



## The Information-Seeking Behavior of Intrinsically Motivated Elementary School Children of a Collectivist Culture

[Sherry R. Crow](#), MLS, PhD, University of Nebraska Kearney, 6106 Avenue S, Kearney, NE 68847, 308-224-1552

### Abstract

*This study, conducted in June 2014 in Kampala, Uganda, is a follow-up to a similar study conducted in Colorado Springs, Colorado, in 2008. The basic research question addressed is: "What are the experiences in the lives of upper elementary-aged Ugandan children that foster an intrinsic motivation to seek information?" A secondary question is also addressed: "How do the experiences of students from a collectivist culture (Kampala, Uganda) who are intrinsically motivated to seek information compare and contrast with the experiences of similarly aged students from an individualistic culture (Colorado Springs, Colorado, U.S.)?" The findings indicate that the dominant motivation pattern of the Ugandan students was the same as that of the students in the Colorado Springs study (high to low: Identified [caused when one attaches personal importance to the behavior], Intrinsic [stems from the self and is stimulated by interest, enjoyment, curiosity, or pleasure], Introjected [action to avoid guilt or anxiety, or to enhance ego, pride, or self-worth], and Extrinsic [behaviors caused by an external demand or reward]). Ugandan students were more apt to ask other people in their information-seeking quests, but showed the same preference as Colorado Springs informants for non-assigned information-seeking experiences.*

### Introduction

#### Intrinsic Motivation

Most young children of all cultures begin school with an excitement that is evident in their shining faces, their wiggling-all-over bodies, and their irrepressible impulses to call out answers. Sadly, as the years go by, students' natural exuberance and interest in learning tend to wane, often becoming a disinterest in academics.

Students' declining academic interest has been tied to a lack of internal desire, or *intrinsic motivation*. This lack of intrinsic motivation can lead to problems for students. Less-motivated students are less likely to achieve good grades (Hidi 1990), stay in school (Vallerand 1991), be

well adjusted (Ryan and Connell 1989), and, most importantly, become lifelong learners (McCombs 1991). When considered in terms of information seeking, students who lack the internal desire to seek information will not do so on their own, and, if forced, will show less evidence of conceptual learning and retention than more-motivated students (Grolnick and Ryan 1987).

Lack of intrinsic motivation to seek information is a problem that not only jeopardizes a student's future success in life (McCombs 1991) but also affects his or her general sense of well-being (Ryan and Frederick 1997; Ryan, Deci, and Grolnick 1995). Furthermore, the lack of intrinsic motivation to seek information is a problem that has implications beyond the individual. The decline of lifelong learning may also negatively affect the well-being of society. Lifelong learners are continually bettering themselves, providing for improved economic status, enhancing employability, and adding to productivity.

## Background

This study conducted in June 2014 in Kampala, Uganda, is a follow-up to a similar study conducted in Colorado Springs, Colorado, in 2008 (Crow 2009, 2011). I was interested in the findings from a population diverse from the original study, especially with regard to comparing/contrasting the experiences of children from a collectivist culture with the children from the original study, that is, from the generally individualistic culture of the United States.

The Ugandan culture is described through the Hofstede-Bond model of five cultural value dimensions (Hofstede and Bond 1988) as "low in power distance, masculine, collectivist, and high in uncertainty avoidance" (Rarick et al. 2013). These values were found to be similar to those of the U.S. in the dimensions of power distance, masculinity, and uncertainty avoidance, but different in the dimensions of long-term orientation and individualism. Ugandans, then, have a low level of acceptance of inequality among their society's members as do people of the U.S.; the culture of both countries is masculine (though both are less so than the cultures of Japan and Germany). People in Uganda and the U.S. are also similar with regard to their moderately high tendency to avoid uncertainty. Charles Rarick et al. have described the Ugandan culture as short-term oriented, ranking the lowest in long-term orientation among the countries of China, Brazil, Germany, U.S., and Japan. The Hofstede-Bond model suggests that the Ugandan culture is highly collectivist: persons give unquestioning loyalty to "in groups" that, in exchange, take care of them. In contrast, the U.S. is highly individualistic: people tend to look after only themselves and their nuclear family (Hofstede Centre 2014).

## Purpose and Research Question

The basic research question addressed is: "What are the experiences in the lives of upper elementary-aged Ugandan children that foster an intrinsic motivation to seek information?" A look at these experiences may lead us to an understanding of how some children from this collectivist culture are able to maintain their intrinsic motivation to seek information throughout their early school years, and even throughout their entire lives. A secondary question is also addressed: "How do the experiences of students from a collectivist culture (Kampala, Uganda) who are intrinsically motivated to seek information compare and contrast with the experiences of similarly aged students from an individualistic culture (Colorado Springs, Colorado, U.S.)?"

Studying the experiences of children in Uganda, with its strongly collectivist culture (Rarick et al. 2013), could impact practice in school libraries in the U.S. and elsewhere. As the lines of

culture blur in the U.S., understanding children from this collectivist type of society could inform our educational practices. Our mission of helping students become lifelong learners could be based on a clearer understanding of experiences in diverse cultures. The services we provide could better reflect activities that foster intrinsic motivation to seek information for more children. Finally, an understanding of experiences that foster intrinsic motivation could help school librarians develop environments that will stimulate interest for more diverse school populations.

## Theoretical, Conceptual, and Cultural Frameworks

### Overview

The theoretical and conceptual frameworks used for the study were the same as those used in the original Colorado Springs study; however, a cultural framework was added to better understand how culture influences students' intrinsic motivation for information seeking.

### Theoretical Framework

The theoretical framework for the study defined and conceptualized the social contexts that either foster or hinder the individual's intrinsic motivation to seek information. The Self-Determination Theory (SDT) (Deci and Ryan 1985), rooted in theory and research concerning intrinsic motivation and children, provided the basis for the theoretical framework. SDT is an organismic motivational theory that stratifies three types of motivation: amotivation, extrinsic motivation, and intrinsic motivation. Of particular importance are SDT's subtheories: Cognitive Evaluation Theory and Organismic Integration Theory.

Cognitive Evaluation Theory proposes that social conditions that produce a sense of *autonomy* and feelings of *competence* catalyze one's inherent tendency toward intrinsic motivation. *Relatedness* has also been found to be a significant factor (Ryan and Deci 2000b). *Autonomy* means using free will, that is, acting on one's own volition. There is a sense of initiation and value attached to the autonomous action (Deci and Ryan 2002). The need for *competence* is defined as "the need to experience oneself as capable of producing desired outcomes and avoiding negative outcomes" (Connell and Wellborn 1991, 51). Environments and social contexts that promote a perceived sense of competence for a particular action enhance intrinsic motivation for that action (Ryan and Deci 2000b). The need for *relatedness* "encompasses the need to feel securely connected to the social surround and the need to experience oneself as worthy and capable of love and respect" (Connell and Wellborn 1991, 51–52). SDT posits that while the needs for autonomy and competence are the most influential in maintaining intrinsic motivation, relatedness also plays an important role. Research points to *the need to belong*, the desire for interpersonal attachments, as a fundamental human need (Baumeister and Leary 1995).

Organismic Integration Theory (OIT) differentiates types of extrinsic motivation and provides a framework for examining social contexts that "promote or hinder internalization and integration of the regulation for these behaviors" (Ryan and Deci 2000a, 61). In OIT the states of motivation are not presented as dichotomous, with intrinsic motivation on one side and extrinsic on the other. Rather, extrinsic motivation is presented as part of a continuum of behaviors that is sandwiched between amotivation and intrinsic motivation (see figure 1). The determining factor between the types of motivation and regulatory styles is the level of autonomy perceived by the individual in a given situation. In amotivation, people either do not act at all or act without intent.

Intrinsic motivation, on the other hand, stems from the self, and action is stimulated by interest, enjoyment, curiosity, or pleasure (Ryan and Deci 2000b). The middle category, extrinsic motivation, is divided into four types. The first type, *external regulation*, refers to behaviors caused by an external demand or reward and is the least autonomous type of extrinsic motivation. The second type, *introjected regulation*, is action caused by feelings of pressure and is executed to avoid guilt or anxiety, or to enhance ego, pride, or self-worth. The third type, *identified regulation*, is a more autonomous type of extrinsic motivation, caused when one attaches personal importance to the behavior. The fourth type, *integrated regulation*, occurs when behaviors based on values are fully assimilated to the self (Ryan and Deci 2000b).

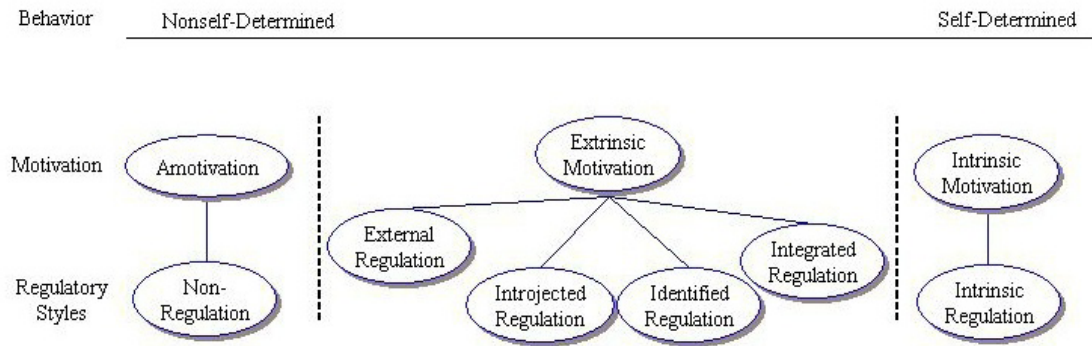


Figure 1. The Self-Determination Continuum. From “Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being,” by D. L. Deci and R. M. Ryan, 2000, *American Psychologist*, 55 (1): 72. Copyright © 2000 by the American Psychological Association.

## Conceptual Framework

The conceptual framework was composed of two information-seeking models: the Taxonomy of Tasks (Bilal 2002), and a Theoretical Model of Urban Teen Development (Agosto and Hughes-Hassell 2006a, 2006b). The Taxonomy of Tasks addresses the context, with reference to task definition, of the particular questions students ask. For this study, it directed the collection and organization of questions being asked by the students under study. Its use helped in understanding the task definition of students’ questions and the reasons behind their success or failure, as well as their preferences in answering these questions. The current study also used a Theoretical Model of Urban Teen Development to classify and sort the topics of interest generated by the intrinsically motivated students. The seven independent variables in the Agosto and Hughes-Hassell model—the emotional self, the reflective self, the physical self, the creative self, the cognitive self, the sexual self, and the social self—are based on personal and cultural situations and settings. Use of the model illuminated the sociocultural as well as developmental reasons behind the information-seeking behaviors of the student participants.

## Cultural Framework

As noted, SDT (Deci and Ryan 1985) was the theoretical framework of this study; data analysis was informed by Cognitive Evaluation Theory, a subtheory of SDT that proposes that social conditions that foster *autonomy*, *competence*, and *relatedness* increase one’s tendency toward intrinsic motivation. A key postulate of SDT is that these three psychological needs are

universal; that is to say, they apply to all people regardless of culture. However, in looking at the three needs, there seems to be a tension between autonomy (individual will) and relatedness (association with other people). Steven J. Heine et al. (1999) have posited that people living within individualistic cultures (typically western countries) need more autonomy support, and that those associated with collectivist cultures (typically eastern countries) tend to seek satisfaction of their relatedness needs more than their autonomy needs. Conversely, several studies have supported the universality of autonomous-based motivation across time and cultures (Chirkov and Ryan 2001; Chirkov et al. 2003; Grouzet, Otis, and Pelletier 2006; Roth et al. 2006). Additionally, recent studies have shown that autonomy-supportive educational strategies have proved successful in highly collectivist cultures (Vansteenkiste et al. 2005; Jang et al. 2009). These studies suggest that people of all cultures benefit from practices that foster intrinsic motivation (Chirkov 2009).

## Methodology

### Participants

The students in the study were boys and girls approximately nine to thirteen years old attending a small private primary school in Kampala, Uganda. These students, primarily orphans, lived in a high-poverty community near the school. Their ages were approximate based on the teachers' estimations since most of the children did not possess a birth certificate and, consequently, did not know when or where they were born. The number of students in the age range attending on the dates of the study was thirty-one. Subjects were asked to participate at the school, and research activities were scheduled in collaboration with the teachers and directors of the school. Participation was not a required school activity for the children, and they were fully informed of the testing process in English and in Luganda. No reward was given students for their participation, but a feast was held for all children in the school. Students were not told about the feast until the day before it was held, which was after the conclusion of the study.

### Instrument for Identifying Study Participants

The study's framework of Self-Determination Theory (Deci and Ryan 1985) defines it as a theory-based study. Matthew B. Miles and A. Michael Huberman described this type of study as one in which "choices of informants, episodes, and interactions are being driven by a conceptual question, not by a concern for 'representativeness'" (1994, 29). To this end, the instrument used to identify students who were intrinsically motivated to seek information was an adaptation of the SRQ-IS (Self-Regulation Questionnaire for Information Seeking) developed for the original study (Crow 2009). The SRQ-IS is an adaptation of the SRQ-A (Academic Self-Regulation Questionnaire, Ryan and Connell 1989) for the domain of information-seeking behavior. The originators of the SRQ condone adaptation. "New SRQs may need to be developed for new behaviors or domains...as the research question changes" (Self-Determination Theory 2014). Dr. Richard Ryan graciously reviewed and contributed to the design of the questionnaire used in this research, as did Dr. Ruth V. Small, renowned author in the field of motivation and information seeking.

The SRQ-IS-U (Self-Regulation Questionnaire for Information Seeking-Uganda, see Appendix A) was administered to three groups of ten or eleven students, each question read aloud by the researcher in English and by an interpreter in Luganda. Five students who were identified from



the survey as having a dominant intrinsic motivation to seek information with at least a .03 differential from their second dominant motivation domain were chosen as informants for the remainder of the study. John W. Creswell (1998) described the ideal number of informants in a phenomenological study as in a range from 1 to 325, the important point being “to describe the meaning of a small number of individuals who have experienced the phenomenon” (1998, 123).

## **Data Collection**

### ***Introduction***

Data collection began with interviews and continued based on the information gleaned from the informants in an emerging research design.

### ***Observation of Environment***

The role used for the observation of environment activity was that of complete observer. Specifically, examination was made of the room and other artifacts surrounding the informants' classroom environment, as well as observation of the community. The examination of the physical evidence of the children's experience shed light on the factors that influenced their intrinsic motivation specifically for information seeking.

### ***Interviews***

The interviews were semi-structured and open-ended, beginning with broad questions and narrowing in on the experiences that illuminated the phenomenon of interest. The information sought in these interviews was: a) the factors in the students' life experiences that contributed to their dispositions toward seeking information generally, and b) the factors surrounding their information-seeking experiences, especially the types of questions they ask. The protocol for the second line of questioning (information-seeking experiences) was developed by Andrew K. Shenton and Pat Dixon (2003) for a study of the information-seeking behavior and needs of young people, and was based on a similar study by Brenda Dervin et al. (1976).

### ***Limitations***

The methodological limitations of the current study include: the use of a sample that is purposive (Miles and Huberman 1994) and not random, the gathering of informants from one geographical area, and the limitation of the use of the SRQ-IS-U with children who are able to understand and respond to the questionnaire (with an interpreter). Because of these limitations, the results of the study cannot be generalized to all students in all situations, to all students of collectivist cultures, or to all students in Kampala, Uganda.

## **Findings and Discussion**

### **Introduction**

Findings were based on the data gleaned from the environment observation, surveys, and interviews.

## Environment Observation

The researcher was able to walk through the community, about a half-mile from the school, and see some of the homes of the children. The homes were concrete and/or wooden structures about 10 x 10 feet, spaced less than 3 feet apart, and joined with other sections by a dirt path. Few wooden doors were evident; however, nearly every home had a brightly patterned curtain hanging in the doorway. At one time the residents enjoyed a free water well built by the Red Cross, but when it ran dry they had to begin buying water from a vendor at the outskirts of the community. Eight latrines serve a community of around 1,000 people. The latrines and the area around them were considered dangerous because of thieves and muggers, especially at night. Goats and chickens were part of the community's landscape, representing an important staple. Some children did not attend school due to illness, and it is not unusual for some to drop out because of disease or even death. The guardians were polite, clean, and friendly older women who obviously were proud of their individual homes, as were the children in their care.

The founder of the school is a Ugandan university-trained teacher who—like most of her students—was an orphan, lived in difficult conditions as a child, and was raised by a guardian after her parents had died. She started the school informally because she saw the need:

So I come out in the slums, and the kids were all over in the slums, on the streets. And they would go and eat in the garbage and collect dirty food from the markets and eat that, and fight over things. It was war in the slums. And I said, "God, [if] this is what you want me to do, you have to show me the way. You have the [means] and you have to provide." (interview with head teacher, June 2014)

An American/Australian couple offered to help, eventually becoming the directors of the school. The school became a more formal organization in February 2013 with a small building and a few sparse supplies. Now, the school, supported solely by donations, is in a more spacious facility (rented from a neighboring church): a one-room building (50 x 100 feet), with a large grassy area for instruction and play.

In addition to the educational program, students are fed during morning break and at noon. Students are placed in classes based on their abilities, not their ages. Teachers are responsible for one grade level (P1 through P4), but often switch classes to teach areas of their own expertise to all students. Teaching strategies include using music to start the day, foliage examination and drawing for science class, writing activities on slates, and an extended play time. The children were proud to show the large garden they had planted on the school grounds.

The children had a library of around 650 books, but could access only a couple of bins (150 books) at a time because the school has to move all their resources out of the rented building at the end of every week. The teachers rotate the books each week, and students seemed comfortable getting up during class and choosing a book when needed or wanted. Because the school had so few books, students were not allowed to take the books home. No electronic resources were available to students because the school building did not have electricity; however, one of the directors mentioned bringing a few digital devices in for children to use on occasion.

Students loved their school and teachers, and were glad to talk about them. "I like to write and draw, and I like to respect my teacher" and "I show my writing to my teacher because I love her so much" (Lukshebyi). They saw school as a safe place, and school days as good days. They appeared respectful and obedient, as well as engaged in the activities of the week.

Three of the five informants talked about church as another place they go on a good day. Religion is an important part of the social milieu of Uganda. “According to official government figures [2002 census], an estimated 85 percent of the population is Christian, 12 percent Muslim, and the remaining 3 percent follow indigenous beliefs, Hinduism, Baha’Ei Faith, and Judaism” (U.S. Dept. of State 2010). One child spoke of a Muslim aunt who verbally abused her because the child converted to Christianity. The student eventually had to find another place to live. Others spoke well of either their Muslim or Christian worship experiences. The five teachers are of various faiths, and the school does “not discriminate on the basis of race, color, national origin, and ethnic origin in administration of its educational policies, scholarship and loan programs, and athletic and other school-administered programs” (school website 2013).

## **The Survey**

Thirty-one surveys were completed by students ages nine through thirteen. The dominant motivational style for the pool of students was Identified (42 percent), followed by Intrinsic (19 percent), Introjected (10 percent), and Extrinsic (0 percent). An Integrated category was not included, since “fully integrating a behavioral regulation is very unlikely to have occurred during childhood or adolescence. Thus, the scales used with children do not have an integrated subscale” (Self-Determination Theory 2014). Twenty-nine percent of the students had no dominant motivation style. The dominant motivation pattern was the same as the Colorado Springs study (high to low: Identified, Intrinsic, Introjected, and Extrinsic). Of note is the high percentage of Ugandan students who were dominant in Identified (42 percent), with 0 percent dominant in Extrinsic (see figure 2).



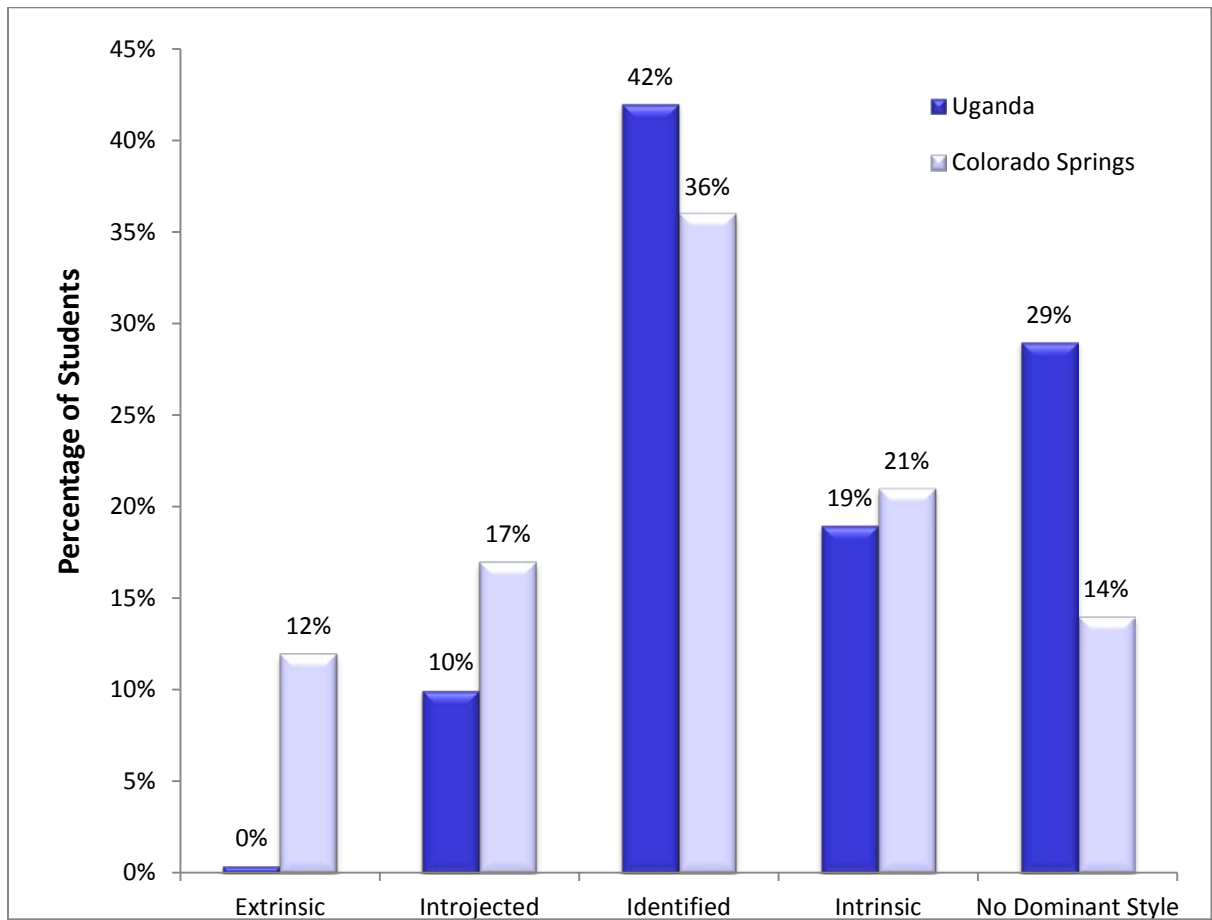


Figure 2. Dominant motivation styles of students in the Uganda and Colorado Springs studies.

Another interesting factor is the high percentage of Ugandan girls with no dominant style (40 percent of the girls) compared with the boys (19 percent; see figure 3).

These findings are similar to the Colorado Springs study with regard to the predominance of Identified motivation (36 percent), and, likewise, the lowest motivational style being Extrinsic (12 percent). However, in the Colorado Springs study the disparity between boys and girls with no dominant style (9 percent girls and 18 percent boys) was not as great as it was with the Ugandan informants; in the U.S. study more boys than girls were found to have no dominant style.

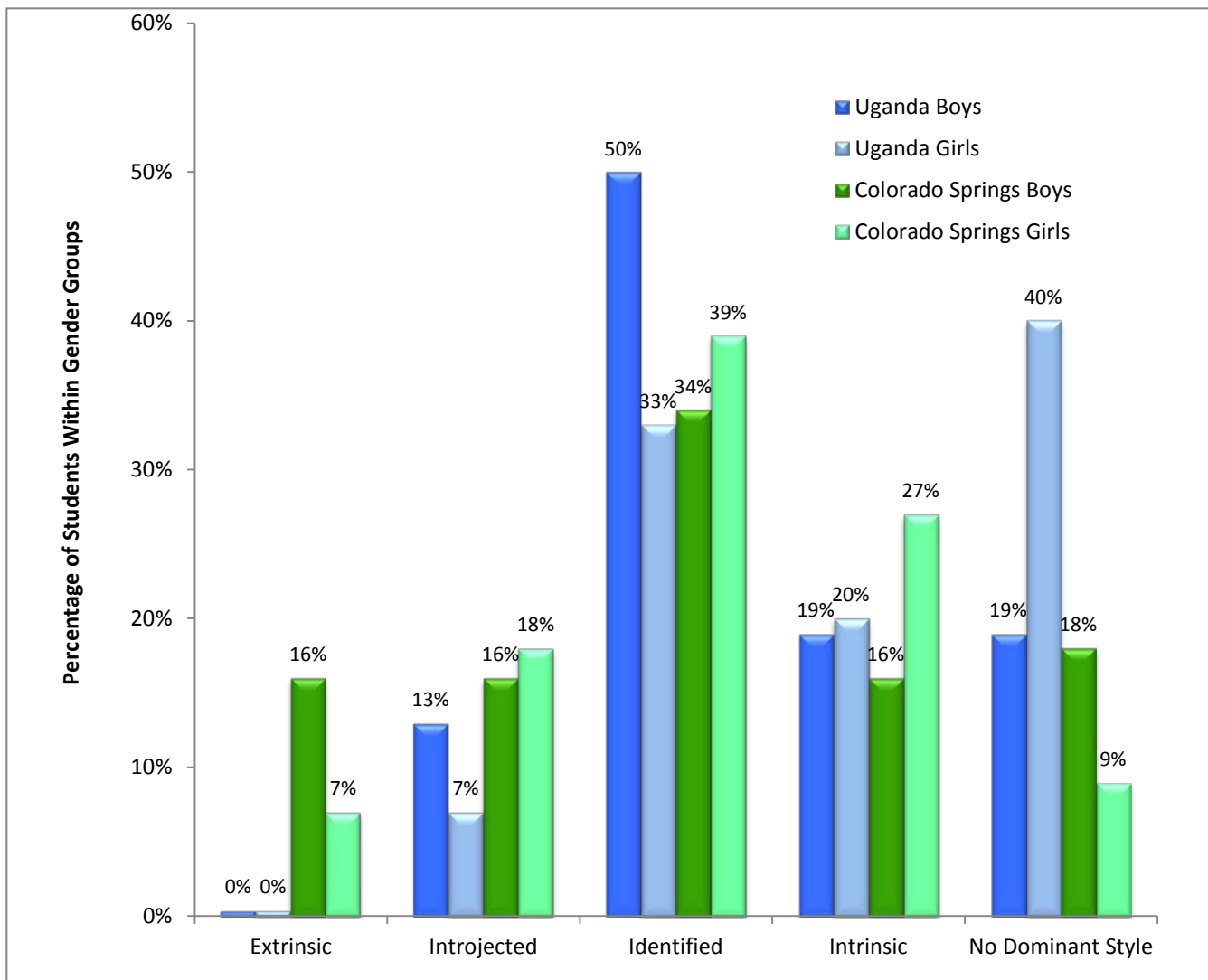


Figure 3. Dominant motivation styles of students by gender groups in the Uganda and Colorado Springs studies.

*Identified motivation* is a more autonomous type of extrinsic motivation, and is action caused when one attaches personal importance to the behavior (Ryan and Deci 2000b). Students associated information seeking with education as many of the episodes they described pertained to school or were associated with competencies learned in school. In Uganda education is “extremely important and pertinent in [a] chance [for] a better life” (Patterson 2011); however, the country has an “education problem.” In 1997 Uganda began requiring free and universal primary (elementary) education. At first it appeared to be working as “enrollment rose from 2 million to 7 million by 2000” (Guardian 2014). But, as time went on the problem of finding qualified teachers in a country where 50 percent of the population is under the age of fifteen hit critical mass. Since then, students have had lower pass rates, and the number transitioning to secondary school has decreased (Guardian 2014). Additionally, the term “free” does not necessarily mean without cost. The government does not allow national public schools to charge tuition, but these schools can charge an “upkeep” fee (Kibale Student Support Group 2007). Poor families and children without parents cannot pay these fees and, therefore, are not allowed to

attend national public school. There are private schools as well as schools set up by the local government/municipalities that are allowed to charge tuition, but most are as expensive—or even more expensive—than the national government schools (personal communication with one of the school directors, August 2014).

Ugandan students in this study are aware of the scarcity of education, and they are fiercely proud of being able to attend the new school near their community (supported through donations only). It is no wonder that Identified motivation tops the list of dominant motivation domains (42 percent) of these children, who would have no other means of elementary education had the head teacher not organized a school there. The importance of information seeking seems especially salient for the boys (50 percent, compared with 33 percent of the girls).

*Extrinsic motivation* refers to behaviors caused by an external demand or reward and is the least autonomous type of motivation (Ryan and Deci 2000b). Since none (0 percent) of the children taking the survey for this study scored dominant in the extrinsic motivation domain, it appears that there are no external factors controlling them to seek information. This would seem logical, as going to school is a privilege in the community. Some of the informants in interviews indicated that they were punished by guardians and other adults, though there was no mention of punishment by teachers. None mentioned being punished for any reasons related to school.

Interestingly, while 29 percent of the Ugandan students taking the survey showed no dominant motivation style, the percentage of girls in this category (40 percent) was higher than boys (19 percent). Reasons for this discrepancy could be: 1) the masculine nature of the Ugandan culture in which competition and aggression are valued (Rarick et al. 2013), and 2) girls are taught to be subservient to men:

The children learn from their mothers' actions that boys are to be treated preferentially. The women push their girls into making money any way they can and belittle them. The mothers in this society, and perhaps many others, are teaching their girls to feel as if they have no worth and to be subservient to men. (WomanStats Project 2012, 2–3)

Some surveyed girls may not have been accustomed to self-reflection or decision-making, and so answering questions about their own feelings would prove difficult for them.

Six (19 percent) students were found to have a dominant intrinsic motivation style. Because of the need to clarify and emphasize the salient aspect of the intrinsic motivation style, a differential of at least .03 points between the intrinsic motivation composite subscore and the next highest motivation style subscore for each student was used as a measure to identify informants. Of the six students with a dominant intrinsic motivational style, five had scores that met this criterion. The results yielded a pool of five (16 percent) informants. It is interesting that there was a higher percentage of Ugandan students (16 percent) in the informant pool than in the Colorado Springs study (9 percent), though the smaller number of participants in the Ugandan study may have affected this outcome.

Researchers suggest that the positive feelings that accompany intrinsically motivated activities are a biological matter, “selectively evolved features of human nature” (Ryan, Kuhl, and Deci 1997, 721). The fulfillment of curiosity through acts of exploration and inquiry results in advantages such as increased knowledge, independence, and secure relationships with others (competence, autonomy, and relatedness) that, in turn, help the organism to survive. These theorists suggest a connection between the enjoyment of intrinsically motivated activities and the survival instinct. This connection may also explain the relatively high percentage of Ugandan

students with a robust dominant intrinsic motivation for information seeking despite the disadvantages of lives lived in poverty.

## Reliability of the SRQ-IS-U

A Cronbach's alpha was calculated to test the reliability of the survey response items that propose to capture the student's motivation style for information seeking along four dimensions: intrinsic, identified, introjected, and external. A commonly accepted rule of thumb for describing internal consistency using Cronbach's alpha is: Excellent =  $a \geq 0.9$ , Good =  $0.7 \leq a < 0.9$ , Acceptable =  $0.6 \leq a < 0.7$ , Poor =  $0.5 \leq a < 0.6$ , Unacceptable =  $a < 0.5$  (George and Mallery 2003; Kline 2000). All findings were within or above the "acceptable" range, indicating that each group of survey responses for each of the motivation styles displayed an acceptable internal consistency across all subjects (see table 1).

Table 1. The Cronbach's Alpha for each of the SRQ-IS-U Response Items for Motivation Styles.

Motivation Style	Alpha Score
External	.80
Introjected	.80
Identified	.80
Intrinsic	.65

The five students identified as informants chose aliases: John, Lukshebyi, Melissa, Namata, and Salim.

## The Interviews

### *Introduction*

Analysis of the data indicates that students came from similar family situations and socioeconomic backgrounds but displayed different communication styles. Regarding information-seeking behavior, all informants indicated that they asked people when they needed answers, but other means of information seeking were used as well. The presence of "anchor" relationships helped students answer questions. The students' interests were varied and many, and they engaged in information seeking for the purpose of facilitating maturation into their next developmental stage (adolescence).

### *Home and Family Life*

Contrary to their Colorado Spring counterparts who attended different schools and whose families exhibited a variety of socioeconomic levels, Ugandan informants came from the same community, attended the same school, and experienced very similar living conditions. One director described the children as:

mostly orphaned and many displaced as refugees, driven from their homes and largely forgotten by the Ugandan government and foreign aid-workers. These kids have fought to

survive civil wars with terrorists, genocide, death, and trafficking as well as the tough life living on the streets and in the slums. (school website 2013)

Though most of the informants mentioned a mother or aunties, it was unclear whether these were biological relatives, their guardians, or perhaps just acquaintances. Guardianship is not official, and none of the guardians receive remuneration for their care of children. Often guardians are older women in the community who are willing to help because the children have no one else.

### ***Information-Seeking Behavior***

Data about the students' information-seeking behavior were gathered from two lines of questioning: 1) "What makes a good (happy) day for you?" and 2) "Tell me about a time when you sought information." The students talked freely about information seeking when describing a happy day, lending credence to their identification through the survey as intrinsically motivated for information seeking. "I like learning about soil, the division between soil and water. When it rains, I go down to the river bank and watch" [Namata]. Lukshebyi mentioned watching Budekke on television every day just because she wants to know what is going on in the world. (Budekke is a popular news channel in Uganda.) These answers typify students intrinsically motivated to seek information. They do it naturally, and seemingly they are learning for fun.

Along with statements about information seeking in their daily lives, students also described specific episodes when asked about a time they sought information. These experiences formed the data for this section of the research results.

### ***Informants' Information-Seeking Styles***

Students described engaging in a variety of information-seeking styles based on the type of media they used (see table 2). They used books, watched movies and television, listened to the radio, and observed naturally occurring events. They also asked other people.

Table 2. Information-seeking styles by media types as described by informants.

	Readers and Book Users	T/V/ and Movie Watchers	Observers	People Askers	Radio Listeners
John	✓*			✓	
Lukshebyi				✓*	✓
Melissa				✓*	
Namata		✓	✓	✓*	
Salim	✓		✓	✓	

\*indicates primary information-seeking style

The two book readers in the group were the two boys, Salim and John. Salim described using a book that helped him find information about the heart. John described using a book to practice his reading, and using books was a primary information style for John. Books are very scarce in the community, and only one child mentioned having one of her own (Melissa: a journal for writing). The school has a set of the national curriculum books and had just received six hundred books for student reading a few months before this study. Students were observed reading these books in daily studies. Children also mentioned using charts for information. A “chart” in Uganda is a large, poster-sized “shiny” sheet of paper with information and pictures on topics such as animals, the solar system, etc., such as would be used in a classroom in the U.S. The Ugandan Ministry of Health distributes posters to educate the population on diseases and other health issues (U.S. National Library of Medicine 2013). I observed vendors selling informational charts on Kampalan street corners, indicating the ready availability of informational charts.

Books and libraries are scarce in Uganda as a whole, but Ugandans are striving to rectify this situation. In 2003 the National Library of Uganda (NLU) was established (National Library of Uganda 2011); it currently contains a collection of thirteen thousand items. In 2012 NLU launched a campaign Changing Libraries for Children in Uganda with the aim of offering “effective children’s services by creating child friendly spaces and providing library and other educational materials in the public libraries” (National Library of Uganda 2011). It is hoped that the good work being done will begin to change the scarcity of print materials in Uganda.

Electronic resources for students to use are also a rarity. Less than 10 percent of the population, 3 percent in rural areas, has access to electricity (Saundry 2013). None of the children described using computers for information seeking, though two drew pictures of themselves using them. This finding is in stark contrast to the Colorado Springs informants, all of whom described using computers. As mentioned before, Lukshebyi discussed listening to the radio and watching television for news. Namata discussed watching a movie on television, and what she watched spurred her on to more information seeking.

Electricity is almost as scarce as print materials in Uganda. The community does have some electrified homes, and the head teacher described how people congregate in those homes to watch television. Interestingly, she also mentioned that the beauty salons and barbershops in



Kampala and surrounding neighborhoods serve as television-watching gathering places. While driving around the city I observed many open-door salons crowded with people in the evening. While the school is wired for electricity, the power is not dependable, and the school does not have technology to use on a regular basis anyway. One of the school directors did describe bringing in laptops for the children to use from time to time.

Two students (Namata and Salim) described using observation. “I like writing science. We studied germination. I popped open a bean in the middle to see what was inside. Then I wrote what I saw” [Salim]. Namata observed the river bank (as mentioned previously). Both students were intentional in their observations, rather than opportunistic; in other words, they specifically observed for the purpose of seeking information rather than observing first and then becoming curious.

The style informants discussed most often—asking people—seems to be based more on availability than on learning style. *All five informants* described asking people when they had an information need/want, and the indication was that asking people was the primary information-seeking mode for three students (Lukshebyi, Melissa, and Namata). Students mentioned asking another person for information a total of fourteen times. Depending on people for information would be an indication that these students simply do not have much in the way of other resources, but it could also be that finding information in a collectivist culture centers around asking trusted people. The very definition of what makes a culture collectivist—“the emphasis is on interdependence and the self is defined in relation to group members” (Bond 2004, 1)—would suggest that students would go to others within their circles to supply answers to their questions.

Salim could not be “pinned down” to a specific primary information-seeking style because he tended to focus on his interest—the heart—and sought information using any medium he could find. In fact, four of the five students indicated using at least two media types for information seeking, and two of the students indicated using at least three (see table 2).

The Ugandan students’ use of their primary information-seeking media suggests that they began seeking information with the media to which they had more access, and occasionally would expand their searches to other media when available. Colorado Springs students, on the other hand, began with the media for which they had more access, for which they were best suited, and/or with which they were most comfortable. Then they developed more questions, expanding the focus to other sources as the desire for more information arose. Their descriptions of information-seeking episodes were long and varied, and their knowledge and skills built as they continued their information-seeking journeys. It would be logical to conclude that students of all cultures who have access to various media types and who are allowed/encouraged to use them at will would be more intrinsically motivated to seek information, would choose those media most suited to their intelligences, and would probably be more successful as well.

### ***Informants’ Interests and Passions***

The Ugandan students expressed a variety of interests and information-seeking behaviors related to those interests. During the analysis of the data, these interests were sorted into a typology (see table 3). The Ugandans expressed interest in more than one topic and discussed self-initiated information-seeking experiences in academic, reflective/emotional, fiction interest, and creative activity topics. Of the information-seeking interest topics, more children showed interest in academic topics than any other, as did the Colorado Springs students; and again, as in the previous study, science was the predominant academic interest. All five Ugandan informants mentioned an interest in science.

Table 3. Typology of interests as described by informants.

1. Academics
  - 1.1. Science\*
    - 1.1.1. Conservation\*
    - 1.1.2. Astronomy and Space\*
    - 1.1.3. Human Body\*
    - 1.1.4. Plants\*
  - 1.2. Social Studies
    - 1.2.1. History\*
    - 1.2.2. Cultural Folktales\*
    - 1.2.3. Current Events\*
  - 1.3. Math\*
  - 1.4 English\*
    - 1.4.1 Sentence Construction
    - 1.4.2. Reading\*
2. Physical Activities
  - 2.1. Sports
    - 2.1.1. Soccer
    - 2.1.2. Swimming
    - 2.1.3. Dodgeball
  - 2.2. Other physical activities
    - 2.2.1. Jumping rope
    - 2.2.2. Bike riding
3. Reflective/Emotional Topics
  - 3.1. Death\*
  - 3.2. Fear of Dogs\*
  - 3.3. Abuse\*
4. Fiction Interests
  - 4.1 Easy Reading\*
  - 4.2 Fantasy Adventure\*
5. Creative Activities
  - 5.1. Imaginative play#
  - 5.2. Drawing\*#
  - 5.3. Writing\*
    - 5.3.1. Fiction
    - 5.3.2. Non-fiction#

\*Indicates interest includes information-seeking/grazing experiences (or an expressed desire or need for information seeking).

# Indicates use as an expression of another interest.

Interest in creative activities proved to be a special case in relation to the other interest groupings with the Ugandans, as it was for the Colorado Springs students. The manner of the creative engagement fell into two categories: being creative for the enjoyment of the activity, and using a creative activity as an expression of another interest (see table 3). While the students from Colorado Springs also sought information about creative activities, the Ugandan students did not, probably because such information was not readily available.

Another interesting difference between the two sets of informants is that the Colorado students mentioned information seeking around various careers (teacher, veterinarian, naturalist, animal trainer, career in the NFL) whereas the Ugandan students did not. This difference may be due to the abundance of resources in the U.S. and a lack of resources in Uganda, but it may also point to the difference in time perception of the two cultures. Long-term orientation (LTO) “reflects the extent to which a society encourages and rewards future-oriented behavior such as planning, delaying gratification, and investing in the future” (Rarick et al. 2013, 1). Of the five cultures addressed in the Rarick et al. article, Uganda had the lowest LTO, suggesting that “Ugandans have a culture that is very short-term oriented” (2013, 6). This characteristic of Ugandan society could explain the Ugandan students’ lack of interest in their future careers.

As previously discussed, both the original and the current study used a Theoretical Model of Urban Teen Development (Agosto and Hughes-Hassell 2006a, 2006b) as a conceptual framework to classify the topics of interest generated by the intrinsically motivated students. The model was evaluated for age-appropriateness by comparing Havighurst’s (1972) Developmental Tasks of Middle Childhood with the independent variables from the Agosto and Hughes-Hassell model. (They had used Havighurst’s 11 Developmental Tasks of Adolescence.) Five of the seven variables taken from the Agosto and Hughes-Hassell model could be supported by the Havighurst Developmental Tasks of Middle Childhood.

Of the two variables in the Agosto and Hughes-Hassell (2006a, 2006b) model not depicted by Havighurst’s Developmental Tasks for Middle Childhood (1972), the first is *the sexual self*, which in the original model is based on the developmental tasks for teens, “learning to manage his or her sexuality” and “learning to recognize and accept his or her sexuality” (Agosto and Hughes-Hassell 2006b, 1424). Certainly, the students in Uganda were starting to be concerned with sexuality as a few would probably have been entering puberty (four were ten years old, one was thirteen), and in their culture “the initiation of sexual activity starts as early as 10–14 years of age with a mean of 15 years” (Uganda Delivery of Improved Services for Health 2011). Even so, it was found that students in the current study did not mention or draw topics on *the sexual self*. One of the reasons for this could be that they did not feel comfortable discussing such topics with an interviewer they had only recently met.

Young people in Uganda typically do not discuss sexual issues with any but trusted adults, and they generally ask peers when they have sexual questions (Uganda Delivery of Improved Services for Health 2011). When they do learn from adults, the information is erroneous more often than not. One of the directors of the school, who has developed trusted relationships with the students, and who also works with the Kwagala Project “dedicated to rescuing, restoring, and empowering women and children who have been victimized by trafficking, gender-based violence and/or abject poverty” (Kwagala Project 2011) stated:

I’ve heard questions regarding if one can get pregnant on a night with a full moon, if condoms are actually more dangerous than non-protective sex and if they can cause cervical cancer, if one can get pregnant while kissing a boy/looking at his genitals/holding hands while a girl is menstruating. And the myth that one can cure oneself of HIV/AIDS by sleeping with a non-infected virgin is still rampant.  
(correspondence with one of the directors, August 2014)

The indication that a majority of the informants in the study used “asking people” as a primary means for seeking information and did not follow up even when their questions were not answered, shows how this type of misinformation can be common in a high-poverty collectivist society whose members are without means of accessing alternative information sources.

The second variable not addressed by Havighurst for this age group is the same one not addressed in the model for teens: *the creative self*. I found it was necessary to add this variable to cover all the information-seeking questions of the students in this study, as did Agosto and Hughes-Hassell (2006a, 2006b).

Those interests for which students indicated they had had self-initiated information-seeking episodes were sorted into the variables in the adapted model. All of the self-initiated information-seeking interests could be classified into this model, and all but one of the variables (physical activities) from the adapted model contained at least one information-seeking interest (see figure 4). (If more than one interest was identified, the number is indicated in parenthesis in figure 4.)

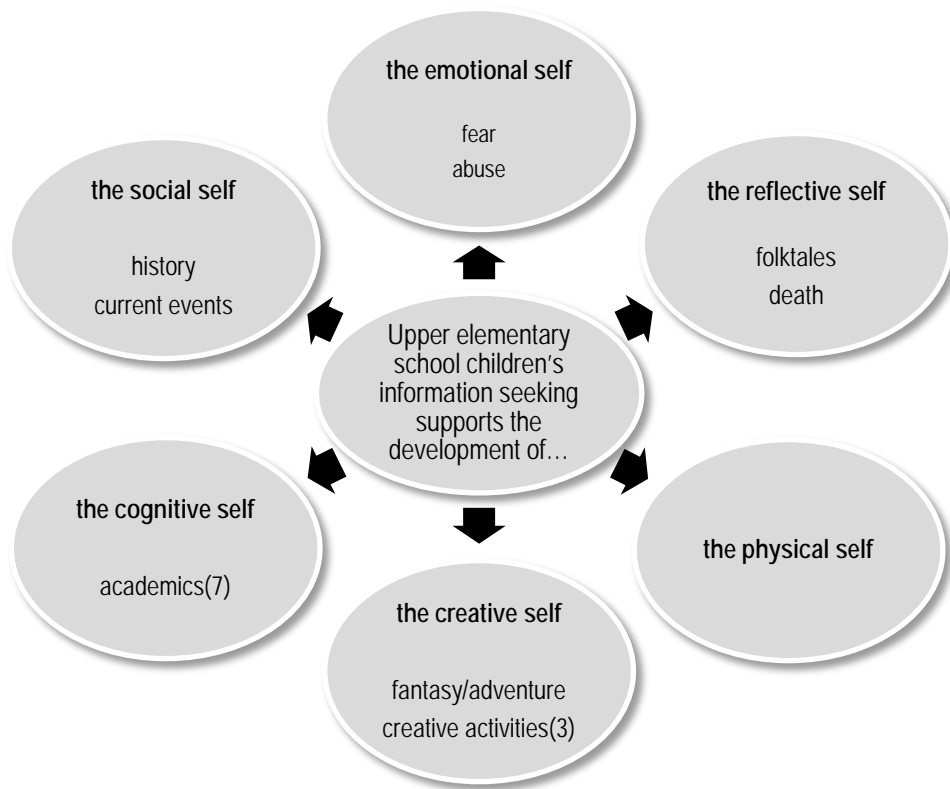


Figure 4. Adaptation of a Theoretical Model of Urban Teen Development (Agosto and Hughes-Hassell, 2006a, 2006b).

### ***Described Information-Seeking Experiences***

In the second phase of the interviews, the specific question asked of informants about information-seeking episodes was:

Think of a time recently when you wanted or needed to find out information or learn something either for school or for your own interest. It might have been at home, at school or anywhere else. Could you tell me about what you remember of that time? (adapted from Shenton and Dixon 2003)

The question given if students did not respond to the first question was, “Do you go anywhere or do anything to look up information? Where and what about?” After these questions students were asked if they could think of another time that was different from the first. In this way, at least two information-seeking experiences were captured from each informant. This was the same protocol that was used in the original Colorado Springs study.

Student responses to the second line of questioning were classified according to the categories in Bilal’s Taxonomy of Tasks (2002). Those categories are task type (open-ended versus closed), task nature (complex versus simple), and task administration (fully assigned, semi-assigned, or fully self-generated). In addition, another dimension to the categorization was added: task relationship, that is, whether or not the episode was experienced with a group (that is, with at least one additional person) or as an individual. (See figure 5 for an example of the use of the adapted taxonomy.) The students’ determination of the success level of the experience was also recorded, as well as their preference between the two experiences they described. Since this study focuses on intrinsic motivation, those experiences for which the students expressed a preference were analyzed. Though the pool of experiences was varied in structure and purpose, three of five students preferred information-seeking episodes that emanated from their own questions, while two of five preferred episodes related to school assignments. The Colorado Springs students preferred school-related episodes (six of nine).

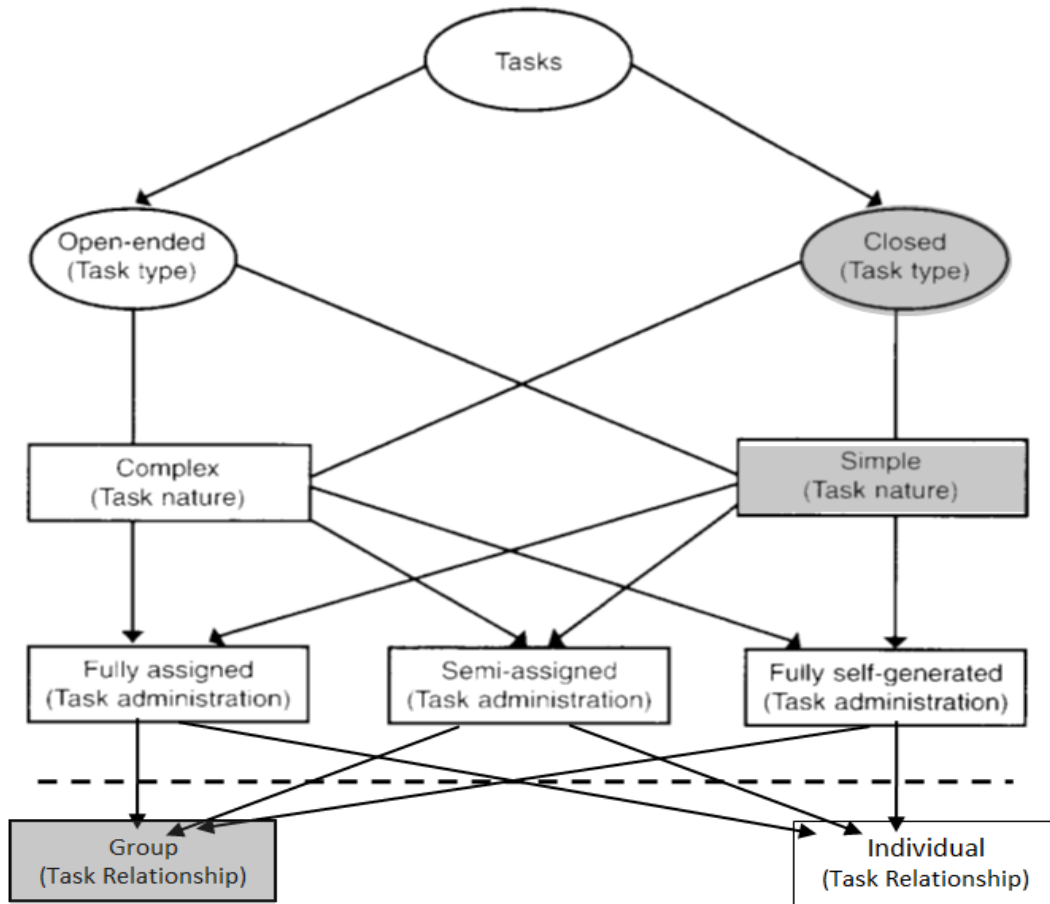


Figure 5. Pattern #1 representing Melissa’s and Namata’s preferred assignments as classified into the adapted Taxonomy of Tasks (based on Bilal 2002).

Students' preferences included both open-ended and closed questions, both simple and complex experiences, and included a question that was semi-assigned, and four of five that were fully self-generated. As with the Colorado Springs students, *none of the preferred information-seeking experiences was fully assigned*. Since the "favorites" were the most intrinsically motivating episodes of students identified as intrinsically motivated for information seeking, the assumption is that fully assigned tasks are least likely to be intrinsically motivating to students. This characteristic aligns with the SDT principle that autonomy is an essential component for intrinsic motivation (Deci and Ryan 1985). On the other hand, four Ugandan students preferred group experiences, while one preferred individual. The preference of Ugandan students for group experiences aligns with a collectivist culture's "emphasis on interdependence" (Bond 2004, 1). It is interesting to note that the Colorado Springs students also preferred group experiences (five) to individual (four), but by a narrower margin. Perhaps it is a characteristic of many students in this age range to prefer working with others to working alone, regardless of their cultural origins.

The reasons Ugandan students gave for choosing their "favorite" information-seeking episodes also align with SDT principles. Three students gave interest in topic as their reason (interest as the basis of intrinsic motivation as described, for example, in Csikszentmihalyi 1975), and two gave need for building competence (a basic component of intrinsic motivation; Deci and Ryan 1985). The data suggest that students who participate in information-seeking tasks incorporating principles of intrinsic motivation are more likely to be intrinsically motivated by those experiences, and will, it is hoped, be more likely to engage in information seeking on their own.

In the Colorado study, all nine of the informants described a *point of passion*—informants' first remembered experience—regarding an interest or fascination they have since pursued. Not only were they able to remember a single interest-igniting experience, but six of them had this experience at the age of four or five. A majority of the students also indicated support from others, generally an adult relative (*anchor relationship*), for pursuing the interest. The phenomenon of *point of passion* was not evident among the Ugandan informants' experiences. The difference did not seem to lie with a lack of interests, nor a lack of adults to ask, but with the students' concept of time. When asked when their first remembered experience regarding an interest occurred, they answered, "Monday," or "Right before the storms started," or "January," or "I don't remember." This lack of connection of their experiences with an early time frame may be related to the culture's short-term orientation (Rarick et al. 2013), or may simply be a result of living an unstable life without family stories to remind students of their own history. Nevertheless, the data point to the importance of anchor relationships for the children from both cultures.

## Conclusions and Recommendations

This study was about individuals; children of a collectivist culture living in poverty. While it is important to remember that the findings are applicable only to this particular pool of students, the following conclusions and recommendations may illuminate issues surrounding the general topic of intrinsic motivation within the framework of information seeking.

### **Autonomy Support Is Important to All Children.**

Regardless of culture, autonomy support is important to all children. The children in Colorado and Uganda thrived on experiences where they had choices and when their individual voices were heard. All children have the need and right to develop fully as individuals.



The components and processing of psychological autonomy work universally across cultures—regardless of the specific contents of people’s goals, emotions, and social demands, which are indeed culture dependent—the same way as human consciousness, language, and other higher mental functions work universally across all representatives of human species. (Chirkov 2014, 33)

School librarians and teachers under pressure to prepare students to do well on high-stakes tests often see autonomy support as “pulling in another direction” from specific learning goals. Research has shown, however, that giving students some choice—however small—in a task or assignment will increase their intrinsic motivation for that task (Deci and Ryan 1985) and aid in their learning. Giving students informational rather than controlling feedback helps them build competence based on their own desire to do and be better (Deci and Ryan 2002). Perhaps most importantly, educators can support students’ autonomy by helping them to discover their own particular strengths and interests. “Autonomy. . . is not a mere collection of specific cognitive skills, rather it is a state of mind and a mode of being that a person chooses for him or herself; it is a specific motivation to live one’s life and act as one decides to do” (Chirkov 2014, 40).

Studies done in various cultures suggest that autonomy-supportive instruction is beneficial not only to students’ cognitive learning, but their psychological and moral learning as well (Jang et al. 2009; Vansteenkiste et al. 2005). Children are essentially on a journey to find their place and significance in the world. By providing autonomy support for students as individuals, we help them be successful on this basic human journey.

### **Anchor Relationships Are Essential.**

While the Colorado Springs children expressed interest in working with groups, the relationship factor was absolutely essential to the information-seeking experiences of the Ugandan children. All five of them depended on their anchor relationships to help them find both academic and personal-interest information. The data point to the importance of an influential person or persons who foster intrinsic motivation for information seeking in the life of each child, and particularly so in the lives of the students living in a collectivist culture. School librarians and other educators can promote and cultivate anchor relationships by getting to know students’ parents and guardians, by connecting younger students with older students with similar interests, and by providing experiences where students can see and hear live experts in various fields. Educators can provide opportunities for students to work in pairs, in groups, and individually, and allow students to choose the configurations that work best for them.

### **Additional Observations**

Play was an important contributor to the intrinsic motivational dominance in both the Colorado Springs and Ugandan informants as observed by me and described by the informants themselves. The play the students described indicated that their playful activities contributed to fulfillment of their needs for autonomy, competence, and relatedness, all components contributory to fostering intrinsic motivation (Deci and Ryan 1985). Additionally, students from both cultures exhibited a tendency toward creativity, both in their activities and their interests.

## Final Thoughts

Fostering intrinsic motivation may seem daunting to school librarians and teachers coping with a testing society, the influx of students of many cultures, and demands resulting from the winds of political and economic change. However, there are basic, tried-and-true motivation principles that will assist educators in helping their students become successful lifelong learners. The key lies in knowing their students and respecting them as individuals. The Greek maxim “Know thyself” could perhaps better serve educators if changed to “Know thy students.”

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# Appendix A

## Self-Regulation Questionnaire for Information Seeking—Uganda

### Why I Look for Information

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Grade: \_\_\_\_\_

\_\_\_\_\_

Boy ( ) or Girl ( )

#### Demo question:

Q. I like red.

Very true      Sort of true      Not very true      Not at all true

A. Why do I look for information for a project or assignment in school?

1. Because I want to learn new things.  
Very true      Sort of true      Not very true      Not at all true
2. Because I want my teacher to think I'm a good student.  
Very true      Sort of true      Not very true      Not at all true
3. So that the adults won't yell at me.  
Very true      Sort of true      Not very true      Not at all true
4. Because I'll be ashamed of myself if it didn't get done.  
Very true      Sort of true      Not very true      Not at all true
5. Because it's fun.  
Very true      Sort of true      Not very true      Not at all true
6. Because that's the rule.  
Very true      Sort of true      Not very true      Not at all true



7. Because I enjoy looking for information for projects and assignments.  
 Very true      Sort of true      Not very true      Not at all true
8. Because it's important to me to look for information for projects and assignments.  
 Very true      Sort of true      Not very true      Not at all true

B. When I look for information about a new topic [such as snakes or sports] it is usually. . .

9. Because I want adults to think I'm a good student.  
 Very true      Sort of true      Not very true      Not at all true
10. Because I'll get in trouble if I don't.  
 Very true      Sort of true      Not very true      Not at all true
11. Because it's fun.  
 Very true      Sort of true      Not very true      Not at all true
12. Because I will feel bad about myself if I don't do it.  
 Very true      Sort of true      Not very true      Not at all true
13. Because I want to understand the subject.  
 Very true      Sort of true      Not very true      Not at all true
14. Because that's what I'm supposed to do.  
 Very true      Sort of true      Not very true      Not at all true
15. Because I enjoy looking for information on new topics.  
 Very true      Sort of true      Not very true      Not at all true
16. Because it's important to me to look for information about new topics.  
 Very true      Sort of true      Not very true      Not at all true

## C. Why do I look for information in books?

17. To find out if I'm right or wrong.  
 Very true      Sort of true      Not very true      Not at all true
18. Because I want the adults to say nice things about me.  
 Very true      Sort of true      Not very true      Not at all true
19. Because it's fun.  
 Very true      Sort of true      Not very true      Not at all true
20. Because I want the other students to think I'm smart.  
 Very true      Sort of true      Not very true      Not at all true
21. Because I enjoy looking for information in books.  
 Very true      Sort of true      Not very true      Not at all true
22. Because it's important to me to look for information in books.  
 Very true      Sort of true      Not very true      Not at all true
23. Because that's what I'm supposed to do.  
 Very true      Sort of true      Not very true      Not at all true
24. Because I feel really proud of myself when I find information.  
 Very true      Sort of true      Not very true      Not at all true

## D. Why do I look for information in print materials other than books [such as magazines, newspapers, or flyers]?

25. Because it's fun.  
 Very true      Sort of true      Not very true      Not at all true
26. Because I enjoy looking for information in print materials other than books.  
 Very true      Sort of true      Not very true      Not at all true

27. To find out if I'm right or wrong.  
 Very true      Sort of true      Not very true      Not at all true
28. Because that's what I'm supposed to do.  
 Very true      Sort of true      Not very true      Not at all true
29. Because I want the adults to say nice things about me.  
 Very true      Sort of true      Not very true      Not at all true
30. Because I feel really proud of myself when I find information.  
 Very true      Sort of true      Not very true      Not at all true
31. Because I want the other students to think I'm smart.  
 Very true      Sort of true      Not very true      Not at all true
32. Because it's important to me to look for information in materials other than books.  
 Very true      Sort of true      Not very true      Not at all true

E. Why do I seek information from other people?

33. To find out if I'm right or wrong.  
 Very true      Sort of true      Not very true      Not at all true
34. Because I want the adults to say nice things about me.  
 Very true      Sort of true      Not very true      Not at all true
35. Because it's fun.  
 Very true      Sort of true      Not very true      Not at all true
36. Because I want the other students to think I'm smart.  
 Very true      Sort of true      Not very true      Not at all true
37. Because I enjoy seeking information from other people.  
 Very true      Sort of true      Not very true      Not at all true

38. Because it's important to me to seek information from other people.  
 Very true      Sort of true      Not very true      Not at all true
39. Because that's what I'm supposed to do.  
 Very true      Sort of true      Not very true      Not at all true
40. Because I feel really proud of myself when I find information.  
 Very true      Sort of true      Not very true      Not at all true

F. Why do I look for information on electronic devices [such as cell phones, computers, or tablets]?

41. Because it's important to me to look for information on electronic devices.  
 Very true      Sort of true      Not very true      Not at all true
42. Because I want the other students to think I'm smart.  
 Very true      Sort of true      Not very true      Not at all true
43. Because I feel really proud of myself when I find information.  
 Very true      Sort of true      Not very true      Not at all true
44. Because I want the adults to say nice things about me.  
 Very true      Sort of true      Not very true      Not at all true
45. Because that's what I'm supposed to do.  
 Very true      Sort of true      Not very true      Not at all true
46. To find out if I'm right or wrong.  
 Very true      Sort of true      Not very true      Not at all true
47. Because I enjoy looking for information on electronic devices.  
 Very true      Sort of true      Not very true      Not at all true
48. Because it's fun.  
 Very true      Sort of true      Not very true      Not at all true

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