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# Public Accountability: The Perceived Usefulness of School Annual Reports

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## Abstract

Annual reports are an important component of New Zealand schools' public accountability. Through the annual report the governance body informs stakeholders about school aims, objectives, achievements, use of resources, and financial performance. This paper identifies the perceived usefulness of the school annual report to recipients and the extent to which it serves as an instrument of accountability and/or decision-usefulness. The study finds that the annual report is used for a variety of purposes, including: to determine if the school has conducted its activities effectively and achieved stated objectives and goals; to examine student achievements; to assess financial accountability and performance; and to make decisions about the school as a suitable learning environment. Nevertheless, the study also finds that other forms of communication are more important sources of information about the school than the annual report which is seen to fall short of users' required qualities of understandability, reliability and readability. It would appear imperative that policy makers review the functional role of the school annual report which is a costly document to prepare. Further, school managers need to engage in alternative means to communicate sufficient and meaningful information in the discharge of public accountability.

**Keywords**: Public accountability; School annual reporting; New Zealand.

**JEL Classification:** M400.

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## 1. Introduction

Schools are a significant sector in the New Zealand (NZ) economy and a substantial user of state (taxpayer) and local funds which arguably requires an account be given on how and for what purposes the resources available to schools are used (Report of the Taskforce to Review Education Administration 1988). One official instrument for the reporting of performance is the statutory requirement for schools' boards of trustees to prepare and present an annual report. A school annual report commonly comprises audited general purpose financial statements and descriptive information about the school and its educational endeavours and achievements. The annual report provides the basis for a dialogue with constituencies who are interested in the performance of the school. Although a school's annual report is not the only source of information about performance (for example, school newsletters and parent-teacher interviews), the premise of this study is that the annual report is, nevertheless, an important component of the overall public accountability framework that allows a school to legitimise its performance to those to whom it is accountable.

Although the functionality of an annual report as a medium of communication is generally accepted, little attention has been paid to answering some fundamental questions relating to the usefulness of this form of school annual reporting, namely, whether the annual report is used and if so by whom and for what purpose. Previous studies, located within the broader public sector context, have found a relatively low usage of public sector annual reports and conclude that citizens and other broadly defined stakeholders are generally disinterested in such publicly available reports (for example, Coy, Fischer & Gordon 1997; Hay 1994; Lee 1999; Mack, Ryan & Dunstan 2001). Walker (1995) suggests that the lack of interest could be attributable to a perception of limited relevance of information in the annual report as a basis for judging performance. Despite such reservations on the observed usefulness of annual reports, the conventional view of annual reporting is that it is a purposive, functional activity directed towards meeting users' information needs.

Although accountability, in its broadest sense, is more than just an accounting task, the focus on meeting users' needs establishes a linkage of ideas relating to accountability (Jones & Pendlebury 1996). In the school organisational context, for example, the definition of accountability might imply the board of trustees' responsibility to an oversight agency for the preparation of an annual report to demonstrate compliance with a statutory requirement (legitimising conduct). Alternatively, the definition of accountability might imply responsibility for demonstrating financial and/or performance accountabilities to a broader stakeholder group. However, and as cautioned by Gray (1984), there may be a tendency to overemphasise the functionality of the traditional annual report in the discharge of accountability. Although the school annual report is a statutory requirement and thus a primary and formalised medium of accountability, other mediums of communication may have more relevance to specific stakeholders and therefore achieve greater acceptance as a means of demonstrating accountability. The aim of this study is to ascertain the perceived usefulness of the school annual report to recipients and the extent to which it serves as an instrument of accountability and/or decision-usefulness. Therefore, the importance of the annual report as a whole and of specific content is examined. In order to fulfil accountability and decision-usefulness roles, information must possess qualities such as relevance and reliability. The study examines recipients' expectations of information quality and compares them to what they perceived as actual practice. The findings extend the literature on the function and

effectiveness of the annual report into a different environment than the traditional corporate focus.

## 2. Theoretical framework

Within the framework of the NZ compulsory schools sector[1], the notion of accountability is based on the concept that school boards of trustees are stewards of the resources provided to them locally and by the state. A stewardship relationship begins when the resources and related responsibilities are accepted by the school and accountability exists in the context of this relationship (Mulgan 2000).

Despite the frequent use of the term there are acknowledged difficulties in formulating a definition of accountability (see for example, Mulgan 2000; Sinclair 1995). Nevertheless, and in its simplest sense, accountability is generally recognised as being an obligation to give an account of, and answer for, the execution of the responsibilities entrusted by a principal (Roberts & Scapens 1985). Mulgan (1997) identifies the processes that accompany an accountability relationship and contends that, in essence, the obligation to present an account brings to the fore a reporting or information function. This information can be descriptive and/or financial and "involves explaining or justifying what has been done, what is being done and what has been planned….[t]hus, one party is accountable to another in the sense that one of the parties has a right to call upon the other to give an account of its activities" (Jackson 1982 p.220). At the school level this reporting responsibility, indeed a legal requirement, is part of the overall school governance and provides a process by which the school is held accountable for the outcomes of its decisions and actions. In this stewardship sense, accountability is intended to ensure that delegated power is not abused. The aim is to monitor the appropriateness of manager behaviour both in the long and the short term with a view to ensuring it is both adequate and relevant for aiding accountability (Coy et al. 2001).

Because of their role in the community, schools have a broad accountability in respect of those to whom they report. Stakeholder theory asserts that the manager should manage the organisation for the benefit of all stakeholders, not only those with whom the organisation has a contractual relationship (Hasnas 1998). Thus, all individuals are in some way stakeholders in the organisation's activities (Freeman, 1984) and their interests are "of intrinsic value" (Shankman 1999, p.323). In this research stakeholders of a school are those who can affect or are affected by the achievement of the schools' objectives (Freeman 1984) or persons who can impact or be impacted by the school (Brenner 1995). By conceptualising the organisation as part of a wider societal system, stakeholder theory extends the scope of accountability beyond the relationship between owners (the state) and managers (Boyne et al. 2002; Gray, Meek & Roberts 1995; Mitroff 1983; Mulgan 2004; Wynne 2004) and views school managers as not only stewards of the state but also of employees, students, parents and society as a whole.

The extended array of actual and potential accountability relationships locates the responsibility for school boards of trustees to publicly disclose and be responsible for their actions within the realm of public accountability. Normanton (1971) describes public accountability as the accountability that exists when there is "no clear master-servant relationship …[and] means reporting to persons other than to one's own superiors who have the power to make open criticisms" (p.313).

Coy et al. (2001, p.8) assert that "public accountability refers to the public right to know about the condition and performance of the organisation under the accountor's charge." Under public accountability, school annual reporting should be concerned with a

[1] School is compulsory for NZ children aged between their sixth and sixteenth birthdays (Years 1-15).

wide range of sufficient and meaningful information, in both financial and non-financial terms, that enables stakeholders to obtain a comprehensive understanding of the school's objectives and performance (Coy et al. 2001). The perceived importance that stakeholders attach to this information and the purpose for which it is used is examined in this study.

Arguably, within the NZ education setting, the compulsory nature of education provides a triple case for public accountability (Barro 1970; Grobman 1973; Scott 1986). First, attendance at school is a legal requirement for students falling within a statutorily-defined age range. Likierman and Creasy (1985) suggested that this provides an example of where natural law implies a right or an entitlement to information (an account)[2]. Second, the compulsory school sector uses funds derived from taxes and the use of taxpayers' monies requires that an account be given on how and for what purposes the funds are used. The third case is concerned with those who are involved in governance. As elected officials, members of a school's board of trustees have an obligation to demonstrate their performance to the community they serve.

In addition to an accountability role, school annual reports also have a decision-usefulness aspect in that they may provide data to assist, for example, a student and/or parent's evaluation process when considering the most appropriate school to attend. In this respect annual reports can have market accountability (Farrell & Law 1999) whereby the decision-usefulness objective then becomes embodied within the accountability framework. However, it is not the primary focus in determining the information needs of users. As Mulgan (1997) noted "…the process of reporting is matched by a complementary process of information-seeking and investigation on the part of those in authority to whom accountability is owed" (p27). This dual decision-making and accountability role is supported by Jones (1992) who stated that "if the accountee was entirely passive, accountability would be an empty notion" (p260). Accountability therefore implies some purpose which must inevitably lead to a decision. Coy et al. (2001) also considered the dual roles of annual report information and posited that both these roles are encompassed within an accountability paradigm thus recognising a relational interface between stewardship, decision-usefulness and public accountability.

Although the decision-usefulness of annual report information is examined, the primary focus of this study is on the annual report as a vehicle for discharging accountability. This approach is supported by a number of researchers (for example, Boyne & Law 1991; Chang & Most 1985; Chenhall & Juchau 1976; Hooks, Coy & Davey 2001; Winfield 1978). Boyne and Law (1991) asserted that the annual report is the only comprehensive statement of stewardship available to the public. Therefore it is expected that the information disclosed therein is available for use by a large, heterogeneous audience engaged in a wide variety of activities (Parker 1982). In this context, the espoused functional role of school annual reports recognises that school activities, both curricula and extra-curricular, have significant implications for the community as a whole.

In order for information to fulfil the roles of decision-usefulness and accountability it needs to be relevant, reliable, understandable and comparable (New Zealand Institute of Chartered Accountants 2005, paras. 24-42[3]). Information is relevant when it assists users to evaluate past, present or future events of the entity (para.26). Reliable information is free from material error or bias (para.31) and understandable information is presented in a way that is readily understandable by users with a

[2] The entitlement to information can be justified on the grounds that compulsory school attendance is a diminution of liberty. Therefore, there is a moral duty, linked to the role of the school, to provide information to allow interested users to assess the performance of the school.

[3] New Zealand equivalent to the International Accounting Standards Board framework for the preparation and presentation of financial statements.

reasonable knowledge of business and accounting practice (para.25). Comparable information enables users to compare financial statements of the entity over time and with those of other relevant entities (para.39). Coy et al. (2001) add accessibility and distribution to this list of qualitative characteristics. Accessibility and distribution refer to the ability of stakeholders to easily obtain a copy of the annual report. Coy et al. (2001) noted that these aspects are more important from an accountability perspective than from a decision-usefulness one, as stakeholders, in the broad sense, are less likely to make a deliberate attempt to obtain an annual report than those who require an annual report for making specific decisions. Accessibility includes making stakeholders aware that an annual report is available. Distribution implies that "the greater the number and spread of reports distributed among the stakeholder groups, the better" (Coy et al. 2001, p22). These aspects of accountability are examined in this study.

Processes of accountability (Mulgan 1997) include not only reporting (report preparers) but also information seeking (report users). These processes are complementary. This research focuses on the information that users of school annual reports expect and find useful. Users with social, economic and political interests have indicated that accountability is discharged when an entity reports in such a manner that financial viability is revealed, the costs of providing services are disclosed, the efficiency and effectiveness of operations can be assessed and comprehensive information about strategies, objectives and activities is provided (Coy & Dixon 2004; Hooks, Coy & Davey 2002; Nelson, Banks & Fisher 2003; Tooley & Guthrie 2007; Wei, Davey & Coy 2008).

In summary, schools have a contractual relationship with the state and hence have an obligation to give an account to the state. Public accountability acknowledges the rights of the community as a whole (including parents) to reports about school progress and activities. As stated by Farrell and Law (1999, p298) "the public model of accountability is necessary for the success of the learning society." The annual report is one of a number of ways in which schools can meet their duty to be accountable to external stakeholders – accountability "implies a willingness to endure public scrutiny, even an invitation for the public to scrutinise the behaviours of the organisation's leadership" (Lawry 1995, p175).

## 3. Statutory Requirement for School Annual Reporting

Prior to 2003, a NZ school's statutory obligation was to prepare an annual report primarily concerned with financial accountability issues. That is, audited general purpose financial statements prepared in accordance with the accrual-basis of accounting. Schools could also voluntarily choose to present separate, and unaudited, principal's and board of trustees chairperson's reports[4]. To assist schools, the NZ Ministry of Education developed guidelines for annual reporting, including two sets of model financial statements (referred to as the Petone West Model and the West Petone College Model)[5] which set out the required content and suggested presentation of annual financial statements (NZ Ministry of Education 1997). School Boards of Trustees are encouraged to use these models as the basis for the preparation of their schools' annual report.

[4] The principal's and chairperson's reports provide opportunity to inform the school's community about the achievements and successes of the year. They also provide an opportunity to tell staff, parents and students about the school's goals for the coming year, and the risks and opportunities that may be encountered along the way. Each school determines what will be covered in the two different reports. Although these reports are optional, prior studies suggest that these reports are commonly prepared (for example, Tooley & Guthrie, 2007).

[5] The Petone West Model Financial Statements set out the required content and suggested presentation for schools which qualify to use the Framework for Differential Reporting (New Zealand Institute of Chartered Accountants, 2007).

Following an amendment to the Education Act 1989 (NZ) and the enactment of new legislation in the form of the Education Standards Act 2001 (NZ), financial performance is to be reported as but one component of a 'balanced' report on a school's activities and outcomes. The Education Standards Act 2001 formalises a process of 'self-review' which is intended to promote a governance and management environment which emphasises the particular responsibilities of the school. These include responsibility to foster student achievement in pursuit of the government's education strategy of continuous improvement in achievement of outcomes and the elimination of outcome disparities between high achievers and low achievers (NZ Ministry of Education 2009a).The legislation requires schools to provide, in their annual reports, an analysis of variances between school performance and the relevant aims, objectives, directions, priorities, or targets as set by the school. Through the annual report the board of trustees is able to inform its stakeholders about what the school is endeavouring to achieve and the progress being made, and to account for the ways it has used resources provided for the education of its students.

Collectively, each school's board of trustees is publicly accountable for their school's financial governance, the stewardship of assets and funds entrusted and the degree to which the performance of the school as a whole has been able to affect outcomes for students. The annual report, inclusive of the audited financial statements and principal's and chairperson's reports, is an important element of this accountability.

## 4. Research Design

The purpose of the study is to analyse the functionality of the formal school annual report as a medium of accountability to stakeholders of NZ schools. Although the school's annual report is only one aspect of a broader accountability framework[6], annual reporting is, nevertheless, generally considered to be an important medium of accountability. For NZ schools it is also a statutory requirement.

In order to pursue the research objectives, data were collected for two purposes: to identify the recipients of school annual reports and to solicit recipients' opinions about school annual reporting. Schools were asked to enclose a copy of the questionnaire with each annual report distributed. A covering letter invited the annual report recipient to complete the questionnaire and return it to the researchers. A questionnaire is a practical and efficient means of collecting data on perceptions of respondents (Ary 1972) especially when a large number of respondents are involved. Questionnaires have been used in prior literature to obtain insights on respondents' views of various annual report disclosures (for example and most recently, Ho & Wong 2001; Hooks, Coy & Davey 2002; Prencipe 2004; Tooley et al. 2010).

The questionnaire used in this research comprised 15 questions. Two questions enquired into the relationship between the recipient and the school. Recipients were then required to identify their level of experience in reading annual reports, whether or not they read or intended to read the school annual report and if not, why not. For the latter response, recipients were given a selection of phrases indicating reasons for not reading the annual report. They could select more than one reason or add reasons of their own. Recipients were asked to indicate the purpose(s) for which the school annual report would be useful, the desired qualitative features of a school annual report and if current annual reporting met these desired features, and the relative importance of specific disclosures. These five questions included a number of phrases and recipients responded to each

[6] Other accountability mechanisms such as, for example, periodic reviews by the Education Review Office, parent-teacher discussions, and school newsletters are included in the broader accountability framework.

phrase by selecting the appropriate score on a five-point Likert scale. Recipients' views were also sought on the decision-usefulness of the annual report and the relative importance of a range of media through which information about school activities could be disseminated. The final three questions sought demographic information and provided recipients with an opportunity to make general comments relating to school annual reports.

To maintain a manageable number of (potential) questionnaires for analysis, a purposeful sample of 322 NZ schools were invited to assist with the research[7]. The sample was drawn from the NZ Ministry of Education 'Directory of Schools – as at 19 January 2007'. To ensure that a sufficient number of schools came from groups with different characteristics, the schools were selected on the basis of their school type[8], authority[9], decile rating[10] and school enrolment. Although 84 schools expressed interest in the study[11], 218 annual report recipients from 37 schools returned completed questionnaires to the researchers. The number of completed questionnaires returned is comparable to other public sector studies of annual report users. For example, Coy et al. (1997) received 260 completed questionnaires to their user study of New Zealand tertiary education institutions and in a US study of users of governmental financial reports Jones et al. (1985) received 201 valid responses. There are many different respondent characteristics that can influence results but there is no objective way to measure this bias (Tung 2000). To minimise the problem of respondents not answering the questionnaire accurately the covering letter guaranteed the confidentiality of respondents.

## 5. User Classification and Statistical Tests

Responses are analysed in aggregate and comparatively through the identification of two broad user groups. Prior studies have categorised annual report recipients into the two broad categories: 'external' or 'internal' user (see for example, Boyne et al. 2002; Flack & Ryan 2004; Hyndman & Anderson 1995; Mack & Ryan 2006; Steccolini 2004). External users refers to those persons who rely on the organisation to provide information whereas internal users have access to the information sources themselves and are not dependent on the organisation to provide information. Arguably, this dichotomy of annual report user is not as transparent in a school setting as compared to other settings where, for example, parents who are 'external' (in the traditional meaning of the term) to the school organisation may also serve as members of a school's board of trustees. Parents serving in this role are able to command the provision of information. Accordingly, the terms 'dependent user' and 'non-dependent user' are preferred for this study. Dependent users are more reliant on the school annual report as a source of information pertaining to school affairs than, for example, non-dependent users who have extended opportunities to access, request and/or participate in internal information sharing forums.

Non-parametric statistical tests are used to interrogate the data. The Wilcoxon Signed Ranks test is used to examine differences between mean factor scores when these scores come from the same set of respondents and the Mann-Whitney U test is used to examine differences between mean scores for a specific factor when these scores come

[7] There are approximately 2,500 state and state-integrated schools in New Zealand.

[8] Full primary (years 1-6); intermediate (years 7-8); secondary (years 7-15); secondary (years 9-15); and composite (years 1-15).

[9] Three broad categories of school authority exist – state-owned schools, state integrated schools (i.e. private schools that have joined the state system) and private schools. In this study only state owned and state integrated schools have been approached.

[10] The rating given a school related to the economic and social factors of the local area (refer Ministry of Education, 2009b).

[11] 129 schools declined to assist and no response was received from 109 schools.

from the two independent user groups (i.e. dependent user and non-dependent user). Exploratory factor analysis (Heck 1998) is performed on the responses by participants to two questions of the research instrument (refer Table 2 and Table 5) to reduce the specific responses to a smaller number of more general factors (Hair et al. 2003) reflecting common themes. The identification of meaningful factors allows a score for each factor to be calculated and used in the analysis of all user group categories.

## 6. Research Findings and Analysis

*School Annual Report Recipients*

Thirty-four percent of recipients stated that they had 'good' or 'substantial' experience in reading annual reports while another 33 per cent indicated a 'moderate' level of experience. Only 9 per cent had no experience in reading annual reports.

Table 1, Panel A, shows the primary relationship between the person receiving the annual report and the school. As evidenced, there are a number of 'stakeholders' with an interest in school affairs. These include parents/caregivers, teachers, other school employees, school boards of trustees and the Ministry of Education. Most respondents (80%) identified their primary relationship with the school as being a parent or caregiver of students currently attending the school and 17 per cent were either employed at the school or were involved in a governance capacity. An annual report recipient could be associated with a school in multiple capacities. For example, a parent/caregiver could also be a teacher and/or involved in some other governance-managerial capacity. The number of recipients who identified a multiple relationship with the school and the nature of those relationships are summarised in Panel B. The wider interest of some respondents is reflected in the 10 per cent of respondents who were both parent/caregiver and a member of the school Board of Trustees.

Table 1
Relationship between Annual Report Recipient and School (frequency)

*Panel A: Primary Relationship between Annual Report Recipient and School (n = 218)*

| Parent/Caregiver of Current Student | Parent/Caregiver of Prospective Student | Student from School | Government Agency | School Role |
|---|---|---|---|---|
| 174 | 3 | 3 | 2<br>Ministry of Education - Financial Advisor to Schools | 36<br>Principal (8)<br>Dep. Principal (4)<br>Teacher (11)<br>Governance (11)<br>Administration (2) |

*Panel B: Multiple Relationships between Annual Report Recipients and School (n = 32)*

| Parent and Board of Trustees | Parent and Administration | Parent and Volunteer | Parent and Teacher | Other |
|---|---|---|---|---|
| 21 | 2 | 2 | 4 | 3 |

For the purposes of this study students and parent/caregivers who are neither a member of a school's board of trustees nor involved in an administrative or teaching capacity, are identified as being dependent users (70% of respondents). Other groups of recipients such as government agencies, teachers, school principals and parent/caregivers

who are also members of boards of trustees and/or involved with the school in an administrative or teaching capacity are identified as non-dependent users[12].

*Usefulness of School Annual Report*

Although all respondents were in receipt of their associated school's annual report, not all (15%) recipients read the annual report. Reasons given reflected the view that the contents of the annual report did not contribute to the recipient's information needs, a concern over the large size of the document and a willingness to rely on others to monitor school activities or raise awareness of items of parental/caregiver interest. Others trusted the school to do the right thing or relied on other information from the school to inform them of school matters. On the face of it, however, it appears that school annual reports are read by the majority of recipients which leads us to consider the perceived usefulness of the annual report and information disclosed therein.

To determine the usefulness of the annual report, respondents who read the annual report (hereafter 'reader-respondents') were asked to indicate on a Likert scale of one to five (where one was 'not useful' and five was 'very useful') the usefulness of the annual report in making a range of judgements and decisions. The results summarised in Table 2 indicate that reader-respondents found the annual report useful[13] for a variety of purposes.

Table 2
Usefulness for Purpose of Annual Reporting (n = 185)

| | **Mean (ranked)** | **Factor*** |
|---|---|---|
| To determine if the school has conducted its activities effectively | 4.14 | Acc |
| To determine that the school can meet its financial obligations | 3.88 | Acc |
| To determine if the school adhered to budget | 3.84 | Acc |
| To determine if the school has operated in the best interest of the community | 3.74 | Dec |
| To determine if public money has been used appropriately | 3.65 | Acc |
| To decide whether to make comment on the educational programmes offered by the school | 3.18 | Dec |
| To determine the likelihood of increased school fees and/or the need for local fund raising | 3.16 | Dec |
| To decide whether or not to send my child to that school | 3.07 | Dec |
| To compare results with other similar schools | 3.05 | Dec |

Scale: 1 = not useful; 5 = very useful.
*Acc = Accountability-usefulness; Dec = Decision-usefulness

Factor analysis was undertaken to determine if the responses given by the reader-respondents could be reduced to a smaller number of variables reflecting some common themes[14]. The establishment of two meaningful factors, as shown in Table 2, enables further analysis of respondent views and a comparative analysis between the two broad user groups of 'dependent' and 'non-dependent'.

[12] A comparison at individual user category (based on the identified variety of relationships between respondents and school) was not possible because of the small number of respondents in some of the user relationship categories.
[13] A score of 2-3 is regarded as not very useful, 3-4 as useful and 4-5 as very useful.
[14] All variables listed in Table 2 were included and using the criteria of the eigenvalue greater than 1, the scree test, and whether the factors 'make sense', two factors were identified as being appropriate. The Rotated Components Matrix is contained in Appendix 1. The assumptions that need to be met for reliance on the results of the factor analysis, the determinant, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and the Bartlett test of Sphericity, were all met in the analysis.

The results reported in Table 3 indicate that reader-respondents find the annual report most useful for accountability purposes and less useful for decision-making. Notably the non-dependent readers provided the greatest differentiation between the accountability-usefulness and the decision-usefulness of annual reports. The Wilcoxon Signed Ranks Test revealed a statistically significant[15] reduction, by all user groups, in the overall usefulness of the annual report as a decision-useful tool compared to an accountability function. Both dependent and non-dependent reader-respondent groups have similar views on the level of usefulness of the annual report as an accountability document; however, dependent reader-respondents rate the annual report as being more useful for decision- making than non-dependent reader-respondents who would have access to other information sources to assist in decision making on school-related matters.

Although school annual reporting is perceived by all reader-respondents to be useful for a variety of purposes (refer Table 2 above), the importance of the school annual report, relative to other media used by schools to disseminate information to interested parties, varies. Table 4 reports the mean score for each source of information as indicated by all annual report recipients ('All') and the respective mean scores as indicated by dependent ('Depend') and non-dependent ('Non-depend') annual report recipients.

Table 3
Mean Factor Scores for the Usefulness of Annual Reports by User Group

| | **Accountability Usefulness** | **Decision-Usefulness** | **Between** | |
|---|---|---|---|---|
| | | | **Z stat** | **Sig** |
| **All Reader-respondent users** (n = 185) | 3.75 | 3.11 | -7.68 | 0.00** |
| **Dependent Reader-respondent users** (n = 124) | 3.65 | 3.20 | -5.54 | 0.00** |
| **Non-dependent Reader-respondent users** (n 61) | 3.93 | 2.91 | -5.29 | 0.00** |
| **Between User Groups** | | | | |
| Z statistic | -1.88 | -2.65 | | |
| Significance | 0.06 | 0.01** | | |

** p <0.01

Table 4
Relative Importance of Annual Report (Mean)

| | **All (ranked)** (n = 218) | **Depend** (n = 153) | **Non-depend** (n = 65) | **Between** | |
|---|---|---|---|---|---|
| | | | | **Z stat** | **Sig** |
| School newsletters | 4.56 | 4.51 | 4.69 | -1.37 | 0.17 |
| Formal parent-teacher interviews | 4.56 | 4.53 | 4.65 | -1.34 | 0.18 |
| Own children | 4.40 | 4.53 | 4.07 | -3.21 | 0.00 |
| Informal discussions with school personnel | 4.00 | 3.88 | 4.27 | -2.41 | 0.02 |
| Personal contact with other parents/caregivers/students | 3.89 | 3.76 | 4.21 | -3.16 | 0.00** |
| School annual report | 3.46 | 3.39 | 3.60 | -1.31 | 0.19 |
| Board of trustees meetings | 3.29 | 2.88 | 4.31 | -7.53 | 0.00** |
| School web site | 3.25 | 3.12 | 3.56 | -2.33 | 0.02* |
| Newspapers and other media | 3.09 | 3.05 | 3.18 | -0.85 | 0.40 |

Scale: 1 = not important; 5 = very important. * p <0.05; ** p < 0.01

As an entire group, annual report recipients consider *school newsletters*, *formal parent-teacher interviews*, *own children* and *informal discussions with school personnel*, *other parents/caregivers/students* to be more important sources of information than the annual report. These primarily verbal communications may be more focused, timely and easier to comprehend than the written messages of the annual report. Arguably, *board of*

[15] For the purposes of this study a statistically significant difference occurs at p < 0.05.

*trustees meetings*, *school web site* and *newspapers and other media* are of lesser importance than the annual report as a source of information[16].

The breakdown of the overall results to reflect the views of the annual report recipients according to whether they are classified as dependent or non-dependent indicates a common view on the relative importance of the school annual report compared to other sources of information (consistently ranked 6th or 7th out of the 9 sources of information). Notably, however, there are some differences in views on the relative importance of other sources of information. Dependent recipients (primarily parents and caregivers) rate more highly the importance of information sourced from their own children than do non-dependent recipients (primarily school management, administrators and teachers). For many parents and caregivers, there would be little direct and regular contact between themselves and the school and therefore their own children provide a key linkage. Non-dependent recipients rate the importance of board of trustees meetings more highly than dependent recipients. Arguably non-dependent recipients may have a greater understanding of the official functional role of the board of trustees not only in terms of its governance function, but also its representational role and associated accountabilities.

*School Annual Report Content*

Table 5
Importance of Content (n = 185)

| | **Mean (Ranked)** | **Factor*** |
|---|---|---|
| School performance in achieving objectives and goals | 4.71 | StudCent |
| Student academic achievements | 4.38 | StudCent |
| Principal's report | 4.15 | Overview |
| Actual financial performance compared to budgeted financial performance | 3.99 | FinPerf |
| Financial summary and analysis | 3.98 | FinPerf |
| Student extra-curricular achievements | 3.96 | StudCent |
| Staff resources | 3.95 | FinExp |
| Financial statements | 3.87 | FinPerf |
| Major capital works and development | 3.85 | FinExp |
| Audit report | 3.76 | FinPerf |
| Library resources | 3.72 | StudCent |
| Cost of learning resources | 3.71 | FinExp |
| Cost of administration | 3.63 | FinExp |
| Cost of property management | 3.63 | FinExp |
| Student enrolment | 3.62 | StudCent |
| Cost of locally raised funds | 3.61 | FinExp |
| Board of trustees Chairperson's report | 3.58 | Overview |
| Non-cognitive information (e.g. suspension rates, behaviour, attendance) | 3.52 | StudCent |
| Student destinations after leaving school | 3.45 | StudCent |
| Contextual and background information about the school | 3.42 | Overview |
| Graphics and tables | 3.41 | StudCent |
| Membership of the board of trustees | 3.34 | Overview |

Scale: 1 = not important; 5 = very important.
* StudCent = Student Centred; Overview = Overview; FinPerf = Financial Performance; FinExp = Financial Expenses

[16]Although not reported, respondents were also requested to rank the media according to preference of source. As might be expected the nine sources of information were ranked in the same direction (with the exception of board of trustees meetings and school web site) with school newsletter the most preferred source of school-related information and disclosures through newspapers and other media the least preferred source of information.

To determine what information was considered by respondents to be important for disclosure, respondents indicated on a Likert scale of one to five (where one was 'not important' and five was 'very important') how much importance they placed on 23 disclosure items contained in the annual report they received. Table 5 (above) reports the mean importance score for all respondents who read the annual report.

Other items of information not included in the questionnaire list but identified by reader-respondents as worthy of disclosure include:

- Specification of curriculum goals (including an explanation of why these goals were selected, were they achieved and if not, why not);
- Rational commentary on the adequacy of government funding;
- Specification of pastoral care strategies and impact;
- Student performance compared to other local schools.

Factor analysis was undertaken to determine if the responses given by the reader-respondents could be reduced to a smaller number of variables reflecting some common themes. Using the same methods and criteria for determining the optimal number of factors as considered previously, four factors were identified. The factors that emerged and their associated variables are shown in Table 5. The Rotated Component Matrix is reported in Appendix 2.

The results reported in Table 6 indicate that 'all reader-respondent users' find all categories of information important for disclosure. The results of a Friedman Test indicated that there was a statistically significant difference in the importance scores across the four factors, $\chi^2$ (3, n = 185) = 19.183, $p < 0.001$. The post hoc Wilcoxon Signed Ranks test revealed a statistically significant difference ($p < 0.05$) in the level of importance for disclosure of financial performance information relative to the importance scores of financial expenses, student-centred and overview information[17]. Information about financial performance is perceived by all users to be the most important information in the annual report. The relative importance of financial performance information reflects the findings in recent research. In particular, financial statements are considered to be useful to stakeholders (Connolly & Hyndman 2004); budget compared to actual information is of high importance (Boyne et al. 2002; Mack & Ryan 2003) and operating results are of high importance (Tayib, Coombs & Amin 1999).

Table 6
Mean Factor Scores for the Importance of Disclosure by User Group

| | **Financial expenses** | **Student-centred** | **Financial Performance** | **Overview** |
|---|---|---|---|---|
| **All Reader-respondent users** (n = 185) | 3.55 | 3.51 | 3.72 | 3.40 |
| **Dependent Reader-respondent users** (n = 124) | 3.42 | 3.50 | 3.52 | 3.32 |
| **Non-dependent Reader-respondent users** (n = 61) | 3.80 | 3.52 | 4.11 | 3.58 |
| **Between User Groups** | | | | |
| Z statistic | -1.79 | -0.62 | -3.13 | -0.93 |
| Significance | 0.07 | 0.54 | 0.00** | 0.35 |

**p <0.01

The data was further partitioned to reflect the relative importance placed by each user group on information categorised within each of the four factors. The results of the Friedman Test for both dependent reader-respondent users and non-dependent reader-respondent users found a statistically significant difference in scores across all four factors ($\chi^2$ (3, n = 124) = 7.956, $p < 0.05$; $\chi^2$ (3, n = 61) = 21.826, $p < 0.001$; respectively).

[17] Financial Performance / Financial Expenses, z = -2.935, p = 0.003; Financial Performance / Student-Centred, z = -2.808, p = 0.005; Financial Performance / Overview, z = -4.782, p = 0.000.

Statistically, dependent reader-respondent users placed more importance on financial performance and relatively less importance on overview information ($z = -2.65$, $p = 0.008$)[18]. Non-dependent reader-respondent users were more hierarchical in their views on the relative importance of each of the factors. A significant difference was detected between all factor means with the exception of student-centred and overview information[19].

The mean factor scores of the two reader-respondent user groups (dependent and non-dependent) provide information about the relative importance of annual report information. Both user groups hold similar views on the importance for disclosure of student-centred information although non-dependent users rate this item as the least important disclosure. Non-dependent users place more importance on financial performance than dependent users ($p < 0.01$) and rate overview material such as the Board of Trustees' report and the Principal's report more highly compared to dependent users, possibly reflecting their input into the preparation of these reports.

*Decision-Usefulness of School Annual Reports*

Table 7

Decision Based on Information Presented in Annual Report

| N/A | No | Yes | Specifics |
|---|---|---|---|
| 7 | 132 (n = 185) | 46 | • Increase in working capital required<br>• Funds available for future use<br>• Financial performance in line with budget<br>• Allocation of extra money to special needs<br>• Sourcing of additional international students + boarders<br>• How school will help child achieve her goals<br>• Resources available to assist child learn<br>• Is this a school that we wish to send our girls to<br>• Subject choice<br>• Identify areas for improvement in student performance<br>• Basis for discussion on goals of special needs unit<br>• Accountability of schools in preparing students for post school<br>• Goals and resourcing for staff professional development<br>• Can the school academically provide for my daughter in yrs 11-13<br>• Continuance of enrolment at school based on schools academic achievements<br>• Is the school at risk from Ministry of Education intervention<br>• Continuance of a particular programme of student improvement<br>• Monitor school financial performance as a BoT member<br>• Opportunity for expenditure of surplus<br>• Availability of resourcing for staff<br>• Opportunities for excursions<br>• Ensure inappropriate build up of financial reserves at expense of academic achievement<br>• Sufficient future cash flows<br>• Motivation to get involved with Home and School for local fundraising<br>• To ensure that all BoT decisions are in line with annual report<br>• Whether to provide a donation<br>• To hold the BoT to account in understanding its role and the needs of the school |

[18] Financial Expenses / Student-Centred, $z = -1.718$, $p = 0.086$; Financial Expenses / Financial Performance, $z = -1.769$, $p = 0.077$; Financial Expenses / Overview, $z = -0.944$, $p = 0.345$; Student-Centred / Financial Performance, $z = -0.460$, $p = 0.645$; Student-Centred / Overview, $z = -1.991$, $p = 0.046$.

[19] Financial Expenses / Student-Centred, $z = -2.352$, $p = 0.019$; Financial Expenses / Financial Performance, $z = -2.588$, $p = 0.010$; Financial Expenses / Overview, $z = -2.268$, $p = 0.023$; Student-Centred / Financial Performance, $z = -4.073$, $z = 0.000$; Student-Centred / Overview, $z = -0.322$, $p = 0.747$; Financial Performance / Overview, $z = -4.343$, $p = 0.000$.

Although it is apparent that public accountability primarily underpins the usefulness of purpose of school annual reporting, the findings summarised in Table 2 do indicate some level of usefulness for decision making. Indeed, 24 per cent of recipients who read the annual report used information contained therein to make a decision. Table 7 identifies the range of decisions that have been made based on the information in the annual report.

Of the 27 decisions identified, nine are related to financial issues and include availability of funds (cash flows), fundraising, donations, staff resources, financial performance, and financial reserves. A number of items are related to academic and school environment issues – the suitability of the school, subject choice, ability to meet special needs of some students, and preparation for the post-school environment. Other respondents are concerned about the performance of the Board of Trustees.

*Qualities of School Annual Reporting*

The usefulness of information depends on a number of qualities and there is an expectation that school annual reports would be framed around the given range of qualitative features underpinning general purpose financial reporting. Tables 8 and 9 summarise the qualities that respondents expect of school annual reports and the extent to which these qualities are demonstrated in current school annual reporting.

Strong emphasis is placed on the primary qualitative characteristics that underpin general purpose financial reporting and, in particular, *understandability*, *reliability* and *timeliness*. *Readability* rated highly as a desired qualitative feature and may be distinguished from *understandability* with a focus on structure and presentation as opposed to technicality of content. Although, *comparability to other schools* and *visual appeal* are the least important, their mean score indicates an expectation by respondents for the school annual report to be constructed and presented in a manner that enables comparability with other (competitor) schools and have reader appeal. Dependent and non-dependent users hold similar views as to their expectations that school annual reports will exhibit the defined qualitative characteristics.

Table 8
Qualitative Features – Expectation

| | **All (ranked)** (n=185) | **Depend** (n=124) | **Non-depend** (n=61) | **Between** **Z stat** | **Sig** |
|---|---|---|---|---|---|
| Be understandable | 4.73 | 4.71 | 4.79 | -1.272 | 0.203 |
| Be reliable | 4.72 | 4.67 | 4.82 | -1.511 | 0.131 |
| Be readable | 4.71 | 4.73 | 4.65 | -1.396 | 0.163 |
| Be timely | 4.54 | 4.59 | 4.44 | -0.733 | 0.463 |
| 'Balanced' view | 4.29 | 4.35 | 4.14 | -1.404 | 0.160 |
| Future plans and intentions | 4.27 | 4.37 | 4.03 | -2.258 | 0.024* |
| Be decision-useful | 4.21 | 4.19 | 4.26 | -0.776 | 0.438 |
| Be comparable over time | 4.15 | 4.17 | 4.11 | -0.056 | 0.955 |
| Be comparable to other schools | 3.49 | 3.61 | 3.18 | -2.269 | 0.023* |
| Visual appeal | 3.28 | 3.38 | 3.05 | -2.285 | 0.022* |

Scale: 1 = strongly disagree; 5 = strongly agree.
* Significant at $p < 0.05$

To determine if the expectations with regard to qualitative characteristics were being met, respondents were asked to indicate on a Likert scale of one to five (one being 'strongly disagree' and five being 'strongly agree') the extent to which they agreed/disagreed that the annual report exhibited defined qualitative characteristics. Table 9 reports the respondents' mean scores.

Table 9
Qualitative Features – Actual

| | All (ranked) n = 185 | Depend n = 124 | Non-depend n = 61 | Between Z stat | Between Sig |
|---|---|---|---|---|---|
| Information was reliable | 3.86 | 3.64 | 4.28 | -4.669 | 0.000** |
| Very easy to understand | 3.74 | 3.64 | 3.94 | -2.334 | 0.020* |
| Able to access the report at the time that I required the appropriate information (Timeliness) | 3.63 | 3.47 | 3.93 | -4.191 | 0.000** |
| Very readable | 3.62 | 3.40 | 4.06 | -4.470 | 0.000** |
| Provides a summary of all achievements and not just 'good news' ('Balanced' view) | 3.58 | 3.47 | 3.81 | -2.232 | 0.026* |
| Provided sufficient information to compare how well school had performed over a 2-year period time (Comparable over time) | 3.52 | 3.36 | 3.84 | -3.004 | 0.003** |
| Presented in a form that maintained my interest (Visual appeal) | 3.39 | 3.30 | 3.55 | -1.499 | 0.134 |
| Provided good understanding of future plans and intentions | 3.36 | 3.22 | 3.63 | -2.392 | 0.017* |
| Very useful in making a decision | 3.05 | 2.92 | 3.32 | -2.666 | 0.008** |
| Provided sufficient information to determine how well school performed in comparison to other schools | 3.00 | 3.05 | 2.90 | -0.599 | 0.549 |

Scale: 1 = strongly disagree; 5 = strongly agree. * Significant at $p < 0.05$ ** Significant at $p < 0.01$

All respondents 'agreed'[20], but not strongly agreed, that the annual report exhibited the qualitative features specified. Non-dependent users hold a stronger view, compared to dependent users, that, in general, the school annual report is framed around the primary qualitative characteristics that underpin general purpose financial reporting. While it is acknowledged that qualitative features vary according to respondents' perceptions on the relative levels of importance, the extent to which the to-be-expected qualitative features are evidenced within the school annual report nevertheless indicates much room for improvement. Thus, for example, while there is strong agreement amongst respondents that *understandability* is a very important quality of school annual reporting (mean of 4.73), respondents are less convinced that the annual reports, in their current form, are understandable (mean of 3.74). Similarly, there was an expectation that information in the school annual report would be decision-useful (mean 4.21) however actual decision-usefulness was rated somewhat lower (mean 3.05). The reporting implications of these differences can be contrasted to say 'comparability to other schools' whereby its neutral position (a '3' on the Likert scale) for the perceived extent to which school annual reports are useful in this regard has limited effect given that it was rated as a 'mild' level of importance (expectation mean of 3.49).

## 7. Conclusion

The requirement for public accountability of schools acknowledges the rights of the community as a whole to reports that convey a picture of the school's educational endeavours and achievements, and the stewardship of resources under its control. In the context of this research the information is provided in the school's annual report which is distributed to those who have a legitimate interest in the school. It includes both financial

[20] A score of 2-3 was regarded as disagreed, 3-4 as agreed and 4-5 as strongly agreed.

and non-financial information and is the most comprehensive document available to parents and interested parties. This study, by conducting an empirical analysis, has contributed to our understanding of the role of the annual report as an accountability medium in the context of NZ schools.

The results support the notion that the school annual report has a useful, but perhaps overemphasised role as a source of information in the discharge of accountability. The finding that the annual report is most commonly used to determine if the school has conducted its activities effectively, can meet its financial obligations and has adhered to budget, is indicative of its usefulness for accountability purposes. It therefore assists in the assessment of efficiency and effectiveness which requires a variety of financial and non-financial information (Sherer & Kent, 1983). Efficiency relates to outputs achieved from inputs and effectiveness relates to the extent to which parents/caregivers feel their needs are being satisfied. In this sense, the annual report serves a monitoring purpose. The annual report is also used for decision-making purposes primarily as a basis for assessing the appropriateness of the school for children to attend. These aspects exemplify the evaluation aspect of accountability which leads to informed actions and rational judgements made on the basis of the information supplied. In the context of this research, evaluation is an important role of the annual report.

Other findings of this research have implications for policy makers, and account preparers, and concern the role of the school annual report as a source of information. We find that the annual report is not read by 15 per cent of the respondents mainly because they rely on other people or alternative media to inform them of school activities. Moreover, other media such as newsletters and parent-teacher interviews, respondents' own children, other parents/children, and discussions with school personnel are considered by respondents who do read the annual report to be more important sources of information. This indicates that public accountability may be discharged more effectively through media other than the annual report. Therefore, and despite the rhetoric surrounding the requirement for school annual reporting that openly acknowledges the accountability of schools to the Government and the community, the annual report does not seem to play a leading role as a conduit through which the school is able to enter into dialogue with its constituencies. While there are statutory requirements specific to information required by the NZ Ministry of Education, some parents find the size of the annual report daunting and that considerable time commitment is required to gain an understanding of its contents. It would appear imperative that policy makers review the functional role of the school annual report which is a costly document to produce. Further, school managers need to engage alternative means to communicate sufficient and meaningful information in the discharge of public accountability.

A limitation to this research concerns the manner in which users of school annual reports have been identified in this research. The empirical evidence was collected from a questionnaire that was inserted in annual reports which were then made available to interested persons. This self selection of individuals (that is, those persons who had sufficient interest and willingness to participate in the research) may represent a biased portion of the wider school annual report user population[21]. Further, given the uncertainty about what constitutes the population of potential school annual report recipients caution needs to be exercised in the interpretation of data as it would be inappropriate to view the data as being statistically representative and generalisable to the broader population of school annual report recipients. Nevertheless, the data provides informative insights into an under-developed area of research.

[21] Studies that include only interested subjects in their work include Jones et al. (1985), Daniels & Daniels (1991), and Dixon et al. (1994).

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## Appendices

### Appendix 1
Rotated Component Matrix

| | Component | |
|---|---|---|
| | 1 | 2 |
| Adhered to budget | **.882** | -.068 |
| Financial Obligations | **.880** | -.024 |
| Appropriate use of public money | **.787** | .263 |
| Effective conduct of activities | **.648** | .368 |
| Decision to send child to school | -.063 | **.770** |
| Comment on educational programmes | .123 | **.731** |
| Compare to other schools | .051 | **.642** |
| Likelihood of increase in fees/fund raising | .220 | **.573** |
| Best interest of community | .523 | **.559** |

Extraction method: Principal Component Analysis.
Rotation method: Varimax with Kaiser Normalization
a. Rotation converged in 3 iterations.

### Appendix 2
Rotated Component Matrix

| | Component | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Cost of administration | **.904** | .144 | .249 | .145 |
| Cost of property management | **.879** | .098 | .289 | .169 |
| Cost of learning resources | **.874** | .187 | .240 | .167 |
| Cost of locally raised funds | **.867** | .120 | .213 | .154 |
| Staff resources | **.546** | .421 | .012 | .284 |
| Major capital works and development | **.400** | .398 | .200 | .185 |
| Academic achievements | .062 | **.757** | .092 | -.125 |
| School leaver destinations | .150 | **.753** | -.202 | .105 |
| Extra-curricular achievements | -.019 | **.742** | 0.038 | .306 |
| Non-cognitive information | .087 | **.719** | .136 | .072 |
| Library resources | .168 | **.678** | -.141 | .250 |
| Graphics and tables | .313 | **.546** | .176 | -.001 |
| Student enrolment | .333 | **.537** | .102 | .078 |
| Performance in achieving objectives and goals | .006 | **.281** | .086 | -.045 |
| Financial summary and analysis | .191 | .099 | **.833** | .198 |
| Actual to budget financial performance | .212 | .040 | **.819** | .109 |
| Financial statements | .327 | .021 | **.797** | .241 |
| Audit report | .192 | .073 | **.737** | .214 |
| Chairperson's report | .084 | .090 | .406 | **.752** |
| Board of trustees membership | .156 | -.073 | .085 | **.733** |
| Principal's report | .213 | .117 | .310 | **.609** |
| Contextual background information | .227 | .265 | .130 | **.581** |

Extraction method: Principal Component Analysis.
Rotation method: Varimax with Kaiser Normalization
a. Rotation converged in 6 iterations.