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The role of self-determination theory and cognitive evaluation theory in home education

Gina Riley[1*]

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*Corresponding author: Gina Riley, Adolescent Special Education Department, City University of New York - Hunter College, New York, USA
E-mail: griley@hunter.cuny.edu

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Additional information is available at the end of the article

Abstract: This article explores the theories of Self-Determination, Cognitive Evaluation, and Intrinsic Motivation as it applies to home education. According to Self-Determination Theory, intrinsic motivation is innate. However, the maintenance and enhancement of intrinsic motivation depends upon the social and environmental conditions surrounding the individual. Deci and Ryan's Cognitive Evaluation Theory specifically addresses the social and environmental factors that facilitate versus undermine intrinsic motivation and points to three significant psychological needs that must be present in the individual in order to foster self-motivation. These needs are competence, autonomy, and relatedness. Because of curriculum and time constraints, intrinsic motivation may be difficult to facilitate within the traditional classroom. This loss of intrinsic motivation for learning prompts some parents to homeschool their children. One of the most impressive strengths of home education lies in the fact that in many cases, the entire process revolves around a child's intrinsic motivation to learn.

Subjects: Behavioral Sciences; Education; Humanities

Keywords: home education; self-determination; intrinsic motivation; cognitive evaluation theory; competence; autonomy; relatedness; self-determined learning

ABOUT THE AUTHOR

Gina Riley, PhD, is an educational psychologist and Clinical Professor of Adolescent Special Education at City University of New York—Hunter College. Research interests and published writings include work on unschooling, unschooling outcomes, homeschooling, worldschooling, intrinsic motivation, and self-determined learning within alternative learning environments. Dr. Riley also holds several certifications in the fields of online education, distance learning, and educational technology. She is currently immersed in groundbreaking research centered on Supported Decision-Making (an alternative to legal guardianship) in students with intellectual and developmental disabilities; as well as research on the experience of LGBTQ students who have home or unschooled. Dr. Riley truly believes that many of the positive aspects of home learning can be successfully applied in public and private school classrooms on a large scale, given increased public acceptance of homeschooling as a viable educational option.

PUBLIC INTEREST STATEMENT

One of the most impressive strengths of home education lies in its focus on a student's intrinsic motivations and interests. Researchers sometimes refer to intrinsic motivation as self-determination. In this paper, Self-Determination Theory as it applies to home education is highlighted. Cognitive Evaluation Theory (CET) is also discussed. CET outlines the ways in which intrinsic motivation can be facilitated, specifically through the basic psychological needs of competence, autonomy, and relatedness. A sense of competence comes from successful feelings, while a sense of autonomy arises when students feel as if they have choice and control over their lives and their learning. Relatedness is frequently seen within the home education environment, and is defined by students having a sense of attachment and affiliation with those who educate them. Home education seems to naturally provide all three tenets, making it a viable and effective educational option.

1. Introduction

Homeschooling has quickly joined the ranks of private schools and charter schools as an acceptable alternative to public education (Isenberg, 2007). The words *alternative* or *choice* are frequently associated with homeschooling in regard to both curriculum decisions and future plans (Aurini & Davies, 2005. In many homeschool environments, to a large extent, students choose what they want to learn (Wasley, 2007), while parents serve as facilitators, rather than conductors, of the students' educational experience. As such, in homeschooling, the focus is on self-directed learning (Aasen, 2010; Reynolds, 2006).

Iyengar and Lepper (1999) have linked the nature of choice and self-direction to intrinsic motivation. According to Ryan and Deci (2000), intrinsic motivation is an innate concept. It is an energy orientation, a display of the positive attributes of humanity which include curiosity, vitality, and self-determination. Extrinsic motivation, on the other hand, is defined as a desire to engage in behavior for external reasons (Lepper, Corpus, & Iyengar, 2005).

Within education, curiosity and engagement are important, and essential to academic success (Akey, 2006). How to create those traits within an educational environment becomes an issue of great debate. Mainstream educational institutions seem to rely on the use of rewards and/or incentives as a way to enhance student performance and motivation (Akin-Little, Eckert, Lovett, & Little, 2004; Cameron, Pierce, Banko, & Gear, 2005). Students are frequently given rewards for good behavior in class, high test scores, and academic achievement/improvement (Deci, Koestner, & Ryan, 1999). Recognition, competition, and grades are all highly valued within the academic arena. For some students, extrinsic motivation can be important, giving the individual something to aim for when a specific task does not create internal enjoyment (Lei, 2010). Many educators agree that extrinsic motivators may work more "quickly and powerfully" (Lei, 2010, p.1) than intrinsic motivation.

Intrinsic motivation, however, creates a different forum for learning. Instead of learning for the grade or the recognition, students begin to learn because they want to. Because of curriculum and time constraints, intrinsic motivation may be difficult to facilitate within the traditional classroom. It is this predicament in contemporary education that has persuaded some parents to homeschool their children. One of the most impressive strengths of home education lies in the fact that, in many cases, the entire process revolves around a child's intrinsic motivation to learn.

The benefits of intrinsically motivated learning are seen in the homeschooled population, as the academic success of home-educated students tend to be better than or equal to their traditionally schooled peers (Cai, Reeve, & Robinson, 2002). Cogan (2010) concurs, stating that homeschooled students tend to have stronger standardized test scores and higher graduation rates as compared to their traditionally schooled peers.

2. Self-determination and cognitive evaluation theory

Deci and Ryan (2008) stated that motivation is what moves individuals to think, act, and develop. The central focus of Deci and Ryan's research is on intrinsic motivation and the conditions and processes that enhance performance, increase persistence, and facilitate growth. Ryan and Deci (2000) define intrinsic motivation as performing an activity solely for inherent satisfaction. When an individual is intrinsically motivated, he or she is energized and passionate about the task being performed, and after it is done, feels a sense of satisfaction or fulfillment. The concept of intrinsic motivation can be understood within the theoretical framework of Deci and Ryan's (1985) Self-Determination Theory (SDT). According to SDT, the source of intrinsic motivation is an innate pattern of development and assimilation (Ryan & Deci, 2000).

Although researchers point to intrinsic motivation as an inherent quality, the maintenance and enhancement of this motivation is dependent on social and environmental conditions surrounding the individual (Ryan & Deci, 2000). Deci and Ryan's Cognitive Evaluation Theory (CET) specifically

addresses the social and environmental factors that facilitate versus undermine intrinsic motivation and point to three significant psychological needs that must be present in the individual in order to foster self-motivation. These needs are competence, autonomy, and relatedness.

2.1. Competence

According to Deci and Ryan (1985), a sense of competence comes from success experiences and overall positive feelings about an activity. Competence is intertwined with the concept of optimal challenge, and can best be explained by observing young children explore their environment. Children, by nature, are driven by a need for competence (Deci & Ryan, 1985). Children experiment with and manipulate objects around them, and the joy on their faces when they figure it all out is demonstrative of intrinsic satisfaction (Holt, 1964). Children also constantly test their knowledge by assimilating concepts they have already mastered with new stimuli, creating personal challenges for themselves (Piaget, 1952). A sense of competence and the ability to take on optimal challenges all foster the development of intrinsic motivation (Ryan & Deci, 2000). Conversely, any negative intrusion toward this process, whether it be in the form of criticism or control, may undermine feelings of intrinsic motivation (Deci & Ryan, 1985).

2.2. Autonomy

In order for intrinsic motivation to flourish, a sense of competence must also be accompanied by a sense of autonomy (Deci & Ryan, 1985). When an individual is given a sense of choice, an acknowledgment of feelings, or an opportunity for self-direction, feelings of intrinsic satisfaction are enhanced. However, when a reward is offered as an incentive, learning and autonomy decrease, as do feelings of self-motivation (Rigby, Deci, Patrick, & Ryan, 1992; Ryan & Deci, 2000).

During the school years, the role of a parent or teacher is to support a child's innate intrinsic motivation. By taking the child's perspective and encouraging a child's initiative, the educator is providing what Deci and Ryan (1985) have termed autonomy support. Kasser and Ryan (1996) added that autonomy support can also be provided by supporting an individual's sense of choice, and by being responsive to thoughts, questions, and ideas.

Creating choice and an opportunity for self-direction is one of the many ways educators can provide autonomy support; thereby enhancing a student's intrinsic motivation (Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Powelson, 1991). By creating learning opportunities that take into consideration a student's personal interests, and by providing choice, those responsible for a child's education can reap the benefits of intrinsic motivation in their students (Cordova & Lepper, 1996).

Roth, Assor, Niemiec, Ryan, and Deci (2009) performed a study on 156 teenagers (mean age = 14.6) from Israel (2009). The purpose of the study was to compare the parenting practices of positive and negative conditional regard as well as autonomy support. Those teens who reported feelings of autonomy support also reported feeling an increased sense of choice and were observed by their teachers as having a high level of interest-focused engagement.

Deci, Schwartz, Sheinman, and Ryan (1981) spent several years observing the difference between autonomy supportive versus control-orientated educators and found that those teachers who were autonomy supportive had a more positive impact on their students than those who were control orientated. Statistically significant differences demonstrated that students of the autonomy supportive teachers were seen as more self-determining and intrinsically motivated to learn, and also exhibited higher levels of self-esteem. Grolnick and Ryan (1987) found similar results, noting that conceptual learning was also optimized in autonomy supportive learning environments. This study could be extended into the home education environment as well—replacing the word teacher with parent.

Ratelle, Guay, Vallerand, Larose, and Senécal (2007) demonstrated how important autonomy is as a child grows into a teenager. In their study, high-school students who were more autonomous in

their academic work tended also to be more dedicated to their education. Williams, Hedberg, Cox, and Deci (2000) performed two studies examining adolescent risk behaviors and extrinsic versus intrinsic aspirations. In the second study, 271 high-school students were asked to complete a series of questionnaires regarding health-related behaviors. The series of surveys included the Perceptions of Parents Scale (Robbins, 1994), which measured perceived autonomy support. Williams et al. concluded that adolescents who perceived their parents to be autonomy supportive had stronger intrinsic aspirations for personal growth, meaningful relationships, and work within the community (2000).

2.3. Relatedness

Autonomy support and relatedness go hand in hand, as both needs influence cognitive and affective outcomes of education (Deci & Ryan, 2009; Ryan & Powelson, 1991). Researchers have specifically stressed that parents and teachers who are more involved with their children have children who are highly motivated and self-directed (Deci et al., 1991; Grolnick & Ryan, 1987; Ratelle, Larose, Guay, & Senécal, 2005; Vallerand, Pelletier, & Koestner, 2008).

Stanley and Plucker (2008), when studying ways to improve high-school graduation rates, stated that establishment of relationships within education is a key to educational reform. According to Stanley and Plucker, it is essential that every student feels connected to his or her learning community. That connection increases engagement in educational settings; and in many cases, is an important indicator of academic and personal success.

Early evidence of the impact a sense of relatedness has on intrinsic motivation is seen when reviewing Bowlby's (1979) theory of infant attachment. According to Bowlby, an infant's intrinsic motivation to explore is more evident when the infant shows a secure attachment to his/her parents. By allowing the child to balance his/her attachment needs with the need to explore, a parent is paving the way for later development of self-esteem, self-concept, and competence (Moss & St. Laurent, 2001). A similar dynamic is seen throughout the lifespan, as an individual's intrinsic motivation is more likely to flourish when individuals feel a sense of security and relatedness (Ryan & Deci, 2000). Deci and Ryan (2009) stated that relatedness is based upon "interpersonal affiliation, authentic care and the sharing of enriching experiences" (p. 570). In students who are educated at home, this affiliation tends to be strong, even through the teen years (Aasen, 2010).

3. CET and rewards

Within the framework of CET, rewards carry the most risk of undermining intrinsic motivation (Deci & Ryan, 1985). When an individual is given a reward for something they may have done anyway, that reward can have detrimental effects on the quality and creativity associated with the individual's performance, and on the individual's subsequent motivation to perform the activity once the extrinsic reward has been received (Ryan & Deci, 2000). Although CET does not denounce the use of rewards, it does specify that rewards have two different meanings. Rewards that are deemed controlling can undermine intrinsic motivation. However, if the reward is informational, and affirms or supports an individual's feelings of competence, then CET predicts that the reward may maintain or enhance intrinsic motivation (Ryan & Deci, 2000).

4. Intrinsic and extrinsic motivation in educational settings

According to Kohn (1993), reliance on extrinsic motivation and rewards is a view that dominates culture and the traditional educational system in particular. Specifically, grades often serve as a powerful extrinsic motivator (Kohn, 1993). For many homeschooling families, success in education is not how well one does in terms of grades. Instead, in the words of Albert and Chilton Pearce (1999), success is having students' understand the "responsible exercise of freedom – the freedom to learn, to create, to grow, to be" (p. 23).

5. Measures of CET in home-educated and traditionally educated students

In 2012, I did a study focused on comparing measures of competence, autonomy, and relatedness between home- and traditionally educated students. Specifically, I utilized a quantitative design to assess whether or not homeschooled young adult's needs for competence, autonomy, and relatedness were better satisfied as compared to young adults who were not homeschooled (Riley). Competence, autonomy, and relatedness are necessary conditions for intrinsic motivation to lead to successful outcomes (Deci & Ryan, 1985).

Within this study, competence was defined as a feeling of effectiveness and capability (Deci & Ryan, 1985). According to the results, homeschooled young adults felt higher levels of competence as compared to their traditionally schooled counterparts (Riley, 2012). This result was expected, as Rudner (1999), Lines (2000), Blok (2004), and Cogan (2010) concurred that parents could indeed provide an effective education for their children and adolescents at home.

Autonomy was defined in this study as a feeling of independence, freedom, and self-determination (Deci & Ryan, 1985). Autonomy is a core concept when discussing intrinsic motivation. The more autonomy one feels, the more intrinsically motivated one becomes (Ryan & Deci, 2006). According to Apostoleris (2000), many times, homeschooling is based upon one's academic, autonomous intrinsic motivation. Therefore, it was no surprise that within this study, homeschooled young adults felt higher autonomy satisfaction as compared to their traditionally schooled peers.

Relatedness is a feeling of connection and support (Deci & Ryan, 1985). This feeling of connection can come from many areas, including from parents, siblings, teachers, neighbors, mentors, and friends. Relatedness is essential within a learning environment, as parents and teachers who are more involved with their children's education tend to have children who show greater motivation and self-direction (Deci et al., 1991; Grolnick & Ryan, 1987; Ratelle et al., 2005; Stright, Neitzel, Sears, & Sinex, 2001; Vallerand et al., 2008). The results of this study showed no difference in the level of relatedness satisfaction between the two groups. For educational stakeholders who worry about levels of socialization in homeschooled students, this result was quite informational. Students in home education environments show almost identical levels of relatedness and connection as their traditionally schooled peers.

6. Implications for social change

Homeschooling has grown exponentially in the past decade. Researchers estimate that almost two million students in the United States are home educated, accounting for over 3% of the school-aged population (National Center for Education Statistics, 2013). An interest in home-based education is growing in many other parts of the world as well (Carlson, 2009). As the homeschooled population continues to increase, it becomes important to study the workings of this educational choice. It is reassuring to note that those who have been home educated have had positive outcomes when it comes to levels of intrinsic motivation and self-determination, as we know that high levels of intrinsic motivation lead to high levels of engagement, achievement, happiness, and success. Stakeholders within the realm of education should take note, as intrinsically motivated, self-directed learning truly seems to be the future of education itself.

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Author details
Gina Riley[1]
E-mail: griley@hunter.cuny.edu
[1] Adolescent Special Education Department, City University of New York - Hunter College, New York, NY, USA.

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