

SCHOLARSHIP LANGUAGES: HAS NCEA MADE A DIFFERENCE?

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ABSTRACT

This paper sets out to examine, using data provided by the New Zealand Qualifications Authority (NZQA), to what extent pre-2004 results in languages at scholarship level in the final school year in the external examinations differ from the results of the 2004 National Certificate of Educational Achievement (NCEA) Level 3 and Scholarship examinations. Results refer to the combined University Bursaries and Scholarship (UEBS) examination prior to 2004 and to the 2004 Level 3 single-skill Languages Achievement Standards and the separate 2004 Scholarship Languages examinations. Results from the four years preceding 2004 (i.e., 2000 to 2003 inclusive) covered all UEBS candidates of Chinese, French, German, Japanese and Spanish. Results from 2004 consisted of all candidates who entered for Level 3 Achievement Standards linked to any results of those who chose to enter for the Scholarship Languages examination. The main findings revealed that candidates who achieved well in the Level 3 assessments had a high chance of success at scholarship level and were more likely to achieve a scholarship award than under the previous system.

INTRODUCTION

Since 2002, the New Zealand Qualifications Framework has given students opportunities to gain credits towards qualifications through Standards-Based Assessment (SBA) practices. This qualification was introduced gradually to the senior secondary school with Year 11 students having this opportunity in 2002, Year 12 in 2003 and Year 13 in 2004. These credits are gained in separate skill areas, allowing students who are strong in one skill area but weak in others to still gain recognition for their achievements. One possible disadvantage of SBA, however, is that, in the classroom, there may be little synergy among the discrete skills: our experience suggests that teachers tend to focus on specific preparation for the listening, reading, writing and speaking assessments as discrete items.

In this paper we describe the results of our research into the consequences of the change from the previous system of awarding a scholarship to a percentage of candidates in a single University Entrance and Bursaries and Scholarship (UEBS) examination to the new SBA system.

THE NEW SYSTEM

The new system awards a scholarship to candidates who, in an examination dedicated to scholarship level only, demonstrate an ability to integrate language skills to a high level according to a set of defined criteria.

The integration of skills found in the Scholarship examinations is not, however, required for the six single skill assessments of Level 3 NCEA which candidates generally attempt

throughout the same Year 13 school year. It is possible that in the three to five-year period leading up to these assessments, the learning programme concentrates on the four discrete skills of the Level 3 assessments.¹

If this is the case, then, current Level 3 candidates who elect to sit the scholarship examination may not have had sufficient opportunities to practise integrating the skills, meaning that they would therefore be less prepared to meet the different demands of the Scholarship Standard than the pre-2004 examination candidates sitting the combined UEBS norm-referenced examination, which simply awarded the top candidates with a scholarship.

From about 1990 until 2003, 3 to 5 per cent of candidates sitting their chosen target language UEBS examination were awarded Scholarship after grades had been scaled to a pre-determined norm. For languages candidates, the skills examined were as diverse as translation into English and answering reading and listening comprehension questions in the target language. The introduction of single skill examinations in 2002 at Year 11, the third year of high school, brought with it changes in assessment design for languages such as:

- the discrete examination of the four language skills (listening, reading, writing and speaking);
- the use of English, and not the target language, for the questions and answers in the reading and listening comprehension questions; and
- the omission of the traditional translation from the target language component.

During this time, an expert group began the development of the Scholarship Standard for languages. This group identified the skills required of a Scholarship student by focusing on target language skills via holistically designed higher thinking skill tasks, for example, re-introducing the format in which questions are posed in the target language and generally requiring the ability to transfer knowledge across the four language skills. The resulting Scholarship Standard for languages (New Zealand Qualifications Authority, 2004) stated that a candidate at this level “should be able to respond in speech and in writing in [selected second language], to complex written and spoken stimulus material in [selected second language]”.

To gain a scholarship, these responses will show the ability to:

- extract information from given material and use this to express and develop ideas in a coherent manner; and
- communicate accurately and fluently, using a wide variety of complex structures and vocabulary.

To gain a ‘Scholarship with Outstanding Performance’ the candidate will also need to show the ability to:

- sustain a high quality of language throughout;
- use language with flexibility;
- communicate in a convincing manner.

In contrast, while candidates who gain ‘Achievement with Excellence’ at NCEA level 3 speaking and/or writing do need to demonstrate an ability to organise their ideas and communicate them with fluency using accurate and complex language, they do not have the added demands of the questions on the texts being presented in the target language.

¹ That is, the four discrete skills of listening, reading, writing and speaking are examined through six assessments, with writing and speaking each having two assessments.

In 2004, separate Scholarship examinations were administered for the first time in a wholly SBA environment where candidates who met the standard were awarded the allocated grade regardless of how many (or few) achieved at each level. Candidates were given one of three grades:

1. Scholarship Not Achieved (N)
2. Scholarship Achieved (S)
3. Scholarship Achieved with Outstanding Performance (O).

LITERATURE REVIEW

The knowledge and skills assessed through the Scholarship Standard for languages is akin to the 'rich knowledge and skills' referred to by Davis (1995) who argues that the complexity and variety of such knowledge and skills cannot be captured through national standards and their criteria. This argument lends support to our initial thoughts that New Zealand students, whose language abilities had been assessed through three years of internally and externally administered single-skill NCEA Achievement Standards, would not be adequately prepared for the demands of the integrated nature of the Scholarship Languages examination.

The atomization of learning in SBA in the New Zealand context is further critiqued by Davis (1996), along with others (Hearn, 1997; Hall, 1999; Boss et al., 2001). Particularly in reference to Unit Standards - the precursor to Achievement Standards - claims are made that an atomization of integrated knowledge can distort the curriculum and may lead to the growth of an assessment curriculum rather than a learning curriculum (Singh-Morris, 1997).

A different problem is highlighted by media reaction to published results of the new scholarship examinations. Blanket reports suggested that all candidates in the 2004 round of scholarships examinations were not 'treated fairly' and were not awarded the scholarships they deserved. Several widely distributed publications included comments such as "we were deeply concerned about the credibility of their Scholarship design, but they [NZQA] were determined to drive it through. And a lot of kids paid the price" (Coombe, 2005, p. 47). Some demonstrated a lack of understanding about SBA, claiming that "dumbing-down has accelerated enormously under the NCEA" (Barrett, R, 2004, p. 39), while others were more concerned about the perceived variation between subjects, stating that "the low pass rates and wild variations between exam results, which saw a world-class science student fail a Scholarship chemistry exam while another student passed geography without attending a single lesson, have shocked parents, students and teachers alike." (Richardson, 2005, pp 28-29). The implication of these and other similar statements for languages candidates are that they would be worse off under the SBA system of awarding scholarships than under the previous system of scaled results and percentage allocation of scholarship awards.

However, standards-based reform is consistent with an emerging view of assessment *for* learning rather than assessment *of* learning (Assessment Reform Group, 1999; Black & Wiliam, 1998). This more student-centred pedagogical approach that is required with SBA certainly has support in the languages arena. Ellis (2005) has outlined a set of ten general principles for successful instructed learning drawn from a wide range of research related to the acquisition of second languages in the classroom setting. All of the principles make reference to the needs of the language learners either implicitly or explicitly with Principle Ten highlighting the importance of a balance between 'free' and 'controlled' production. This principle in particular supports the way in which languages are assessed under NCEA in that candidates have opportunities to be assessed both in the classroom setting through internally assessed activities and through the externally set and administered Achievement Standards. The National Assessment Facilitator for languages at the NZQA has noted

(Steel, 2005) that in practice language teachers 'have come a long way' in developing their understanding of the principles for the assessment of languages in an SBA environment.

THE STUDY

There are therefore arguments both for and against the new system for assessing scholarship-level performance. In our role as school support advisers for languages, and through our involvement with the implementation of NCEA languages in secondary school classrooms, it was also noticeable that teachers of languages were becoming increasingly confident in their assessment of languages students in the SBA environment. What was of concern, however, was the difficulty for teachers of languages in accessing materials and professional development opportunities to aid the understanding of the learning and preparation required by the students for the new Scholarship Languages examination.

The literature reviewed forms a useful backdrop for exploring the results of Year 13 language students and their opportunities for success at the scholarship level in the new SBA environment. The aim of this research was therefore twofold. The first aim was to determine if there was indeed a decrease in the percentage of Languages Scholarships awarded in 2004 when compared to the percentage awarded prior to 2004 under the UEBS examination. The second aim was to determine whether or not those candidates who did well in the discrete skill-focused examinations of NCEA Level 3 were also able to achieve Scholarship which had a focus on integrated skills.

METHODOLOGY

In order to determine the relative success between various cohorts sitting scholarship examinations across several languages we gathered the following historical data from the NZQA for the years 2000 to 2003:

- The total number of candidates sitting UEBS examinations in each of the following languages: Chinese, French, German, Japanese and Spanish
- The percentage of Scholarships awarded to candidates for each year in question and each language concerned.

For the year 2004, we received information from the NZQA for each of the above-mentioned languages:

- The total number of candidates entering level 3 NCEA
- A tally of all the Scholarship Languages results. These results were graded with one of the following three grades: Scholarship Not Achieved (N) or Scholarship Achieved (S) or Scholarship Achieved with Outstanding Performance (O)
- Each Scholarship examination candidate's individual results for the up to six Level 3 NCEA Achievement Standards. These results were represented as a tally of the number of Not Achieved (N), Achieved (A), Achieved with Merit (M) and Achieved with Excellence (E).

To find out how successful candidates were in gaining a Scholarship award in 2004 in comparison to the success of candidates pre-2004 in *all five* languages, our approach involved three calculations:

TO FIND COMPARABLE PERCENTAGES

For pre-2004 data: We divided the number of candidates who gained a scholarship in languages by the total number of those who entered the UEBS examination in each of the years 2000, 2001, 2002 and 2003.

For 2004 data: We divided the number of candidates who gained a scholarship (with a result of either S or O) by the total number of candidates entered for NCEA Level 3 languages.

We also performed these calculations for each of the individual languages under investigation.

TO DETERMINE STATISTICAL SIGNIFICANCE

We performed a z-test to determine if there were statistically significant differences between the 2004 results and each of the results of the four previous years as determined under Calculation 1. A statistical significance is identified if the results of a z-test indicate that the probability (p) that a difference could have been observed even though there was no difference between the two years is below .05 or 5%. The z-test is a standard test for pair-wise comparisons of ratios (Sharp, 1979).

In order to establish whether or not candidates in 2004 who did well in the discrete skill-focused examinations of NCEA Level 3 were also able to achieve Scholarship which had a focus on integrated skills we devised the following approach. For each candidate who entered a 2004 Scholarship Languages examination, we attached a performance value or weighting to each of their N/A/M/E grades awarded in the Level 3 NCEA results:

- Ns were multiplied by 0
- As were multiplied by 1
- Ms were multiplied by 2
- Es were multiplied by 3.

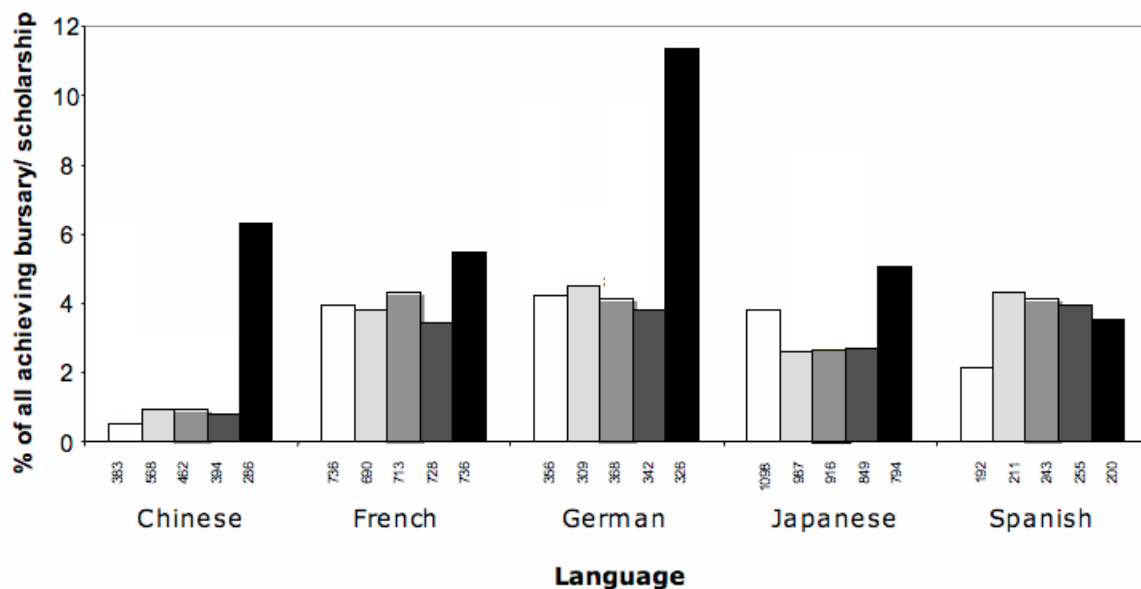
The resulting sum was then divided by the number of assessments the student attempted. This could be up to six. The highest possible performance value in this calculation was 3, indicating a Top Achiever who gained Achieved with Excellence (E) for each Achievement Standard sat, and decreasing in value with candidates who achieved at Level 3 in a variety of lower grades. The performance values for the NCEA Level 3 candidates was then graphed to their achievement level in the Scholarship examination, enabling us to construct the results given below (Figure 2). This type of performance value calculation is in line with the Scholarship Technical Advisory Group (STAG) established in 2005 to oversee and advise the NZQA on technical issues about the awarding of Scholarship. One member of the STAG, Professor John Hattie, defends this use of weightings for the purposes of calculating a candidate's aggregated performance, stating that it is 'not an unreasonable set of weights' (personal communication, 14 April, 2006).

A chi square test was used to determine whether the numbers of students of different languages who achieved Scholarship with Outstanding Performance were different to what would have been expected if there were no differences in the probability of achieving Outstanding Performance between languages. The chi square test is a standard test for determining differences within a set of categories (Sharp, 1979). A statistically significant difference between observed frequencies and expected frequencies is identified where $p < .05$.

RESULTS

In relation to our first aim to determine if there was a decrease in the percentage of Languages Scholarships awarded in 2004 when compared to the percentage awarded prior to 2004, the results showed that in several languages the chance of being awarded a Languages Scholarship in 2004 was not lower but indeed higher than the chance of gaining one under the UEBS examinations for languages in the previous four years. In none of the languages (apart from Spanish) did the chance of obtaining a Scholarship award decrease under the new system (Figure 1). In fact, the chance of gaining an award was greatly increased for Chinese (six-fold), German (three-fold) and Japanese (two-fold). Results of the z-test indicated that for Chinese and German the increase was significant at $p < 0.001$ in relation to all four years' results compared with the 2004 results. For Japanese the increase was significant at $p < 0.01$ for 2001, 2002 and 2003 results compared with 2004 results.

Figure 1. *Percentage of all achieving Bursary / Scholarship 2000 - 2004*

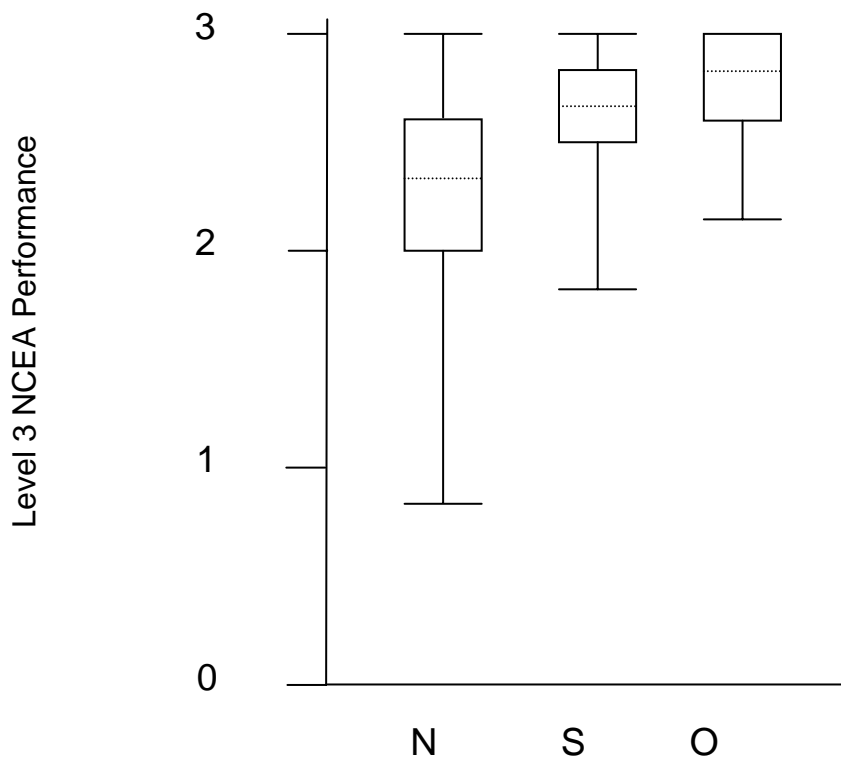


Note:

Percentage of all candidates entered in a given language awarded a Scholarship in 2000 (unfilled bars), 2001 (light gray bars), 2002 (medium gray bars), 2003 (dark gray bars), 2004 (black bars). The numbers under the bars are the numbers of candidates who entered for the Bursary examination / NCEA level 3 assessment in the given year.

With regard to our second aim, Figure 2 below shows the relationship between NCEA Level 3 results and Scholarship results in 2004 for the five languages. There is a good although not perfect relationship, which shows that the performance at NCEA Level 3 appears to be a fairly reliable indicator of success at Scholarship examinations. NCEA Level 3 performance levels were converted into performance values as described in the Methodology section. The figure shows the distribution of these performance levels amongst those candidates Not Achieving Scholarship (N), those who Achieved Scholarship (S), and those who Achieved Scholarship with Outstanding Performance (O). The boxes in this Figure represent the performance value of all Scholarship Languages candidates, linked to their performance results in the Scholarship Languages Examination.

Figure 2. NCEA compared to Scholarship performance

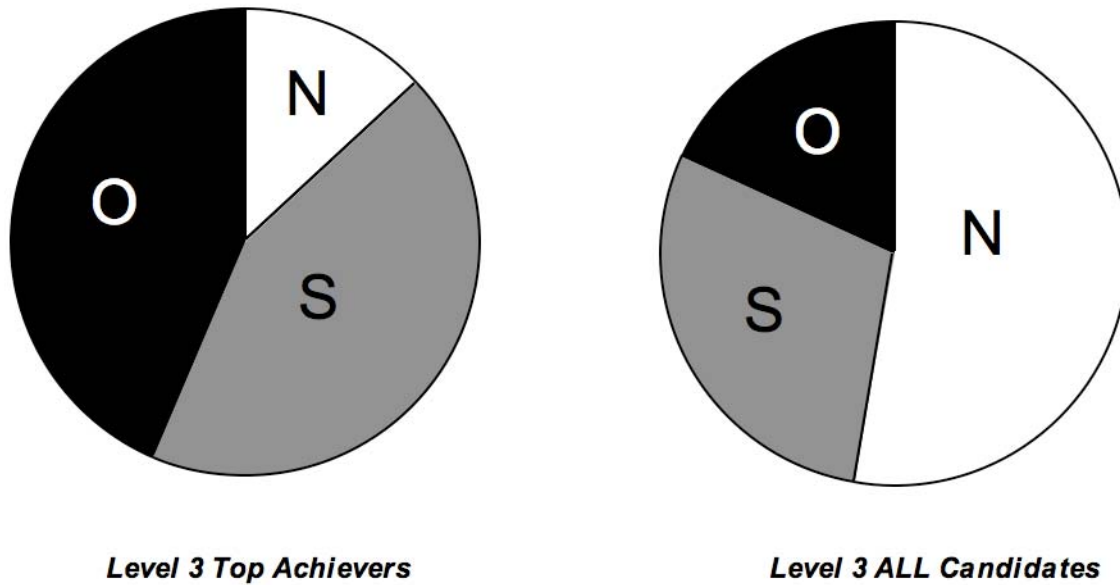


Note:

The Figure illustrates the relationship between NCEA Level 3 performance and success in 2004 Scholarship Languages Examinations for all 300 candidates sitting Scholarship. Of these 158 were awarded N (Not Achieved), whereas 88 achieved Scholarship (S) and 54 achieved Scholarship with Outstanding Performance (O).

We then focused our statistical analysis on the Top Achievers, that is, the candidates who Achieved with Excellence in all assessments they sat at NCEA Level 3 and therefore were given a performance value of '3' for the purposes of this study. This analysis confirmed that for these Top Achievers their good performance at NCEA Level 3 assessments was indeed linked to success in the Scholarship examinations. Figure 3 shows that the value '3' candidates performed better than the entire cohort. Indeed they were significantly more likely to achieve Outstanding Scholarship (43% vs. 18%; $p < 0.001$, z-test) and significantly fewer likely to Not Achieve than the entire cohort (13% vs. 52%; $p < 0.001$, z-test).

Figure 3. 2004 Scholarship Languages results

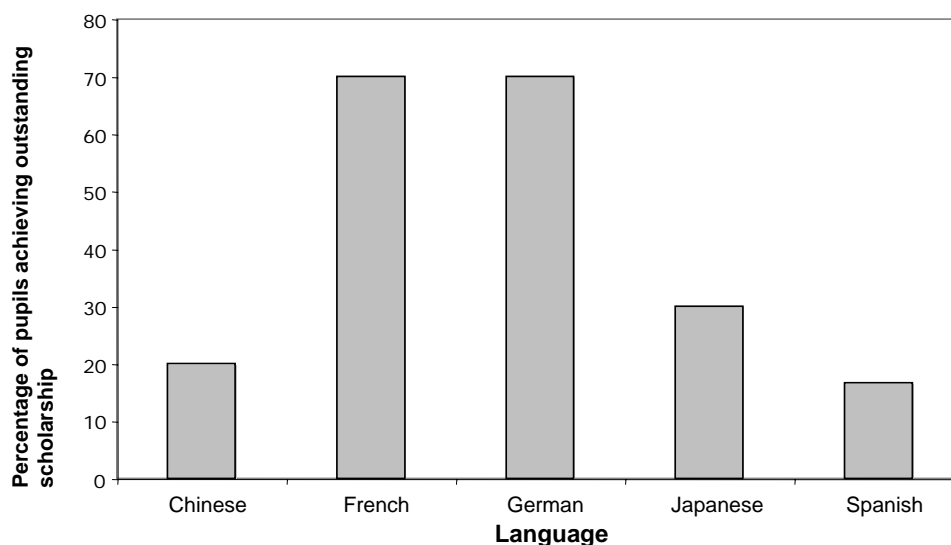


Note:

These results are for 46 Top Achievers and ALL candidates (n = 300)

Of interest also is the breakdown by language of the candidates with performance value '3' who achieved the highest scholarship grade, that of Outstanding Performance (O). It appeared from the data that there might be considerable differences in the chance of gaining a Scholarship with Outstanding Performance in some languages (Figure 4). These differences were not significant in a chi square test. This could be due to the small number of data points (one candidate = one data point).

Figure 4. *Scholarship with Outstanding Performance across languages*



Note:

The Figure shows the percentage of candidates of different languages achieving performance values in all six level 3 NCEA achievement standards who achieved Scholarship with Outstanding Performance in 2004. The number of candidates with Scholarship examination results were: Chinese - 25; French - 73; German - 74; Japanese - 108; Spanish - 20.

DISCUSSION

We expected two main results. Firstly, given the numerous media claims in early 2005 about the Scholarship results of 2004, we hypothesised that candidates entering for Scholarship Languages in 2004 would not experience as much success as those who entered UEBS pre-2004. Secondly, we hypothesised that there would not necessarily be a strong relationship between success at Level 3 NCEA and success at scholarship due to the very different nature of the performances required for each.

As presented in the previous section, it is clear that the data did not bear out our first hypothesis. The 2004 Languages Scholarship examination results showed a marked increase in the number of scholarships awarded across most languages. This suggests that, contrary to the overall public perception, at least in the *Learning Languages* domain, the standard of the Scholarship examinations was set at an appropriate level to enable candidates to demonstrate their knowledge and ability to an acceptable standard. There is of course a possibility that the Scholarship Standard is too easy but it is our impression that there is wide consensus in the teaching community that this is not the case. In relation to the second hypothesised result, we did in fact find a relatively strong relationship between success at Level 3 NCEA languages and success at Scholarship Languages, suggesting that the new SBA system has not led to changes in teaching which negatively affect integration of the four language skills.

In 2004 there was a markedly higher proportion of languages students being awarded scholarships. We suspect that it was a mixture of both good classroom practice and a Scholarship Standard pitched at a challenging enough, yet not unrealistic, level, which led to the award of such a high number of scholarships to candidates. Particularly remarkable in the 2004 figures is the statistically significant increase in the number of scholarship awards in Chinese (six-fold increase) and German (three-fold increase) and Japanese (two-fold increase). Whether this trend continues, and whether the Scholarship Standard's level of complexity or improved classroom teaching and learning practice can explain these developments remain to be seen and warrant further research.

In addition, this study has clearly shown that Top Achieving candidates for each Achievement Standard at Level 3 NCEA have a high chance of success at Scholarship and Scholarship with Outstanding Performance.

This study deals exclusively with results from 2004. From 2005, to address the variances and discrepancies across subjects in the Scholarship system, a strict 'scholarship allowance' was put in place, limiting the number of scholarship awards. This means that the parameters have changed and the competition for scholarship awards is fiercer. Teachers and potential candidates alike will no doubt carefully weigh up the likelihood of achieving a scholarship in this new environment. However, the way that languages are taught and the way that languages are assessed in the Scholarship examination have not changed. On this basis there is hope that even with the post-2004 modifications, language students will continue to perform well at Scholarship level (even though in practice the number of scholarship allowances may be limited).

The pedagogical benefits (for the whole class) of the journey of preparing for the scholarship regardless of the outcome (gaining a scholarship or not) does require effort all round but must surely be a worthwhile one. In order for students of languages to continue engaging in higher-level languages tasks and in order for them to increase their chances of success in gaining a scholarship in the highest performance categories, we recommend the following steps that might benefit all students of languages.

- Students should consider their true chances of reaching the highest performance categories based on their NCEA Level 3 results gained during the year and their own assessment of their ability and work ethic
- Both students and teachers should engage in tasks encompassing wide reading, watching and listening of and to target language content to extend familiarity with the language and in a wide array of topics
- Teachers must be willing and able to give rich feedback to the scholarship candidates to support their development.

CONCLUSIONS

As discussed above there are two main conclusions from this research.

- 1 Despite media reports about the new system being unfair on candidates, the results from 2004 Scholarship Languages examinations showed that good candidates were no less likely to achieve a scholarship in 2004 than under the previous system.
- 2 There is a link between success in languages at NCEA Level 3 and scholarship achievement. Top Achievers, who 'Achieved with Excellence' in all six Achievement Standards at Level 3, are more likely to gain either a Scholarship or a 'Scholarship with Outstanding Performance' than candidates who had mixed results, or attempted fewer Achievement Standards at Level 3.

Overall, the curriculum area of *Learning Languages* seems to have benefited, as measured by achievement at scholarship level, from the introduction of SBA through the implementation of NCEA, suggesting that the changing needs of learners and the curriculum documents are addressed well by teachers. Continued investigation of scholarship results and their relationship to the implementation of NCEA and improved classroom practice will be of ongoing interest, particularly given the now restricted allocation of scholarships and hence more competition for these.

We do have a concern that there will be a decline in Scholarship success rates of Top Achieving languages candidates at Level 3 NCEA but this is more likely to occur as a result of the new restrictions placed on the number of scholarships able to be awarded than because of an atomization of teaching through concentrating on skills development (Davis, 1995, cited in Zepke et al., 2005) in the final three years of schooling.

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