An Analysis of Approaches to Goal Setting in Middle Grades Personalized Learning Environments

Jessica DeMink-Carthew
The University of Vermont
Burlington, VT
jdeminkc@uvm.edu

Mark W. Olofson, Life LeGeros, Steven Netcoh, and Susan Hennessey
The University of Vermont
Burlington, VT

Abstract
This study investigated the goal-setting approaches of 11 middle grades teachers during the first year of their implementation of a statewide, personalized learning initiative. As an increasing number of middle level schools explore personalized learning, there is an urgent need for empirical research in this area. Goal setting is a critical aspect of personalized learning and, thus, an important instructional area for researchers to investigate. This qualitative study found five dominant trends in teachers’ approaches to goal setting. The researchers analyzed the key features of each approach and then analyzed them using three key elements of personalized learning. The authors offer implications for practitioners and researchers engaged in teaching and research related to personalized learning environments in the middle grades.

Keywords: personalized learning, student goals, middle level education

Personalized learning has received growing attention in recent years, in part due to its potential to provide equal educational opportunities for all students. Schools and districts throughout the United States are increasingly turning to personalized learning as a way to meet the diverse interests, needs, abilities, and aspirations of their students, and view it as a promising mechanism for raising academic achievement (Bingham, Pane, Steiner, & Hamilton, 2016; Sykes, Decker, Verbrugge, & Ryan, 2014). The U.S. Department of Education (ED) incentivized the transition to personalized learning through its Race to the Top-District competition, which made personalized learning environments its first “absolute priority” (U.S. Department of Education, 2013, p. 6). Between 2012 and 2013, the ED awarded $510 million to 21 school districts that outlined clear plans for how they would use grant funding to personalize learning for students (Sykes et al., 2014). Large urban districts, such as Denver Public Schools and Dallas Independent School...
District, piloted personalized learning with the aim of district-wide expansion (Patrick, Worthen, Frost, & Gentz, 2016), while philanthropies such as the Bill & Melinda Gates Foundation and Chan Zuckerberg Initiative have invested millions of dollars in the expansion of personalized learning (Herold, 2016; Pane, Steiner, Baird, & Hamilton, 2015). Personalized learning, as it is emerging in these policy spaces, has goals that strongly align with those of advocates for middle level education (Association for Middle Level Education, 2010). Personalization calls for educative practices that are responsive to the learner, incorporate challenging curriculum, and place the student at the center of the learning process.

One element common to most personalization initiatives is student goal setting. Student goals can serve as a starting point for students to participate in designing and directing their learning. There is limited research regarding personalization and goal setting in middle grades settings. As an increasing number of middle level schools explore personalized learning, there is an urgent need for empirical research in this area (Middle Level Education Research Special Interest Group, 2016).

Because of the complex interactions between state and local policy in the implementation of personalization initiatives, it is important to situate this study of personalized learning in a specific context. The state of Vermont provides an illuminating backdrop for this study because of its history of progressive and democratic education at the middle level (Vermont Association for Middle Level Education, 2009), its recent commitment to personalized learning through state educational policy (Senate Committee on Education, 2013), and its continued commitment to local control of schools. With these contextual factors in mind, the researchers investigated the goal-setting approaches of 11 middle grades teachers during the first year of their implementation of a statewide personalized learning initiative.

Background and Literature Review

Defining Personalized Learning

Although there is growing national interest in personalized learning, the term has been defined and put into practice in various ways. Approaches to personalized learning vary in their philosophical underpinnings. Some approaches emphasize the economic rationale of moving away from a “one-size-fits-all” factory model of education, while other approaches emphasize adaptive technology tools that support efficient skill building. Our conception aligns with the progressive policies and approaches prevalent in Vermont that emphasize student-centered learning environments informed by constructivist learning theory.

The following student-centered definition of personalized learning informed this study:

In a personalized learning environment, learners actively participate in their learning. They have a voice in what they are learning based on how they learn best. Learners have a choice in how they demonstrate what they know and provide evidence of their learning. In a learner-centered environment, learners own and co-design their learning. The teacher is their guide on their personal journey. (Bray & McClaskey, 2015, p. 14)

The key feature of personalization that distinguishes it from differentiation and individualization is the extent to which it encourages learner voice and choice (Bray & McClaskey, 2015). Three elements of personalized learning that relate directly to goal setting are particularly relevant to this study:

1. Connects learning with interests, talents, passions, and aspirations;
2. Learner actively participates in the design of their learning; and
3. Learner owns and is responsible for their learning that includes their voice and choice on how and what they learn. (p. 9)

As these elements indicate, personalization requires students to take increased responsibility for their learning. They must be able to identify their own interests, passions, and strengths and translate them, in partnership with educators, into meaningful learning experiences with clear goals to guide and inform the learning process. Ownership within the context of personalized learning requires students to be able to set, monitor, and reflect on their personal goals.

Goal Setting

Goal setting is a central construct in personalized learning (Bray & McClaskey, 2015). While personalized learning is a relatively new concept, the notion of goal setting is not. Goal setting is often
studied as a form of self-regulation (Carver & Scheier, 2012), the success of which is mediated by learner beliefs and various regulatory processes. It is well established that implicit theories of learning influence self-regulation (Dweck & Leggett, 1988), with strong evidence that an incremental theory of growth (i.e., growth mindset) contributes to successful self-regulatory processes (Nussbaum & Dweck, 2008).

When self-regulatory processes such as goal setting occur in contexts that are supportive and emphasize mastery rather than performance or competition, goal achievement is more likely to occur (Burnette, O’Boyle, VanEpps, Pollack, & Finkel, 2013).

Some small-scale qualitative studies have found that goal-setting processes have positive effects on adolescent learners in middle level settings. Action research studies suggest that academic goal setting may increase student engagement and achievement (Catlin, Lewan, & Perignon, 1999), while a highly structured approach that includes personal, social, and academic goals may produce positive outcomes for at-risk students (Pincham, 2006). A case study of goal-setting processes embedded in a school-wide portfolio initiative in which students partnered in the assessment process showed positive perceptions by teachers and students (Cruz & Zambo, 2013).

The Personalized Learning Movement in Vermont

Personalized learning has been at the center of education reform in Vermont since the passage of Act 77 in 2013, which mandates personalization for all public school students in grades 7 through 12. Act 77 approaches personalized learning in two ways: (1) the identification of and support for flexible pathways for students to graduate and (2) the creation of personalized learning plans (PLPs) for all secondary school students (Senate Committee on Education, 2013). The Vermont Agency of Education (n.d.a) suggested “there may be as many unique pathways [to graduation] as there are students,” and the agency has given schools considerable discretion in how they implement personalized learning.

Although the legislation grants districts and schools much control regarding implementation of the personalization mandate, it stipulates that students “identify developmentally appropriate academic, social, and career goals” in their PLPs (Senate Committee on Education, 2013, p. 23).

Consequently, the Vermont Agency of Education (n.d.b) has considered students’ short-term goals and post-secondary goals, along with action steps to achieve these goals, to be “critical elements” of the PLP process. Given these requirements from the state, goal setting has been central to the work of middle grades schools and teachers in implementing PLPs and personalized learning in Vermont.

The agency has also identified a set of “transferable skills,” conceptualized as a “broad set of knowledge, skills, work habits, and character traits that are believed to be critically important to success in today’s world, particularly in collegiate programs and modern careers” (Vermont State Board of Education, 2014). These skills are a model to guide districts and schools in their policy-making regarding flexible pathways to graduation (Vermont State Board of Education, 2014). The Vermont transferrable skills include communication, collaboration, creativity, innovation, inquiry, problem solving, and the use of technology. All of these skills align with the national emphasis on cross-disciplinary 21st century skills (Rotherham & Willingham, 2010).

Methodology

This qualitative study investigated the goal-setting approaches used by middle grades teachers in personalized learning environments. The study focused on the following research questions:

Why Personalized Learning in Middle Level Education?

Our definition of personalized learning aligns with the key characteristics and attributes of effective middle level schools set forth in This We Believe (Association for Middle Level Education [AMLE], 2010). According to AMLE, middle school curriculum should be “challenging, exploratory, relevant, and integrative” (p. 14). This characteristic connects with elements 1 and 3 of personalized learning (i.e., emphasis on students’ interests and learner voice and choice), both of which aim to increase the relevance of student work. AMLE (2010) further asserted that middle grades students and teachers should be “engaged in active, purposeful learning” (p. 14), which echoes Bray and McClaskey’s (2015) vision of students as active co-designers of the curriculum (element 2). Lastly, personalized learning aligns with the commitment to student empowerment that undergirds middle school philosophy. Although personalized learning aligns with middle school philosophy, there is a significant lack of empirical research about personalized learning in the middle grades. This study aims to address this gap.
RQ#1: In what ways are middle level teachers approaching goal setting in their personalized learning environments?

RQ#2: To what extent does each approach intersect with key elements of personalized learning?

We chose a qualitative research design because it allows for inductive reasoning as researchers move from the specific to the general, and it allows researchers to interpret data in relation to existing conceptual frameworks (Savin-Baden & Major, 2012). In this study, we began with teachers’ specific descriptions of their goal-setting processes and developed generalized understandings of their goal-setting approaches. Additionally, we sought to ascertain the extent to which the goal-setting approaches represented personalized learning based on a framework of the three essential characteristics presented above.

Participants
We selected participants from teachers who participated in a weeklong summer professional development workshop for middle grades educators. This workshop was partly supported by a university-housed institute that collaborated with middle level schools to support teachers in meeting the needs of young adolescent learners. Workshop instructors identified participants who had engaged students in goal setting related to their PLPs during the previous academic year. We asked these workshop instructors to identify teachers in a variety of schools who had engaged with goal setting in diverse ways. This purposeful sampling strategy allowed us to capture different approaches to goal setting that were present in the population so we could make comparisons among them (Crewsell, 2013). The sample included teachers from schools that had collaborated with the institute for professional development over the previous year (n = 7) and from schools that had not (n = 4). The 11 teachers came from eight different schools, and all participating teachers taught in public middle level classrooms (grades 4–8) in Vermont.

Data Collection and Analysis
The authors used a semi-structured interview protocol (see Appendix A) to allow interviewees to express diverse perspectives while they generated data that would be comparable across participants (Savin-Baden & Major, 2012). Interviews varied from 30 to 60 minutes in length, determined by the extent to which the participant elaborated on the interview prompts. During the interviews, participants completed a task sheet (see Appendix B) upon which they ranked the relative importance of different inputs into the goal-setting process and identified the locus of control with regard to goal identification. Finally, some interview participants volunteered additional goal-setting artifacts, including templates, guidelines, and examples from their classes that were submitted to the researchers in digital form. The interview transcripts served as the primary data source, while the task sheets and auxiliary artifacts served as supplemental data sources.

Qualitative analysis consists of “three concurrent flows of activity: (1) data condensation, (2) data display, and (3) conclusion drawing/verification” (Miles, Huberman, & Saldana, 2014, p. 12). Data condensation consisted of coding the relevant data sources for approaches to goal setting and then arranging the coded units in a data display to facilitate the drawing of conclusions and the construction of narrative descriptions of the approaches. During the analysis, we noted that two of the participants reported they had shifted their approach to student goal setting over the course of the year, resulting in two separate iterations of goal setting. This was not surprising because the previous school year was an exploration year for many teachers. Because the purpose of the study was to describe the approaches to goal setting and not the experiences of individual teachers, we chose to include both iterations of goal setting used by these two teachers, resulting in 13 iterations of goal-setting approaches across our sample of 11 teachers.

After we identified dominant approaches to goal setting through the coding process, we began developing narrative paragraphs to provide an interpretable description of the approaches. We then completed one round of member checking using these narratives. We contacted all participants by e-mail and asked them to provide feedback regarding the extent to which they felt the approach we identified based on their interview accurately depicted their goal-setting approach. All participants responded, and no substantive changes were made stemming from this member checking process, with the exception of one case. Original data from this one participant were ambiguous with regard to the role of students. During the member-checking process, we presented her with two possible approaches, and she identified one approach as an accurate description of her process. To address RQ#2, the research team analyzed the
resulting approaches using the three key elements of Bray and McClaskey’s (2015) definition of personalized learning described earlier.

Findings

The following findings provide compelling insights into the various approaches to goal setting a sample of middle grades teachers were using in personalized learning environments in the state of Vermont. We use the two research questions to frame this section.

RQ#1: In what ways are middle level teachers approaching goal setting in their personalized learning environments?

Our analysis revealed five dominant approaches to goal setting: independent design, interest driven co-design, interest and skill driven co-design, skill driven co-design, and selection. These approaches varied according to the ways teachers incorporated standards, the ways teachers incorporated student interests, and the roles students and teachers occupied in the goal-setting process. Although the five approaches overlapped in some ways, we drew distinctions among them based on these three characteristics. We identified 13 different iterations of goal setting with students, and each of the five approaches was evident in at least one iteration by the teachers in this study.

Approach A: Independent Design

When teachers employed an independent design approach, students functioned in a mostly autonomous way. The teachers created time and space for students to set personal goals by introducing the concept of goal setting and asking students to identify goals that were important to them. The students then set goals independently. In this approach, goal setting was an end unto itself, and there was no indication that teachers tied subsequent learning experiences to these goals. Teachers used independent design in four of the 13 iterations in this study.

Approach B: Interest Driven Co-Design

Interest driven co-design began with the teacher engaging students in exploring their personal interests. For example, a teacher gave students a task to create an “All About Me” website or pursue a “Passion Project.” This stage of the process varied in terms of time, from a few class periods to a prolonged span of an entire semester. Once students had a chance to explore their personal interests, the teacher created time and space for them to identify and propose personal goals tied to their interests and/or project. During this process, the teacher also provided guidance and feedback using guidelines or scaffolds. One scaffolding tool teachers commonly used was the SMART goal-setting framework that guides students to evaluate their goals as specific, measurable, attainable, relevant, and time-bound. Teachers used the resulting goals to inform subsequent learning experiences. Study participants used the interest driven co-design approach twice.

Approach C: Interest and Skill Driven Co-Design

The interest and skill driven co-design approach to goal setting was similar to the interest driven co-design approach. At the beginning of this goal-setting process, teachers engaged students in exploring their personal interests and/or launching student-driven projects. In some iterations, teachers abbreviated the first stage of the process, while in others it lasted most of a semester. Following identity exploration, teachers made time and space for students to propose personal goals tied to their interests or for them to explicitly identify goals related to their projects. As in the prior approach, the teacher also provided guidance and feedback on the goals the student proposed using guidelines or scaffolds, such as SMART goals. In interest- and skill-driven co-design, however, the teacher and student worked together during the period of goal refinement to tie the student goals to a set of cross-disciplinary skills, such as the previously described Vermont transferable skills. The resulting goals were then used to inform subsequent learning experiences and, in the case of projects, as a lens for reflection and further planning. This process for goal setting was the most commonly observed among the iterations in this study, with five different instances of teachers using this framework. One of the teachers who reported two different iterations of goal setting used the independent design approach and then switched to the interest and skill driven co-design approach at a “relaunch” of the building-wide PLPs.

Approach D: Skill Driven Co-Design

Teachers initiated the skill driven co-design approach in a slightly different way than the prior approaches. The goal-setting process began with the teacher introducing the students to a set of cross-disciplinary skills, such as the Vermont transferable skills or a set of school or district-level skills. Students identified the cross-disciplinary skills that they wanted to develop and proposed goals rooted in those skills. During this goal-setting process, the teacher provided guidance...
and feedback on the goals proposed by the student using guidelines or scaffolds, including the SMART goal template. The resulting goals were then used to inform subsequent learning experiences. This approach was apparent in only one iteration of goal setting in this study, but we determined it was necessary to differentiate it from the other goal-setting procedures because of its foundations in the cross-disciplinary skills.

**Approach E: Selection**

In the selection approach, the teachers wrote the goal statements rather than the students. In this goal-setting approach, the teacher again introduced the students to a set of content standards or cross-disciplinary skills. Following limited instruction regarding these standards or skills, students identified goals by choosing from a list of goals aligned with the skills or standards provided by the teacher. The students then used the goals they selected to inform and reflect on subsequent learning experiences. Teachers used this approach to goal setting in two different iterations.

**Comparing the Approaches**

Figures 1 and 2 illustrate some salient differences among the five approaches. Figure 1 demonstrates whether students’ personal interests, cross-disciplinary skills, and/or content standards informed each approach. Approaches A, B, and C were informed primarily by student personal interest, which teachers elicited through the use of passion projects, assignments created to encourage students to reflect on their identity, or by creating space for students to set goals aligned with their personal interests. Alternately, Approaches D and E were driven by cross-disciplinary skills and/or content area standards. Approach C was unique because the goal-setting process was originally driven by personal interests, but the teacher and student eventually considered how the student’s interests intersected with the cross-disciplinary skills. Both of these aspects informed the goal.

As is evident in Figure 2, there were also marked differences in the amount of input teachers and students contributed to the goal-setting process.
students had in each approach to goal setting. In the independent design approach, the student was the primary source of input in the goal-setting process because the setting of goals was essentially an independent venture. The teacher’s input in this approach was limited to simply asking the students to set goals. In contrast, because all the co-designed approaches (approaches B, C, and D) involved the teachers and students working together to set the goal, these approaches exhibited balanced input between teachers and students. In these approaches, students provided input by developing goals that interested them, while teachers provided input via guidance, feedback, and scaffolds. Finally, the selection approach allowed teachers to have significantly more input than the student in the goal-setting process because the teachers identified the list of skills or standards for students, and the students’ role was simply to choose from that list.

RQ#2: To what extent does each approach intersect with key elements of personalized learning?

Our analysis indicated a variety of intersections between goal-setting approaches and the elements of personalized learning that were the focus of this study. Table 1 depicts these intersections. We determined the intersections to be strong, potential, or non-existent. Strong interactions were those in which the element of personalization was clearly aligned with how the goal-setting approach was planned and enacted. We characterized interactions as potential when we could interpret the planned goal-setting approach as intersecting with the element of personalized learning, but there was no evidence of this intersection in the description of the enactment of the goal-setting approach. When the goal-setting approach did not intersect with the element of personalized learning in either the planning or enactment, we labeled the intersection non-existent.

While teachers who used approach A invited students to consider their interests, the approach did little to engage students in active participation. While students may have felt ownership or a sense of voice in determining the goals, the fact that subsequent learning experiences were not impacted by these goals diminished the opportunity for students to make authentic choices about how and what they learned. Instead, their involvement ended with the setting of goals. Both approaches B and C invited students to identify goals tied to their own interests and talents, and used those goals to design their learning and take ownership of it through goal setting. In approach D, while some teachers supported students in authentically connecting the transferable skills they identified with their personal interests, this was not always the case. As a result, this approach did not always address elements 1 and 3. Lastly, approach E was largely teacher-driven.

Table 1. Intersections of Elements of Personalized Learning and Goal Setting Approaches.

| Element 1: Connects learning with interests, talents, passions, and aspirations | Element 2: Actively participates in the design of their learning | Element 3: Owns and is responsible for their learning that includes their voice and choice on how and what they learn |
|---|---|---|
| **APPROACH A** | X | 0 | P |
| **APPROACH B** | X | X | X |
| **APPROACH C** | X | X | X |
| **APPROACH D** | P | X | P |
| **APPROACH E** | 0 | 0 | P |

Note. 0 indicates no intersection, P indicates the potential for a connection, and X indicates a strong connection.
with students being given a choice from a teacher-designated menu rather than a voice in the focus or design of the goal.

Discussion and Implications

Goal Setting for Personalized Learning
We found five approaches to goal setting in middle grades personalized learning environments and analyzed the extent to which these approaches aligned with three key elements of personalized learning. Specifically, the results indicate that some of the approaches to goal setting that teachers and schools were implementing did not align with all three critical elements of personalized learning. In particular, approaches B and C appeared to address all three elements, while approaches A and E did not. Approach D has the potential to address all three elements if students are supported in selecting goals that not only align to the cross-disciplinary skills but also intersect with their personal interests. Notably, when we synthesize the results in Table 1 with Figure 2, it is apparent that the approaches to goal setting that have the potential to address all three elements are also those in which students are positioned as co-designers with shared input in the goal design process. This finding underscores the importance of engaging students as co-designers in personalized learning environments.

Goal Setting and Personalization in the Middle Grades
Because the elements of personalized learning align with tenets of middle grades philosophy, these findings offer guidance for middle level teachers who are designing personalized learning environments. While approaches B, C, and D connect middle-level best practices and personalized learning as defined here, there are notable differences among these approaches scholars must unpack, particularly the way that each approach interacts with cross-disciplinary skills.

Both approaches B and C offer opportunities for students to explore their interests and co-design with their teachers goals driven by these interests. Approach C, however, represents a more complex approach because it invites cross-disciplinary skills into the goal-setting process. The added complexity also adds value because it has the potential to address the issue of rigor. Approach C presents an opportunity to leverage personalized learning as a way to authentically engage students in the development of cross-disciplinary skills such as self-direction and problem-solving. These skills are often either too abstract for students to readily grasp or so common-sense that they must be applied to be understood. The goal-setting process, which in the case of approach C includes the construction of a project based on students’ interests, can provide an experience to ground an understanding of the high expectations that the cross-disciplinary skills are meant to embody.

Approach D also addresses cross-disciplinary skills and has the potential to address all three elements of personalized learning if the resulting goals intersect meaningfully with students’ personal interests. Our hunch, however, is that the combined effect of introducing the cross-disciplinary skills as the primary driver paired with the absence of an in-depth exploration of students’ personal interests may result in students perceiving this approach as less authentic and interest-driven than approaches B and C. Furthermore, students can only use the cross-disciplinary skills as a basis for goal setting to the extent that they understand the skills themselves. Particularly in the early stages of focusing on the cross-disciplinary skills, an approach such as approach C may be more effective because it builds in opportunities for students to develop an understanding of the skills through the lens of their own interests and experiences.

The Need for Philosphic Coherence
The significant variation concerning the extent to which the five approaches overlap with the elements of personalized learning suggests a great need for philosophic coherence regarding the rationale and associated philosophic commitments of personalized learning at the middle level. The overarching aims of personalized learning (e.g., student empowerment, student proficiency in cross-disciplinary skills) should be clearly stated, and teachers should get support to help them understand how the implementation of instructional moments such as goal setting can either facilitate or undermine the achievement of these overarching aims. For example, if personalized learning is being undertaken to increase relevance by creating space for students to explore their own interests in a supported way, then goal-setting approaches B and C would be most appropriate. If the aim is to increase relevance via personal exploration and to promote the development of cross-disciplinary, 21st century skills, then approach C is the best choice. Student goal setting is a point in the learning
process at which teachers can implement personalized learning policy and help guide the learning that follows to express the aims of the policy. If school leaders are mindful of this opportunity and work with teachers to select and implement goal-setting strategies that align with the aims of personalization in their context, the generation of student goals can support these policy-driven reforms.

Achieving philosophical coherence will require groups of teachers and school leaders to engage in intentional work related to goal setting. Given the variety of definitions and exemplars of personalized learning, teachers understandably generate a variety of pedagogical practices to respond to a state-level mandate for personalization. Vermont has a strong history of localized control of schools, which has allowed for customization in the interpretation and enactment of education policy. Rather than encumbering individual teachers with the responsibility for interpreting personalization and goal setting, discussions can be held among groups of teachers who represent different grade levels and subject areas to identify district-level best practices. Additionally, teachers could be supported to access their personal learning networks to identify and develop best practices based on a wider range of teacher perspectives and experiences. The sharing and adoption of carefully considered approaches to goal setting could then support the meaningful enactment of this state-level policy. Such approaches align with the This We Believe characteristic of a shared vision developed by stakeholders (AMLE, 2010) and could provide school and district-level coherence in approaches to student goal setting.

**Future Research**

This study addresses a lack of empirical research on personalized learning in middle level education and sets the stage for further inquiries into goal setting in the context of personalized learning environments. We envision several possible next steps to build from these findings, broaden the research base, and inform practice. For example, case studies could illustrate how teachers implement approaches that are well-aligned with personalized learning (approaches B and C) and deepen our understanding of the instructional moves associated with each approach. Longitudinal case studies could also shed light on how goal-setting approaches evolve over time as teachers and students gain understanding of goal setting and transferable, cross-disciplinary skills. Additionally, because the elements of personalized learning emphasized in this article center on the learner, studies that investigate student perspectives associated with each goal-setting approach could illuminate whether or not each approach is successful in achieving each element of personalized learning. This line of inquiry could also further explore whether or not students perceive approach D to be less interest-driven than approach C. Finally, studies that investigate the challenges teachers face in attempting to implement goal-setting approaches in personalized learning settings could inform policy and professional development.

**Conclusion**

Goal setting is an important instructional moment in personalized learning environments. This study identified five approaches to goal setting that teachers use in Vermont public middle schools. Considerable variation exists among these approaches regarding the extent to which they intersect with three important elements of personalized learning. As increasing numbers of schools embrace personalized learning, this study highlights the need for educators to align goal-setting approaches with the promise of personalized learning environments to empower students as co-designers of their own learning.

**Funding**

This research was supported by a gift from the Richard E. and Deborah L. Tarrant Foundation.

**References**

Association for Middle Level Education. (2010). *This we believe: Keys to educating young adolescents*. Westerville, OH: Author.

Bingham, A. J., Pane, J. F., Steiner, E. D., & Hamilton, L. S. (2016). Ahead of the curve: Implementation challenges in personalized learning school models. *Educational Policy*, 1–36. doi:10.1177/0895904816637688

Bray, B., & McClaskey, K. (2015). *Make learning personal: The what, who, WOW, where, and why*. Thousand Oaks, CA: Corwin.

Burnette, J. L., O’Boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139(3), 655–701.

Catlin, K. S., Lewan, G. J., & Perignon, B. J. (1999). *Increasing student engagement through goal setting, cooperative learning & student choice*. Chicago, IL: Saint Xavier University. ERIC Document ED433100.
Appendix A

Goal Setting Interview Protocol

We would like to talk now about goal setting as a particular element of the PLP process.

(1) Were there school-wide discussions or policies set about student goal setting at your school before teachers worked with students to set goals? If so, what decisions were made?

(2) What sources of input guided PLP goal identification in your classroom? (Task 1 in Appendix B)

(3) Explain why you placed these choices in the order that you did. What role did each play in
identifying PLP goals? If you didn’t select one of the above at all, why not?

(4) Why did you select this approach (the one you identified in your rank order) to PLP goal identification?

(5) What, if anything, do you think was challenging about this approach (the one you identified in your rank order) to PLP goal identification?

(6) What, if anything, do you think was especially beneficial about this approach (the one you identified in your rank order) to PLP goal identification?

(7) What was the process for supporting students in setting goals in your classroom?

(8) Did you scaffold the goal setting process at all? If so, how?

(9) How were PLP goals identified in your class?  
(Task 2 in Appendix B)

(10) Explain why you placed your X where you did. What role did the student play in identifying goals? What role did you play?

(11) Why did you select this approach to teacher and student roles in PLP goal identification?

(12) What, if anything, do you think was challenging about this approach to teacher and student roles in PLP goal identification?

(13) What, if anything, do you think was especially beneficial about this approach to teacher and student roles in PLP goal identification?

(14) How did this goal setting process play out in your classroom?

(15) What types of goals did students set in your classroom?

(16) To what extent did students meet your expectations with their goal setting?

(17) What lessons would you share with other teachers who want to work on goal setting with students based on your own experiences with goal setting this year?

(18) How successful do you feel the use of student goals was in achieving the purpose for the goals?

Appendix B

TASK 1

Instructions: Put the following sources of input in rank order with a score of 1 being the most influential. If sources had the same influence, give them the same rank.

In my classroom, PLP goals were guided by…

| RANK | (See instructions for ranking above) |
|------|-----------------------------------|
|      | the existing curriculum            |
|      | the content standards              |
|      | my students’ personal interests    |
|      | the Vermont transferable skills    |
|      | other: _________________________   |

TASK 2

Instructions: Place your approach on the continuum using an X.

In my classroom, PLP goals were identified by…

| The student | The teacher |
|-------------|-------------|
| 5           | 1           |
| 4           | 2           |
| 3           | 1           |

A bit more | Equal influence | A bit more