

Personalised Learning: Understandings and Effectiveness in Practice

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Abstract

Personalised learning is being promoted in New Zealand and around the world as one of the key components of a future-focussed education system. Although it is conceptualised and implemented in many different ways, it appears that the common aim of personalised learning is to tailor the education system to meet all students' diverse needs. While, or possibly because, most educators would support such an aim for education, there is very little research concerning its effectiveness. Studies have also shown that personalised learning is understood and implemented by teachers in multiple different ways. This literature review examines various conceptualisations of personalised learning and their effect on students' learning. Both benefits and detriments to students' achievement and engagement are identified and discussed in this review. The inconsistent findings suggest that ambiguities in the concept of personalised learning need to be addressed and further research done into its effects on students' learning.

Keywords: *Personalised Learning, Primary, Secondary, Inequality.*



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Introduction

In New Zealand, personalised learning has been promoted as one of the principles that support a future-focused education system (Bolstad et al., 2012). Personalised learning moves away from a traditional one-size-fits-all, teacher-centred model to shaping the system around students, providing differentiated education to support diverse needs (Bolstad et al., 2012). This focus is part of a global movement and now personalised learning is being implemented in education systems around the world (Beach & Dovemark, 2009). It is called many different names (personalised learning, personalised learning, personalisation, and in Sweden, individualising) and there are many variations in the concepts (Beach & Dovemark, 2009; Campbell, Robinson, Neelands, Hewston, & Mazzoli, 2007; McGuinness, 2010; Prain et al., 2013). A common aim, however, appears to be tailoring the education system to meet all students' diverse needs (Bevan-Brown, McGee, Ward, & MacIntyre, 2011; Prain et al., 2013; Underwood et al., 2007). The New Zealand Ministry of Education (MOE) positions personalised learning as a student-centred approach that strives to make learning meaningful (MOE, 2006). Within this initiative, students become informed and actively involved in their own education, and the school system is "responsive and flexible enough to ensure every young person

can achieve their potential and is set up for life-long learning" (MOE, 2006, p. 3).

Although it would be difficult to find an educator who would disagree with such an aim for education, little research has been conducted on the implementation or effect of personalised learning programmes. What evidence there is reveals that personalised learning has been understood and implemented in schools in multiple different ways. Bevan-Brown et al. (2011) surveyed New Zealand educators' understandings and enactment of personalised learning. Although responses were mainly from primary schools with little student diversity, their findings suggest that there is great variety in educators' conceptions of personalised learning and that many are somewhat limited. The majority understood personalised learning as tailoring teaching to fulfil all learners' diverse talents and needs (Bevan-Brown et al., 2011). A small few, however, believed that personalised learning was individualised plans for special needs students (Bevan-Brown et al., 2011). Underwood et al. (2007) found similar disparities in teacher understandings and implementation of personalised learning in their study in England. Their research also found that personalised learning does not necessarily lead to increased academic achievement, especially in high-performance schools (Underwood et al., 2007). Underwood's study is not the only one to raise questions about the effectiveness of personalised learning (Beach & Dovemark, 2009). This present literature

review, therefore, examines various conceptions of personalised learning in schools and their impact on student learning.

Successful Programmes

Two different programmes of personalised learning implemented in New Zealand secondary schools have shown some benefits (McGuinness, 2010; [Russell & Riley, 2011](#)). They both are based on a concept of personalised learning that reflects that of the MOE (2006), in which teaching is tailored towards all students' holistic needs and students become co-authors of their learning supported by *whānau* (family) and teachers (McGuinness, 2010; [Russell & Riley, 2011](#)). [Russell and Riley's \(2011\)](#) programme was implemented for 40 Year 11-13 gifted and talented students and involved both individual and group pathways. McGuinness' (2010) programme introduced *learning mentors* for all Year 10-13 students who provided support and guidance to students and parents in relation to student learning. In each programme students, parents and teachers/learning mentors met to develop students' goals. Evaluations by students and parents revealed that benefits in both programmes included improved relationships between students and teachers and parents and teachers, with parents becoming more involved in their child's education. The implementation of learning mentors in Year 10-13 also resulted in a 38% decrease in behavioural problems (McGuinness, 2010) while the gifted and talented programme led to increased student empowerment, motivation and challenge ([Russell & Riley, 2011](#)). Although neither programme can be directly linked to academic gains, McGuinness (2010) reported that National Certificate of Educational Achievement (NCEA) results improved during the implementation of learning mentors. Although the conception of personalised learning demonstrated in these programmes was effective at improving relationships, further research will be needed to understand whether these benefits lead to academic gains and whether they are effective in non-secondary school settings or for students who are not gifted and talented.

Breakthrough is another initiative based on personalised learning (Fullan, 2009). It has been implemented to support literacy development in both Melbourne (Australia) and in the York Region (Canada) and has had a significant effect on learner outcomes. For example, the mathematics, reading, and writing results of York Region schools improved by 10–20% over five years (Fullan, 2009). One of Breakthrough's key components, personalisation of learning, reflects the previously discussed definition in that it is based on tailoring education to meet students' learning and motivational needs (Fullan, 2009). In a manner similar to [Russell and Riley's \(2011\)](#) gifted and talented programme, Breakthrough positions personalisation as both an individual and a collective phenomenon, requiring relationships between students, teachers, parents, and the community (Fullan, 2009). Breakthrough combines this conception of personalised learning with precise teaching and ongoing professional learning (continual professional development immersed in teachers' daily practice). Precise teaching requires teaching specifically needs of the students (Fullan, 2009). To be precise, teachers must engage in assessment for learning, ascertaining students' learning and instructional needs, and then sharing this feedback with students (Fullan, 2009). These three components have been combined to develop specific strategies, including: establishing a staff member

as a literacy coach, monitoring learner progression through a case management approach, and involving parents and the community in promoting literacy development (Fullan, 2009). Breakthrough is one of the few models of personalised learning that specifies the practices required to achieve it which suggests that this model may be able to achieve consistent positive effects on student achievement.

[Prain et al. \(2013\)](#) also developed a model of personalised learning that proved to be beneficial to students' education. This model is based around three components: relational agency, a differentiated curriculum, and self-regulation. *Relational agency* is perceived as the interplay of teacher and student agency within the constraints of the education system (for example, national policy) ([Prain et al., 2013](#)). A *differentiated curriculum* refers, not to long-term streaming as is sometimes suggested, but to short-term variations in subject matter or pedagogy in relation to specific units and informed by students' current needs ([Prain et al., 2013](#)). *Self-regulation* occurs when students "take responsibility for what and how to learn" ([Prain et al., 2013, p. 665](#)). Because these capabilities are developmental, it initially requires explicit guidance and co-regulation with teachers for students to develop ([Prain et al., 2013](#)). [Prain et al.'s \(2013\)](#) model was implemented in the mathematical programme of a Year 7-10 school in Victoria, Australia. Academic performance in this school was well below national averages and surveys showed that learners were disengaged and unmotivated in mathematics ([Prain et al., 2013](#)). A differentiated curriculum that provided a range of mathematical experiences was implemented by teams of teachers, working with a consultant, to increase their expertise. Student learning was co-regulated with teachers through shared goal-setting and feedback. Analysis of quantitative and qualitative data show that the outcomes of this three-year study were increased student motivation and self-direction, increased teacher co-operation and improved academic attainment, with numeracy growth exceeding the state average ([Prain et al., 2013](#)). The consultant was key to the change of pedagogy in this programme, which suggests that teachers may need expert support to shift to a student-centred approach to education.

[Campbell et al. \(2007\)](#) discussed a concept of personalised learning that stems from Leadbeater (2003) concept of personalisation in the public sector in England (as cited in [Campbell et al., 2007](#)). [Campbell et al. \(2007\)](#) argue that this concept does not aim to marketise education and is more socially-oriented than the individualism that it was first misunderstood for. Instead Leadbeater's concept promotes self-realisation with students earning the right to act as responsible co-authors of their education. [Campbell et al. \(2007\)](#) differentiate between shallow and deep levels of personalisation, the first being better access to public services and some limited recognition of user voice with the latter being "a more 'disruptive' innovation in which users become 'designers and paymasters' of services" ([Campbell et al., 2007, p. 136](#)). Their study involved identifying the pedagogy of personalised learning in an English and a History class in a sixth-form college in England with a high proportion of gifted and talented students, where teaching had been assessed as outstanding by the Office for Standards in Education. The pedagogy that they identified through observation and discussion with teachers was based on informal but respectful relationships and the co-construction of knowledge as a class, leading to individual learning. [Campbell et al. \(2007\)](#) argue that this co-

construction of knowledge requires considerable subject expertise. This could possibly be extended to professional expertise because both Fullan's (2009) Breakthrough model and [Prain et al.'s \(2013\)](#) study involved professional development. It is questionable, however, whether this pedagogy specifically led to academic improvements and if it could be transferred effectively into subjects where knowledge is positioned as objective truth, or with younger students, different abilities, or different social backgrounds ([Campbell et al., 2007](#)).

Critiques of Programmes

Research into personalised learning has not always found positive results. [Underwood et al. \(2007\)](#) investigated personalised learning and technology in 67 English primary and secondary schools, analysing both quantitative and qualitative data. In their study, they defined personalised learning as "the tailoring of pedagogy, curriculum and learning support to meet the needs and aspirations of individual learners, irrespective of ability, culture or social status, in order to nurture the unique talents of every pupil" ([Underwood et al., 2007, p. 57](#)). Their study found that personalised learning does not necessarily lead to increased achievement, especially in high-performance schools. At Key Stage 2 of the General Certificate of Secondary Education (GCSE) there was a positive relationship between student perceptions of personalisation and achievement while at Key Stage 3 the reverse was true ([Underwood et al., 2007](#)). [Underwood et al.'s \(2007\)](#) study also found that increased choice of learning methods was negatively correlated with students' investment in their education. They posit that such a finding may be due to poorly motivated learners preferring the predictability and comfort of set work methods over risk-involved novelty. They also suggest that it could equally be due to a pedagogical choice by the teacher who might decide to use less innovative methods to teach so-called difficult students. [Underwood et al.'s \(2007\)](#) study found many inconsistencies in the effectiveness of personalised learning, particularly at the student-level. Further research is therefore needed to identify the specific factors of personalised learning that are beneficial or detrimental to students' learning ([Underwood et al., 2007](#)).

[Beach and Dovemark \(2009\)](#) critique personalised learning in relation to equality. Their study used ethnographic research to investigate the implementation of personalised learning in two Year 8 classes in two secondary schools in Sweden, one predominantly middle-class and the other with around 50% of students whose first language was not Swedish. In their study, personalised learning (individualising in Sweden) is conceived as supporting "the promotion of freedom of choice, private/individual responsibility and personal dimensions of knowledge rather than the acquisition of particular formal knowledge packages" ([Beach & Dovemark, 2009, p. 690](#)). This concept of personalised learning easily aligns with competitive market values. [Beach and Dovemark \(2009\)](#) argue that, in practice, personalised learning is influenced by an emphasis on performativity and neoliberalism within the education system and wider society. Their research found that students were evaluated not only on their academic performance but also their attitudes towards education. So-called good students were judged according to neoliberal values, creating the image of a learner as a rational choosing individual who creates their own success by

consuming education (often, in this study, by monopolising teacher time). [Beach and Dovemark \(2009\)](#), however, interpret these traits from a different perspective. To them, they are "...destructive (to others' interests), disruptive (toward egalitarian principles), unreasonable (in their over-consumption of time and resources) and unfair (to other pupils)..." ([Beach & Dovemark, 2009, p. 699](#)). Students who exhibited these qualities were generally high-achieving and the [Beach and Dovemark \(2009\)](#) study found that teachers rewarded these traits (unconsciously or not) by expending more time supporting these students. The [Beach and Dovemark \(2009\)](#) research therefore suggests that personalised learning may perpetuate the gap between high and low achieving students.

[Beach and Dovemark \(2009\)](#) also argue that the neoliberal principles conveyed by personalised learning could exacerbate class educational inequalities. Neoliberal values are not universal but particular to upper-middle classes ([Beach & Dovemark, 2009](#)). Middle-class identities centre around consumption and thus middle-class students are privileged by the recognition of their class identity (as resource consumers and hoarders of capital) in the classroom. Meanwhile the identities of classes/cultures that value helping one another and interests outside of school are marginalised ([Beach & Dovemark, 2009](#)). Thus, dominant cultural and social groups are privileged and existing hierarchies are perpetuated. [Campbell et al. \(2007\)](#) was also concerned that this could be an outcome of personalised learning; however, they did not find evidence in their study to support or deny this concern. [Beach and Dovemark \(2009\)](#) also argue that the concept of private choice that is emphasised in this concept of personalised learning means that self-interest and egotistical calculations over personal return may be the only unifying factor in educational culture, thus threatening democratic values. Because this research is based in Sweden, [Beach and Dovemark's \(2009\)](#) argument may not be applicable in New Zealand contexts; however, it is worth investigating in this country because New Zealand society is also influenced by neoliberal principles ([Carrington & MacArthur, 2012](#)).

Conclusion

The literature suggests that a common aim to the concept of personalised learning is tailoring education to meet students' diverse needs. This focus, however, can be interpreted or extended in multiple different ways, creating tensions between different understandings of personalised learning. One such tension is whether personalised learning is an individualistic or more socially-oriented concept. [Campbell et al. \(2007\)](#) argues that personalised learning involves collective co-construction of knowledge that leads to individual learning, an idea that was reflected in several other studies ([Prain et al., 2013](#); [Russell & Riley, 2011](#)). [Beach and Dovemark \(2009\)](#), however, identified an individualistic focus in their study, which supported the emphasis of selfish, neoliberal values. Another ambiguity is the interpretation of a differentiated curriculum which, according to [Prain et al. \(2013\)](#), is sometimes seen in terms of set labelling of student capabilities through long-term streaming instead of short-term differences in curriculum or instruction that support students' current and ever changing needs. Several researchers have also identified that personalisation can be understood and implemented in deep or shallow ways ([Bolstad et al., 2012](#);

[Campbell et al., 2007](#); Fullan, 2009). Shallow understandings generally involve increased student choice in activity but do not challenge the teacher-directed nature of the education system. In contrast, deep personalisation requires students to be involved in decision making (Bolstad et al., 2012). For any programme of personalised learning to be successful these ambiguities and tensions in the concept should first be resolved ([Campbell et al., 2007](#)).

Many of the studies reviewed here found personalised learning to be beneficial to students' learning. These benefits included improved academic performance, fewer behavioural problems, increased motivation and better teacher-student relationships (McGuinness, 2010; [Prain et al., 2013](#); [Russell & Riley, 2011](#)). Several studies, however, found negative effects of personalised learning. For example, [Underwood et al.'s \(2007\)](#) findings suggest that implementing personalised learning in shallow ways of increasing student choice without increasing student agency can increase student disengagement. [Beach and Dovemark's \(2009\)](#) research also found that implementing personalised learning could perpetuate existing inequalities in relation to achievement, class, and culture. In their study, the conception of personalised learning supported the neoliberal values of the dominant middle-class, marginalising those with differing values which is generally low achieving, lower class, or minority culture students. [Underwood et al. \(2007\)](#), however, also found that personalised learning resulted in lower achievement in high-performance schools. This suggests that different conceptions of personalised learning can either support or undermine the education systems' emphasis on performativity. These conflicting findings suggest that the underlying values and purpose of personalised learning and of education need to be examined and perhaps re-evaluated so that they support rather than contradict one another. Personalised learning also needs to be implemented in a way that challenges rather than hides existing inequalities. As Fullan (2009) argues, personalised learning will only be successful if there is equality in all areas.

The literature reviewed here reveals that personalised learning programmes can prove beneficial or detrimental to students' learning. Further research is therefore needed to understand which conceptualisations and implementations of personalised learning are successful and which are damaging. Are they addressing, or perpetuating, marginalisation? Even if academic performance increases, are the values promoted by the programme desirable or do they promote selfishness as [Beach and Dovemark \(2009\)](#) found? Even supposing these factors are identified within a single study, research will need to be undertaken to investigate whether they are transferrable to other situations. Will they be effective with different age groups, achievement levels, classes, or cultures? Due to the contradictory findings and the inconsistencies with teacher understandings and implementations of personalised learning, I would argue that, for a successful programme to be implemented nation-wide, extensive research will need to be undertaken to identify specific strategies and understandings as was done in the Breakthrough study.

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