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A pilot survey of the attitudes towards
industrial psychology of managers, personnel
officers and management consultants in
New Zealand.

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The application of psychological principles and techniques to the work situation has been well documented (Dunnette & Kirchner (1965), Tiffin & McCormack (1966), Blum & Naylor (1968), Kolasa (1969), Korman (1971). There are however few studies which provide some understanding of attitudes towards industrial psychology and these are limited to the United States. (Feinberg & Lefkowitz (1962), Thornton (1969). In spite of the increasing number of management consultant firms in this country there is little information about the application of psychological principles to the New Zealand industrial scene. In order to gain some understanding of the current status and scope of industrial psychology, it was decided to investigate the attitudes of personnel officers, managers and management consultants.

It is expected that there will be fundamental differences between the viewpoints of the United States and New Zealand samples, especially as regards the desirability of having an industrial psychologist in the company and the assessment of influence in relation to productivity and satisfaction, because of the smaller work force, national employment policies, the educational level of the respondents and a lack of information in regard to the nature of industrial psychology.

The United States population is approximately seventy times greater than the New Zealand population. Because of this much smaller work force and the consequent larger number of smaller firms (i.e. of less than 500 employees) there is expected to be less demand for the industrial psychologists to be employed full time within a company. New Zealand has endeavoured to maintain a full employment policy for many years with a shortage of labour whereas the United States' abundant labour supply is coupled with chronic unemployment. One expected consequence is that this competition for employment will result in more emphasis on qualifications preferred when job seeking. It is therefore, expected that the United States respondents will be better qualified in such areas as personnel administration, thus having more understanding of psychological principles and more awareness of the contributions of industrial psychology. It is hypothesized that significantly

more United States than New Zealand personnel officers would consider it desirable to have a professionally trained industrial psychologist in the company. Management would be similarly affected by the greater number of larger companies and the employment situation which results in many applications for each situation, with the best qualified in all fields, including both the business administration and the human relations aspect of management, obtaining the position. It is thus expected that managers in the United States would also have an awareness of the contributions of industrial psychology to industry and it is hypothesized that significantly more United States managers than New Zealand managers would be prepared to hire an industrial psychologist.

Although an Institute of Management Survey (1968) reports a steady growth in the establishment of personnel departments with more responsibility being taken for staff training than previously, there does not appear to be a corresponding growth in available information or training courses. In 1942 the Department of Scientific and Industrial research started an industrial psychology division using the services of psychologists attached to the University colleges to investigate such areas as working environment and personnel duties. The results of their studies were made known to managers through lecture courses. This department was closed down in 1954 and since then there has been no coordinated industrial psychology organisation for either research or teaching. Thus there is no government support for an organisation for the dissemination of information essential not only to industry but to all work situations.

It is suspected that the New Zealand respondents will have less tertiary qualifications than the United States sample. The Institute of Management reports (1968) that the profession of personnel management in New Zealand at present includes too few people whose minds have been trained in tertiary education and it is expected that the management sample will reveal the same shortcoming, especially when Hanley (1966) reports that training for management has still not been accepted by all employers. The only available training facilities offer a narrow coverage. The personnel component of a New Zealand Institute of Management

3.

certificate is one sixth ($\frac{1}{6}$) of the course requirements.

Its advantage is that it does not have a pre-entry requirement of a previous degree and while the content is inadequate as a personnel qualification, it may provide some understanding for the many company secretaries, works and factory managers and even accountants who must take on the responsibility for personnel management in companies too small to employ personnel staff.

The business administration course at Victoria University offers papers in the theories of management and organisation, as well as behavioural analysis i.e. the sociological, psychological and organisational factors affecting people in the work situation, which account for half the course requirements of the first year. Optional papers of personnel management and the psychological aspects of labour relations may be chosen in the second year, but the emphasis is on managerial economics. Despite this, this course offers more industrial psychology than obtainable elsewhere, but entry is restricted to graduate students and it is suspected that this would preclude the majority of people employed as managers and personnel officers. Because so little is proffered in the way of industrial psychological education, it is hypothesized that there is in New Zealand industry, little knowledge of the work scope of industrial psychologists.

This hypothesis is further reinforced by a content analysis of the most widely circulated business publications in New Zealand over the years 1967-1970, which revealed that articles of a psychological slant were outnumbered fifty to one by articles referring to company law and taxation problems. (Place 1971). Money behaviour receives more emphasis than human behaviour. There is a noticeable trend towards the publication of advice from management consultants. None of the 1967 articles referred to the work of management consultants or were written by them but by 1970 they were contributing nearly every month an article related to some facet of industrial psychology. This would indicate that business firms are becoming more aware of the services which are offered by industrial psychologists working within management consultant firms.

The articles related to industrial psychology were further analysed and grouped according to content. The largest category (43%) is related to the selection and deployment of staff as ably

as possible while the second largest grouping is concerned with consumer behaviour and salesmanship (19%). Efficiency in decision making was accorded 17% of articles, industrial relations and incentive schemes 9%, production efficiency 6%, and descriptive psychological i.e. of the understanding of human behaviour type 6%. The major emphasis is on personnel selection and training. Findings of industrial psychology in the areas of motivational factors in work performance, job satisfaction, organisational analysis and leadership are rarely referred to. Since there is such an overwhelming preponderance of the financial rather than the human relations aspect of management, it was considered that there would be little knowledge of the contributions of industrial psychologists in the areas of worker productivity and satisfaction.

In order to further investigate attitudes towards industrial psychology it was decided to investigate the leadership beliefs of New Zealand managers. Lewin, Lippit and White (1947) report the differing reactions of group members to authoritarian and democratic leadership in which hostility and aggression characterizes the autocratic group and co-operation and friendliness the democratic group. Since then, such studies have been extended into the work situation. MacGregor (1960) contrasts the traditional strongman type of leadership, from the viewpoint of increased performance, with the participative decision-making democratic leadership which encourages the development of selfcontrol to replace coercive authority. Psychological research evidence from a wide variety of work situation studies as presented by Likert (1961) is supportive of McGregor's views that general rather than close supervisory practices are associated with high producing groups. Tannenbaum (1966) argues that increasing the amount of control in an organisation by giving subordinates an opportunity to exert internal control over their job content (as opposed to being exclusively directed by external control of leaders and supervisors) will increase motivation and identification and consequently job performance. It is clear from the evidence presented that there exists a performance differential related to the type of leadership employed by the supervisor and that leadership practices can be thought of as a continuum with the ends of the scale designated by Haire, Ghiselli and Porter (1963) as dictatorial and

authoritarian or democratic and participative.

These research findings uphold the superiority of democratic over authoritarian leadership not only in regard to performance but also as to the morale of employees. Likert (1961) demonstrated this when, in studying the high performance groups, he found that the supervisors with the best record of performance focussed their primary attention on the human aspects of their subordinate problems and used an employee centred democratic type of leadership. Industrial psychology has provided the evidence that democratic participative leadership, oriented towards the development of internal controls by employees, is preferable to directed coercive supervision. This shift to acceptance of democratic beliefs is a consequence of the dissemination of research findings of recent years which have highlighted the unsatisfactory results of authoritarian management and it is expected that the degree of acceptance would be related to held attitudes towards industrial psychology. It was therefore hypothesized that a democratic score on the leadership scale would be related to a favourable attitude towards industrial psychology,

There is evidence (Vroom 1964) that the type of leadership called participative-democratic is more consistently related to higher job satisfaction than the type of leadership called authoritarian-directive. It thus seemed likely that job satisfaction beliefs, as well as leadership beliefs, of managers would influence attitudes towards industrial psychology. It has become apparent that although various environmental variables such as occupational level, job content and supervisory practices have been able to explain a considerable amount of variation in job satisfaction they are not the whole answer.

McGregor (1966) cites the importance of the social motives of human beings and puts forward the idea that people are capable of self-direction, self discipline and self control and therefore do not need to be rigidly directed in every phase of the work situation according to the traditional tenets of management. He advocates increased participation and personal involvement for the satisfaction of individual as well as organisational goals. Argyris (1962) has examined industrial organisations to determine what effect management practices have had on individual behaviour and personal growth within the work organisation.

He concluded that directed controlled management is widely practised and that the widespread worker apathy and lack of effort he encountered in industry was not the result of individual laziness, but that people are kept from maturing by management practices in which they are given minimum control over their environment and are encouraged to be passive, dependent and subordinate. The directive task-oriented leadership where decisions about the work are made by the supervisor and carried out by the subordinates, restricts creativity and initiative by creating a childlike dependent role which frustrates natural development.

Argyris, as did McGregor, challenges management to provide a work climate in which everyone has a chance to grow and mature as an individual by satisfying their own needs while working for the success of the organisation. Since man can be self directive and creative at work if properly motivated, a management based on participation and personal involvement will be more effective for both the individual and the organisation. Personal involvement as envisaged by Argyris and McGregor, is defined as interest in the job, the sense of pride in accomplishment given by the job and the amount of responsibility desired in the job. These are powerful motivators at the higher need levels of self-esteem and self-actualization which are so important to personal growth and satisfaction in contrast to wages and job security which are more related to the lower level security needs. Wages are viewed as a necessary component of overall job satisfaction but are not sufficient alone to ensure complete satisfaction. The findings of Maslow (1954) Argyris (1961) and McGregor (1966) show how important for personal growth and maturity is the satisfaction of these higher level needs in the work situation.

9 Since understanding of this need - motivation - satisfaction intermingling is considered to be the major contribution of industrial psychologists over the last decade, it was hypothesized that, of the managers who viewed the psychologist as contributing usefully to job satisfaction, there would be significantly more who ranked personal involvement of first importance to their employees rather than ranking wages of first importance.

CHAPTER 2.

RESEARCH DESIGN.

Sample Selection.

A random sample of managers was selected (1 per 1000 entries) from the New Zealand Business Who's Who. The sampling was stratified to give proportional representation over the five main centres of Auckland, Wellington, Christchurch, Dunedin and Hamilton.

Since the number of listings of management consultant firms was small it was decided that random sampling would produce an inappropriately small number, so all firms listed were approached.

A random sampling was not used for the personnel sample as New Zealand does not publish a listing of personnel officers similar to that used to select the United States sample. It was decided to compile a list from the newspaper situations vacant advertisements of firms which asked the applicant to apply to a personnel, employment or staff officer. This involved a six weeks perusal of the newspapers of the five main centres in order to obtain as comprehensive a sample as possible.

Questionnaire Design.

The questionnaires, which are given in appendices B, C and D, were designed to elicit the demographic details of age, education and position occupied by the respondents as well as the type of industry engaged in, and number of employees.

Opinions were sought as to the desirability of hiring industrial psychologists, and whether their services would be useful in increasing productivity and satisfaction. Personnel officers were asked to rate subareas as to past value, usefulness in future and research needed. Managers were asked which of these areas they considered to be of most importance to their company while management consultants were asked for which of these areas their services were most often requested.

The leadership beliefs of New Zealand managers were investigated by using an instrument developed by Haire, Ghiselli and Porter (1963) where each respondent was asked to answer eight questions on a Likert type scale from strongly agree to strongly disagree. Job satisfaction beliefs were ascertained by asking managers to rank order ten job satisfaction beliefs, as defined by Cameron (1969)

According to how they considered their employees would rate them in importance. A free response section was included to allow insertion of the respondents reasons for considering that industrial psychologists do, or do not, make a useful contribution to industry in general and to New Zealand industry in particular.

Since the answers to a mail questionnaire must be accepted as final and there are no opportunities for checking responses, the questionnaire was pre-tested on a trial survey in order to ensure that ambiguous and vague phrasing were removed and that the meanings of the areas relating to industrial psychology were fully understood. It was found that the phrase "human factors engineering" was not understood and required further explanation.

Procedure.

In consideration of available time and resources a mail survey was deemed the most suitable approach to the selected samples. It was planned to remove bias from non-response as far as possible by sending a preliminary explanatory letter and initial questionnaire, a follow up letter, a second letter and questionnaire and a final follow up and letter of thanks. Respondents were assured of anonymity and stamped addressed envelopes were enclosed for questionnaire return.

Statistical Analysis.

Frequency distributions were calculated for demographic data which was then presented as percentages in table form.

Using the scoring system developed by Haire et al (1963) for use with their leadership belief scale a democratic or authoritarian score is computed for each respondent. Haire et al also grouped the statements into four categories on a priori grounds, and a mean rating for each category is calculated to enable comparison of New Zealand manager beliefs with those of the United States sample. The scoring system, as well as the category divisions, is outlined in Appendix E. The statements are also considered individually to enable consideration of the percentage of respondents who agree or disagreed with each statement.

The job satisfaction beliefs of New Zealand managers were ascertained by computing a mean rating for each aspect and then ranking these ratings in order of importance.

The comments of respondents were rated by a panel of ten graduate students and faculty of the psychology department as to degree of favourable or unfavourable attitude towards industrial psychology. A mean rating was computed for each comment, which was then designated as either favourable or unfavourable.

Since the data is of a nominal character, the non-parametric Chi-square test for significance, using the mean checking response for that category as the expected value, is used to test the hypotheses. The selected region of rejection is the 0.05 level.

CHAPTER 3.RESULTS.Response Rates.

A 76% response rate, with 65 useable questionnaires, was obtained from personnel officers, while returns from 70 managers constituted a response rate of 64%. Replies from 19 management consultant firms formed a response rate of 83%. A comparison of response rates of the three samples is shown in Table 1. An investigation of respondents and non-respondents as regards type, size and location of industry did not reveal any significant differences.

Subjects. Demographic Data.

The demographic and descriptive information size of firm, type of industry and education of respondent is depicted in Tables 2 - 5.

In age range the New Zealand and United States samples are similar, with personnel officers and managers typically in their 30's and 40's. Management consultants are a decade younger, the majority being in the 20 - 29 age group. Educational differences are revealed between the New Zealand and United States samples, as well as between the New Zealand samples. Thornton (1969) reports 54 % of the United States personnel sample as having university degrees and 43% with training in industrial relations or business administration. Of the New Zealand respondents, 19% have university degrees and 17% have qualifications in personnel management or industrial administration. 25% of the managers and 55% of the management consultants have university degrees.

Over half the firms sampled employed less than 500 and the progressive decline of larger firms in the sample is considered representative of New Zealand industry, where very large firms of over 10,000 (as used in Feinberg & Lefkowitz's sample (1962) are rare. The United States sample centres on the 1000-4999 group, designated as medium sized firms, but this number of employees constitutes a large firm by New Zealand conditions. Within the firms sampled there was represented a range of union activity, incentive scheme use, shift work and size of personnel department. The positions occupied by personnel officers, managers and management consultants within their respective firms are shown in Tables 6, 7 and 8.

Responses of Personnel Sample.

In the personnel sample the majority of respondents are the personnel officers of their employing company, while others are known variously as planning, employment, welfare or labour officers, personnel controller or manager of industrial relations. These findings are in agreement with the Institute of Management survey (1968) report that personnel manager and personnel officer are titles most widely used for the head of the personnel function. Of the firms sampled twentysix (40%) used an incentive scheme, 29% were responsible for employees at other branches and all but two reported varying degrees of union activity. The size of the personnel department varied from the sole charge personnel officer to the largest department of thirty five members, which included industrial nurses, creche staff and training officers. The 1968 survey had reported the largest department as employing twenty members. There appears a growth in personnel services since then with five firms reporting a staff of from 20-25.

Respondents were asked to check which areas of personnel work occupied most of their time. The results, expressed as percentages are shown in Table 9. Labour relations, both between management and employees, and amongst employees, are the major concern of the personnel officer occupying 33% of his work load. The "other" category covers the items added by respondents, and includes the administration of superannuation and sick pay, housing and immigration, union negotiations and manpower planning. From a selection of specific areas of industrial psychology the respondents were asked to check the areas in which they considered the work of industrial psychologists had benefitted industry in the past; those which they considered would be of benefit in the future; and those areas which would benefit by further research.

The most frequently checked areas of past value are managerial selection (64%), employee selection (58%), safety and accident prevention (40%). A comparison of New Zealand and United States ratings, shown in Tables 10, 11 and 12, shows that the United States samples followed a similar pattern with managerial selection (47%) and personnel selection (42%) but with managerial training (32%) in third place. Only 4% saw any past usefulness in the area of safety and accident prevention.

In regard to usefulness in the future, managerial selection (58%) is still seen as important by the New Zealand sample, but employee motivation surveys (50%) are checked more frequently than safety and accident prevention (48%). In the United States sample, employee motivation surveys are rated as most useful (60%) followed closely by managerial selection (59%) and managerial training (59%).

New Zealand personnel officers consider that research is needed in employee motivation surveys (47%) managerial selection (39%), and managerial training (39%). Ratings differ most in the area of safety and accident prevention, which is seen by the New Zealand sample as of importance in the past and future as well as needing future research, but the United States sample considers safety and accident prevention of minor importance in each category. There has been a considerable body of government legislation, particularly in the immediate postwar years, which delineated suitable working conditions and set up factory inspections to ensure that safety conditions are satisfied. Since then union pressure has also helped to maintain satisfactory working conditions. It is considered that this expressed dissatisfaction with the past contributions of safety and accident prevention findings and the need for future research is symptomatic of latent needs. It is suggested that personnel officers are approached by workers with complaints about the working conditions and that, concerned as they are with their welfare, they interpret this as a need for work in regard to safety and accident prevention, but it is rather the outcome of lack of understanding of, and thus consequent neglect of, the psychological components of job satisfaction.

Responses of Management sample.

The management sample covers a range of management levels, half the sample being the general managers of their firms, 29% the managing directors, with the other respondents designated as branch and works managers, production director and company secretary. Of the firms sampled 41% used an incentive scheme and 30% had at least a quarter of their employees on shift work.

Respondents were asked to check the areas of industrial psychology they considered most important for the company and the results are entered in Table 13. Rated as most important were managerial selection and training (54%), labour relations (52%), employee motivation/attitude surveys (44%) and employee selection and training (43%). Only 22% checked production efficiency as important. When it is considered that efficiency in production is undoubtedly important to every company, this seems a low figure but this is probably because production efficiency is not viewed as coming within the scope of the industrial psychologist. This low rating may also be allied to the finding that only 46% of the sample considered the psychologist to contribute usefully towards increasing productivity.

Both personnel officers and managers (61%) in the United States sample placed more emphasis on employee motivation surveys. This is considered to be due to a greater dissemination of psychological research information in the United States through managerial training courses. The emphasis of the New Zealand sample on labour relations may be a result of the lack of trained personnel staff, forcing this to be a part of management duties rather than the responsibility of a separate personnel department.

Respondents were asked if they had ever used the services of a management consultant firm as it was considered that this would be the only way of obtaining psychological services to industry in New Zealand and 61 firms (87%) answered in the affirmative. The reasons for which such services were required are listed in Table 14. Some financial advice has been sought but the majority of services provided cover areas pertinent to industrial psychology, the main contribution being for selection and training of personnel. The "other" category covers additional areas inserted by respondents and include plant relay-out, market research, organisational analysis, salary reviews, profitability report and executive counselling. Feinberg and Lefkowitz (1962) report of the United States that "the executives in our sample never hired a psychologist to deal with broad categories such as research or organizational structure. It would seem that education is needed to help industry view more favourably the role of an industrial psychologist as a general problem solver in market studies and advertising". (P110).

There appears a small beginning in these areas in New Zealand.

Responses of Management consultants.

Of the management consultant firms 69% are wholly New Zealand owned with 58% in operation for ten years or less. From a selection of subareas of industrial psychology, respondents were asked to check those areas for which their services were most often requested, and what they considered to be most important to the New Zealand industrial scene. Results are summarised in Tables 15 and 16. Management consultants report that their services are most often sought for managerial selection (63%), cost reduction (47%) and employee selection (47%). The considered most important for New Zealand managerial training (69%), employee training (58%) employee selection (58%) and managerial selection (53%).

The desirability and usefulness of the industrial psychologist.

63% of the personnel officers inserted additional comments, of which 56% were rated as favourable and 44% as unfavourable. A much lower proportion of managers (42%) added extra comments and 60% of these were favourable and 40% unfavourable. The lower response by managers is considered to be due to the greater lack of information expressed by the management sample. The unfavourable attitudes expressed were equally divided into three areas. Any contribution which the industrial psychologist could make was negated by lack of practical experience in the work situation; their services were considered of only marginal usefulness to the firm and companies in New Zealand are too small to absorb the costs of employing a full time psychologist.

Comments rated as expressing favourable attitudes were characterised by an acceptance of the theoretical background of research findings in "understanding people" as of more importance than the practical qualifications of trades apprenticeship or technical training. It was considered advantageous to have an industrial psychologist in the company, especially as there is felt to be a lack of qualified personnel staff. Some respondents considered that because of the importance of contributions made in the area of labour relations, the industrial psychologist should become part of the management team. Unlike the personnel officers, the managers did not express concern that the small size of many New Zealand companies prohibited the employment of industrial psychologists, but rather the favourable comments stressed their usefulness as consultants in bringing specialized knowledge and training to bear on problems relating to people in industry.

In response to the question of whether they consider it desirable to have an industrial psychologist in the company, 31% of New Zealand

managers answered yes, with 57% against, whereas, Lefkowitz and Feinberg (1962) report 60% United States managers answering yes, and 34% against. For the New Zealand personnel sample 22% answered yes and 62% no, while Thornton (1969) reports that for United States personnel officers the results are 53% for and 43% against. A comparison of findings is presented in Table 17. It was considered that these proportions would be significantly different. It was hypothesized that a significantly greater proportion of United States than New Zealand personnel officers would consider it desirable to have an industrial psychologist in the company. Using a one tailed Chi-square test for two independent samples, the obtained value of $\chi^2 = 20.56$, with d.f. = 1, is significant at the 0.001 level, and rejects the null hypothesis that there is no difference between the samples. It is accepted that a significantly greater proportion of United States than New Zealand personnel officers consider it desirable to have an industrial psychologist in the company.

It was hypothesized that a significantly greater proportion of United States than New Zealand managers would be prepared to hire an industrial psychologist. A one tailed Chi-square test for two independent samples, with an obtained value of $\chi^2 = 8.91$, d.f. = 1 is significant at the 0.01 level and rejects the null hypothesis that there is no difference between the samples. It is therefore accepted that a significantly greater proportion of United States than New Zealand managers are prepared to hire an industrial psychologist.

Respondents were asked to consider the usefulness of the psychologist's contribution to industry and the results are summarized in Table 18. 34% of the management sample and 28% of the personnel officers considered the contribution was useful, as did a further 15% of personnel officers so long as theoretical background was coupled with practical experience. The percentage of respondents who considered that the psychologist's contribution was not useful was low but the survey revealed a number of respondents who added the comment to the questionnaire that they could not answer the questions because they did not know about their work. Thus 47% of the management sample and 34% of the personnel sample admitted so little knowledge of the work of industrial psychologists that they could not decide whether or not the industrial psychologist made a useful contribution to industry.

It was therefore decided to see if there was a significant difference between these proportions. The management and personnel responses were combined to form three samples; the sample

which answered yes to the question of the usefulness of the psychologist's contribution to industry (N =52); the sample which answered no (N=28) and the sample which stated that they did not know about the work of industrial psychologists (N=55). It was hypothesized that there would be a significant difference between the proportion of respondents who answered yes, no, or who did not answer because of lack of information, the question of the usefulness of the psychologist's contribution to industry.

A Chi square three sample test (two tailed, d.f. = 2) gave a value of $\chi^2 = 9.8$, which is significant at the 0.02 level. The null hypothesis that there is no difference is thus rejected and it is concluded that there is a significant difference in the proportion of respondents in each sample. It is considered that lack of information is an important variable influencing the attitudes of New Zealand managers and personnel officers towards industrial psychology. The limitations of a mail survey approach are revealed with this question. Interviews with respondents may have helped to find out why the question as to the usefulness of the contribution to industry was not answered by so many when a high proportion of respondents felt able to answer the question about past usefulness and future research areas.

Job Satisfaction Beliefs.

The percentage of management respondents who agreed or disagreed with each of the leadership belief statements is summarised in Table 22. A χ^2 one sample test was used to test the significance of differences in agreement and obtained values are also entered on Table 22. The data was further analysed in terms of the democratic or authoritarian score assigned to each respondent. Of the New Zealand sample, 40 (57%) were designated as holding democratic beliefs and 30 (43%) as holding authoritarian beliefs.

It was hypothesized that a democratic score on the leadership scale would be related to a favourable attitude towards industrial psychology. A favourable attitude is operationally defined as the respondent would hire an industrial psychologist and considers that the industrial psychologist makes a useful contribution to industry.

According to their score on the belief scale respondents were assigned to either the democratic or authoritarian belief groups, to form two independent samples whose attitudes were compared.

It was hypothesized that a significantly greater proportion of managers with a democratic score would hire an industrial psychologist than would managers with an authoritarian score. A Chi-square test of significance gave a value of $\chi^2=0.546$, d.f.=1, $P>0.05$. This result was not significant and the hypothesis that favourability of attitude in regard to the hiring of an industrial psychologist would differ according to the democratic or authoritarian beliefs of the respondent was not accepted.

It was hypothesized that a significantly greater proportion of managers with a democratic score would consider that the industrial psychologist makes a useful contribution to industry than would managers with an authoritarian score.

A Chi-square test of significance gave a value of $\chi^2=0.532$, d.f. = $P>0.05$. This result was not significant and the hypothesis that managers with a democratic score would be more likely than managers with an authoritarian score to view the psychologist as making a useful contribution to industry was not accepted.

It is suggested that although the scale does discriminate between authoritarian and democratic beliefs, this survey has revealed such a general lack of information about psychological services to industry, apart from personnel selection and testing, that the hypothesized relationship between beliefs and attitude favourability was unable to be confirmed.

The rank ordering of job satisfaction beliefs, by New Zealand managers according to the way they considered their employees would view them in importance is shown in Table 20, where a comparison is made with the rankings of an Australian employee sample (Cameron 1970).

It was hypothesized that there would be a significantly greater proportion of managers viewing the industrial psychologist as contributing to satisfaction ranking personal involvement of first importance to employees, than managers ranking wages of first importance.

A one tailed Chi-square test gave a value of $\chi^2=2.947$, d.f.=1 which is significant at the 0.05 level, and the null hypothesis is rejected that there would be no difference in attitude toward

The satisfaction contribution of industrial psychologists between managers ranking personal involvement or wages as of first importance.

It is suggested that respondents who rank personal involvement of prime importance are more familiar with psychological contributions in the area of job satisfaction, have accepted these findings and therefore consider that a useful contribution has been made by industrial psychologists. The employees of Cameron's (1970) Australian sample ranked personal involvement first in importance but low in satisfaction, while the managers rated wages and security first, as did the New Zealand managers.

To test whether there was a correlation between the rank ordering of job satisfaction beliefs by an Australian employee sample and the rank ordering of a New Zealand manager sample a Spearman's coefficient of ranked correlation was used to give a value of $R_s = 0.176$, $t=0.506$, which was not significant.

It would appear that managers have a misconception about the satisfaction priorities of their employees but it must be emphasized that the samples used are in different countries. Unfortunately no data is available in regard to the job satisfaction beliefs of New Zealand employees and more research needs to be undertaken in this area. Achievement, recognition and responsibility are seen uniformly to be more important for both satisfaction and dissatisfaction in the work situation, while less important are salary, working conditions, company policy and security. (Dunnette, Campbell & Hakel 1967).

The sample's interpretations of some of the less important factors which contribute to job satisfaction are in agreement with the findings of Cameron (1970) and Dunnette et al (1967), but there is less understanding overall of the importance that employees place on personal involvement with their job. It is suggested that the ranking of wages of first importance shows a lack of information in the area of motivation and satisfaction and especially of the work of Likert (1961) of the investigation of factors differentiating low and high producing groups. It was expected that managers familiar with industrial psychology reports would relate personal involvement and psychological contribution to job satisfaction, and would not see monetary rewards as being the most important motivators for their

subordinates. It is true that employee dissatisfaction with monetary rewards is loudly expressed and strikes are apparently centred around pay awards, but Stagner (1963) points out that there is, more often than not, a latent component in the expressed cause of grievance.

Leadership beliefs of New Zealand Managers.

As a corollary to the investigation of types of incentive schemes in use in New Zealand, and the possibilities of using Scanlon plan participative schemes, it was decided to investigate the beliefs of managers as to the type of leadership needed to get work done efficiently and well.

In order to investigate managerial attitudes towards leadership, Haire, Ghiselli & Porter (1963) developed a questionnaire which consisted of eight statements to which managers were asked to respond by checking a point on a 5 point scale from "agree strongly" to "disagree strongly". The statements and scoring system is shown in Appendix E. The ends of the scale are described as "dictatorial or authoritarian" and "democratic or participative".

The eight items are grouped into four categories designed to represent concepts in the human relations idea of the manager as a manager of people. The categories are the belief in the individuals innate capacity for initiative and leadership; the belief in participative management and the belief in internal control (essentially self-control of the individual flowing from commitment to the job) rather than external control (punishment, rewards.) Haire et al consider that the first category is an essential first step to the other three, for the basic reason for adopting shared objectives, participation, and internal control, is the belief that individuals have a capacity for initiative and leadership that is untapped by a formal hierarchical command type of organization. Results of investigations in 11 countries show that there is universally more acceptance of what Haire et al call "the higher order concept of management" than there is of the basic belief that the individual has initiative and leadership capacity. In all countries the responses to the first category are different from any other of the categories. This difference was also found by Clarke & McCabe (1970) with an Australian sample.

A comparison of the mean ratings for each category for the United States, Australian and New Zealand samples is presented in Table 21. It will be noted that New Zealand managers also share the conflict situation in which the managers fundamental belief is that the individual's capacity for initiative and leadership is limited, but there is also a leaning towards being democratic and believing in the worth of the individual.

Table 22 shows the percentage of respondents in agreement and disagreement with each statement. It is noted that there is major agreement with statements 6 (group goal setting), 3 (use of rewards) and 4 (influence on subordinates), indicating an awareness of the importance of group processes, participation and self-direction rather than coercion, and some expectation of upward communication.

Rejected overwhelmingly are the ideas that the superior should give his subordinates only that information which is necessary for them to do their immediate tasks and that the supervisor's authority is primarily economic. Contrast this with the strong disagreement that leadership skills can be acquired by most people. There are significantly more respondents agreeing than disagreeing with the statement that the average human being prefers to be directed, wishes to avoid responsibility and has relatively little ambition. These results uphold the differences which have been found in other countries in regard to a belief in participation accompanied by unwillingness to accept that subordinates can act responsibly and display initiative when actually given participatory opportunities.

Using Haire's leadership scale, Vears (1963), in an Australian study, showed that managers became significantly more democratic as the result of a management course but reverted to former patterns when they returned to their work situation.

It is suggested that general cultural forces such as participative child rearing and educational programmes, are reinforced by specific management training which has encouraged managers towards democracy without altering their basic assumptions about human nature.

Although managers may approve of participative and democratic management they may also have to contend with the authoritarian beliefs of other people in their work place. Managers may encourage their subordinates to use their initiative in planning their own work, but find that their efforts to introduce participative methods frustrated

by such situational factors as the attitudes of their own superiors. It is difficult for the lower level manager to use participative methods and allow his subordinates to plan their own way of achieving the required work goals if his immediate superiors do not accept the principles of democratic management.

There appears a need for future research in this area in New Zealand. Leadership beliefs could be ascertained both before and immediately after a training course in the principles and assumptions of democratic management, as well as some months after the trainee has returned to the work situation, to see if the significant differences which Vears found also exist in New Zealand. It would be important to note whether the assumptions about the lack of ambition and avoidance of responsibility by subordinates are changed to a belief in capable self-direction.

It would be worthwhile to see if there is an overall pattern of leadership beliefs held by all the managers in an organization which is influenced by the beliefs of the highest ranking executive. Does a participative employee centred top executive employ managers with similar beliefs and does an authoritarian executive employ managers whose beliefs are also authoritarian? Are employee-centred leaders more likely to employ an industrial psychologist?

It would also be of interest to investigate what type of industries use employee centred supervision, to see if there emerges a clear differentiation between certain types of industry as regards the leadership beliefs of their managers and supervisors. If this was so, it would be easier to see where Scanlon type incentive plans could best be implemented and where they would prove most beneficial.

INCENTIVE SCHEMES IN NEW ZEALAND.

As a part of future research, it is planned to investigate the job satisfaction of employees working under incentive and non-incentive payment schemes, as well as investigating if attitudes towards industrial psychology research are such that there is an acceptable climate for the institution of Scanlon type incentive schemes to provide opportunities for personal satisfaction through participative decision making in regard to organizational goals. The incentive scheme section of the management questionnaire was designed to provide the preliminary information necessary for future research of the types of incentive schemes in use in New Zealand, the reasons for their use and discontinuance and the extent to which they achieved their desired purpose (refer Appendix C). Where possible the New Zealand findings are compared with those obtained from an Australian study (Gunzburg, 1969).

Strauss & Sayles (1967) define the basic principle of incentive schemes as the belief that employees will be more productive if their income is tied to the amount of work they turn out rather than the time on the job. The conditions they consider essential for incentive schemes are standardized work and conditions, a measurable output and an output quantity directly related to employee interests. The commonest system to fulfil these requirements is the piecework system of payment for the number of units produced. Whyte (1954) adds that incentives are used generally to provide worker motivation through the controlling of their own work pace, to add job interest to routine work, to provide increased control over labour costs and to reduce worker-management conflict. The supervisor has less need to push for higher output and the employees feel that they can vary their pace somewhat at times so long as a certain figure is produced. Both Strauss & Sayles, and Whyte agree that these theoretical conditions sound ideal but that incentive schemes have proved disappointingly deficient in practice and have been the centre of considerable labour-management friction. Whyte places the cause of friction in the lack of recognition of the involvement of human relations in the rate setting and rate changes of the incentive scheme, as well as in changes in job method and content. Strauss & Sayles consider that

difficulties are also related to coercive group comparisons between incentive and non-incentive workers, to worker-management arguments over allowances for "delays beyond control", to the impact on the union as well as a continual struggle by workers to obtain better rates.

This outline of the purposes and disadvantages of incentive schemes provides a comparative basis for the understanding of the practises and viewpoints of New Zealand managers. In this pilot survey there has been no attempt to sample the types of industry proportionately, as was done in the Australian sample (Gunzburg 1969) and where comparisons are made with the Australian findings it must be also taken into consideration that 1327 firms provided the Australian sample whereas 70 firms constitute the New Zealand sample.

Of these 70 firms, 37 (53%) reported the use of an incentive scheme, as did 541 (41%) of the Australian sample. For both samples the clothing, textiles and footwear category shows the highest percentage of firms using incentive schemes, the frequent occurrence being typical of practise in most countries. Table 23 summarises the number of responding firms using incentive schemes in each industry category. Although only 18% of Australian building firms in the sample reported using incentives, research in Sweden shows a growing use for incentives in this industry for building incentive payments expanded from 43% in 1948 to 68% in 1965. (Organisation for Economic Co-operation and development. 1967). The New Zealand building industry is underrepresented in this sample so that further research is needed to determine if there is a similar trend in this country. A comparison of the percentages of New Zealand and Australian firms using incentives in each category is shown in Table 24.

The Australian sample 69% reported that they used one type of system, 23% used two while 7% used three or more. The breakdown for New Zealand firms is shown in Table 25. Thus 51% report one system, 27% that they use two systems, and 22% use three or more. In Australia it was found that three or more systems were most likely to be used by firms with over 1000 employees. One Australian firm reported using six systems and one New Zealand firm used four - timed piece work, standard time, profit sharing and merit rating. The New Zealand pattern follows that of other countries in that piece work - on either a money or a time basis, is the most common of the various systems in use. The International Labour Organisation (1967) reports

a bias toward the use of individual incentive schemes in national settings as far apart as Denmark, Eire and Portugal. In Australia 75% of all systems covered by the survey directly related bonus payments to measured performance.

The reasons given by firms for using incentive schemes are presented in Table 26. These findings contrast somewhat with the Australian study where 35% give "increase output" as the sole reason and an additional 21% link this with some other reason e.g. to reduce production costs or to reduce labour turnover. Only 5% considered the incentive scheme to be helpful in controlling labour costs or meeting outside competition in contrast to 40% in the New Zealand sample. In regard to labour turnover 12% in New Zealand saw this as part of the purpose of an incentive scheme as against 6% in Australia. It is suggested that these differences may well arise because of the chronic labour shortage facing the New Zealand employer and the consequent competition to attract the available labour. Australia has had a steady flow of migrants for many years which has provided a more readily available labour force than in New Zealand. The firms surveyed have introduced incentive schemes for a variety of reasons, and the extent to which management considered the main purposes to have been achieved is shown in Table 27. 95% of the Australian firms are satisfied that the purposes of their scheme are achieved as against 75% of the New Zealand sample. Whereas more New Zealand companies (43.5%) report that purposes are achieved very well as against 31% of the Australian firms, there is also more expressed dissatisfaction by New Zealand firms. This somewhat less successful pattern is further seen in that 51% of the sample reported that they had discontinued incentive schemes in contrast to the 13% of the Australian sample. The number of firms which have discontinued the various types of incentive scheme is shown in Table 28. Table 29 summarises the reasons for discontinuance and Table 30 shows the length of time the scheme was in operation before being terminated.

58% of incentive schemes which were discontinued had operated for two years or less. The difficulties which lead to the termination of the incentive scheme were centred around the problems of flexible and equitable rate setting; problems from outside conditions and delays beyond the workers' control; problems from

union pressure and problems from non-incentive workers whose earnings were less. In contrast to the number of schemes which did not last long, a pattern of stability emerges when consideration is given to the length of time the successful schemes have been in operation, as shown in Table 31. The comments made by respondents whose firms successfully operated incentive schemes indicated that their initiators had given due consideration to the conditions which should be present before an incentive scheme can be introduced. Emphasis was given to the fact that productivity must be measurable and the scheme easy to administer and understand, with the employees themselves being able to see the results of their efforts and to know when they are improving their financial position without involved calculations. In addition output targets must be reviewed with agreement by the men as new methods are introduced. There was agreement among respondents that when these conditions were met, the adoption of a well engineered incentive scheme was particularly useful in industries where automation was limited and contributed to the reduction of prices to the retail sector by reducing the overhead per item through increased productivity.

Of the thirtyseven managers whose firms used incentives, 9 (25%) were opposed to their use. They considered that the quality of production tends to be reduced and therefore more supervision is required, that incentive schemes are difficult and costly to administer and they are of limited use in a large organisation as they are very difficult to equate over the total staff. One respondent commented that a badly constructed incentive scheme not related to individual effort and without flexibility to cater for changes in equipment and conditions and methods, can be a restriction rather than a means of improving efficiency. This statement sums very accurately the disadvantages of an illconsidered scheme and is probably indicative of the shortcomings of the incentive schemes which failed to last for more than two years.

One respondent commented that employee/employer relationships, work place layout conditions, and hourly pay rates are far more effective than incentives. This is the only mention made of extrinsic factors offering rewards to workers, and it is hard to distinguish cause and effect. Did the lack of these conditions affect workers' satisfaction with the scheme? Did the most successful schemes start and operate in situations where there were already good working

conditions and employee/management relations? This area needs further probing in future research, perhaps by case study analysis and comparison. There also needs to be further investigation to determine how the satisfaction of both workers and management is related to the type of scheme used. There has been no mention by any manager of the possibilities of using an incentive scheme to provide worker motivation through the controlling of their own work pace, or of providing added job interest by more involvement and responsibility in the job. Although there are more profit sharing plans reported in the New Zealand sample than the Australian sample, there does not appear to be any knowledge of such employee participative incentive schemes as the Scanlon plan. Indeed there is no awareness that the developments and changes which result from the introduction of an incentive scheme can be related to such underlying psychological variables as motivation and satisfaction as well as to the more easily ascertainable financial rewards.

In depth interviews of managers and management consultant firms in regard to job assessment procedures used prior to the introduction of schemes, as well as followup data as to the initial acceptance by employees and any labour management conflict encountered, would be beneficial for future research in regard to incentive schemes in New Zealand.

CHAPTER 4.DISCUSSION.

Differences between attitudes of United States and New Zealand personnel officers and managers as regards the desirability of having an industrial psychologist in the company, as well as different assessments of influence in relation to productivity and satisfaction are considered related to the significant lack of information about industrial psychology.

Lack of information as regards the scope and nature of industrial psychology is viewed as a direct consequence of the education of respondents. Of the personnel officers with a university degree only four have majored in psychology and of the management sample only one. Although half of the degree holders have B.A. degrees which could have included some psychology, other degrees - science, commerce, engineering, and accountancy qualifications do not usually include psychology. The Institute of Management provides the training for 32% of personnel officers and 13% of managers, and, although human behavioural relations should form a part of management training, the psychological content of the courses is minimal, with stress on personnel selection. It is true that personnel selection is a major area of the personnel officers' work, but it is suggested that there is a pre-occupation with the selection and testing aspects of psychological work, to the exclusion of awareness of developments in other areas of industrial psychology. That 19% of personnel officers and 37% of managers admitted that they could not decide whether or not the industrial psychologist made a useful contribution to industry because of lack of information, points to an alarming situation where the people responsible for personnel selection, staff training, labour relations and the management of the work force have no knowledge of basic psychological research. This appears a serious deficiency in management relations today and there is a great need for a fuller understanding of industrial psychology at management level.

The lack of experience with industrial psychologists and little information about their work scope is considered as underlying the insistence of those respondents expressing unfavourable

attitudes, for the need for practical experience. There is some awareness, but it is by no means widespread, and some acceptance, by a minority, of the research background gained by controlled and systematic studies in the laboratory and within industry.

Psychological investigation in the areas of motivation, need satisfaction, perception, group processes, learning and communication, has yielded information which provides an understanding of human behaviour in the work situation, and it is in the application of this knowledge that the psychologist can influence both satisfaction and productivity. Yet many respondents dismissed this theoretical background in favour of practical experience in the work situation. There is little acceptance of the idea that an understanding of research findings is necessary for the successful application of psychological principles in the work situation to benefit both employers and employees. If the psychologist is called upon to help in a situation of conflict as was Argyris (1962) in the electronics factory, he does not need to know how to make the product, but he does need his knowledge of human behaviour. This is, in fact, the industrial psychologist's tools of trade, but it is difficult for New Zealand managers, and even personnel officers, to see this, for they have been so long working in an economic situation with more jobs than men to fill them, and in a cultural situation where the practical do-it-yourself attitude is suspicious of theoretically derived principles.

Respondents consider that the size of the company limits the desirability of employing an industrial psychologist, whose services are regarded as too costly an overhead for the smaller firm. The industrial psychologist is seen as economic only for larger firms, but becoming more important as an increasing labour force provides more scope in staff selection. It is concluded that the industrial psychologist has a luxury status in New Zealand - desirable, but beyond the price of many. This makes his prospects greatest in a consultative capacity, for unless his work is concentrated solely in the personnel area, there is little chance of employment by an individual firm. The industrial psychologist needs to work hard to sell the knowledge his training has given him. He must overcome the apathy and inertia towards new developments; the lack of knowledge of basic psychological principles and their applications

to the work situation and perhaps the biggest barrier in New Zealand - the overcoming of the "practical hard school of experience is best" thought.

It would appear that if the industrial psychologist is to be accepted more in industry, then management would require more knowledge than they already possess of industrial psychological principles. This means that there would need to be more sources of industrial psychology information, not only at universities but also at extension courses, at technical training institutes and in the Institute of Management studies. Management consultant firms consider that management is just not aware of the industrial psychologist's role. Despite the fact that many consulting firms have been in operation for ten years and consider that business has increased significantly over the last five years, they still consider that they have to sell their services to a management suspicious of psychology and whose prime consideration is whether the benefit of using psychological services is justified in economic terms.

The undesirable attitude towards hiring of industrial psychologist's is economically based. This economic resistance may be solved by using industrial psychologists as consultants to the smaller firms. An analysis of areas of importance and research needs as expressed by the sample, provides some understanding of those areas in which the findings of industrial psychology are favourably viewed and where the work of the industrial psychologist in New Zealand industry is most likely to be in the future. The areas which are considered to offer most scope for the services of industrial psychologists in the future are managerial training, organizational analysis and employee motivation surveys.

Only 26% of the personnel sample considered that psychologists had been helpful in the area of labour relations, whereas 50% consider that research is needed as does 52% of managers. There have been important contributions in this area over the last decade and it may be that respondents are unaware of the work of McGregor (1960) stressing the psychologist's role in assessing the variance between employer/employee motives, objectives, personality and perception; of Stagner's (1961) latent content of communication; of Harbison and Coleman's

researches into the maximum and minimum expectations of each side in collective bargaining; and of the work of Eisenger and Levine (1968) who presented an example of problem solving by an oral program of discussion as replacement of an unsatisfactory written grievance procedure. There have been innovative developments in this area and it is suggested that it is not so much more research that is required but more dissemination of knowledge already acquired overseas to managers and personnel officers in New Zealand. The lack of psychological content in such tertiary qualifications as managers and personnel officers possess, is considered to place the New Zealand sample at a disadvantage in the work situation. This shortcoming will be further accentuated by a continuing lack of emphasis on psychological training in management courses. The University of Waikato is establishing a management degree in which the psychological courses are merely incidental rather than a compulsory requirement. It would appear that the mistake of ignoring the human relations component of management is perpetuated.

Although only 46% of personnel officers saw the industrial psychologist as making a useful contribution to managerial training, some 58% saw this to be useful in the future as did 54% of the managers. It is envisaged that the future will see a trend towards the importance of managerial training similar to the United States situation where 59% of the sample give it the second highest rating in importance. Since other training facilities are lacking it is considered that managerial training will be an important function of management consultant firms. If these are conducted by the psychologists in their employ, the future should see an increasing number of respondents whose attitudes towards industrial psychology will be more favourable and who will have a greater understanding of contributions to satisfaction and productivity.

New Zealand follows the United States trend, although not to the same extent, of viewing organisational analysis and employee motivation surveys of future usefulness and both of these areas will no doubt become an important part of the industrial psychologist's work. Organisational analysis was seen by only 16% of personnel officers as having benefitted by past psychological work, yet 40% of the sample considered that this was an area to benefit by future research, an increase of 24%, the largest in any of the subareas listed.

Blum and Naylor (1968) report that no trend has been more dynamic in industrial psychology during the past decade than the growth of interest in organisations. Korman (1971) also points out the emphasis which is being placed on how the organization structure affects and conditions, the perceptions, attitudes, motivations and interpersonal relations among members. Indeed the trend of recent years has been to change textbook titles from "Industrial Psychology" alone to "Industrial and Organizational Psychology", but work in this area is still comparatively new and more research is certainly needed.

Employee motivation and attitude surveys are seen to be useful in the future by 50% of personnel officers and as important to the company by 44% of managers, and second only to labour relations as to research needed. In view of the discrepancy between employer and employee views as to the important components of job satisfaction, this is indeed an important area. Too many managers hold incorrect assumptions about worker motivations and needs and believe that man invariably requires direction if he is to accomplish anything at all. It is noticeable that there is a significant relationship between a favourable attitude to satisfaction contributions of industrial psychologists and belief in personal involvement with the job. More understanding of, and more availability of, psychological research findings would no doubt influence beliefs about human behaviour.

It is suggested that managerial training in the application of research findings to the work situation is an important need, not only in New Zealand but also in the broader field of industrial psychology as a whole. Management courses may outline the advantages of supplanting Theory X by Theory Y (McGregor 1960), and the Institute of Management personnel courses do this, or give the advantages of employee centred supervision (Likert 1961) and show by case studies how resistance to change can be overcome (Coch & French 1948) or tell how participative decision making is implemented at Harwood (Marrow 1966). But there should be from within New Zealand industry, examples of these ideas in practice, and these, industrial psychology in this country has failed to provide. It is this lack that is considered to underly the failure of the democratic beliefs to relate significantly to favourability of attitude towards industrial psychology.

The attitudes of managers and personnel officers towards industrial psychology are shaped by lack of information as to the work scope of industrial psychologists and lack of knowledge of the research findings which provide the theoretical basis of industrial psychology. Hostility is expressed because it is considered that the industrial psychologist lacks experience in the practical affairs of the job requirements, because he is considered an expensive overhead unlikely to pay his way in economic terms and because his services are considered of only marginal usefulness to the firm. Favourable comments are centred on the acceptance of the psychologist's expertise in understanding people and his specialized role in applying this knowledge to the work situation for the benefit of both employer and employee. Few large firms employ an industrial psychologist full time. He is a luxury beyond the price of smaller firms. Because of this there is a growing need for specialized services provided in a consultative capacity.

Industrial psychologists may be considered a luxury but their work is vital to the wellbeing of personnel within industry as well as to the continued industrial development which is necessary for the growth and expansion of the New Zealand economy. The benefits of the application of industrial psychology research findings to the work situation are summarised by Likert (1961).

"An organization should be outstanding in its performance if it has competent personnel, if it has leadership which develops highly effective groups and uses the overlapping group form of structure, and if it achieves effective communication and influence, decentralized and co-ordinated decision making, and high performance goals coupled with high motivation. Such an organization would be expected to have high productivity; products of high quality; low costs; low waste; low turnover and absence; high capacity to adapt effectively to change; a high degree of enthusiasm and satisfaction on the part of its employees, customers and stockholders; and good relations with unions. This appears to be an ideal organization, but existing organizations can move toward this model with benefit to all. In fact, this appears to be the direction in which the high producing managers are moving". (Likert 1961 p.249).

It is doubtful if such benefits will ever accrue to New Zealand industry when what little management training that is provided, is so abysmally lacking in human relations content.

This survey has shown that there is an urgent need to provide for the requirements of industry in managerial training and in the investigation of organisational variables and employee motivation. This will not be done by firms which consider an industrial psychologist too expensive and overhead, nor will it necessarily be done by management consultants who will provide services to industry which prove most remunerative. This is more likely to be in the area of personnel selection rather than in the developmental work in applying such research findings as Likert's, which would require considerably more time and money than a consulting firm is likely to be able to absorb financially.

Developments in society make it imperative that such findings be readily available to New Zealand management. The trend in homes and schools is toward giving the individual greater freedom and initiative. This means that the person as an employee does not respond as well to authoritative control. Allied with this is the rising educational level of the work force, so that in larger companies there are increasing numbers of people with training in diverse complex technologies and highly specialized skills and professions. It is becoming increasingly important that not only should organizational leadership have the administrative skills necessary to control a financial enterprise, but that they should also have the skills necessary to manage their human resources. This means that they require adequate interpersonal and group process skills to enable their organization to provide a supportive atmosphere in which people feel valued and respected and in which confidence and trust grow. The available research findings indicate that those organisations whose management systems resemble more the participative - group form, tend to be more productive than those organisations whose management systems tend to resemble the exploitive - authoritative end of the continuum.

New Zealand is not likely to gain from such research findings while psychology remains only an incidental component of available management and personnel training in this country. While the majority of firms remain too small to employ an industrial psychologist, the onus appears to be on the government to provide the industrial psychology services urgently required by both managers and personnel

officers. There appears a need for an industrial research centre, with adequate financial resources but independent of government pressure, to conduct research into psychological aspects of New Zealand industry as well as making available the findings of overseas research through management training. Since such financial resources are unlikely to be forthcoming even though increased productivity in industry through the application of industrial psychology research findings would benefit the New Zealand economy, it is suggested that increased research grants be made to the universities specifically for industrial psychology research. While it is realized that increased financial resources for industrial research may not be forthcoming, it is considered an urgent need that existing schools of management within universities, as well as management training offered by Technical Institutes and the Institute of Management, make industrial psychology a compulsory integral part of management study.

The urgency of such study is further emphasized in the comments of Turnovsky (1971) who states that New Zealand's scarcest and most valuable resource is the labour supply. He emphasizes that in the manufacturing sector there will be a pronounced shift in the labour force towards employment in larger, more sophisticated and more complex industries so that New Zealand will be forced to make the fullest use of its human ingenuity and skill. The National Development Council targets require a faster growth in productivity than has been achieved in the past and Turnovsky considers that this will require more and better vocational training; the raising of the level of managerial competence, and in the settling of industrial problems in ways which avoid waste of resources - all areas in which industrial psychology research has contributed valuable information. But there will be little progress in any of these spheres unless people have access to the education and training which will enable them to use their abilities to the full. It is considered that the knowledge and application of research findings in each of these areas is vital, and that while higher productivity targets are being set, the National Development Council would be wise to also establish an industrial psychology research and teaching centre for both the mental and the economic wellbeing of the people of New Zealand.

Suggestions for future research.

In this pilot survey some shortcomings have emerged in regard to questionnaire design, particularly in regard to the co-ordination of information from the three samples. The questionnaires were planned to enable comparison with information already available from the United States sample. Since these had been undertaken by different individuals identical information was not available for each sample. Comparison of the New Zealand samples would have been facilitated if each sample had been asked to comment on identical subareas of industrial psychology.

The sex of respondents was omitted because it was considered to be a male sample but this assumption may have been erroneous, for women could be employed both as personnel officers and as consultants.

It must be emphasized that this is a pilot survey covering only a small sample of the private sector. It nevertheless revealed grave shortcomings in regard to the psychological component of manager and personnel officer training. Attention is drawn to the pre-occupation of respondents with working conditions, safety and accident prevention. It is considered that union efforts have obtained good working conditions in this country and it may well be that this is a symptomatic expression of the neglect of the psychological components of job satisfaction.

It would therefore be desirable in future research to survey more extensively managers' beliefs and to compare these with a large sample of employees' beliefs. There is already shown to be a discrepancy between New Zealand managers and an Australian employee sample as to the relative importance of wages and personal involvement in regard to job satisfaction. Further investigation may also show that the differing beliefs of managers and employees as to the important components of job satisfaction, is related to the emphasis placed on labour relations.

The survey shows the need to investigate job satisfaction more fully both in regard to leadership beliefs and incentive scheme operation. Although suggestions for future research relevant to these areas has been included in the appropriate sections, it seems important to find out how much professed leadership beliefs are

actually implemented in the work situation and how employees themselves view their managers in terms of authoritarian or democratic practices.

There needs to be further investigation of the content of courses organized by management consultants, in particular the amount of managerial psychology in contrast to managerial economics. Many managers appear to view the consultant with suspicion. Why is this? What have they failed to provide?

Further probing of attitudes towards aspects covered in this survey would best be done by interviewing respondents rather than relying upon the narrower confines of the mail questionnaire. This study covers only the private sector and to gain further understanding of attitudes towards industrial psychology in this country there should also be investigation of the use of psychology by the armed services, in vocational guidance and in manpower planning by such bodies as the National Development Council.

APPENDIX A. TABULATED RESULTS.TABLE 1. RESPONSE RATES.

	Managers	Personnel Officers	Management Consultants
Returned	70	65	19
Non-response	35	21	4
Not contacted	2	-	-
Not completed	3	-	-
Total questionnaires sent	110	86	23

TABLE 2.Age range of respondents expressed as percentages.

AGE GROUP	Personnel Officers	Managers	Management Consultants
20-29	11	2	23
30-39	32	21	32
40-49	37	46	29
50-59	19	24	16
60 and over.	1	7	-
	100	100	100

TABLE 3.Size of firms in sample expressed as percentages.

No. of employees.	Personal sample.	Management sample.
1-500	54 %	56 %
501-2000	32 %	26 %
2001-5000	10 %	12 %
5001-6000	4 %	6 %
	100 %	100 %

TABLE 4.

Classification of respondents according to type of industry and incentive scheme use.

TYPE OF INDUSTRY	No. of firms.	No. using incentive schemes.	% using incentive schemes.
Clothing, textiles, footwear.	16	14	88 %
Engineering, steel, sheetmetal.	38	16	42 %
Food, drink, tobacco.	23	8	35 %
Vehicles	9	4	44 %
Other manufacturing - paper, paints, plastics, softgoods, pottery.	37	17	46 %
Building & Construction.	3	1	33 %
Finance & Property	3	-	-
Retail Trade	6	3	50 %
Other non-manufacturing	16	14	88 %
TOTALS	135	67	49 %

TABLE 5.EDUCATION OF RESPONDENTS.

Qualifications	Management Sample	Personnel Sample	Management Consultants.
No additional quals. since school	17 %	14 %	-
Technical training or Trades apprenticeship	17 %	12 %	-
Institute of Management	13 %	32 %	13 %
Diploma personnel management or industrial administration.	1 %	17 %	-
Accountancy	22 %	6 %	12 %
University degree	25 %	19 %	55 %
Engineering	4 %	-	10 %
Institute of Secretaries	1 %	-	5 %
Diploma Teaching	-	-	5 %
	100 %	100 %	100 %

TABLE 6.Positions occupied by personnel sample.

Personnel Officer	25
Personnel manager	15
Personnel controller	10
Employment officer	3
Manager Industrial Relations	3
Recruitment manager	3
Personnel Dept. Supervisor	2
Welfare manager	2
Labour officers	2
<hr/>	
TOTAL	65
<hr/>	

TABLE 7.Positions occupied by management sample.

Managing director	20
General manager	34
Branch manager	5
Production director	3
Works manager	4
Company secretary	3
Accountant/Manager	1
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TOTAL	70
<hr/>	

TABLE 8.Positions occupied by Management Consultants.

Managing Director	12
Consultants (duties unspecified)	20
Personnel consultants	9
EDP consultants	2
Psychologists	13
Economist	1
Accountant	2
Technical Service consultant	1
Engineering Consultants	5
Sales & Marketing consultants	5
Production manager	1
Finance consultant	4
Agricultural consultant	2
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Total consultants employed by 19 firms	77
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TABLE 9.Duties of personnel officers.

Management/employee relations	24 %
Personnel selection	23 %
Staff training programs	14 %
Employee/employer relations	9 %
Working conditions	8 %
Interdepartmental communications	7 %
Counselling	5 %
Other	10 %
<hr/>	
	100 %
<hr/>	

TABLE 10.

A comparison of ratings by New Zealand and United States personnel officers as to past value of subareas of industrial psychology.

Subareas	N.Z. Sample	U.S. Sample
Managerial Selection	64 %	47 %
Employee selection	58 %	42 %
Safety and accident prevention	40 %	4 %
Human factors engineering	38 %	11 %
Employee training	36 %	20 %
Employee motivation/ Attitude surveys	36 %	24 %
Managerial training	34 %	32 %
Time and Motion study	34 %	-
Performance appraisal	26 %	20 %
Job evaluation	26 %	10 %
Labour relations	26 %	14 %
Organisational analysis	16 %	17 %

TABLE 11.

A comparison of ratings by New Zealand and United States personnel officers as to subareas of industrial psychology considered to have usefulness in future.

Subareas	N.Z. Sample.	U.S. Sample.
Managerial Selection	58 %	59 %
Employee motivation/attitude surveys	50 %	60 %
Safety and accident prevention	48 %	11 %
Employee selection	46 %	46 %
Employee training	46 %	32 %
Managerial training	46 %	59 %
Labour relations	42 %	15 %
Human factors engineering	42 %	34 %
Organisation analysis	40 %	25 %
Performance appraisal	36 %	38 %
Job evaluation	36 %	14 %
Time and motion study	30 %	-

TABLE 12.

A comparison of ratings by New Zealand and United States personnel officers as to research needed in subareas of industrial psychology.

Subareas.	N.Z. Sample.	U.S. Sample.
Labour relations	50 %	14 %
Employee motivation/ Attitude surveys	44 %	47 %
Safety and accident prevention	42 %	13 %
Organisation analysis	40 %	24 %
Managerial training	38 %	39 %
Human factors engineering	38 %	25 %
Job evaluation	36 %	8 %
Managerial selection	32 %	39 %
Employee selection	30 %	31 %
Employee training	30 %	20 %
Performance appraisal	30 %	38 %
Time and motion study	16 %	-

TABLE 13

Areas of industrial psychology rated by managers as most important to company.

Subarea	% checking importance.
Managerial selection and training	54 %
Labour relations	52 %
Employment motivation/Attitude surveys	44 %
Employees selection and training	43 %
Job evaluation	39 %
Performance appraisal	36 %
Safety and accident prevention	31 %
Market research	30 %
Time and motion study	27 %
Human factors engineering	26 %
Consumer behaviour	25 %
Production efficiency	22 %

TABLE 14.

Reasons given by managers for using services of management consultants.

Management Consultant Used for	% Sample
Employee selection	69 %
Managerial Selection	39 %
Training Programs	53 %
Start Incentive Schemes	25 %
Other	30 %

TABLE 15.

Management Consultant Services most often requested by clients expressed as a percentage of sample checking each area.

SERVICE OFFERED.	% requesting such service.
Managerial selection	63%
Employee selection	47%
Cost reduction	47%
Employee training	42%
Managerial training	37%
Organizational analysis	37%
Market research	37%
Staff training programmes	37%
Time and motion study	32%
Planning and introduction of incentive schemes	32%
Performance appraisal	27%
Job evaluation	26%
Consumer behaviour	21%
Public relations	16%
Salesmanship	5%
Labour relations	5%
Employee motivation/attitude surveys	5%

TABLE 16

Management consultant services considered most important to industry expressed as a percentage of sample checking each area.

<u>SUBAREA</u>	<u>% Checking importance</u>
Managerial training	69%
Employee selection	58%
Employee training	58%
Managerial selection	53%
Labour relations	53%
Organizational analysis	53%
Job evaluation	52%
Consumer behaviour	47%
Market research	42%
Employee motivation/attitude surveys	42%
Staff training programmes	42%
Cost reduction	42%
Performance appraisal	37%
Salesmanship	31%
Public relations	31%
Human factors engineering	26%
Time and motion study	26%
Planning and introduction of incentive schemes	26%
Safety and accident prevention	21%
Working conditions	16%

TABLE 17

Comparison U.S. - N.Z. samples in regard to the desirability of hiring an industrial psychologist.

	<u>Managers.</u>		<u>Personnel Officers.</u>	
	N.Z.	U.S.	N.Z.	U.S.
Desirable to have industrial psychologist in company.	31%	66 %	22%	53%
Not desirable	57%	34%	62%	43%
Not answered	12%	-	16%	4%
	100%	100%	100%	100%

TABLE 18

Usefulness of Psychologist's contribution to industry.

	Management Sample.	Personnel Sample.
Yes	34%	28%
Yes - with practical experience	-	15%
No	10%	18%
No answer because lack of information	47%	34%
No - services part of management	9%	-
No - firms too small	-	5%
	100%	100%

TABLE 19

Ratings of usefulness of psychologist in increasing satisfaction and productivity.

	<u>PRODUCTIVITY</u>		<u>SATISFACTION</u>	
	Managers.	Personnel Officers.	Managers.	Personnel Officers.
Yes	46%	46%	50%	51%
No	48%	50%	44%	39%
Not answered	6%	10%	6%	10%
	100%	100%	100%	100%

TABLE 20

A comparison of rank ordering of job satisfaction beliefs by New Zealand managers and an Australian employee sample.

Job satisfaction aspects.	N.Z. Manager's ranking.	Australian ranking.
Wages	1	3.5
Security	2	3.5
Personal involvement	3	1
Supervision	4	5
Company and Management	5	2
Physical working conditions	6	6.5
Social aspects of job	7	6.5
Work variety	8	9
Work ease	9	10
Communication	10	8

Note that a rank of 1 indicates first in importance and 10 lowest.

TABLE 21

A comparison of mean ratings for categories by United States, New Zealand and Australian management samples.

<u>CATEGORY</u>	<u>MEAN RATINGS.</u>		
	U.S.	N.Z.	AUST.
A. Capacity for leadership and initiative Statements 1, 2	3.13	2.91	2.72
B. Sharing information and objectives. Statements 5, 7	3.98	3.54	3.49
C. Participation Statements 4, 6	3.56	3.24	3.35
D. Internal control Statements 5, 8	3.58	3.38	3.45

TABLE 22

Leadership belief statement showing percentage of agreement/disagreement of respondents, and F values to test significance of differences.

STATEMENT	% agree	% disagree	% neither	
1. Average person avoids responsibility	62%	36%	2%	6.15 * p=0.02
2. Leadership skills	38%	62%	-	4.4 *
3. Use of rewards	54%	39%	7%	1.42
4. Influence on subordinates	51%	41%	8%	0.45
5. Good leaders give detailed instructions.	42%	46%	12%	3.4
6. Group goal setting	59%	23%	18%	4.6 *
7. Information given subordinates	8%	89%	3%	45.6 * p=0.001
8. Economic authority of superior	13%	83%	4%	36.8 * p=0.001

Note that the * denotes a result significant at the 0.05 level except where otherwise stated.

TABLE 23Participating Firms.

<u>TYPE OF INDUSTRY.</u>	<u>NO. FIRMS RESPONDING</u>	<u>NO. USING Incentive Schemes.</u>
Footwear, Clothing, textiles	10	9
Engineering & Metalwork	15	7
Food, drink & Tobacco	8	2
Other manufacturing e.g. tanning, paint, plastics, soft goods.	22	11
Building & Construction	2	1
Finance & Property	2	0
Retail Trade	3	1
Vehicles	3	2
Other non-manufacturing	5	4
Total	70	37

TABLE 24

A comparison of percentages of the New Zealand and Australian samples using the different types of incentive schemes.

TYPE OF INCENTIVE.	% used in N.Z.	% used in Australia
Individual piecework, money basis	16.5%	28% { grouped together as output bonus.
Individual piecework, time basis	16.5%	
Measured day work	8.5%	
Attendance bonus	13.53%	12%
Standard time	13.5%	22%
Merit rating basis	13.5%	11%
Commissions	9.5%	24.5%
Profit sharing	8.5%	11%
Other		11.5%
	100%	100%

TABLE 25

A breakdown of the sample according to number of employees and number of incentive schemes used.

No. of employees.	No. of systems.			No. of firms.
	1	2	3	
Under 50	1	2	1	4
50 - 299	11	2	2	15
300 - 599	4	3	2	9
600 - 999	1	-	2	3
1000 or more	2	3	1	6
Totals	19	10	8	37

TABLE 26

Reasons given by firms for using incentive schemes.

PURPOSE OF INCENTIVE SCHEME	% in AGREEMENT
Increase Output	17%
Increase employee earnings	16%
Reduce production costs	15%
Control labour costs	14%
To attract labour	14%
Reduce labour turnover	12%
Meet outside competition	12%
	100%

TABLE 27

A comparison of the percentages of the New Zealand and Australian firms in the sample in agreement with the extent to which the main purpose of the incentive scheme is achieved.

<u>EXTENT TO WHICH PURPOSE ACHIEVED</u>	<u>% N.Z.</u>	<u>% AUST.</u>
Achieved very well	44%	31%
Achieved reasonably well	32%	64%
Not achieved	12%	2%
Information omitted	2%	3%
	<u>100%</u>	<u>100%</u>

TABLE 28

Types of incentive schemes discontinued.

<u>Type of Scheme</u>	<u>No. of firms</u>
Bonus system	8
Group scheme	3
Measured day work	2
Piecework-money	2
Piecework-time	1
Flat rate	1
Attendance bonus	1
Profit sharing over set standard time	1
	<u>19</u>

TABLE 29

A comparison of reasons given for discontinuance of incentive schemes by the New Zealand and Australian samples.

<u>Reason for discontinuance.</u>	<u>N.Z</u>	<u>AUST.</u>
New methods of payment preferred	22%	11%
Union pressure	13%	29%
New methods of production	13%	6%
Discontent of incentive workers	12%	8%
Pressure from non-incentive workers	10%	4%
Changed business conditions	10%	15%
No improvement in output/quality	7%	11%
Other	-	11%
	100%	100%

TABLE 30

Length of time unsuccessful schemes used before discontinuance.

5 weeks	1
3 months	2
6 months	1
1 year	3
2 years	4
4 years	2
6 years	2
9 years	1
10 years	1
12 years	1
15 years	1
	—
	19
	—

TABLE 31

Length of time successful incentive schemes in operation.

No. of years used.	No. of firms.
0 - 5	8
6 - 10	6
11 - 15	3
14 - 20	4
21 - 25	2
26 - 30	2
31 - 35	-
36 - 40	1
Information omitted	11
TOTAL	37

APPENDIX B.Personnel Questionnaire.

1. By what title are you known in your firm?
 e.g. Manager.
 Personnel officer
 Planning officer.
 Employment officer.
 Other (Please specify)
2. What qualifications did you gain at school?
 e.g. School Certificate
 University Entrance.
 Higher leaving certificate.
 Bursary exam. pass.
 Scholarship exam pass.
3. What qualifications have you gained since leaving school?
 University degree - please specify degree and major subject.
 Some units.
 Social workers certificate.
 Technical training.
 Trades apprenticeship.
 Institute management Studies.
 Other - please specify.
4. Age Group 20 - 29
 30 - 39
 40 - 49
 50 - 59
 60 and over.
5. No. of people employed by this firm.
6. Are you responsible for employees at other branches?
7. Type of industry.
8. Are any employees working shifts?
 If so, what proportion - $\frac{1}{4}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$
9. Are any incentive schemes operated?
10. What proportion of employees are union members - $\frac{1}{4}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$ all
11. What proportion is active? $\frac{1}{4}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$
12. How many people are employed in personnel dept?

13. As personnel officer which of the following occupies most of your time?

Personnel selection.
 Management/employee relations.
 Employee/employer relations.
 Counselling.
 Training programme.
 Working conditions.
 Interdepartmental communication.
 Others - please specify.

14. If manager of firm, do you consider any of the previous part of your work? If so, please specify.

15. Do you consider it desirable to have a professionally trained industrial Psychologist in your company?

Yes No

16. Do you think the services of an industrial psychologist could be useful in your company in increasing:

(a) Productivity.	Yes	No.
(b) Satisfaction.	Yes	No.

17. Please consider the following aspects of personnel works and indicate in which areas you consider the work of industrial psychologists has benefited industry in the past; in which areas the industrial psychologist could be of benefit in the future and which aspects would benefit by further research.

SUBAREAS	PAST VALUE	Usefulness in future.	Research needed.
----------	------------	-----------------------	------------------

Employee selection.
 Employee training.
 Managerial selection.
 " training.
 Performance appraisal.
 Job evaluation.
 Labour relations.
 Employee motivation/attitude (Morale) surveys.
 Safety and accident prevention.
 Organization analysis and planning.
 Human factors engineering (i.e. the designing of machinery to match human thresholds.)
 Time and Motion study.

18. Which of the above areas do you consider of least value?

19. Which of most value?

20. Do you consider that the industrial psychologist makes a useful contribution to industry in general? If yes, how, specifically?
 If no, why not?

21. Do you consider that the industrial psychologist has an important role to perform in New Zealand business and industry?

APPENDIX C.MANAGEMENT QUESTIONNAIRE

1. What position do you occupy in this company? e.g. Managing Director.
General Manager.
Branch Manager.

Other (please specify.)

2. How long have you been employed by this company?
3. How long have you been employed as a manager of this company?
4. What qualifications did you gain at school?

School Certificate.
University Entrance.
Higher Leaving certificate.

5. What qualifications have you gained since leaving school?
- Trades apprenticeship.
Technical training.
University degree. (Please specify type of degree
and major subject.)
Other (Please specify.)

6. Have you ever taken any management courses? e.g. as conducted
by N.Z. Institute Management.

Night classes	YES	NO
Training seminars conducted by firm.	Yes	No.
Other - please specify.	YES	NO
No special management training.	YES	NO

7. In what age group are you?

20 - 29
30 - 39
40 - 49
50 - 59
60 and over.

8. What type of industry is this company engaged in?

9. Number of employees? MALE FEMALE

10. Are any employees working shifts?

	YES	NO
If yes, please circle the proportion of employees involved.		
$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$
	$\frac{2}{3}$	$\frac{3}{4}$
		All

11. Are any incentive schemes operated?

YES

NO

(If no, goto question 15.)

If yes, please indicate type of scheme in use.

Attendance bonus.

Individual piecework - money basis.

Individual piecework - time basis.

Measured day work.

Standard time system.

Profit sharing.

Commissions.

Merit rating basis.

Other - please specify.

How long has this scheme
been in use?

12. Do you consider that incentive schemes are useful to:-

Increase output.	YES	NO
Reduce production costs	YES	NO
Increase employee earnings.	YES	NO
Reduce labour turnover.	YES	NO
Control labour costs	YES	NO
Attract labour.	YES	NO
Meet outside competition.	YES	NO
Other - please specify.	YES	NO

13. What do you consider to be the main purpose for introducing an incentive scheme?

14. To what extent is this purpose achieved in your company?

Achieved very well.
Achieved reasonably well.
Not achieved.

15. Has your company ever discontinued an incentive scheme?

If yes, please indicate type of scheme discontinued.
If no, go to question 18.

16. Please indicate for which of the following reasons the scheme was discontinued?

Non effective.
Union pressure.
Discontent of incentive workers.
Pressure from non-incentive workers.
Changed business conditions.
New method of payment preferred.
No improvement in output.
New methods of production.
Other - please specify.

17. How long was this scheme used before being discontinued?

18. Would you care to comment on incentives schemes in general - either for or against their use?

Now I am interested in obtaining your opinion as to the work of Industrial Psychologists in New Zealand.

19. Do you consider it desirable to have a professionally trained industrial Psychologist in your company?

YES

NO

20. Do you think that the services of an Industrial Psychologist would be useful in your company in increasing:-

(a)	Productivity	YES	NO
(b)	Satisfaction	YES	NO

21. Assuming that you had the authority would you hire an Industrial Psychologist?

YES

NO

22. Has your company ever used the services of a management consultant firm?

YES

NO

If yes, for what particular purpose? eg. Staff selection.
 Managerial selection.
 Training programmes.
 To start an incentive scheme.
 Other - please specify.

23. The following list of services come within the scope of industrial psychology. Please tick those areas in which you consider the work of the industrial psychologist would be of most importance to your company.

1. Employee selection.
2. Employee training.
3. Managerial selection.
4. Managerial training.
5. Performance appraisal.
6. Job evaluation.
7. Labour relations.
8. Production efficiency.
9. Employee motivated - attitude surveys.
10. Consumer behaviour.
11. Market research.
12. Safety and accident prevention.
13. Time and motion study.
14. Human factors engineering.
 (The designing of machinery to match human thresholds).

24. Which of the above areas do you consider of least value in N.Z. Industry?

No:-

25. Which of most value?

No.:-

26. Do you consider that the industrial psychologist makes a useful contribution to industry in general?

YES

NO

If yes, how specifically.

If no, why not?

28. For each of the following eight statements please indicate the degree of your agreement or disagreement with the statement on the 5 point scale below.

1	2	3	4	5
Strongly agree.	Agree	Neither agree nor disagree	Disagree	Strongly disagree.

Circle the number which most closely approximates your opinion about the statement.

1. The average human being prefers to be directed, wishes to avoid responsibility and has relatively little ambition.
2. Leadership skills can be acquired by most people regardless of their particular inborn traits.
3. The use of rewards (pay, promotion etc.) and punishment (failure to promote etc.) is not the best way to get subordinates to do their work.
4. In a work situation, if subordinates cannot influence me then I lose some influence on them.
5. A good leader should give detailed and complete instructions to subordinates, rather than giving them merely general directions and depending on their initiative to work out the details.
6. Group goal setting offers advantages that cannot be obtained by individual goal setting.
7. A superior should give his subordinates only that information which is necessary for them to do their immediate tasks.
8. The superior's authority over his subordinates in an organization is primarily economic.

(NOTE - the 5 point scale was inserted after each Statement for questionnaires used in the survey).

For this final section of the questionnaire please consider the following ten job aspects and then indicate how you consider the employees of your firm would rate these aspects in importance.

e.g. if you consider that physical working conditions would be rated as most important, then give this a ranking of 1. If of least importance a ranking of 10. While midway in order of importance say a ranking of 5 or 6.

Company and Management

Ranking

This aspect includes the employee's "image" of the company, and his interpretation of management's attitude towards him.

Social Aspects of Job.

Aspects involved in the relationship of the worker with other employees on approximately the same level in the factory.

Security.

Features of the job situation which lead to assurance of continued employment, either within the same company or within the same type of work.

Supervision.

Relationship of the worker with his immediate superiors.

Wages.

The total amount of earnings.

Work Ease.

Aspects associated with the level of difficulty of the job.

Physical working conditions.

Physical aspects of the working environment which are not necessarily a part of the work.

Work variety.

The variety of tasks available in the job.

Communication. Aspects of the job situation involving the spread of information in any direction within the organisation.

Personal involvement.

Interest in the job, the sense of pride in accomplishment given by the job and the amount of responsibility desired in the job.

11. Do you consider that the volume of work handled by your company has
- (a) increased significantly over the last 5 years? YES NO.
 (b) has remained at a fairly constant level? YES NO.
12. Do you consider that management finds industrial psychology important in increasing -
- (a) satisfaction YES NO
 (b) productivity YES NO
13. Below is a list of services which could be considered to come within the scope of industrial psychology. Please consider this list, indicate which of these services are -
- (a) most often requested by your clients.
 (b) least often requested.
 (c) considered most important by you in N.Z. situations.
 (d) considered of least importance by you in N.Z. situations.

More often Requested.	Least often Requested.	Most important in N.Z.	Least important in N.Z.
-----------------------	------------------------	------------------------	-------------------------

-
1. Employee selection
 2. Employee training.
 3. Managerial selection.
 4. Managerial training.
 5. Performance appraisal.
 6. Job evaluation.
 7. Labour relations.
 8. Employee motivation/
attitude surveys.
 9. Safety & Accident prevention.
 10. Organisation analysis
& planning.
 11. Human factors engineering.
 12. Consumer behaviour.
 13. Market research.
 14. Time & motion study.
 15. Planning & Introduction
of incentive scheme.
 16. Staff training programmes.
 17. Working conditions.
 18. Cost reduction.
 19. Salesmanship.
 20. Public relations.

14. Do the majority of your clients employ less than

- 50 employers.
- 50 - 199
- 100 - 299
- 300 - 499
- 500 - 999
- 1000 or more.

15. Do you consider that the size of an industry has relevance to the requesting of your services.

YES

NO

16. Do you consider that management in New Zealand is fully aware of the practical application of psychological principles to the work situation?

If yes, what supports your answer?

If no, why not?

APPENDIX E.

Statements, categories and scoring system of the leadership belief scale.

Category A.

Statement 1.

The average human being prefers to be directed, wishes to avoid responsibility and has relatively little ambition.

:	1	:	2	:	3	;	4	:	5	:
	Strongly agree		Agree		Undecided		Disagree		Strongly disagree.	

Statement 2.

Leadership skills can be acquired by most people regardless of their particular inborn traits.

:	1	:	2	:	3	:	4	:	5	:
	Strongly agree		Agree		Undecided		Disagree		Strongly disagree.	

Category B.

Statement 5.

A good leader should give detailed and complete instructions to subordinates, rather than giving them merely general directions and depending on their initiative to work out the details.

:	1	:	2	:	3	:	4	:	5	:
	Strongly Agree.		Agree		Undecided		Disagree		Strongly Disagree.	

Statement 7.

A Superior should give his subordinates only that information which is necessary for them to do their immediate tasks.

:	1	:	2	:	3	:	4	:	5	:
	Strongly Agree.		Agree		Undecided		Disagree		Strongly disagree.	

Category C.

Statement 4.

In a work situation, if subordinates cannot influence me ~~then~~ I lose influence on them.

:	1	:	2	:	3	:	4	:	5,	:
	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree.	

Statement 6.

Group goal setting offers advantages that cannot be obtained by individual goal setting.

:	1	:	2	;	3	:	4	:	5	:
	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	

Category D.

Statement 3.

The use of rewards (pay, promotion etc.) and punishment (failure to promote etc.) is not the best way to get subordinates to do their work.

:	1	:	2	:	3	:	4	:	5	:
	Strongly agree		Agree		Undecided		Disagree		Strongly disagree	

Statement 8.

The superior's authority over his subordinates in an organization is primarily economic.

:	1	:	2	:	3	:	4	:	5	:
	Strongly Agree.		Agree		Undecided		Disagree		Strongly disagree.	

The higher scores for each statement indicate higher democratic values.

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