had answered the questions. As a result of this procedure 13 items were rejected for a number of reasons including ambiguity of statements and ethical considerations, and after some modification, the remaining 33 items made up the pilot study questionnaire.

Pilot Study

In October 1981 the questionnaire was administered to a 5th form class(N=28) at a high school in a small provincial town. After careful examination of the responses resulting from this pilot study it was decided to retain all 33 items.

The 33 items in the questionnaire may be categorized into the two underlying dimensions postulated by Weiner (1972), namely locus of causality (internal/external), and stability (stable/unstable). Specifically, nine questions in the questionnaire relate to the stable/internal dimension, ten relate to the stable/external dimension, eight to the unstable/internal dimension, and six to the unstable/external dimension, (see Appendix A which identifies the questions included in each dimension).

Internal reliability coefficients (Mehrens & Lehmann, 1975) for each dimension were computed from the responses to each item. The following estimates were obtained: Stable/internal α= .77, stable/external α = .72, unstable/internal α = .82, and unstable/external α = .73. The internal reliability coefficient for all 33 items is α = .88.

Procedure

During September and October 1981 three principals of co-educational schools were approached in order to obtain their agreement to their school participating in the study. Cooperation was offered in each case and arrangements for the administration of the questionnaire were made.

The criteria for selecting the schools for this study were that they contained adequate numbers of Maori pupils, and also students

of diverse other types such as occur in schools throughout New Zealand.

The Pre-Examination School Certificate English Questionnaire was administered during the first two weeks of November (the School Certificate English examination was held on November 25, 1981). The Post-Examination School Certificate English Questionnaire was administered during the third week of February, 1982. The high school pupils were surveyed in their usual classroom groups. Except on one occasion when the researcher's supervisor helped, the author administered all questionnaires. Before completing the questionnaires pupils were briefly informed of the purposes of the project (see Appendix B). Clarification of questions was given if sought by any pupils. Administration time on each occasion was approximately 25-30 minutes.

Pupils who did not return to school in 1982 were surveyed by mail.

Summary of Procedure

1. September/October, 1981 principals at high schools approached.
2. November, 1981 Pre-Examination Questionnaires administered in schools.
3. February, 1982 Post-Examination Questionnaires administered in schools.
4. March, 1982 Post-Examination Questionnaires posted to those pupils who did not return to school.
5. March, 17 1982 reminder letter sent to those pupils who had not returned the Post-Examination Questionnaire.
6. February, 1983 feedback to staff at schools who participated, regarding the outcomes of the study.

Design

The hypotheses presented in this study were tested by means of a 2 x 2 multivariate analysis of variance (MANOVA) design. In each analysis, outcome (pass/fail) was tested against the relevant independent variable grouping (confirmed/disconfirmed, or male/female, or Maori/Pakeha), with the attributional dimensions (stable/internal, stable/external, unstable/internal unstable/external) forming the multivariate dependent variables.

Where significant multivariate effects were found univariate analyses of variance (ANOVA) were performed to determine in which dimension the significant differences were occurring. Planned comparisons (Keppel, 1973), and Scheffe individual comparisons of means were also computed where appropriate.

CHAPTER IV

RESULTS

Results from the responses to the structured section of the questionnaire will parallel the order in which the hypotheses were presented in Chapter II. Accordingly, confirmed/disconfirmed expectations regarding outcome in School Certificate English will be dealt with first, followed by the data for sex differences, and finally ethnic differences (Maori/Pakeha). Consideration of the findings from the open-ended section will follow.

Structured Questionnaire

Confirmation/Disconfirmation of Expected Outcome

Hypothesis 1.1 predicted that pupils whose examination outcome expectations were confirmed would attribute their results more to stable/internal causes than those pupils whose expectations were disconfirmed. Hypotheses 2.1 and 2.2 made differential predictions for disconfirmed expectations depending on outcome. In order to test these hypotheses, attributions were analysed by means of a 2 x 2 multivariate analysis of variance (MANOVA) design. The respective variables were confirmation or disconfirmation of expected outcome, and actual outcome (pass/fail), with the attributional dimensions (stable/internal, stable/external, unstable/internal, unstable/external forming the multivariate dependent variables. MANOVAS were considered to be an appropriate way of analysing the data because the MANOVA procedure compares the differences between all the means simultaneously using the covariance among the variables to refine the overall relationship between the groups, thereby

providing the check against Type I errors, (Kerlinger & Pedhazur, 1973).

The results of the MANOVA revealed a significant main effect for confirmation/disconfirmation (Hotellings T = 12.03, df = 4,356, $p < .001$). A significant main effect for outcome was also observed (Hotellings T = 22.16, df = 4,356, $p < .001$). However, there was no significant multivariate interaction effect (confirmed/disconfirmed by outcome). Table 5 presents summary data for the MANOVA.

In order to test Hypothesis 1, four univariate ANOVAS were run on each dimension. Significant main effect for the confirmed/disconfirmed variables were found on the stable/internal dimension ($F = 36.84$, df = 1,359, $p < .001$). Summary data for these ANOVAS are presented in Table 5. An inspection of the means for the confirmed and disconfirmed groups indicates that as predicted pupils whose expectations were confirmed reported stronger stable/internal attributions than those whose expectations were disconfirmed (see Table 6). Accordingly, Hypothesis 1 is supported. This support, however, is qualified by the finding that pupils whose expectations were confirmed also made stronger attributions to unstable/internal factors ($F = 5.91$, df = 1,359, $p < .05$). Such a finding, therefore, suggests that the locus dimension of internal/external has predominance over the stability dimension.

Hypotheses 2.1 and 2.2, predicted that the attributions of pupils whose expectations were disconfirmed would vary according to examination outcome. Because the multivariate interaction of confirmation/disconfirmation by outcome was not significant (Hotellings T = 1.46, df = 4,356, $p > .05$), no subsequent univariate ANOVAS were

Table 5

MANOVA and ANOVA Summary Data for Confirmed-Disconfirmed Attributions by Outcome in School Certificate English

	Multivariate F[a]	Univariate F[b]			
		Stable/ Internal	Stable/ External	Unstable/ Internal	Unstable/ External
A Confirmed/ Disconfirmed	12.03***	36.84***	2.53	5.91*	1.35
B Pass/Fail	22.16***	30.13***	14.23***	46.14***	9.37**
AB	1.46	1.15	.00	1.15	2.54
Error MS		30.82	30.94	29.55	18.50

[a]Multivariate df = 4,356

[b]Univariate df = 1,359

*$p < .05$.

**$p < .01$.

***$p < .001$.

Table 6

Means and Standard Deviations for Confirmed-Disconfirmed Attributions Regarding Outcome in School Certificate English

	Confirmed (N=243)				Disconfirmed (N=120)			
	Pass-Pass		Fail-Fail		Fail-Pass		Pass-Fail	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Stable/ Internal	27.25	5.18	22.04	6.37	21.58	4.57	18.07	5.67
Stable/ External	22.02	5.32	19.00	5.95	20.74	5.93	17.75	5.59
Unstable/ Internal	23.15	5.42	17.03	5.30	20.42	5.18	15.97	5.60
Unstable/ External	10.09	6.64	12.95	4.88	11.79	5.21	12.69	4.68

Note. Mathematical considerations indicate that the same results are obtained by taking into account the different number of items in each dimension. This was demonstrated by carrying out analyses in that manner. This also applies to Table 8 and Table 10.

required. Thus, no support was obtained for Hypotheses 2.1 and 2.2: actual outcome of pupils whose expectations are disconfirmed are not differentiated in their attributions according to whether they are successful or unsuccessful.

An interesting additional finding in the MANOVA was the main effect for examination outcome (Hotellings T = 22.16, df = 4,356, $p < .001$). Univariate ANOVAS run on each of the four dimensions revealed that pupils who passed School Certificate English made significantly stronger attributions to stable/internal (F = 30.13, df = 1,359, $p < .001$), stable/external (F = 14.23, df = 1,359, $p < .001$), and unstable/internal (F = 46.14, df = 1,359, $p < .001$) dimensions, whereas pupils who failed the examination made significantly stronger attributions to unstable/external causes (F = 9.37, df = 1,359, $p < .01$), (see Tables 5 and 6).

In sum, the results of the confirmation/disconfirmation by outcome analyses reveal that pupils whose expectations were confirmed made stronger attributions to both stable and unstable/internal causes than those whose expectations were disconfirmed. In addition, actual examination outcome mediated attributions with successful pupils attributing outcome to stable and unstable/internal factors as well as stable/external factors. Unsuccessful pupils, on the other hand, made stronger attributions to unstable/external causes. Finally, the direction of outcome (pass or fail) for pupils whose expectations were disconfirmed, did not significantly affect their causal perceptions.

Sex Differences

Hypothesis 3.1 predicted that males would make more stable/internal attributions for success in School Certificate English than females. In addition, Hypothesis 3.2 predicted that males would make more unstable/external attributions for failure in School Certificate English than females.

In order to test these hypotheses, attributions were analysed by means of a 2 x 2 multivariate analysis of variance (MANOVA). The respective variables were sex (male/female), and outcome (pass/fail) with the attributional dimensions stable/internal, stable/external, unstable/internal, unstable/external forming the multivariate dependent variables.

The results of the MANOVA indicated a significant main effect for sex (Hotellings T = 4.69, df = 4,356, $p < .001$). As predicted, there were overall differences between males and females in the attributions offered. In addition, a significant multivariate sex by outcome interaction was observed (Hotellings T = 3.65, df = 4, 356, $p < .01$). Table 7 presents summary data for the MANOVA.

In order to examine where these main and interaction effects were occurring univariate ANOVAS were computed. The results of the univariate ANOVAS for the attributions within each dimension revealed significant main effects for the male/female variables on all four dimensions, stable/internal (F 10.17, df = 1,359, $p < .01$), stable/external (F 7.15, df = 1,359, $p < .01$), unstable/internal (F 10.06, df = 1,359, $p < .01$) and unstable/external (F 11.92, df = 1,359, $p < .001$), (see Table 7). In all cases males made stronger attributions than females. This main effect should be interpreted in light of the significant inter-

Table 7

MANOVA and ANOVA Summary Data for Male-Female Attributions by Outcome in School Certificate English

	Multivariate F[a]	Univariate F[b]			
		Stable/ Internal	Stable/ External	Unstable/ Internal	Unstable/ External
A Male/ Female	4.69***	10.17**	7.15**	10.06**	11.92***
B Pass/Fail	65.61***	131.64***	41.59***	131.34***	29.70***
AB	3.65**	4.22*	.29	1.78	8.69**
Error MS		32.89	30.57	29.07	17.62

[a]Multivariate df = 4,356

[b]Univariate df = 1,359

*$p < .05$.

**$p < .01$.

***$p < .001$.

Table 8

Means and Standard Deviations for Male-Female Attributions Regarding Outcome in School Certificate English

	Male (N=155)				Female (N=208)			
	Pass		Fail		Pass		Fail	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Stable/ Internal	27.14	5.52	21.32	6.66	26.44	5.32	18.08	5.40
Stable/ External	22.73	4.20	19.21	5.21	21.46	5.88	17.29	6.17
Unstable/ Internal	23.57	5.18	17.69	5.27	22.50	5.57	15.07	5.41
Unstable/ External	10.42	3.96	14.21	4.81	10.19	3.79	11.32	4.22

action between sex and outcome on the stable/internal dimension (F 4.22, df = 1,359, $p < .05$) and the unstable/external dimension (F 8.69, df = 1,359, $p < .01$).

As Hypotheses 3.1 and 3.2 made differential predictions for male and female attributions on the stable/internal and the stable/external dimensions it was appropriate to test these hypotheses by means of planned comparisons with weighted means (Keppel, 1973). Results, (F .63, df = 1,187, $p > .05$) did not support the prediction that males would make more stable/internal attributions for examination success than females. In fact, there were no significant sex differences in attributions made for success. However, the hypothesis that males would make more unstable/external attributions for failure was supported (F 20.73, df = 1,174, $p < .001$).

In order to determine what was causing the interaction effect between sex and outcome on the stable/internal dimension, a Scheffe individual comparison of the means was performed. This post hoc analysis revealed that among pupils who failed, males made stronger attributions to stable/internal causes than females (F 13.97, df = 3,359, $p < .01$).

In summary, the results of the male/female by outcome analyses demonstrate that males and females differed in their attributions for failure in School Certificate English, with males making stronger attributions to unstable/external causes for failure than females. An additional finding of interest, which was not predicted, was that males also made stronger attributions to stable/internal causes for failure than females. Finally, no significant sex differences in attributions made for success were evident.

Ethnic Differences

Hypothesis 4.1 predicted that among pupils who succeeded in School Certificate English, Maori pupils would make more unstable/external attributions for their success than Pakehas. In addition, Hypothesis 4.2 predicted that among pupils who failed School Certificate English, Maoris would make more stable/internal attributions for their failures than Pakehas.

In order to test these hypotheses, attributions were analysed by means of a 2 x 2 MANOVA design. The respective variables were race (Maori/Pakeha), and outcome (pass/fail) with the attributional dimensions (stable/internal, stable/external, unstable/internal, unstable/external) forming the multivariate dependent variables.

The results of the MANOVA, indicated that there was no significant main effect for ethnic origin, nor was there a significant interaction between ethnic origin and outcome, (see Table 9). Because of this no further analyses were undertaken. Thus, the data offer no support for the hypothesized differences between Maoris and Pakehas.

Table 9

MANOVA and ANOVA Summary Data for Maori-Pakeha Attributions by Outcome in School Certificate English

	Multivariate F[a]	Univariate F[b]			
		Stable/ Internal	Stable/ External	Unstable/ Internal	Unstable/ External
A Maori/ Pakeha	.09	.09	.17	.00	.01
B Pass/Fail	16.67***	33.80***	14.87***	32.05***	6.46**
AB	.58	.77	.06	.91	.53
Error MS		33.16	30.70	29.36	6.46

[a]Multivariate df = 4,356

[b]Univariate df = 1,359

*p < .05.

**p < .01.

***p < .001.

Table 10

Means and Standard Deviations for Maori-Pakeha Attributions Regarding Outcome in School Certificate English

	Maori (N=37)				Pakeha (N=363)			
	Pass		Fail		Pass		Fail	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Stable/ Internal	26.08	5.25	20.96	4.71	26.68	5.39	19.75	6.27
Stable/ External	22.54	5.71	18.46	4.95	21.89	5.38	18.28	5.77
Unstable/ Internal	21.92	5.02	17.33	4.85	22.87	5.45	16.42	5.48
Unstable/ External	10.92	4.31	12.33	4.52	10.27	3.84	12.80	4.75

Open-ended Questionnaire

The open-ended scale, as pointed out previously, was an exploratory procedure supplementary to the main objective of using a structured questionnaire. Accordingly, basic descriptive data rather than statistical analyses are presented.

Pupils were given the opportunity to list up to five reasons why they thought they would/did pass or fail School Certificate English. Of the 400 subjects in the study, 97% offered one cause, 89% offered two causes, 72% offered three causes, 39% offered four causes, and 24% offered five causes. Because of the low response rate of pupils offering fourth or fifth causes, only the first three causes offered, which totalled 1029 responses, were analysed.

Regardless of whether the causes were offered by pupils as being first, second or third in order of importance, 61% of the total of 1029 explanations offered in this section of the questionnaire were classified as stable/internal (typical effort, ability, acquired characteristics). Unstable/external causes (teacher, task) constituted 26% of the total number of responses, unstable/internal causes (immediate effort) 7%, stable/external causes (family) 3%, and explanations classified as miscellaneous 3%.

In summary, the results from the open-ended section of the questionnaire highlight the importance placed on effort as a cause of either success or failure. It was similarly shown (see Tables A-I, Appendix C) that the other causal factors were accorded a consistent diminishing significance by pupils as causal attributions for outcome in School Certificate English.

CHAPTER V

DISCUSSION

Confirmation and Disconfirmation of Expected Outcome

The prediction that those pupils whose expectations were confirmed (pass-pass, fail-fail) would attribute their results more to stable/internal causes than those pupils whose expectations were disconfirmed (pass-fail, fail-pass) was supported by the data from the structured section of the questionnaire. This is in agreement with other studies which have indicated that causal attributions regarding success and failure at a task vary according to confirmation or disconfirmation of expected outcome (e.g., Feather & Simon, 1973; Frieze & Weiner, 1971; Gilmor & Minton, 1974; McMahon, 1973; Meyer, 1980; Valle & Frieze, 1976).

An additional finding of interest was that results from the structured questionnaire data indicated that pupils whose expectations were confirmed also attributed their results significantly more to unstable/internal causes than those pupils whose expectations were disconfirmed. Such a result appears to be at variance with other studies investigating confirmation of expected outcomes. For example, Meyer (1980), Valle and Frieze (1976), Weiner, Nierenberg, and Goldstein (1976) all indicated that confirmed expectations were attributed to stable factors, and disconfirmed expectations attributed to unstable factors. It was noted by the above investigators that confirmation or disconfirmation of expectations was related to the dimension of stability rather that the locus of causality dimension. However, the results of the present study indicate that confirmed expectations (success and failure) were not related to the

stable component of the stability dimension, but rather, the major causes given by pupils to explain both confirmed success and confirmed failure in School Certificate English had an internal locus of causality.

Attributing confirmed expectations (success or failure) to stable/internal causes, such as ability or stable effort, is likely to produce expectations that future outcomes will continue to be the same. However, attributing confirmed expectations (success or failure) to unstable/internal causes such as unstable effort or mood, may result in changes in expectations for future outcomes. For, example, pupils in the present study whose failure expectations were confirmed, and who attributed failure to stable/internal causes (lack of ability) may well continue to expect to do poorly in future examinations. Whereas, pupils in the present study whose failure expectations were confirmed, and who attributed failure to unstable/internal causes (lack of effort) may expect to pass future examinations by trying harder. On the other hand, pupils in the present study whose successful expectations were confirmed and who attributed the outcome to stable/internal and unstable/internal causes are not likely to engage in detrimental self judgements. These pupils have acknowledged that they are responsible for the successful outcome, and are likely to see themselves capable of facilitating future successes, (Ostrove, 1978; Valle & Frieze, 1976.

The prediction that attributions from pupils whose expectations were disconfirmed would vary according to examination outcome (expect-pass/actual-fail or expect-fail/actual-pass) were not supported although the results were in the predicted direction.

Pupils whose disconfirmed expectations resulted in a pass made stronger attributions to unstable/internal causes than those pupils whose disconfirmed expectation resulted in a failure. Pupils whose disconfirmed expectation resulted in a failure made slightly stronger attributions to unstable/external causes than those who passed.

Previous studies have tended to report strong attributions to unstable causes by subjects whose outcome expectations have been disconfirmed (e.g., Weiner, Nierenberg & Goldstein, 1976). The author of the present study is not aware of any studies that have drawn a distinction between disconfirmed attributions resulting in a failure, and those resulting in a success, but such a distinction would fit with the known and well reported success/failure bias (e.g., Arkin & Maruyama, 1979; Bradley, 1978).

Attributions in this section did not vary according to the causal stability explanation proposed by Weiner, Nierenberg, and Goldstein (1976). Actually, an internal locus of causality was prominent in the significant findings for confirmed expectations. Similar results were evident from observation of the results from the open-ended questionnaire, (see Tables A - C, Appendix C), suggesting that there was a strong reliance on effort as a causal attribution. Such findings are consistent with results from open-ended questionnaires used by other researchers concerned with attributions in educational settings (e.g., Frieze, 1976; Frieze & Snyder, 1980)

Sex Differences

The prediction that males would make more stable/internal attributions for success in School Certificate English than females was not supported. Surprisingly, there were no significant sex differences for success attributions. Other studies of this type have demonstrated that females more than males attributed successful outcomes to external sources (Bar-Tal & Frieze, 1977; Deaux & Farris, 1977; Frieze & Bar-Tal, 1980).

The hypothesis that males would make more unstable/external attributions for failure was supported. This finding is consistent with results from other studies. For example, Levine, Reis, and Turner (1976) and Simon and Feather (1973) both indicated that male undergraduate college students were more likely than female undergraduates to attribute their successes to internal stable causes, and their failures to unstable external causes. Dweck, Davidson, Nelson and Enna (1978) also found that males attributed their failures more to unstable external causes than females.

An additional finding of interest is that in the present study males also made significantly more stable/internal attributions for failure than females. The former results concerning failed pupils is in keeping with the author's prediction, however, the latter is not. These results suggest that males in the present study who failed the examination considered there to be both stable and unstable, internal and external causes affecting their performance. Past studies have not revealed several significant causal attributions for a task outcome which were classified at opposite poles of the dimension of stability, and the locus of causality di-

mension. However, it is important to note that none of the studies reviewed in this thesis which were carried out in school settings, utilized an examination on the subject of English as the task. Furthermore, it is important for the purposes of this discussion to note that some investigators have advanced evidence that males and females differ in their preference for English as a subject. Jackson (1979), for example, noted that females more than males preferred English as a subject. Further, the Department of Education (1982) indicated that significantly more females than males passed the School Certificate English examination in 1981. Males' lower preference for English as a subject, and their lower performance than females in English may contribute to their internalyzing their failures. Hence, the stable/internal attributions offered by males in the present study for failure in School Certificate English.

Inspection of the male/female results from the open-ended section of the questionnaire indicated that both males and females considered stable effort to be the most important cause of outcome.

An additional finding from the structured questionnaire was that males attributed their results more to all four dimensions (stable/internal, stable/external, unstable/internal, unstable/external) than females for both pass and failure outcomes (see Table 8). Thus by responding toward the Very Strong Effect end of the scale, males indicated that all causes affected their outcome in School Certificate English. The existence of this response bias is of concern because of its implications for sex-related research. Such a response set has previously been reported only recently (Hesketh, 1983). Limitations in the design of previous studies

may account for the absence of a response bias in earlier reports. For example, most of them were carried out in a laboratory setting, or involved non-academic tasks or hypothetical situations.

Ethnic Differences

Surprisingly, the prediction that Maoris and Pakehas would differ in the causal attributions they offered for their results in School Certificate English was not supported by the results from the structured or the open-ended sections of the questionnaire. There was no significant difference in causal attributions offered by Maoris for their successes and failures and those offered by Pakehas. On the basis of the studies reviewed, it was considered that Maoris' causal attributions for success and failure would differ from Pakehas. However, one should note that none of the authors quoted in the Review of Literature investigated the topic which was the basis of the present study (self attributions by Maoris and Pakehas for an examination outcome). At best, these earlier studies provide only indirect evidence of a Maori/Pakeha difference in attributions for school examination outcome.

It is possible that Maoris in the present study did not in fact have lengthy failure histories. It was noted previously (p. 42) that there was a bias towards pupils who had been successful in the mid-year English examination completing both the Pre and the Post Examination Questionnaires, and subjects with a history of failure may have been excluded. Another possibility is that the school experience in New Zealand school results in both Maoris and Pakehas having similar perceptions of the causes of academic performance.

Nicholls (1978) reported that significant ethnic differences in causal attributions found among 7 year-olds and 10 year-olds, were non-significant among 13 year-old pupils. Thus with increased age, causal attributions offered by Maoris and Pakehas became similar. Clearly, these findings are of relevance to the present study which involved 16-17 year-old high school pupils.

In sum, the findings for Maori/Pakeha causal attributions for outcome in School Certificate English show that in the present study there was no significant difference in causal attributions offered by Maoris for their successes and failures, and those offered by Pakehas. Hence, it was encouraging to find in the present study that Maori pupils did not offer negative attributions that may be detrimental to future achievement situations.

Attributions for Success and Failure

No predictions were made for the group of subjects as a whole (male-female and Maori-Pakeha) with regards to causal attributions made for outcomes (pass or fail) in School Certificate English. However, an additional finding of interest was that causal attributions for outcome in School Certificate English varied significantly according to outcome (pass or fail). Significantly more attributions were made to stable/internal, stable/external, and unstable/internal causes by pupils who passed School Certificate English. However, significantly more attributions were made to unstable/external causes by pupils who failed School Certificate English.

These findings indicate a tendency not to take responsibility for failures, and to attribute them to unstable/external causes

(difficulty of examination and luck). On the other hand, for successful outcomes stable/internal (stable effort and ability), stable/external (easy examination, luck, and other people), and unstable/internal (unstable effort, and mood) were all considered to be important causal attributions for outcome. This is consistent with the success/failure bias which has been identified by other researchers (e.g., Luginbuhl, Crowe & Kahan, 1975), whereby on the whole successful students perceived internal factors as more important causes, and unsuccessful students perceived external factors as more important causes of their own performance.

Other studies conducted in educational settings involving tests have obtained contradictory findings. For example, Bar-Tal and Darom (1979) found that 10 and 11 year-old pupils tended to attribute success mainly to external causes and failure mainly to internal causes. Contrary to these findings, Davis and Stephan (1980) obtained results from university students which showed that success was attributed more to internal factors, while failure was attributed more to external factors. Findings in the present study are consistent with results form the latter study by Davis and Stephan (1980).

Conclusions

In the present study Fifth Form pupils whose expectations for outcome in School Certificate English were confirmed made stronger attributions to both stable and unstable internal causes than those whose expectations were disconfirmed. The direction of outcome (pass or fail) for pupils whose expectations were disconfirmed, did not significantly affect their causal perceptions.

It was demonstrated that males and females differed in their attributions for failure in School Certificate English, with males making stronger attributions to unstable/external and stable/internal causes for failure than females. No significant sex differences in attributions made for success were evident.

The data offered no support for the hypothesized differences between Maoris and Pakehas. It was encouraging to find that Maori pupils compared to Pakehas did not offer negative attributions for examination outcome.

Actual examination outcome mediated attributions, with successful pupils attributing outcomes to stable and unstable/internal factors as well as stable/external factors. Unsuccessful pupils, on the other hand, made stronger attributions to unstable/external causes.

In summarizing the findings of the present study, the following picture emerges. Fifth Form pupils on both the structured and the open-ended sections of the questionnaire attributed their results (success or failure) more to the internal dimension of effort (stable and unstable) than to any other causes. The emphasis that these pupils placed on effort is a desirable attribute because

it implies that they believe that their abilities are adequate to facilitate successful task outcomes.

This study is seen as making a unique, ecologically valid contribution to the literature on attributions, and the results from such studies have important implications for education in New Zealand. Detailed analyses of only some of the results obtained are reported here, and subsequent reports will provide further information. It is hoped that this project will stimulate further research of a similar nature.

Suggestions for Future Research

During the present study the author was occasionally aware of difficulties in assigning a cause to the appropriate dimension without knowledge of a subject's perspective. Thus it may be an advantage for future research to develop methods of attribution assessment which assess attributional dimensions as well as specific causes.

A response set among males for examination outcome was observed in the present study, and this is of concern because of its implications for sex related research. Therefore, it is important that future research, in educational settings, investigate sex differences in attributing outcomes among pupils of different age groups, for example, primary school, secondary school, and university. This may indicate whether the response bias the males in the present study displayed is evident from an early age.

The results from the present study indicated that Maori and Pakeha pupils did not differ in the causal attributions they offered for outcome in School Certificate English. However, there is a paucity of research in New Zealand investigating ethnic differences in the perception of the causes of academic performance. More research is needed investigating Maori/Pakeha causal attributions for outcomes in school settings, in the hope that it may help explain the poor performance of Maoris in the New Zealand school system.

Finally, in light of the findings of the present study, more research is clearly needed in educational settings investigating the sources to which pupils attribute the causes of their successes

and failures. Studies involving pupils of different age groups which utilize tests in different subject areas, for example, science, mathematics, or history, may contribute important information in the field of human attributions.

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APPENDIX A

SCHOOL CERTIFICATE ENGLISH SURVEY: PRE EXAM

MERYL LAWES
DEPARTMENT OF PSYCHOLOGY
MASSEY UNIVERSITY

Name _____

Address _____

School _____

Home Form Room _____

Date of Birth _____

Sex M F (circle)

Father's occupation _____

Mother's occupation _____

SCHOOL CERTIFICATE

ENGLISH QUESTIONNAIRE

On the following pages are some questions about School Certificate English. Please answer honestly according to how you really feel. This is not a test, so there are no right or wrong answers.

All these booklets will be treated as confidential. No parents or teachers will be allowed to see them.

Thank you.

This questionnaire is about School Certificate English.

What mark did you get in English on your last exam? _____%

Do you think you will pass School Certificate English? YES NO

If you think you will pass School Certificate English, DO PART A
(starting on this page)

If you think you will fail School Certificate English, DO PART B
(starting on page 6)

PART A (expect to Pass School C English)

There are probably a number of reasons why you think you might pass School Certificate English. Make a list here of the reasons why you think you might pass School Cert English. Remember to be as honest as possible. You can write up to 5 reasons.

1. _____ ____

2. _____ ____

3. _____ ____

4. _____ ____

5. _____ ____

Now, put these reasons in order of importance. At the end of each reason there is a blank. Put a 1 in the blank next to your most important reason. Put a 2 in the blank next to the second most important reason, and so on until all your reasons have been put in order.

Turn to the next page.

Numbers of the questions within each dimension are as follows:

Stable/Internal

Questions 8 14 15 16 18 19 25 26 29

Stable/External

Questions 3 4 5 7 9 11 13 20 27 28

Unstable/Internal

Questions 1 2 6 12 24 30 32 33

Unstable/External

Questions 10 17 21 22 23 31

Here are some possible reasons for why you think you might pass School Cert. English. Mark how much effect each reason might have in making you think you will pass. Just put a circle round the number that shows how strong the reason is.

Reasons why I think I will pass School Cert English	Effect these reasons might have				
	No effect	Small effect	Medium effect	Strong effect	Very strong effect
1. Because I am usually in a good mood on exam days.	1	2	3	4	5
2. Because I will try hard in my English exam this year.	1	2	3	4	5
3. Because the right questions always seem to come up in exams.	1	2	3	4	5
4. Because other people helped me in English.	1	2	3	4	5
5. Because my parents always help me during the year.	1	2	3	4	5
6. Because I listened carefully to the teacher during the year.	1	2	3	4	5
7. Because people are usually lucky on school certificate exams.	1	2	3	4	5
8. Because I have high ability in English.	1	2	3	4	5
9. Because teachers always help me with my work.	1	2	3	4	5
10. Because the English exam will probably be especially easy.	1	2	3	4	5
11. Because people are usually lucky on school certificate English.	1	2	3	4	5
12. Because I will probably be in a good mood on the day of the English exam.	1	2	3	4	5
13. Because my parents always give me encouragement.	1	2	3	4	5
14. Because I never feel nervous and anxious during exams	1	2	3	4	5
15. Because I have high ability in most subjects.	1	2	3	4	5
16. Because I got high marks last year.	1	2	3	4	5
17. Because I will probably be lucky in the English exam.	1	2	3	4	5
18. Because I have always enjoyed English.	1	2	3	4	5

	No effect	Small effect	Medium effect	Strong effect	Very strong effect
19. Because I usually care about doing well in English.	1	2	3	4	5
20. Because there is a good place to study at home.	1	2	3	4	5
21. Because this year's school certificate exams will probably be very easy.	1	2	3	4	5
22. Because my horoscope says it will be a good day for me.	1	2	3	4	5
23. Because the English exam will probably be very easy this year.	1	2	3	4	5
24. Because I will try hard in English.	1	2	3	4	5
25. Because I usually read the questions in English exams carefully.	1	2	3	4	5
26. Because I have good swotting methods.	1	2	3	4	5
27. Because I inherited high intelligence.	1	2	3	4	5
28. Because the right questions will probably be in the English exam.	1	2	3	4	5
29. Because I usually care about doing well in exams.	1	2	3	4	5
30. Because I will probably study hard for English.	1	2	3	4	5
31. Because the marker will probably make a mistake.	1	2	3	4	5
32. Because I will probably be feeling well the day of the English exam.	1	2	3	4	5
33. Because I will study the right topics for the English exam.	1	2	3	4	5

Thank you.

You have now finished.

PART B (Think I might fail School Certificate English)

There are probably a number of reasons why you think you might fail School Cert. English. Make a list here of the reasons why you think you might fail School Cert. English. Remember to be as honest as possible. You can write up to 5 reasons.

1. _____ _____

2. _____ _____

3. _____ _____

4. _____ _____

5. _____ _____

Now, put these reasons in order of importance. At the end of each reason there is a blank. Put a 1 in the blank next to your most important reason. Put a 2 in the blank next to the second most important reason, and so on until all your reasons have been put in order.

Turn to the next page.

Here are some possible reasons for why you think you might fail School Cert. English. Mark how much effect each reason might have in making you think you will fail School Cert. English. Just put a circle round the number that shows how strong the reason is.

Reasons why I think I will fail School Cert English	Effect these reasons might have				
	No effect	Small effect	Medium effect	Strong effect	Very strong effect
1. Because I am usually in a bad mood on exam days.	1	2	3	4	5
2. Because I will not be trying hard in my English exam this year.	1	2	3	4	5
3. Because the wrong questions always seem to come up in exams.	1	2	3	4	5
4. Because other people did not help me in English.	1	2	3	4	5
5. Because my parents never help me during the year.	1	2	3	4	5
6. Because I didn't listen carefully to the teacher during the year.	1	2	3	4	5
7. Because people are usually unlucky on school certificate exams.	1	2	3	4	5
8. Because I have low ability in English.	1	2	3	4	5
9. Because teachers never help me with my work.	1	2	3	4	5
10. Because the English exam will probably be especially hard.	1	2	3	4	5
11. Because people are usually unlucky on school certificate English.	1	2	3	4	5
12. Because I will probably be in a bad mood on the day of the English exam.	1	2	3	4	5
13 Because my parents never give me any encouragement.	1	2	3	4	5
14. Because I always feel nervous and anxious during exams.	1	2	3	4	5
15. Because I have low ability in most subjects.	1	2	3	4	5
16. Because I got low marks last year.	1	2	3	4	5
17. Because I will probably be unlucky in the English exam.	1	2	3	4	5

	No effect	Small effect	Medium effect	Strong effect	Very strong effect
18. Because I have never enjoyed English.	1	2	3	4	5
19. Because I don't really care about doing well in English.	1	2	3	4	5
20. Because there is nowhere to study at home.	1	2	3	4	5
21. Because this year's school certificate exams will probably be very difficult.	1	2	3	4	5
22. Because my horoscope says it will be a bad day for me.	1	2	3	4	5
23. Because the English exam will probably be very difficult this year.	1	2	3	4	5
24. Because I will probably not try hard in English.	1	2	3	4	5
25. Because I don't usually read the questions in English exams carefully.	1	2	3	4	5
26. Because I have bad swotting methods.	1	2	3	4	5
27. Because I inherited low intelligence.	1	2	3	4	5
28. Because the wrong questions will probably be in the English exam.	1	2	3	4	5
29. Because I never usually care about doing well in exams.	1	2	3	4	5
30. Because I will probably not study hard enough for English.	1	2	3	4	5
31. Because the marker will probably make a mistake.	1	2	3	4	5
32. Because I will probably not feel well the day of the English exam.	1	2	3	4	5
33. Because I will probably not study the right topics for the English exam.	1	2	3	4	5

Thank you.

You have now finished.

SCHOOL CERTIFICATE ENGLISH QUESTIONNAIRE: POST EXAM

MERYL LAWES
DEPARTMENT OF PSYCHOLOGY
MASSEY UNIVERSITY

NAME _____

SCHOOL _____

On the following pages are some questions about School Certificate English. Please answer honestly according to how you really feel. This is not a test, so there are no right or wrong answers.

All these booklets will be treated as confidential.
No parents or teachers will be allowed to see them.

Thank you.

This questionnaire is about School Certificate English.

What mark did you get in School Certificate English? _____%

If you passed School Certificate English, DO PART A
(starting on this page)

If you failed School Certificate English, DO PART B
(starting on page 5)

PART A (Passed School C English)

There are probably a number of reasons why you passed School Certificate English. Make a list here of the reasons why you passed School Cert. English. Remember to be as honest as possible. You can write up to 5 reasons.

1. _____ ____

2. _____ ____

3. _____ ____

4. _____ ____

5. _____ ____

Now, put these reasons in order of importance, At the end of each reason there is a blank. Put a 1 in the blank next to your most important reason. Put a 2 in the blank next to the second most important reason, and so on until all your reasons have been put in order.

Please turn to next page.

Here are some possible reasons for why you think you passed School Cert. English. Mark how much effect each reason might have been in making you pass. Just put a circle round the number that shows how strong the reason is.

	Reasons why I passed School Cert. English	Effect these reasons might have				
		No effect	Small effect	Medium effect	Strong effect	Very strong effect
1.	Because I am usually in a good mood on exam days.	1	2	3	4	5
2.	Because I tried hard in my English exam this year.	1	2	3	4	5
3.	Because the right questions always seem to come up in exams.	1	2	3	4	5
4.	Because other people helped me in English.	1	2	3	4	5
5.	Because my parents helped me during the year.	1	2	3	4	5
6.	Because I listened carefully to the teacher during the year.	1	2	3	4	5
7.	Because people are usually lucky on School Certificate Exams.	1	2	3	4	5
8.	Because I have high ability in English.	1	2	3	4	5
9.	Because teachers always help me with my work.	1	2	3	4	5
10.	Because the English exam was especially easy.	1	2	3	4	5
11.	Because people are usually lucky on School Certificate English.	1	2	3	4	5
12.	Because I was in a good mood on the day of the English exam.	1	2	3	4	5
13.	Because my parents always give me encouragement.	1	2	3	4	5
14.	Because I never feel nervous and anxious during exams.	1	2	3	4	5
15	Because I have high ability in most subjects.	1	2	3	4	5
16.	Because I got high marks in the past.	1	2	3	4	5
17.	Because I was lucky in the English exam.	1	2	3	4	5

		No effect	Small effect	Medium effect	Strong effect	Very strong effect
18.	Because I have always enjoyed English	1	2	3	4	5
19.	Because I usually care about doing well in English.	1	2	3	4	5
20.	Because there is a good place to study at home.	1	2	3	4	5
21.	Because this year's School Cert. exams were very easy.	1	2	3	4	5
22.	Because my horoscope said it was a good day for me.	1	2	3	4	5
23.	Because the English exam was very easy last year.	1	2	3	4	5
24.	Because I tried hard in English.	1	2	3	4	5
25.	Because I usually read the questions in English exams carefully.	1	2	3	4	5
26.	Because I had good swotting methods.	1	2	3	4	5
27.	Because I inherited high intelligence.	1	2	3	4	5
28.	Because the right questions were in the English exam.	1	2	3	4	5
29.	Because I usually care about doing well in exams.	1	2	3	4	5
30.	Because I studied hard for English.	1	2	3	4	5
31.	Because the marker made a mistake.	1	2	3	4	5
32.	Because I was feeling well the day of the English exam.	1	2	3	4	5
33.	Because I studied the right topics for the English exam.	1	2	3	4	5

Thank you.

You have now finished.

PART B (I failed School Certificate English)

There are probably a number of reasons why you failed School Cert. English. Make a list here of the reasons why you failed School Cert. English. Remember to be as honest as possible. You can write up to 5 reasons.

1. _____ ___

2. _____ ___

3. _____ ___

4. _____ ___

5. _____ ___

Now, put these reasons in order of importance. At the end of each reason there is a blank. Put a 1 in the blank next to your most important reason. Put a 2 in the blank next to the second most important reason, and so on until all your reasons have been put in order.

Please turn to the next page.

Here are some possible reasons why you think you failed School Cert. English. Mark how much effect each reason might have been in making you fail School Cert. English. Just put a circle round the number that shows how strong the reason is.

	Reasons why I failed School Cert. English	Effect these reasons might have				
		No effect	Small effect	Medium effect	Strong effect	Very strong effect
1.	Because I am usually in a bad mood on exam days.	1	2	3	4	5
2.	Because I did not try hard in my English exam this year.	1	2	3	4	5
3.	Because the wrong questions always seem to come up in exams.	1	2	3	4	5
4.	Because other people did not help me in English.	1	2	3	4	5
5.	Because my parents never helped me during the year.	1	2	3	4	5
6.	Because I didn't listen carefully to the teacher during the year.	1	2	3	3	5
7.	Because people are usually unlucky on School Certificate exams.	1	2	3	4	5
8.	Because I have low ability in English.	1	2	3	4	5
9.	Because teachers never help me with my work.	1	2	3	4	5
10.	Because the English exam was especially hard.	1	2	3	4	5
11.	Because people are usually unlucky on School Certificate English.	1	2	3	4	5
12.	Because I was in a bad mood on the day of the English exam.	1	2	3	4	5
13.	Because my parents never give me any encouragement.	1	2	3	4	5
14.	Because I always feel nervous and anxious during exams.	1	2	3	4	5
15.	Because I have a low ability in most subjects.	1	2	3	4	5
16.	Because I got low marks in the past.	1	2	3	4	5
17.	Because I was unlucky in the English exam.	1	2	3	4	5

		No effect	Small effect	Medium effect	Strong effect	Very Strong effect
18.	Because I have never enjoyed English.	1	2	3	4	5
19.	Because I don't really care about doing well in English.	1	2	3	4	5
20.	Because there is nowhere to study at home.	1	2	3	4	5
21.	Because this year's School Cert. exams were very difficult.	1	2	3	4	5
22.	Because my horoscope said it was a bad day for me.	1	2	3	4	5
23.	Because the English exam was very difficult this year.	1	2	3	4	5
24.	Because I did not try hard in English.	1	2	3	4	5
25.	Because I don't usually read the questions in English exams carefully.	1	2	3	4	5
26.	Because I had bad swotting methods.	1	2	3	4	5
27.	Because I inherited low intelligence.	1	2	3	4	5
28.	Because the wrong questions were in the English exam.	1	2	3	4	5
29.	Because I never usually care about doing well in exams.	1	2	3	4	5
30.	Because I did not study hard enough for English.	1	2	3	4	5
31.	Because the marker made a mistake.	1	2	3	4	5
32.	Because I was not feeling well the day of the English exam.	1	2	3	4	5
33.	Because I did not study the right topics for the English exam.	1	2	3	4	5

Thank you.

You have now finished.

APPENDIX B

Text of what was said to Pupils

"This survey is part of a study being done at Massey University on the reasons why school pupils think they pass or fail in exams. We all have a number of reasons we think cause us to pass or fail exams. Today we want to find out what reasons are important for fifth formers in passing or failing. This sort of study is important because the attitudes and feelings that we have about our work and exams can have quite a big effect on how well we do. The reason for the study is to educate teachers to be a bit more sensitive about school pupils' feelings about their work - rather than just concentrating on the subjects taught.

So, it's very important for everyone to answer as honestly as possible. That way we can hopefully come up with some useful ways of changing how teachers treat school pupils.

Ok, now I'll hand around the questionnaire booklet. You can start filling in the information on the cover page. I should stress that all the information will be treated absolutely confidentially. The booklets will go back to Massey University to be analysed by the computer. No one else will see them, but the computer needs your name to start with, so that it can then give each booklet a number. No names are used in the analysis. You have to fill in whether you are a male or a female because the computer can't tell from names.

Now look at the instructions on Page 2. I'll go over them while you read them to yourselves. Any questions?

Now if you seriously think that you will pass School Certificate

English, turn to PART A on page 3. If you seriously think that you will fail, turn to PART B on page 6".

APPENDIX C

Table A

Causal Attributions Listed First in Order of Importance by Pupils Whose Expected Outcome was Confirmed or Disconfirmed

	Confirmed (N=253)		Disconfirmed (N=134)		Total (N=387)
Causes	Pass-Pass	Fail-Fail	Pass-Fail	Fail-Pass	
Typical Effort	86	38	53	12	189
Task	27	8	22	3	60
Ability	25	16	16	1	58
Teacher	15	9	11	1	36
Imm. Effort	6	3	7	1	17
Acquired Characterstics	9	4	1	0	14
Family, Others	3	0	1	0	4
Miscellaneous	3	1	2	3	9

Table B

Causal Attributions Listed Second in Order of Importance by Pupils Whose Expected Outcome was Confirmed or Disconfirmed

	Confirmed (N=240)		Disconfirmed (N=116)		Total (N=356)
Causes	Pass-Pass	Fail-Fail	Pass-Fail	Fail-Pass	
Typical Effort	81	27	33	8	149
Task	32	12	17	4	65
Ability	21	11	17	0	49
Teacher	12	15	11	2	40
Imm. Effort	10	2	14	2	28
Acquired Characteristics	7	3	1	0	11
Family, Others	2	2	2	0	6
Miscellaneous	2	1	4	1	8

Table C

Causal Attributions Listed Third in Order of Importance by Pupils Whose Expected Outcome was Confirmed or Disconfirmed

	Confirmed (N=194)		Disconfirmed (N=92)		Total (N=286)
Causes	Pass-Pass	Fail-Fail	Pass-Fail	Fail-Pass	
Typical Effort	53	22	18	4	97
Task	17	15	12	2	46
Ability	19	6	21	0	46
Teacher	7	5	10	1	23
Imm. Effort	7	6	14	1	28
Acquired Characteristics	9	3	1	0	13
Family, Others	12	1	2	1	16
MIscellaneous	10	2	4	1	17

Table D

Causal Attributions Listed First in Order of Importance

For Outcome by Males and Females

	Males (N=170)		Females (N=217)		Total (N=387)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	33	49	65	42	189
Task	10	17	20	13	60
Ability	14	13	12	19	58
Teacher	4	9	12	11	36
Imm. Effort	3	6	6	2	17
Acquired Characteristics	3	3	6	2	14
Family, Others	2	1	1	0	4
Miscellaneous	3	0	3	3	9

TABLE E

Causal Attributions Second in Order of Importance

For Outcome by Males and Females

	Males (N=153)		Females (N=203)		Total (N=356)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	34	26	55	34	149
Task	13	18	23	11	65
Ability	7	16	12	14	49
Teacher	3	9	11	17	40
Imm. Effort	4	9	8	7	28
Acquired Characteristics	4	4	3	0	11
Family, Others	0	2	2	2	6
Miscellaneous	2	2	1	3	8

TABLE F

Causal Attributions Listed Third in Order of Importance

For Outcome by Males and Females

	Males (N=127)		Females (N=159)		Total (N=286)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	22	19	35	21	97
Task	7	14	12	13	46
Ability	7	13	12	14	46
Teacher	3	4	5	11	23
Imm. Effort	5	11	3	9	28
Acquired Characteristics	5	3	4	1	13
Family, Others	4	2	9	1	16
Miscellaneous	4	4	7	2	17

TABLE G

Causal Attributions Listed First in Order of Importance

For Outcome by Maoris and Pakehas

	Maori (N=36)		Pakeha (N=351)		Total (N=387)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	8	13	90	78	189
Task	1	4	29	26	60
Ability	2	4	24	28	58
Teacher	0	1	16	19	36
Imm. Effort	0	1	7	9	17
Acquired Characteristics	0	1	9	4	14
Family, Others	0	0	3	1	4
Miscellaneous	1	0	5	3	9

TABLE H

Causal Attributions Listed Second in Order of Importance For Outcome by Maoris and Pakehas

	Maori (N=34)		Pakeha (N=322)		Total (N=356)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	2	6	87	54	149
Task	4	4	32	25	65
Ability	2	4	17	26	49
Teacher	1	4	13	22	40
Imm. Effort	0	3	12	13	28
Acquired Characteristics	1	1	6	3	11
Family, Others	0	1	2	3	6
Miscellaneous	1	0	2	5	8

TABLE I

Causal Attributions Listed Third in Order of Importance

For Outcome by Maoris and Pakehas

	Maori (N=28)		Pakeha (N=258)		Total (N=286)
Causes	Pass	Fail	Pass	Fail	
Typical Effort	4	6	53	34	97
Task	1	6	18	21	46
Ability	0	2	19	25	46
Teacher	0	3	8	12	23
Imm. Effort	0	0	8	20	28
Acquired Characteristics	2	1	7	3	13
Family, Others	0	1	13	2	16
MIscellaneous	1	1	10	5	17