making the most of the middle

A Strategic Model for Middle School Afterschool Programs

by Holly Morehouse

Early adolescence is a time of transition, change, and growth. At no other time after gestation and early infancy are the human body and mind undergoing such rapid developmental changes. The bodies of young adolescents are physically and sexually maturing. Cognitive changes expand thinking abilities; social and emotional changes move adolescents towards greater independence.

During early adolescence, youths' very existence is about transition; their skills and abilities, like their bodies and minds, are under development. However, what can be seen as an exciting period of growth and change can create frustration for both students and adults unless afterschool programs serving middle school youth are designed with the specific, unique characteristics of young adolescents in mind.

In an effort to improve afterschool programming for middle school youth in Vermont, the Vermont Department of Education partnered with the Nellie Mae Education Foundation to identify best practices for middle school afterschool. The goals of this project were to increase regular attendance in Vermont's middle school afterschool programs and to build stronger student outcomes for participating youth. Drawing from both the literature on adolescent development and the studies of best practices in afterschool programming, the project resulted in the development of a new framework for middle school afterschool programs based on five components, which we call the five Rs of program design: relationships, relevance, reinforcement, real-life projects, and rigor. The five Rs offer a strategic model for after-

HOLLY MOREHOUSE, Ph.D., is the state coordinator for the 21st Century Community Learning Centers at the Vermont Department of Education. She has over 15 years' experience in project management, community-based decision making, communication and collaboration processes, and leadership. Holly has worked with schools and communities throughout Vermont and with all levels of government. She has supported decision-making efforts in communities throughout the United States and in South America and Africa. Her research and publications include work on afterschool programs and school culture change, shared vision models for community-based decision making, and the spatial mapping of indicators for risk and vulnerability.

school programs, a model that acknowledges and embraces the stages of transition and growth in early adolescence while building on the common strategies, characteristics, and practices of successful middle school afterschool programs in Vermont. Afterschool leaders can use these five components, each of which plays a role in increasing youth participation rates and supporting positive youth development outcomes, to inform the development and design of their middle school afterschool programs.

Snapshot: Middle School Afterschool in Vermont

The phrase *middle school* was first used by William Alexander, a professor of education, in a speech at Cornell University in the 1960s (as cited in David, 1998). Alexander argued that schools serving young adolescents need to be more than an extension of elementary school or a preparation for high school. Alexander outlined a vision of schools designed to meet the specific needs of young adolescents with an emphasis on project-based learning; differentiated instruction; comprehensive health, physical education, and guidance programs; a team structure for teaching; and small heterogeneous homerooms where teachers know each student well. Alexander's ideas formed the core of the middle school concept and continued to influence education reform for middle-level schools for the next four decades.

Middle schools can start as early as fourth or fifth grade and continue up through eighth or sometimes ninth grade. According to the National Middle School Association (2008), in 2007, 28 states had a specific middle-level license for educators and another 18 states had a middle-level endorsement. These licenses and endorsements encourage educators to be trained specifically in working with young adolescents and in middle-level educational models. In Vermont, the middle-level license covers grades 5–8, so that is the grade range we use when referring to middle school students.

Many different types of organizations run afterschool and summer programs for middle school youth in Vermont. Middle schoolers can belong to programs run by local teen centers, nationally affiliated organizations (such as Boys & Girls Clubs of America, YMCA, 4-H, Boy Scouts, and Girl Scouts), local church youth groups, schools, city or town recreation programs, or some combination of the above. This paper focuses specifically on afterschool programs in Vermont's 21st Century Community Learning Centers (21CCLC) program, funded by the federal No Child Left Behind Act and administered through the Vermont Department of Education. Schools, non-traditional educators, and community-based organizations are eligible to apply for 21CCLC partnership grants to provide high-quality afterschool learning opportunities for students who attend schools where 40 percent or more of the students are from low-income families, as judged by such standards as lunch assistance and Medicaid eligibility. Throughout this article, information on Vermont 21CCLC programs comes from the programs' annual reports to the state education department and from conversations or observations during site monitoring visits.

The Attendance Challenge

Table 1 shows what percentage of the 109 21CCLC afterschool program sites in Vermont serve each level of middle school students, from 82 percent for fifth graders to 51 percent for eighth graders. The table also shows that Vermont exceeds the national average in the percentage of its programs that serve students in grades 5–8. The difference between 82 percent of Vermont programs serving fifth graders as compared to 67 percent of programs nationwide is certainly significant. Even going up to eighth grade, the difference continues, with 51 percent of Vermont programs serving that age as compared to only 39 percent nationally.

However, Vermont's middle school advantage evaporates when we compare its percentage of regular attendees to national averages. According to the standard set by the U.S. Department of Education, a "regular attendee" must attend the 21CCLC program for 30 days or more, or at least 60 hours, during the school year. Although a higher percentage of Vermont programs target students in grades 5–8, Vermont's proportions of regular attendees in these grades are significantly below national averages. As shown in Table 2, Vermont is consistently 20–30 percentage points below the national

Table 1: 21CCLC Programs Targeting Students in Grades 5–8, 2006–2007

	Vermont	All States
Grade 5	82%	67%
Grade 6	75%	54%
Grade 7	52%	40%
Grade 8	51%	39%

Data have been rounded to the nearest full percentage point. Source: Learning Points Associates (2008)

	Vermont		All States	
	# Students	% Regular Attendees	# Students	% Regular Attendees
Grade 5	1,414	35%	143,019	62%
Grade 6	1,440	33%	142,931	52%
Grade 7	1,394	23%	124,730	46%
Grade 8	1,336	20%	113,346	44%

Source: Learning Points Associates (2008)

Table 2: Regular Attendance in 21CCLC Programs, 2006–2007

average in building regular attendance during the middle school years. At the eighth grade level, only 20 percent of the students participating in 21CCLC programs in Vermont attend the program for 30 days or more, while nationally 44 percent of eighth grade participants reach regular attendee status. Even for the younger students, Vermont has only 35 percent of its fifth grade participants attending regularly, while nationally the average is 62 percent.

A number of factors may contribute to this discrepancy in regular attendance rates. Afterschool programs in a small, predominantly rural state like Vermont face more transportation-related challenges, more limits to program size and structure, and less capacity for expansion, all with the support of fewer community partners, than do programs in some other more densely populated states. However, even taking these factors into account, program directors express frustration at the steady drop-off in participation that seems to occur as youth move into the middle grades.

The Age-Range Challenge

One avenue for improving regular attendance in Vermont's middle school afterschool programs is to adapt the approach the National Middle School Association (2003) advocates for in-school education: to design programs that meet the specific needs of young adolescents. Only four of the 109 21CCLC programs in Vermont serve middle school students *only*. These four programs were designed from the outset to attract and serve middle-level students and so have been able to focus their full efforts on meeting the needs of this population. These programs tend to have a stronger focus on student involvement and are generally more successful at recruiting students, especially in the older grades, than programs that serve a broader age range.

However, most 21CCLC programs in Vermont are part of larger projects targeting students in grades K–8, K–12, or sometimes 6–12 or 7–12. In some cases, these programs take place at standalone middle schools, but the project also runs programs at elementary and/or high school sites. For that matter, a number of Vermont schools, because of design, town size, or location, handle a broader-than-usual range of ages in one building. Whether leaders are setting up an afterschool program at a middle school as part of a larger project or are designing program components for middle-level students in a K–8 or K–12 school, the challenge is to create a program that is significantly different from what is offered at the elementary level and yet provides developmentally appropriate structures, opportunities, and choices for young adolescents, as opposed to older teenagers and young adults.

Designing Effective Middle School Afterschool Programs

Westmoreland and Little (2006) describe much of the research on designing effective afterschool programs for middle school youth in their paper "Exploring Quality in After School Programs for Middle School-Age Youth." The authors highlight the importance of well-trained, dedicated staff who are comfortable relating to and interacting with young adolescents. They say that increasing levels of independence lead to a need to foster youth leadership and to create meaningful ways to incorporate youth input. They emphasize the importance of connecting with the school day and with families in order to envelop youth in a common set of values, norms, and expectations. They also advocate for quality standards that are asset-based and that shift the role of afterschool program staff from "management to facilitation of experiences for middle schoolers" (p. 1).

A number of studies also document the ways in which middle school youth benefit from afterschool programs when they participate regularly, over a period of time, in a variety of program options (Vandell, Reisner, & Pierce, 2007; Walker & Arbreton, 2004; Huang, Gribbons, Kim, Lee, & Baker, 2000; Gambone & Arbreton, 1997). These studies show that students who participate in both educational programs and other enrichment activities on a regular basis demonstrate the greatest

gains in positive outcomes, including increases in leadership, non-family support for participants, school effort, and sense of efficacy.

In a complementary project looking at youth engagement after school, the "beeper" study by Deborah Vandell and colleagues (2003) found that students were more engaged in meaningful activities and experienced higher levels of concentration, effort, interest, choice, and positive emotions when attending afterschool programs as opposed to being at home unsupervised or hanging out with friends.[1] In a presentation at the C. S. Mott Foundation's National Afterschool Networks Meeting in 2008, Vandell presented an update on her latest study on student outcomes related to participation in high-quality afterschool programs. In addition to the requirements of high-quality staff and developmentally appropriate structures and activities, Vandell stressed the importance of including "opportunities for mastery" for middle school youth (Vandell, Reisner, & Pierce, 2008).

Taken together, these studies argue that the most effective programs for middle school youth strike a balance between exposing young adolescents to a wide variety of activities and experiences while providing opportunities for youth to develop mastery and focus. This powerful blend of variety and focus supports youth in their search to better understand who they are and who they want to become.

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The Five Rs of Program Design

Supporting middle school youth in their search to find and define their unique selves is an important part of the Vermont project that resulted in the development of the five Rs for program design. The Vermont Department of Education worked closely with afterschool program directors across the state to determine how best to support afterschool staff in designing programs that build on—indeed, draw strength from—the unique characteristics of early adolescence.

Young adolescents are no longer children, and yet they are not quite full-fledged teenagers either. Popular culture often uses the term *tweens* to describe youth in this in-between stage. They are coming out of childhood and moving towards full adolescence. Middle school educators Dave Brown and Trudy Knowles argue in *What Every Middle School Teacher Should Know* (2007) that "the middle school years are marked by an almost constant search for an identity in many areas: gender, ethnicity, culture, sexual, spirituality, and concerns about one's future life (which job will I have, how much money will I make, will I marry and have children?)" (p. 52).

Part of the Vermont project, therefore, was an in-depth review of the literature on adolescent development. Our goal was to identify the main changes in each area of development: physical, cognitive, social, moral, and emotional. Though it was not fully exhaustive, this overview of adolescent development provided a context for working with youth in grades 5–8 and highlighted the information most relevant to afterschool program directors or instructors. This intensive look at adolescent development, as well as the recent research on high-quality afterschool programs,[2] provided the foundation for a new framework for middle school afterschool programs, one that takes advantage of the challenges of this period of exploration, transition, and becoming. Our framework is based on the five Rs of relationships, relevance, reinforcement, real-life projects, and rigor.

Relationships

In the Vermont model, building strong, healthy relationships between staff and students and among the students themselves is crucial to a successful middle school afterschool program. Thus, finding the right people to run the program is also crucial. In fact, the San Francisco Beacons Initiative found that the most significant predictor of sustained participation for middle school youth was the number of supportive adults they reported having (Walker & Arbreton, 2004). Vermont program leaders report that they often look for young, "cool" staff to work with the middle school students. While some middle schoolers will respond to this approach, being young and cool is not an overriding requirement in the Vermont model. What is absolutely

essential is finding individuals who genuinely enjoy being with young adolescents and who are specifically trained to work with this age group.

In the Vermont framework, strong relationships play an important role in supporting youth in all areas of development. The physical changes alone that take place during young adolescence can challenge a student's perception of self on an almost daily basis. Young adolescents can gain as much as four or more inches in height and eight to ten pounds in weight per year, often resulting in physical awkwardness and growing pains (Rice & Dolgin, 2005; Tanner, 1972). Hormones affect brain activity as well as sexual development. Irregular secretions of adrenaline into the body can result in excessive bursts of energy one minute and feelings of laziness and lethargy the next (Van Hoose, Strahan, & L'Esperance, 2001). Young adolescents need increased amounts of food and rest to fuel their bodies during this time of physical growth and sexual maturation. They are frequently hungry and require a lot of sleep (Rice & Dolgin, 2005).

Most afterschool educators, parents, and youth workers are familiar with these physical changes. However, we must also remember that these changes challenge a young adolescent's perception of self. Milgram (1992) reminds adults to be sensitive to the fact that "in the egocentric, comparative world of the young adolescent, these differences [in development] are generally translated into feelings of inadequacy and deficiency" (p. 19). Working with middle school students requires adults who understand why the students are constantly thinking about their physical appearance, who are ready and willing to discuss developmental issues with students, and who can reassure students that all ranges and paces of development are "normal."

Brown and Knowles (2007) argue that "middle school faculty and administrators have a responsibility to respond to students' concerns in many ways—from designing curricula that address their needs to providing, in several formats, information that addresses their questions and provides accurate details about their growth processes" (p. 26). In a similar manner, middle school afterschool programs should have a strong emphasis on health, wellness, and development that carries through all aspects of program design, structure, and offerings. In order to do so, the afterschool program must provide time and space to build adult-youth relationships based on trust and respect and to create opportunities where questions can be asked, information can be debated, and a better understanding of self can be fostered.

By focusing on relationships as a key component of program design, the Vermont model also encourages afterschool programs to play a strong role in helping youth build healthy peer relationships. Socially, young adolescents experience an increased independence from family. Peers start to play a larger role in their lives. They have a strong desire to be taken seriously and at the same time are interested in accepting more responsibility (Mills, 2007). Wood (2007) says that, though 11-year-olds are just starting out on their quests to establish identity and independence, by age 12 or 13 the "confusing struggle for identity" (p. 144) becomes the primary developmental issue. In their quest to understand who they are, young adolescents are increasingly concerned about peer acceptance, have a strong need for approval, and may overreact to embarrassment or rejection (Brown & Knowles, 2007; Rice & Dolgin, 2005; Walsh, 2004). To middle schoolers, how they are seen by their peers is vitally important. However, their ability to regulate their emotions is not fully developed. While they may physically look older or cognitively perform at a mature level, young adolescents can at times exhibit immature behavior and poor social skills (National Middle School Association, 2003). Afterschool programs can play a valuable role in helping young adolescents develop socially by creating situations in which supportive friendships are fostered; interpersonal skills are practiced; and components of an "identity under construction" can be explored in a safe, positive way without judgment by others.

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Relevance

Being relevant allows afterschool programs to take advantage of young adolescents' growing interest in the

world around them and their developing involvement in causes and civic activism. Afterschool programs should allow youth to work on meaningful projects that contribute to the greater good and that move toward solving environmental or community problems the youth view as important. To do so, afterschool programs must be designed to incorporate youth choice and youth voice throughout all aspects. In the Vermont model, youth choice does not mean turning the program completely over to the students, with the adults playing only a marginal or passive role. Instead, adults actively and deliberately teach youth how to take initiative for their learning and to become peer leaders.

The book *What Every Middle School Teacher Should Know* includes an informative chapter on "student-designed curriculum." In this chapter, Brown and Knowles (2007) outline specific strategies and processes that gradually result in students taking the lead in defining driving questions and determining what the class will study. Afterschool programs should adopt a similar approach in designing program structures and selecting program offerings. In the past, many programs in Vermont have relied on paper surveys as the sole means for collecting input from participants. Program directors collect these surveys and, based on their input, run out to recruit the best hip-hop dance instructor or jazz-funk musician they can find, only to have one or two students show up once the class begins. Program directors who have successfully changed this process report that they have done so in part by including students as active participants in making decisions about all aspects of the program.

The program directors and state education department staff who devised the Vermont model also selected relevance as a key component in order to support and encourage youth in their moral development. According to Wood (2007), young adolescents have become relatively adept at abstract thinking and have a strong interest in environmental issues, social causes, politics, and current events. They tend to have a strong desire for justice and are idealistic about making the world a better place. Because of their growing cognitive abilities, middle schoolers are increasingly able to reflect on their actions and to see the world from various perspectives. However, the National Middle School Association (2003) cautions that "owing to their lack of experience [young adolescents] are often impatient with the pace of change, underestimating the difficulties in making desired social changes" (p. 47). Afterschool leaders can help youth develop their moral principles and their understanding of how real change occurs by creating programs based on students' interests and by providing students with relevant and challenging activities in which to explore and develop their beliefs.

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Reinforcement

The leaders of the Vermont project found that, in order to be successful, afterschool programs must be designed to reinforce students' attempts to make good decisions and to develop their skills, interests, and talents. The very existence of young adolescents is about transition; their social, cognitive, and physical skills are under development. In the search for their own identity, middle schoolers often reject management but welcome guidance—a "guide by the side." Middle school students are not going to "get it right" every time. Supportive adults need to know how to help youth work through setbacks, viewing them as a normal and essential part of the development process (Mills, 2007).

At the same time, youth need adults and peers to recognize and respect their growing independence. Because they are making the transition out of childhood, young adolescents often react negatively to things that remind them of who they were just a year or two ago as elementary school students (Mills, 2007). Afterschool programs should thus create separate structures and spaces for middle school youth. In the Vermont project, we found that even in simple program aspects, such as taking attendance or handing out snacks, middle school youth want their own space and need to be treated differently from the children in the younger grades. As Wood (2007) writes, "Twelves and young teens need tangible recognition (from adults as well as peers) that they are changing and growing into responsible members of the adult community" (p. 147). Afterschool programs should be designed to reinforce young adolescents as they practice handling greater levels of responsibility and independence.

Reinforcing structures must also be in place to consistently support youth as they strive to reach that next level of development—emotionally, socially, and morally. One often-discussed aspect of adolescents' emotional development is the increase in mood swings. While hormones play a role in these emotional fluctuations, Brown and Knowles (2007) caution adults not to dismiss the emotional roller coaster of young adolescence: "If we consider the wide social and intellectual changes young adolescents are experiencing, not to mention their continued brain development, their emotional variability seems understandable" (p. 51).

Another aspect of adolescent emotional development is a form of egocentrism in which young people become immersed in their own thoughts and in thinking about their thoughts. Wanting to understand their own feelings and reactions, young adolescents love to talk at length about what they feel or think. They tend to think everyone else is just as interested in their thinking as they are. Responding to and performing for this imaginary audience takes up much of their energy (Buis & Thompson, 1989). Because of this imaginary audience, young adolescents are self-conscious and have a strong need for privacy. On a positive note, egocentrism can also lead to a greater desire for self-control and increased attempts at individuation. Caring adults can help middle school students handle the emotional variation and intensity of early adolescence by respecting their privacy and feelings, never disciplining or challenging them in front of their peers, and being active and interested listeners when young people share their thoughts and feelings. Reinforcement thus plays a strong role not only in supporting students as they take on greater independence and responsibility but also in confirming that their thoughts, feelings, and ideas are valued.

Real-Life Projects

Afterschool programs should be full of hands-on, active learning opportunities and meaningful group projects with real-world implications. The theories of Piaget (1977), one of the first researchers to fully explore how changes in the adolescent brain affect intellectual abilities, show that middle school youth need challenging, real-life projects to help them solidify their cognitive growth and development. Piaget developed a four-stage model of intellectual development that helps us understand the immense cognitive changes taking place during these years. As they enter middle school, most students are in

Piaget's third stage, the concrete operational stage. Some may experience periods of formal operational thought, Piaget's fourth stage, by the time they leave.

Students in the concrete stage can better grasp higher-level principles when ideas are taught with the use of hands-on activities and real materials. These students need direct, personal experience with a problem in order to reason about it. Adolescents moving into Piaget's formal operational stage are developing the capability to solve abstract, hypothetical problems. They consequently have a much greater ability to understand how decisions made today affect the future. Young people in this fourth stage also exhibit the development of metacognition, defined by Caine and Caine as "thinking about the way that we think, feel, and act" (p. 151). Such students have an increased understanding of their individual learning strengths and weaknesses (Caine & Caine, 1994). They can think along multidimensional lines. Idealistic beliefs come into play as young people think of unlimited possibilities, no longer constrained by the limits of their known reality (Brown & Knowles, 2007).

In addition to supporting cognitive development, real-life projects are beneficial to positive social development as well. According to Brown and Knowles (2007), helping students develop their social skills is one of the most important things a school or program can do: "Wise teachers purposely plan lessons that offer social opportunities: collaborative research projects, debates, readers theatre, writing workshop, simulation games, and role-playing activities" (p. 41). Afterschool programs can take this recommendation a step further and provide opportunities where students work in groups to solve real-life problems and produce meaningful outcomes. Some afterschool programs in Vermont have also strengthened this component of their program design by creating a resource library for team-building games and by including group challenges as part of the daily schedule of activities. The team-building activities teach students how to work together collaboratively and help them develop their social skills. Applying these newly reinforced skills to real-life problems empowers youth to see the positive impact they can have on the world around them, creates strong social networks and supports, and helps them form a healthy sense of self-esteem.

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Rigor

The Vermont project team suggests that successful afterschool programs should challenge students, set high standards for behavior and performance, and provide opportunities for exploration and for mastery. In this period of cognitive change, young adolescents need hands-on learning experiences and challenging intellectual projects in order to make the most of the growth occurring in their brains. According to Walsh (2004), the adolescent brain is developing in four main areas:

- The prefrontal cortex, which plays a large role in decision making, organizational skills, and planning for the future, undergoes further development.
- The corpus callosum, which connects the right and left sides of the brain and affects communication abilities and interpersonal skills, develops extensively.
- The dendrites go through an intense period of blossoming, or the making of new connections, and pruning, the shrinking away of unused connections.
- Nerve-signal connections in the brain operate faster and more efficiently as myelination increases, lubricating the neurons.

The brains of young adolescents must be stimulated and challenged appropriately in order to support the full potential for cognitive growth represented by these changes. Afterschool programs provide the perfect opportunity for hands-on, project-based learning activities full of challenging tasks, stimulating debates, and new experiences.

Afterschool programs must also encourage middle school youth to build focus and mastery in areas where they exhibit particular affinity, interest, or skill. Pediatrician Mel Levine, an expert on children and how they learn, argues that "expertise kindles intellectual self-esteem" and that "every student should select (or be helped to select) a topic upon which to become 'the world's leading expert'" (2002, p. 322–323). Middle school youth crave the opportunity to develop new skills and to improve the skills they already have. Many afterschool programs in Vermont have been running sessions for six to ten weeks with new programs being offered each session. This format provides for high levels of variety, but programs must also be intentional in finding ways for stu-

dents to pursue learning and skill development at a deeper level. Some of the ways that Vermont programs have added opportunities for mastery include allowing mentors or other content experts time to foster continued relationships with a small group of students, arranging for internships in the community, providing opportunities for student-led groups to form and design programs, alternating introductory courses with more advanced options, and designing programs that run for longer periods of time and have multiple points of entry.

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In the Vermont model, rigor includes hiring staff and instructors who have high standards for themselves and for the students. The adults who seem to connect with students and to push them to achieve are the ones who see the potential, not just the problems, in students during this time of growth and change. Staff must be flexible and creative; they should be able to model good decision-making skills by sharing aloud their thought processes. Such strong adult role models also serve to foster youth engagement in learning. Wang, Haertel, and Wahlberg (1994) found that adults can promote educational resiliency by encouraging youth to master new experiences, believe in their own efficacy, and be responsible for their own learning. Afterschool programs should therefore incorporate rigor in order to get students excited about their learning and challenge them in a way that keeps them coming back for more.

Thinking Intentionally about the Middle

While the programs participating in this project are in Vermont, the lessons learned and the resulting model need not be limited to any one locale. Building an afterschool program based on the five Rs has direct implications for how the program is staffed and structured and for the activities and opportunities it offers. Focusing on making the most of the stages of transition of early adolescence, the five Rs not only inform the design of afterschool programs for middle school youth but also challenge directors and staff to meet the youth where they are and to appreciate this crucial and exciting period of growth.

As more programs use the five Rs to inform and improve program structure and design, we will continue to monitor and analyze associated changes in student participation rates and in reported student outcomes. In addition, more work will need to be done to better understand the specific challenges faced by smaller K–8 and K–12 schools in designing programs for middle school youth. In these settings, financial constraints and smaller student numbers prohibit separate staff assignments, program structures, or uses of space. However, these added challenges should not in any way exempt smaller or more rural programs from paying specific attention to the developmental needs of their middle school youth. On the contrary, using a structure like the five Rs encourages staff and directors to think intentionally and creatively about their middle level students regardless of the program size, geographic location, or community setting.

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Notes

[1] In the "beeper" study, researchers gave beepers to 191 eighth grade students. The students were beeped at random 35 times during one week in the fall and one week in the spring. Each time they were beeped, the students were asked to record who they were with, where they were, what they were doing, and how they were feeling.

[2] The importance of relationships, rigor, and relevance is also discussed in debates about high school reform and high school afterschool (Yohalem, Wilson-Ahlstrom, & Pittman, 2005).