

# Teachers' Views on the Effects of Streaming According to 'Self-management' Criteria

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## ABSTRACT

The pervasiveness of academic ability grouping, or streaming, as a means of organising students into instructional groups in New Zealand schools remains a dominant discourse, despite international and New Zealand research that casts doubt on the benefits of this practice. This article documents teachers' views on the effects of an innovative form of streaming in one small South Island secondary school. Years 9 and 10 students in this school were streamed not on the basis of academic ability, but on criteria that had been developed from the key competency of 'managing self' (Ministry of Education, 2007). The main advantages of key competency streaming noted by teachers were those of student motivation, the opportunity to meet the perceived needs of different groups of students, and positive 'flow-on' effects. Some concerns raised by the teachers were a lack of role models in the low key competency classes and the potential for stereotyping students, the lack of clarity about the criteria used to place students, the possibility of overlooking the needs of some students, and the long term effects of the streaming system. The authors suggest that discussions about streaming provide a valuable forum for professional learning and that these discussions should be situated within an ethical framework.

## Research paper

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## INTRODUCTION

The grouping of school students according to measures of their academic ability, commonly known as streaming, is a long-standing practice in New Zealand schools. In a review of research on streaming that was undertaken in 1976, Elley noted that "the tradition was already well-established when secondary education for all was undertaken seriously, following the Thomas Report of 1944" (p. 2). The practice of streaming had attracted considerable controversy during the 1970s and Elley's review drew mainly on international research in an attempt to answer the question

posed by many of those involved in education at this time "Should we stream our children into homogeneous ability groups?" (p. 2). As a result of his review of the findings of a number of major international studies and a small number of small-scale New Zealand studies, Elley concluded that "In short, streaming as an educational policy has not really proven itself" (p. 8). Decades after Elley's equivocal summation about the findings of research on streaming, international research argues that streaming does not increase overall achievement in schools (Gamoran, 1992; Ireson, Hallam & Hurley, 2005; Slavin, 1990). In fact, streaming based on ability grouping can be seen to increase inequities between students (Gamoran, 1992; Hanushek & Woessmann, 2005). High-achieving students are more likely to do well in such a system, whereas "low socio-economic status (SES), minority, and immigrant students are disproportionately found in [the] lower tiers" (Schofield, 2010, p. 1519). In the New Zealand context, Hornby, Witte and Mitchell (2011) claim that "that there are few benefits of streaming or banding to the overall academic achievement of pupils" and that there were in fact "widely acknowledged disadvantages of ability grouping in terms of increased behavioural problems, decreased motivation and lower self-esteem of pupils who were not in the 'high ability' classes" (p. 93).

Despite the long history of streaming in New Zealand schools and the fact that there is considerable research that indicates that the 'jury is still out' on the desirability of streaming, it would appear that streaming on the basis of academic ability remains a common, albeit problematic, practice. In a recent study of 15 secondary schools and 11 intermediate schools in Canterbury, Hornby reported that "all but two of the Canterbury schools used some sort of streaming and they reported few substantial benefits" (Law & Wannan, 2013, p. 4). In this same newspaper article, Hornby urged schools to be "courageous" and to "reconsider streaming and adopt more effective strategies" (p. 4).

One New Zealand secondary school has 'reconsidered' traditional academic streaming and has produced a school-based model of

streaming that uses criteria developed from the key competency of 'managing self' (Ministry of Education, 2007). The official description of this key competency in the 2007 curriculum document includes reference to effective work habits and organisational skills as well as to personal qualities such as being "enterprising, resourceful, reliable, and resilient" (p. 12). The description also emphasises the link between learners' self-management and self-assessment.

The process of allocating students to either a high key competency class or a low key competency class in Years 9 and 10 (henceforth referred to as HKC and LKC classes) involved teachers collaborating to fill out a spreadsheet using self-managing criteria developed by school staff<sup>1</sup>. Students were 'graded' on the criteria using a five-point scale. Every five weeks, student placements were reviewed and on the basis of this review, students could be moved between the HKC class and the LKC class at each level.

This article reports teachers' perceptions of the effects of the key competency (KC) streaming model and suggests that these reported experiences of one school's attempts to 'do things differently' could be the basis for some robust discussions about the policy and practice of streaming.

## METHODOLOGY

The research school was a small, Decile 7, co-educational secondary school located in the rural South Island. At the time of the research, the school had approximately 170 students, learning in Years 7 to 13. Eighteen staff members of a possible 20 teachers who were identified by a senior staff member as teaching a Year 9 or 10 class, or were involved in the key competency streaming in some way, responded to an online survey about their experiences of the KC streaming policy.

The survey included questions about the teacher's role in the school and teaching experience, followed by twenty open-ended questions about the KC streaming model, its strengths and weaknesses, and its impact on students. Example questions included "How do you explain KC streaming to your students in terms of your subject?"; "What are the advantages and disadvantages of streaming by KC rather than academic measures?"; "What differences, if any, are there between the way you teach the high and low KC classes?"; and "What, if any, impact has there been on academic performance?" The survey

concluded with two Likert-type questions to assess the teachers' overall agreement with the model and their opinion of the success of this approach to streaming. Open-ended questions were the preferred method of data collection to enable teachers to fully explain their perceptions of the KC streaming approach in their school. The teachers' responses were analysed thematically using the qualitative data analysis software tool, NVivo.

## RESULTS

The teachers who responded to the survey had a broad range of teaching experience, from beginning teachers to those with more than 25 years' experience. Six of the respondents were classroom teachers, nine were heads of department or teachers in charge of a subject area, and three were senior managers in the school. The teachers taught a broad range of subject areas from all eight learning areas of the New Zealand Curriculum (Ministry of Education, 2007).

There was high overall support for KC streaming, with seven (38.9%) agreeing and seven (38.9%) strongly agreeing with the approach. The majority of the teachers felt the KC streaming approach was extremely successful (50.0%) or moderately successful (22.2%). Only one person (5.6%) believed it was slightly successful. Four people (22.2%) did not respond to either of these questions.

### Teachers' Perceptions of the Strengths of KC Streaming

While three teachers were opposed to academic streaming, there was widespread support for KC streaming. Teachers reported that parents were also generally in favour of KC streaming. Teachers liked the transparency of the KC system for both themselves and their students, and seemed to enjoy working with both the LKC and the HKC classes.

Negative self-perception was cited by one teacher as the reason she was opposed to ability-based streaming practices:

*I don't agree with academic streaming, I think that encourages the students to view themselves as 'stupid' or in the 'cabbage class'. With KC streaming it has nothing to do with academic ability. (Teacher 18)*

Other teachers reported that there appeared to be less stigmatisation associated with KC streaming than with academic streaming:

*There is far less stigma with being in a lower KC class as they seem to believe it is not an internal deficit that is the problem but just their effort and attitude which they can change. (Teacher 4)*

1 While the criteria for streaming students were based on only one of the key competencies, 'managing self', the teachers at the school used the term 'key competency streaming' and referred to low and high key competency classes. We have followed this terminology here.

The main advantages of KC streaming noted by teachers were those of student motivation, the opportunity to meet the perceived needs of different groups of students, and positive 'flow on' effects.

#### *Student Motivation*

Teachers reported that the school's streaming system was a motivating influence on their students. There appeared to be a high level of transparency around the initial placement decisions, with students and parents being kept well-informed. In some cases, teachers talked about sharing information with students and encouraging them to improve their KC rating:

*I show them the scores that they get when the streaming is finished and talk to them about improvements that they can make or goals they can set to help them work on areas that they might not be so good at.* (Teacher 8)

Information-sharing and discussions about streaming continued during the year, particularly prior to the five-weekly KC reviews when students could be moved between classes as a result of staff recommendations. It was felt that some students were motivated by the opportunity to move to the high HC class and that others did not want to move 'down':

*In our system it empowers the high class to continue working well ... and empowers the small low class to aim to move into the high class.* (Teacher 11)

The development of self-managing skills (particularly skills that would contribute to success in later life) were emphasised as a positive outcome for students in the LKC class and this seemed to be associated with improved learning outcomes:

*So by teaching them to manage themselves allows them to enjoy the learning process more.* (Teacher 11)

This enhanced engagement by LKC students with learning and improved levels of confidence meant that some students in the low KC class were motivated to stay in the class, even when they had the opportunity to move to the HKC class:

*Some students have been offered a chance to move up from the low KC class to the high KC class and have declined on the basis that they prefer the smaller learning group and the increased amount of teacher time.* (Teacher 7)

Students could also be motivated to improve their behaviour through peer pressure within the HKC class and also by teacher pressure:

*It can also be used as a lever (we had three girls in the high KC class who were being very nasty to each other). They were told that this was not the sort of behaviour that students who were able to manage their behaviours and attitudes would display. As these were intelligent but nasty girls they stopped the behaviour almost immediately. They just didn't want to be in the low KC class!* (Teacher 4)

#### *Meeting Student Needs*

Teachers talked of being able to tailor their teaching approaches according to the perceived needs of the streamed classes. Students in the HKC class were described as being self-directed and independent learners with good time-management and organisational skills. Teaching strategies for the HKC class tended to be focused on promoting independent academic learning. This contrasted with strategies used in the LKC classes where there seemed to be greater emphasis on working with individuals, more practical 'hands on' activities and a focus on encouraging students to be well-organised, confident and attentive. Teachers expected that students in the HKC classes would work independently and make rapid progress because of their effective self-management skills and because there was less likelihood of interruptions from other students.

While there appeared to be a focus on academic work in the HKC classes, one teacher reported that both classes covered similar content but that the teaching approach was different:

*We essentially do the same work, but [the LKC class] require a lot more scaffolding and individual assistance.* (Teacher 12)

There were reports of differentiation in the way teachers worked with students within the large HKC classes:

*The high KC class are doing a more investigative programme. I have more time to work with the less-able in the high KC class because there are more students that can organise themselves and I spend less time on crowd control.* (Teacher 18)

Teachers also indicated that the low numbers in the LKC class relative to the HKC class meant that teachers could concentrate on developing the self-management skills of the students in the LKC class:

*[There is a] large class of KC people who are more focused on learning and are just*

*more focused on everything, doing well, getting work in on time, being organised in class, etc. This allows for a smaller class of non-KC students who are then able to be given a lot of help to improve their key competency skills. (Teacher 16)*

Building key competency skills was associated with building students' self-esteem and confidence in the LKC class:

*I push the high KCs to do their very best and look beyond acceptable to greater higher quality. I want the same for the low KCs but I do this by building their confidence and positive attitudes. Most often these kids have very low self-esteem and give up too easily. (Teacher 6)*

#### *Flow-on Effects*

The school had not collected any specific data on the 'flow-on' effects of the approach, but there was a general sense that the KC streaming model had contributed to improved levels of learning and achievement (including gains in performance in the NCEA); improvements in student attitudes and behaviours; enhancement of school culture and values; transference to other settings, sporting activities, for example; and improved relationships between students and between students and staff.

One teacher's comment linked the understanding of the self-management key competency to an holistic focus on the key competencies:

*There has been a very big whole school focus on KCs so there is a good understanding of the importance of managing self across the school – curricular, co-curricular and relationally. (Teacher 10)*

This broad 'whole school' application of the key competencies, particularly the 'managing self' key competency, indicates that 'streaming' policy does not exist in isolation, but sits within a coherent values-based model. The existence of such a model should mean that decision-making about all facets of school life, including decisions about streaming, would have been developed within the school's ethical framework and that there would be consistency with other school policies and practices.

#### **Teachers' Perceptions of the Weaknesses of KC Streaming**

While there was widespread support amongst teachers for the school's streaming model, some reservations were expressed. The main concerns that were raised were a lack of role-models in

the LKC classes and the potential for stereotyping students, some uncertainties about the 'managing self' criteria, the possibility of overlooking the needs of some students, and the long term effects of the streaming system.

#### *Lack of Role-Models and the Potential for Stereotyping*

The impact of fewer positive role-models in the LKC classes was raised as a concern by some teachers. This concern, however, did appear to be diminishing:

*I was concerned that the low key competency class may have lacked good role-models for improvement but I don't think this is the case. (Teacher 5)*

For one teacher the lack of positive role-models was linked to reputational issues, but the element of student choice was a qualifying factor:

*The [LKC] class ends up with a bit of a reputation of being the dropkicks. There is no-one in the class for them to model behaviour on. Having said that we do have an ESOL student who has elected to stay in [LKC] when he could have gone to [HKC]. The language barrier meant he felt more able to cope in the [LKC] class. (Teacher 12)*

Comments about the potential for stereotyping and stigmatisation were voiced but there was also evidence of a range of views on this topic. Perhaps these views are based on the differing responses that teachers, consciously or unconsciously, elicit from their students. Two comments serve to illustrate the diversity of views on this topic:

*They never now seem to attribute what they get to (brains) or intelligence. (Teacher 4)*

*Unfortunately they see it as being for the dummies, despite frequent reassurances to the contrary. (Teacher 16)*

The possibility of students' negative perceptions about KC streaming affecting achievements and feelings of self-worth were also mentioned and there was a feeling that KC streaming may have been a disincentive for some students in the LKC classes:

*The [HKC] classes are doing very well. It is great for them to be able to totally focus on their achievement. I think the [LKC] students still see themselves as the 'cabbages' a bit though and their results are often a reflection of this. (Teacher 10)*

### *Lack of Clarity About the Criteria Used to Place Students*

The process of developing the 'managing self' criteria occurred through regular formal and informal staff discussions and this 'grounded' approach indicates that there was a fair degree of agreement about the criteria that were used to assess a student's level of self-management:

*We have changed the wording in our indicators to reflect what we as a staff believe are the indicators of managing self.* (Teacher 11)

Despite this negotiated process, and the appeal of a measurable criteria: "It is not airy-fairy. Did you bring a pen? Did you hand your homework in on time?" (Teacher 12), there was still some underlying uncertainty about the clarity and application of the criteria. Some staff reported that the criteria were rather vague and subject to a variety of interpretations:

*I think that there [are] differences in how other teachers interpret students and we all might understand the success criteria differently.* (Teacher 8)

According to one teacher, variance in teachers' interpretations of the criteria could result in the incorrect placement of students:

*A bit brief, I sometimes think that there are kids out there who could go into the [LKC] class, but using our guidelines they are firmly in the [HKC] class.* (Teacher 17)

The comments of another teacher suggest the possibility of a conflation of ability indicators with self-management indicators:

*If we remember it is key competency, rather than academic, the identification process seems to work well.* (Teacher 16)

### *Are Some Students' Needs Overlooked?*

Although there was general agreement that KC streaming was meeting the needs of most students, there was also a perception that some students were not well-served by the school's streaming system. A primary concern was that those students who were considered to be academically-able but lacking in self-management skills were being disadvantaged:

*Not sure whether we have the highly-able but non-KC students catered for one in my xxx class this year, and I feel we failed him by not extending him.* (Teacher 16)

One teacher was also concerned that the very strategies that had been put in place in one of their

LKC classes were deterring some students from taking risks in their learning:

*There are some students who are in the [LKC] class, who are capable of more, but due to the scaffolding that I have in place can't challenge themselves as much.* (Teacher 17)

### *The Long-Term Effects of the Streaming System*

Some doubts were expressed about the long-term viability and efficacy of KC streaming. A noteworthy concern was that of the rapidly-declining numbers in the LKC classes and some doubts about the long-term effects of the system.

While the benefits of having high numbers of students in the HKC classes and low numbers of students in the LKC classes were acknowledged, it was pointed out that the increasing imbalance in class sizes between the HKC and LKC classes was becoming a problem:

*Within our school I believe there is an optimum number of students within each of the high and low KC classes. We are very close to the critical point of having too many in the high KCs as I notice one or two of the students are coasting on the strengths of the others.* (Teacher 6)

The comments of another teacher suggested that ways of managing this issue were being considered:

*It has been a challenge to know where the cut-off point should be as our low KC class has been getting smaller and smaller. We are now down to about seven or so in Year 9.* (Teacher 4)

One teacher was hesitant about the success of the system and was also doubtful about the long-term effects of KC streaming on students:

*In this case it seems to work, but not sure. Not sure whether these students improve as much as we would hope. Are our Year 11 students this year, now that they have come through the system, any better?* (Teacher 16)

## **DISCUSSION**

The grouping of students according to academic criteria appears to be a widespread historic and contemporary phenomenon that at best has questionable benefits and at worst may have detrimental effects. It is hoped that this account of teachers' responses to the KC-based streaming system used at this school will provide a starting point for critical discussions about this entrenched and largely unchallenged practice.

The main advantages of key competency streaming noted by teachers were those of student motivation, the opportunity to meet the perceived needs of different groups of students, and positive 'flow-on' effects. Some concerns raised by the teachers were a lack of role models in the low key competency classes and the potential for stereotyping students, the lack of clarity about the criteria used to place students, the possibility of overlooking the needs of some students, and the long-term effects of the streaming system.

Regardless of the conclusions that emerge from any such discussions about the results that are reported in this article, the most significant factor may be that, as was the case for this school, the streaming model becomes a context for professional learning. In addition to informal discussions, the streaming system at this school provided regular formal opportunities for the subject-study teachers of Year 9 and 10 classes to discuss and debate student placements. These discussions involved both streaming methodology, such as refining and clarifying criteria, and student needs. While the teachers acknowledged that there was always room for more professional learning around KC streaming, the teachers' comments suggested that there was considerable 'grass roots' professional learning taking place. An adaptation of the 'teaching as inquiry' model (Ministry of Education, 2007) or some other sort of 'in house' school-based research would undoubtedly enhance these discussions and may further the development of the model at this school.

Another consideration for schools may be that professional learning that is focused on streaming could be undertaken with reference to teachers' understandings of the ethical framework in which their school operates. If discussions about streaming take place within an ethical framework, and questions are raised about fairness and students' rights as well as about academic arguments, then there may be a radical outcome which challenges the whole notion of streaming. As Snook (2003) argues "Decisions such as 'to stream or not to stream?' have to take into account what is known about teaching and learning. But the ethical and social consequences of the decisions are also very important" (p. 74).

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