Abstract
The study discusses the implementation of Beane’s model of student-centred curriculum integration via the professional narrative of a primary school principal who implemented the model in Aotearoa New Zealand. The findings show that implementing student-centred curriculum integration in contexts that are meaningful and relevant to students has the capacity to significantly enhance the value and impact of students’ learning. In the process, the democratic design of Beane’s model allows issues of diversity, inclusion and social justice to be successfully tackled by empowering students to ‘make a difference’ in their communities.

Introduction
Most of the literature on curriculum integration (CI) indicates that it is a curriculum design that is best suited to the middle years of schooling. In the 1990s, Progressive educationalist James A. Beane identified the middle schooling context as natural fit for CI and went on to champion his model of student-centred CI as the ideal curriculum for the middle years of schooling in the USA (Beane, 1993, 1997). It is now clear that student-centred CI is well suited to meeting students’ learning needs in the middle years (Beane, 2013; Dowden, 2014; National Middle School Association [NMSA], 2010; Pendergast, Nicholls, & Honan, 2012; Springer, 2013; Wallace, Sheffield, Rennie, & Venville, 2007). In addition, the Position
Paper of the Middle Years of Schooling Association (MYSA) in Australia, now known as Adolescent Success, states that middle years’ students need “integrated and disciplinary curricula” that are “challenging, integrated, negotiated and exploratory” (MYSA, 2008, n.p.).

In Aotearoa/New Zealand (NZ), the national curriculum carries a commitment to democracy, egalitarianism and equity, which reflects the bicultural values of Maori and Pakeha (NZ European) people in NZ society (Ministry of Education, 2007). The NZ curriculum encourages teachers to develop local curricula and consider ways that the subject matter of the official curriculum can be contextualised within the life experiences of their students. The NZ curriculum also encourages a degree of student-centred CI. It states:

> The values, competencies, knowledge, and skills that students will need for addressing real-life situations are rarely confined to one part of the curriculum. Wherever possible, schools should aim to design their curriculum so that learning crosses apparent boundaries. Ministry of Education (2007, p. 38)

Some educators have argued that student-centred CI aligned with engaging pedagogies and authentic assessment that investigate ‘real life’ issues is ideally suited to the middle years of schooling in NZ (Dowden, 2007, 2010, 2012; Dowden, Bishop, & Nolan, 2009; Dowden & Nolan, 2006). In particular, several teachers in NZ have been attracted to Beane’s model (e.g., Brough, 2012; Fogarty-Perry, 2016; Fraser, Aitkin, & Whyte, 2013).

**Why integrate the curriculum?**

The typical school curriculum that many middle years’ students experience is like asking them to do a jigsaw puzzle without seeing the picture and only giving them some of the
pieces (Beane, 1991). In contrast, CI gives students an opportunity to view the ‘big picture’. In his review of over a hundred studies of CI, Vars found that “almost without exception, students in any type of interdisciplinary program do as well as, and often better than, students in a conventional [single subject] program” (2000, p. 87). Inquiry into a topic, problem or issue often means that crossing disciplinary boundaries is logical and necessary.

**A roadmap for curriculum integration**

The concept of CI and the terminology attached to it has a reputation for being difficult to understand (Springer, 2013). The literature includes a range of terms for CI including ‘multidisciplinary curriculum’, ‘interdisciplinary curriculum’, ‘transdisciplinary curriculum’, ‘fused curricula’, ‘cross-disciplinary curriculum’, ‘integrative curriculum’, along with ‘integrated curriculum’ and ‘curriculum integration’ (Dowden, 2007). Given the difficulties of untangling and defining these terms, it is simpler to return to first principles. CI implies a holistic approach to designing the classroom curriculum where subject matter, cross-curricular links, pedagogy and assessment are constructively aligned. With this in mind, Dowden defined CI as:

> A collective term for curricula where meaningful learning activities are designed by crossing discipline boundaries and/or utilising multiple disciplinary perspectives with the purpose of helping students to create and enhance knowledge and understanding. (2014, p. 18)

Conceptually, CI can be separated into two distinct approaches originating a century ago (Dowden, 2007; Gehrke, 1998). The first approach is the subject-centred or thematic model that involves correlating subjects according to a common theme (Hopkins, 1937). In the
USA, this approach is constructed by teacher teams, usually representing the main subject areas of English, science, mathematics and social studies, who each fit their subject into an organising theme such as ‘Medieval Europe’ but without particular reference to students’ interests or concerns and, in some instances, in ways that are contrived (Beane, 1997). As Dewey explained a century ago, sound curriculum design should be logical and not involve artificial means of correlation such as “weav[ing] a little arithmetic into the history lesson and the like” (1900, p. 91). A variation of this first approach is to designate certain subjects as naturally fitting together, for example STEM (science, technology, education, and mathematics). Although teachers have managed to implement innovative approaches to STEM projects by using student-centred pedagogies (Rennie, Venville, & Wallace, 2012), the logic attached to limiting an integrated unit to just the four STEM subjects is questionable – especially in the primary school context, which compared to the secondary school context is relatively free of subject-area constraints – because it adds an artificial and unnecessary hurdle to curriculum design. In addition, a significant risk to successful implementation of this first approach in the middle years is that young adolescent students are not given ownership of the curriculum and may be unwilling to buy into it (Dowden, 2014).

The second approach to CI design is a student-centred model that involves collaboration by students and teachers during the process of curriculum construction and implementation (Beane, 1997). The student-centred model has the potential to catalyse remarkable outcomes including deeper learning and enhanced academic outcomes as well as developing advanced learning skills, especially social skills associated with working in a team (Springer, 2013). In addition, the student-centred approach closely aligns with students’ developmental and learning needs in the middle years (Caskey & Anfara, 2014). Indeed, the NMSA found that young adolescent students in the USA who participate in student-centred CI programs,
“exhibit high levels of commitment, energy and performance [and assume] greater responsibility for their learning and their actions” (2002, n.p.). This article focuses on this second, student-centred approach to CI, in particular Beane’s model.

**Beane’s student-centred model of curriculum integration**

Beane’s model of student-centred CI (1997) utilises half-forgotten ideas about integration that were explored by Progressive educators approximately a century ago (Dewey, 1900, 1916; Hopkins, 1937). The student is at the heart of student-centred curricula, which means that the student – rather than the teacher – is assumed to have responsibility for the process of integration. Accordingly, the most radical and eye-catching aspect of Beane’s model is that the teacher and students collaboratively construct and implement the classroom curriculum together. Beane’s model incorporates the key components of personal integration, social integration and the integration of subject matter according to a theme (see Table 1).

| Table 1: Components of integration within student-centred curriculum integration |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal integration              | Each student continuously constructs and refines their understandings of knowledge and develops key learning skills in ways that are personally meaningful to them, especially with reference to existing knowledge and familiar contexts.                                                                                       |
| Social integration                | Students develop key learning skills for operating effectively in social contexts including working collaboratively, solving real-life problems and building self-discipline.                                                                                                      |
| Integration of subject matter     | Integrated units are organised collaboratively, by the teacher and the students, according to a theme and relevant subject matter that is identified as being necessary to address the theme.                                                                                         |

Personal and social integration are processes that students actively carry out. As such, personal and social integration are central to Beane’s model and not only address the development of personal knowledge and skills but also teach students how to learn together and, ultimately, prepare students for active citizenship in a democracy. Themes can be
anything the teacher and student collaboratively agree upon, such as a complex problem, a social issue or a particular topic. The subject matter for each theme is generally, but not exclusively, drawn from the formal subject areas in the official curriculum. Accordingly, Beane defined his model of student-centred CI as:

> A curriculum design theory that is concerned with enhancing the possibilities for personal and social integration through the organization of curriculum around significant problems and issues, collaboratively identified by educators and young people, without regard for subject-area lines. (1997, p. 19)

Themes for units are generated from students’ personal questions or concerns. Working in collaboration with teachers, students are asked two questions: ‘What questions or concerns do you have about yourself?’ and ‘What questions do you have about your world?’ As these questions are addressed, a theme is chosen and the subject matter needed to investigate the theme is identified and refined as the unit progresses. Accordingly, the teacher and students work collaboratively to plan and implement the integrated unit.

Beane’s underpinned his model with the interrelated principles of democracy, dignity and diversity (1993, pp. 64-67). Democracy refers to a commitment to inclusion, thus it implies that the curriculum should be the logical outcome of including everyone’s input (Beane, 1997). Dignity refers to a commitment to each person so that individual difference becomes honoured and celebrated. Diversity refers to recognising ethnic and cultural values, including youth cultures, so that each person is included. Together, these three principles ensure that the classroom curriculum and, by extension, learning experiences and assessment are relevant and meaningful for every student (Beane, 1997).
Up-take of Beane’s model of curriculum integration

Beane’s model has never gained widespread acceptance in mainstream education. Although the model is ideal for coupling with rich pedagogies and actively engaging young adolescents by challenging them to develop higher order thinking skills and investigate real-life issues connected to local and global contexts (NMSA, 2010), it is not suited to more conservative learning environments where the implicit expectation is that the teacher alone will plan and implement each lesson and where academic progress is measured by narrow criteria, which typically include a standardised agenda and high stakes testing. Indeed, a review of educational history of CI and allied curriculum designs in the USA from 1950-2000 showed that student-centred curriculum designs always struggle for acceptance whenever the political climate takes a conservative turn (Vars, 2000). Nonetheless, student-centred CI continues to flourish and demonstrate advanced learning outcomes in small and scattered but dedicated learning communities in the USA (Springer, 2013). For instance, two well-known examples of student-centred CI programs in the USA that utilise Beane’s model, and have been implemented in middle schools for at least three decades, are located in Wisconsin (Brodhagen, 2007) and in Vermont (Kuntz, 2005).

NZ has been described as having an educational context that is generally more favourable than the USA for student-centred curriculum design (Springer, 2013), yet the history of education in NZ indicates that it has been within certain more progressive periods, such as the 1920-1940s, when most examples of student-centred CI have been implemented (Dowden, 2011). Accordingly, the evidence indicates that a benign political climate that is supportive of innovation and experimentation may be a necessary prerequisite to implementing and sustaining student-centred CI. The remainder of this article focuses on a narrative that
discusses the personal experience of implementing Beane’s model of CI: Barbara’s narrative as a primary school principal in NZ.

The study

The professional narrative in this study was generated when the first author, Tony, asked the second author, Barbara, to share her story of her lived experience when implementing Beane’s model of CI with respect to the needs of young adolescents. The data from this story was then collaboratively “restoried” into a narrative by both authors in their respective roles as co-researchers (Creswell, 2014, p. 13).

Barbara was the Foundation Principal of a new primary school (Years 1-8) in an alpine resort town in NZ. She identified Beane’s model of CI as an ideal approach for developing and implementing a new curriculum in her school because it aligned with her educational philosophy and was an ideal means of including every child and young person in the learning and teaching process. In an earlier publication she explained that, at the fundamental level, she believed:

> A commitment to social justice in schools leads us to a model of inclusive practice where everyone needs to be involved in the social processes and a change in power structures needs to occur. (Fogarty-Perry, 2016, p. 5)

The following narrative specifically focuses on the learning experiences of young adolescents in Years 5-8 but from, time to time, it adopts a whole-school perspective because this the natural vantage point of a school principal.
The right disposition for CI

Barbara realised that, in her role as a foundation principal who planned to implement Beane’s model throughout a new primary school, she needed to ensure the school employed teachers with the right disposition for implementing Beane’s model. In addition, she understood the need to clearly explain the curriculum design to parents and the school’s board. Barbara explained:

*The school began with three teachers and I was fortunate enough to have a new graduate who knew about Beane’s work with me as a teacher in the school. As it was a brand new idea, CI needed to be explained carefully to the Establishment Board (who were very excited about it), the parents and the students. The other classroom teacher, who had used inquiry learning for many years, found that Beane’s model was a logical next step for her.*

Implementing Beane’s model of CI

Barbara and her colleagues soon realised that Beane’s model of CI is ideal for meeting the requirement in the NZ Curriculum for “the principal and staff [in each school] … to develop and implement a [local] curriculum” (Ministry of Education, 2007, p. 44). Barbara explained:

*The classroom curriculum was collaboratively planned by the teacher and students. Subject matter from the local context formed the initial basis for students’ studies as the natural environment was very beautiful and conducive to exploration via CI. Later, as the ‘Special Character’ aspect (associated with being a Catholic school) of our schooling emerged, in terms of God as Creator and the community as custodians of Nature, students began to think beyond themselves and started to query the impact*
of community actions, the health of the environment, and climate change; and what they could do to address issues in these spheres.

Barbara and her colleagues implemented Beane’s design for generating topics for CI but with a small modification. She explained:

The areas studied were generated from students’ personal and social concerns, by asking the following questions:

- What questions/concerns did they have about the world or about themselves?
- What did they wonder about?
- What kept them awake at night?

These questions were grounded in the concept of democracy, with all students having one vote on what they should study and with all voices being heard.

**Supportive learning environments**

Barbara believed that implementing Beane’s model in her school led to a positive learning and teaching environment because negative behaviour exhibited by students was rare. As an experienced teacher in the NZ context, she found it especially notable that there were no serious behavioural problems in the first four years of the school’s existence. She explained:

A remarkable outcome of implementing Beane’s model of CI was that during my stint as Principal, minimal time was spent working on behavioural issues. In four years, the school grew from 26 pupils to almost 90 students and there were zero suspensions, stand downs or expulsions. The sense of involvement and control students derived from being part of the process of collaborative curriculum design led
to high levels of student interest and engagement. Students had considerable freedom and choice in terms of how they worked, which made learning interactive and fun. They also had great flexibility in what they studied, how they studied, how they presented their work and how their work was assessed. The teachers ensured students’ voices were always heard. Over time, students gained increased power and control over their own learning and poor behaviour became increasingly rare.

Social justice

Barbara found that the democratic nature of Beane’s model meant that teaching students about social justice, equity and inclusion – where students learn best by having experiences that are anchored in contexts beyond their self-interest – was straightforward:

Students began to develop the values attached to social justice, inclusion and equity. Respecting others was part of the school ethos, which was based on the notion of treating others as you want to be treated and the fact that we are a family. There was a strong focus on inclusion in the school and involving everyone, no matter who they are. This inclusive ethos meant the school began to attract students with special needs from other communities. Beane’s model of CI, which is underpinned by the principles of democracy, dignity and diversity, was ideal for what we hoped to achieve.

She explained that student-initiated projects, particularly fund-raising and social action, were prevalent:
Years 5-6 students set about cleaning up the shores of the nearby lake, while Years 7-8 students wrote to the [local government] Council about installing traffic lights at a busy intersection in the town.

Barbara explained how the curriculum helped develop and enhance students’ personal values, especially in relation to accepting and getting to know others from different backgrounds:

*In this way the values of social justice and equal rights began to develop. We had thirty different nationalities in the school, so we took steps to ensure each individual felt included. We had welcome signs at the door in all of their languages and we had days where national costumes were shared and foods from different nations were sampled. This all helped to celebrate diversity within our school community.*

**Congruent pedagogies**

On occasion, Barbara and her colleagues engaged in pedagogies that did not neatly dovetail with Beane’s curriculum design, yet they were fully congruent with a student-centred approach to learning and teaching and Beane’s foundational principles of democracy, dignity and diversity. Indeed, catering for diversity in the middle years’ classroom is particularly important because these are the years that shape young adolescent students’ self-concept, personal beliefs and values (Caskey & Anfara, 2014). Beane (2013) also explained students should be specifically taught to value others and celebrate difference in the classroom. Barbara recounted an especially effective activity that taught a Year 7 class an important lesson about valuing others who are different to them. She explained:
A female student with a severe physical disability joined a Year 7 class during the year. She had a teacher aide assigned to her for all her lessons. The teacher overheard some students mentioning that the new girl ‘must be dumb’ if she needs a teacher aide. The teacher pondered on how to teach the class to be more inclusive and came up with the idea of using a gift as a prop for learning. She wrapped up 25 new pens and 25 posters, with a gift box template on each poster, and put them inside a large shoe box before covering it with fancy wrapping paper and a gold ribbon. The girl with the disability was sent on an errand. The teacher told the rest of the class that each person is like a gift, wrapped up slightly differently to the next person, but with essentially the same needs inside. The teacher explained that everyone needs acceptance, friendship and to be included. She went on to explain that, even though the new girl is wrapped up on the outside in a way that is very different to her classmates, her needs on the inside are the same. The teacher explained that the new girl has the same ability level as most of the other students but needs a teacher aide to assist with her to complete tasks and, with a supportive community at school that includes her classmates, she will succeed. She then opened the box and gave each student a new pen and a poster and asked each person to describe themselves and their strengths within the outline of the gift drawn on each poster. After the class had completed their posters, they were displayed on the classroom wall to remind everyone that in order to be successful at school, everyone needs the gift of each other in the form of friendship, acceptance and support.

**Citizenship**

The component of social integration in Beane’s model helps students to develop the skills of citizenship. Barbara explained:
Our students soon showed evidence of citizenship and entrepreneurship. One savvy student offered to pay others to vote for her question, which she really wanted answered! Social action became an integral part of each unit and taught students that they have the power to be agents of change. Students increased their level of self-discipline as they learned to include others, especially peers with special needs.

Community support

Student-centred CI is not a mainstream curriculum design, thus it is essential to gain the support of stakeholders in the school community. Accordingly, Snapp (2006) explained that educational leadership provided by the school principal plays a critical role in the success or otherwise of student-centred CI. In her role as principal, Barbara developed a range of strategies to help stakeholders understand Beane’s model of CI and convince them that a student-centred philosophy to learning and teaching has significant benefits for young people. She explained:

As community stakeholders started to understand CI and could see benefits in the lives of students, they bought into the process. Weekly newsletters explained what the students were studying. Each term an invitation to attend an open evening was extended to parents, grandparents and friends, where students took groups for a tour around the school and explained what they were learning about. Student work was displayed on interior walls, so that visitors could immediately see the impact of CI. Fortnightly assemblies, run by various classes, provided an opportunity to showcase CI units. The media were regularly invited to school events. Teacher reports and
feedback to parents helped them to understand the process of CI and realise the significant benefits to their children.

Mapping learning outcomes
In the case of most traditional units of work, the scope, sequence and learning outcomes are established during the planning stages, prior to commencing the unit, but this is not possible in the case of Beane’s model of CI. An alternative is to ‘back-map’ learning outcomes from the integrated unit against required curriculum standards or skill sets (Brodhagen, 2007). Barbara described a similar process:

As a safeguard to ensure the national curriculum was being covered, staff developed an approach to curriculum coverage where we tracked the year’s topics that had been studied and the curriculum areas these fitted into. We then used this information to develop three matrices that demonstrated curriculum coverage at junior, middle and senior levels in the school. In time this became a very useful resource.

Conclusion
Barbara concluded that Beane’s student-centred model of CI was especially suited to young adolescents. She reflected:

I believe using Beane’s model of CI to launch the curriculum in our new school was very successful. Young adolescent students described their learning as ‘the best education ever’. They said that they had ‘learned so much’ and that there was ‘fun in their learning’. The students’ behaviour was generally excellent because they were highly motivated and very engaged in their learning.
Indeed, surveying of student voice in the NZ context has shown that young adolescents want to learn about real life (Smith, Crooks, Gilmore, & White, 2009), that they need teachers who respect and understand them, and that they want social learning environments that are engaging, challenging and fun (Poskitt, 2011).

This study advances the claim that Beane’s model of student-centred CI can help young adolescent students to achieve excellent results in both the academic and social domains. As shown in Table 2, young adolescents have specific developmental needs and characteristics (Caskey & Anfara, 2014) that are especially well catered for by Beane’s model of CI.

<table>
<thead>
<tr>
<th>Developmental need or characteristic</th>
<th>Beane’s model of CI</th>
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<tbody>
<tr>
<td>Increased locus of control, increased cognitive capacity, enhanced ability and desire to communicate with others</td>
<td>Negotiation, debate, compromise, deep investigation, collaboration with teacher/others, digital learning communities</td>
</tr>
<tr>
<td>Growth in creativity, desire for self-expression, flexible, exploration, embrace novel and innovative contexts</td>
<td>Personal integration, exploration of personal and social implications of themes, create culminating activities, multimedia presentation</td>
</tr>
<tr>
<td>Move beyond egocentricity, develop personal values and beliefs, desire to make an impact and be recognised for it</td>
<td>Social integration, enhance relationships, engage with social issues and ‘make a difference’ in the local community</td>
</tr>
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</table>

Learning in a classroom where the teacher and students collaboratively create, plan and implement Beane’s model of CI helps young adolescents to develop key social skills needed for democratic citizenship, such as the ability to negotiate, to debate and compromise, and to accept others’ points of view. Students also learn to collaboratively create and deliver presentations or culminating activities at the end of a unit, such as a performance or curated exhibition. Implementing Beane’s model also provides an outlet for the expression of less apparent developmental characteristics such as students’ developing values and beliefs. As is
already known from service learning (Theriot, 2009), young adolescents significantly benefit when they are able to move beyond their childhood egocentricity and serve their community. Barbara and her colleagues found that CI was an effective means for students to actively engage in ‘hands-on’ activities that taught them the principles of social justice and tapped into their desire to make a difference to the lives of others in both local and global contexts.

Beane’s model of CI is a counter to mainstream education in the middle years of schooling which, too often, delivers a decontextualised and subject-centred kind of schooling that does not adequately respond to young adolescents’ developmental needs and is disconnected from local communities. This article demonstrates that, as long as appropriate scaffolding is provided and the community is supportive, young adolescents are fully capable of collaboratively creating, planning and implementing student-centred CI with their teacher. Beane’s model caters for CI units that are exciting, rigorous and meaningful to young adolescent students and, in the process, helps them to develop important social skills for actively engaging in democratic citizenship and ‘making a difference’ by building and strengthening their local communities.

Reference list


National Middle School Association, USA. (2010). *This we believe: Keys to educating young adolescents.* Available from http://www.amle.org/


