

Summary

Applying double standards? Discrepancies between immigrant pupils' grades in school-based and national examinations in Dutch Secondary Education

Final examinations in Dutch secondary education consist of two parts: a school-based internal examination (school examination, SE) and a national examination (central examination, CE). A pupil's final examination grade for each subject is the mean score of two measures: the SE and the CE grades for that subject. Furthermore, secondary education consists of four tracks, differing in level and nominal duration, each of which has its own examination. The tracks are, from lowest to highest: VMBO kbl/bbl, VMBO tl/gl (pre-vocational secondary education: either basic vocational programme or theoretical programme, duration four years), HAVO (senior general secondary education, duration five years) and VWO (pre-university education, duration six years).

Recently, research on examination grades has yielded alarming figures on immigrant pupils' performance. *School average grades* for all examination subjects showed that while immigrant pupils attain only slightly lower levels in the SE, they perform worse than non-immigrant pupils in the CE. As a consequence, the difference between the SE and CE grade for a particular subject – the so-called discrepancy – was in general considerably greater for immigrant pupils than for non-immigrant pupils. Our research intends to map and explain this phenomenon using recent *individual pupil's* SE and CE grades for each subject to answer the following questions:

1a) Do immigrant pupils obtain lower mean SE and CE grades than non-immigrant pupils in clusters of related subjects, and is this dependent on the type of track?

1b) Do immigrant pupils have a greater discrepancy – difference between the SE and CE grades averaged over all subjects – than non-immigrant pupils, and is this dependent on the type of track?

2a) Is the proportion of immigrant pupils per school related to the school's mean SE and CE grades per cluster of related subjects, and does this hold for all types of tracks?

2b) Is the proportion of immigrant pupils per school related to the discrepancy, and does this hold for all types of tracks?

3) If there are ethnic differences in discrepancies between pupils and/or between schools, how might these be explained?

4) How could the differences between immigrant and non-immigrant pupils in final examination performance be reduced? Can 'good practices' be found in schools, or can valuable suggestions be provided in this respect?

We used three databases to answer these questions. The first contains all the data gathered in a large-scale school career research project called VOCL '99. This project started in 1999 and covered some 20,000 pupils entering their first year of secondary education.¹ During this project, data was collected from pupils, their parents, and the school management team on a wide variety of personal, family and school characteristics. In the current research, we added to these data the 2003, 2004 and 2005 individual examination grades of the pupils concerned. Thus, our database includes the examination grades of non-delayed VWO pupils, of non-delayed and one-year delayed HAVO pupils, and non-delayed, one-year and two-year delayed VMBO pupils.

The second database is a national database consisting of the examination grades of all VWO pupils who took their exam in 2006. These data were necessary as a supplement to the first database, which showed a shortage of immigrant VWO pupils and contained only non-delayed VWO pupils. This second database allowed us to generate the most recent figures on the discrepancy between SE and CE for VWO pupils, but it cannot be used to explain the discrepancy (research question 3). The third database contains qualitative data, collected exclusively for the current research. In a sample of schools that participated in VOCL '99 we interviewed teachers and presented a written questionnaire to the management team, in order to reveal possible explanations for the greater discrepancy in the results of immigrant pupils. In addition, we tried to identify schools which provided successful examples of low ethnic differences in discrepancy between SE and CE grades (research question 4).

Within this research, an ethnic group is defined by the pupils' native country, or that of at least one of their parents. We distinguish two main ethnic groups: immigrants and non-immigrants. Non-Dutch pupils originating from European or Western countries are – like autochthonous Dutch pupils – categorized as non-immigrant pupils. Within the immigrant group we further distinguish four subgroups: Turkish, Moroccan, Surinam-Antillean and other non-Western.

The overall results of our research confirm those found previously. In all tracks of secondary education, immigrant pupils show lower examination grades than non-immigrant pupils, with their mean grades across all subjects in the SE being 0.1 to 0.2 points lower, and in the CE, 0.2 to 0.5 points lower than those of non-immigrant pupils.² This means there is a larger discrepancy between grades for both parts of the examination for immigrant pupils in all tracks. For immigrant pupils, the discrepancy, compared to that of non-immigrant pupils, is 0.20 points greater in VMBO bbl, 0.15 points greater in VMBO kbl, 0.27 points greater in VMBO tl, 0.27 points greater in HAVO and 0.13 points greater in VWO (VOCL '99 data). The 2006 national examination

¹ Children in the Netherlands move from primary school to secondary school at the age of 12 or 13 (corresponding to grade 7 in the US).

² With grades ranging from 1 (lowest) to 10 points (highest).

database yields a 0.24 greater discrepancy for immigrant pupils in VWO, which seems to be more in line with figures we found for HAVO and VMBO tl/gl.

These results may seem rather reassuring, uncovering only a moderately greater discrepancy for immigrant pupils, ranging from 0.2 to 0.3 grade points. However, further analysis per track, ethnic subgroup, and cluster of related subjects (research questions 1a and 1b) reveals some substantially higher discrepancies for immigrant pupils. We found that the largest differences in discrepancy, computed across all subjects, were in HAVO and VMBO tl/gl, for Turkish pupils (0.6 points for both) and Moroccan pupils (0.5 and 0.4 points respectively). Analyses per cluster of related subjects show an extra discrepancy for Turkish pupils in science and economics in HAVO (0.9 and 0.7 grade points respectively) and also for Turkish pupils in science and foreign languages in VMBO tl/gl (0.7 and 1.0 grade points respectively). Moroccan pupils show somewhat more moderate figures on these subject clusters: 0.6 point extra discrepancy compared to non-immigrant pupils.

We used multilevel analyses to determine if, as well as pupils, schools as a whole vary in examination results. This turned out to be the case in all tracks, for the mean SE and CE grades across all subjects as well as for the discrepancy between both grades. The proportion of the total variance in discrepancy that can be ascribed to differences between schools varies from 0.12 to 0.27, and is dependent on the type of track.

Following this, we introduced the ethnic composition of schools into the multilevel analyses, in order to determine its influence on examination results, independent of the individual's ethnic background (research questions 2a and 2b). In VWO, HAVO and VMBO tl/gl, we observed decreasing SE and CE mean grades computed across all subjects, as well as an increasing discrepancy as the proportion of immigrant pupils per school increases. The effects are small: for every 10% more immigrant pupils there is a decrease in a school's average SE and CE grades of 0.02 to 0.06 points, and an increase of the school's average discrepancy between SE and CE grades of 0.04 to 0.06 points, additional to the ethnic effect at the individual level. In VMBO kbl/bbl no comparable effects were found.

Having quantified the ethnic-dependent discrepancy between the SE and CE examination grades, we now address its possible explanations (research question 3). Available publications and explanations put forward by teachers in the interviews resulted in a list of almost 100 possible explanations for the extra discrepancy shown for immigrant pupils. We opted for explanations that looked beyond the issue of 'native language', because of the fact that this variable is almost identical with being immigrant in the VOCL '99 study. Multilevel analyses per track allowed us to identify those characteristics of pupils and schools that have a mediating effect on ethnic differences in the discrepancy between SE and CE grades. This is to say that the direct effect of ethnicity on the discrepancy is unravelled into several indirect effects of pupil and school characteristics, thereby decreasing the direct effect of ethnicity. Seven variables regarding pupil characteristics and one variable at school level have been identified as effective in this sense. They can be divided into two categories: objective measures of pupils' performance in the early stages of secondary education on the one hand, and indicators of hard work on the other hand. A better performance in mainly cognitive tests in the first half of secondary education generally leads to less discrepancy in the final

examination, while showing a more diligent attitude to schoolwork surprisingly tends to coincide with more discrepancy. Thus, lower performance in objective tests and being industrious at school together make up an important part of the explanation why immigrant pupils fall behind in the CE, and thus show a larger discrepancy.

The final research question asks about good practices or relevant features of schools, which emerge from a comparison of schools with and without ethnic discrepancy (research question 4). To answer this question, we selected four schools that participated in VOCL '99 within each track, two of which showed a relatively larger discrepancy concerning immigrant pupils, while the other two did not. At each school we interviewed a teacher of mathematics and a Dutch-language teacher.

Information collected in the interviews showed that the teachers in all tracks are not aware of the phenomenon of larger discrepancies for immigrant pupils. Consequently, school policy does not address it, and no institutionalized 'good practices' could be identified. However, we also collected teachers' suggestions, which we considered might indicate why one school shows ethnic differences in discrepancies while another does not. The suggestions give the impression that schools without an increased discrepancy for immigrant pupils differ from other schools in having a clear policy towards examination outcomes – specifically towards the general discrepancy between SE and CE grades – and by maintaining high performance standards, especially in VMBO tl/gl and VWO. These schools are rigorous in their SE and thus manage to attain CE grades that do not differ substantially from their SE grades. Furthermore they are characterized by explicit determination and selection processes in their junior years, and state that someone who has reached the final school year is able to cope with the examination, irrespective of his or her ethnic background. In VMBO kbl/bbl, an active school policy with respect to language competency, along with an integral pupil support system and a broad range of initiatives to make contact with immigrant parents, seem to be characteristic of schools with little or no extra discrepancy for immigrant pupils.

Finally, we compared the explanations found in the quantitative analyses depicted earlier and those arising from the above-mentioned qualitative part of the research, the interviews. *School characteristics* are of special interest in this comparison because they can be good bases for the development of a general school policy to reduce the extra discrepancy in the results of immigrant pupils. The discriminative characteristics we found in the interviews fit reasonably well with the first category of explanatory characteristics resulting from the quantitative analyses. Paying greater attention to the pupils' objective performances during their junior years is in line with a school policy focusing on examination grades, maintaining high standards and being selective in these junior years.

Furthermore, our quantitative and qualitative analyses agree on the *insignificant* effect of school policy with respect to language education for pupils with a language delay. Although command of language is known to be one of the most important impediments for immigrant pupils, we found no contrasts in school policy in this respect in the interviews, nor did the quantitative analyses show any effects of this variable. In fact very few schools have such a policy, although many teachers explicitly express the need for it. Here, it seems, much important work remains to be done. Equally, some other school factors, in contrast to what we expected, had no explanatory power in our analyses.

These are class size, teacher experience, teacher qualifications, homework assistance, the district in which the school is located, and descriptive features of the school such as denomination and school size. Some of the *pupil characteristics* that appeared to be unimportant in explaining the ethnic difference in discrepancy include those representing the pupils' and parents' attitudes to school and the level of the grades that pupils obtained during their junior years.

The fact that subjective school report grades (non-standardized, school-based performance measures) do not account for ethnic differences in discrepancy, while more objective performance measures (applied all over VOCL '99 and standardized) in junior secondary school years and indicators of working hard do, reveals three possible mechanisms. First, assessment of immigrant pupils during their school career may contain a substantial subjective part which may obscure their future real examination performance. Second, ethnic differences in discrepancy that are revealed in the final examination have their precursors during the school career: if pupils were tested in a standardized way during the early years of secondary education, discrepancies could be predicted, and might even be avoided. Third, immigrant pupils who are diligent, and those who perform less well on objective tests, seem to obtain extra credits on school reports and in the SE, but *not* in the CE.

These mechanisms may be dependent on teachers' behaviour and on the examination design as well. Their presence accords with the hypothesis that during secondary education the performance of immigrant pupils, especially if they work hard, is systematically overestimated by their teachers, be it consciously or unconsciously. According to this hypothesis, teachers might have an accommodating attitude towards pupils' accomplishments in language, and correct them insufficiently. This would then result in an insufficient command of language by the time of the final examination. In the SE, immigrant pupils would then manage to obtain relatively high grades because of the design of this part of the final examination: it involves tests that, in comparison to those in the CE, cover smaller parts of subject content, can be taken a second time, and are assessed by their own teachers. Their performance in the CE then finally reveals their lack of mastery, resulting in a greater discrepancy between SE and CE grades.

Although we could not quantitatively identify factors at the school level that might explain extra discrepancies for immigrant pupils, we can formulate some general recommendations based on a combination of quantitative data on pupils and collected qualitative data on schools. Most importantly, schools should give priority to implementing language programmes that combat the language problems of immigrant pupils. It is known that many immigrant children enter secondary education with an insufficient command of the Dutch language and do not succeed in catching up during their secondary school career. Furthermore, pupils should be objectively assessed by standardized tests during their school career. This might allow immigrant pupils to fulfil expectations in the final examination rather than obtaining unexpected lower CE grades. It is also likely that objective tests better inform teachers of their pupils' performance, and at the same time make them aware of the subjective elements in their own assessments and the effects that these may have on the final examination results of immigrant pupils. Finally, schools should systematically evaluate all pupils' final examination results, and use the outcomes to adjust educational processes towards optimal performance. These measures will ultimately improve immigrant pupils' results in

their final secondary education examination, allowing them to enter further education or the labour market adequately equipped. In this way, their opportunities and integration into Dutch society will also improve.

