

Elizabeth B. Hubbe. Combined School/Public Libraries: Do They Have An Effect On Teens' Use Of Library Materials And Teens Leisure Reading? A Master's paper for the M.S. In L.S Degree. August, 2005. 120 Pages. Advisor: Evelyn H. Daniel

This study set out to explore if a relationship exists between library usage for leisure reading by high school students and convenient access to the public library collection at a combined school/public library and also if there is a relationship between such access and the amount of leisure reading by high school students. Library usage was examined in three ways: number of visits, purpose of visits, and number of books borrowed. Leisure reading was examined in terms of where reading material is accessed, hours spent in reading for pleasure and motivations for reading. Students from two high schools in the Wake County Public School System in North Carolina were the subjects in this study. Surveys administered to students at a high school with a combined school/public library were compared with those from students with a stand-alone high school media center.

Both library usage and engagement in leisure reading showed a significantly positive relationship to access to public library resources at school. Students at the high school with a combined school/public library made more independent visits to the library during the school day and more visits to a library outside the school day. Visits to the library during the school day to read or check out books both for schoolwork and leisure were greater at the school with a combined school/public library as was the amount of books borrowed during the school year. When sources of leisure reading material were compared, a higher percentage of teens with convenient access to the public library collection at school used library resources for leisure reading, especially magazines, and a lower percentage buy most of the books they read for leisure. Evidence also indicates that

teens with convenient access to the public library collection at school engage in more hours of leisure reading with fewer students reporting that they do not engage in reading outside of school assignments. Finally, students at the school with convenient access to the public library collection scored more motivated toward reading on a reading motivation scale. Most results were significant at .05.

**Headings:**

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COMBINED SCHOOL/PUBLIC LIBRARIES: DO THEY HAVE AN EFFECT ON  
TEENS' USE OF LIBRARY MATERIALS AND TEENS' LEISURE READING?

by  
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Approved by

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## Introduction

Amount of independent reading has a strong positive effect on reading achievement, yet reports indicate that reading by adolescents is meager and declines as students progress through middle school and high school (Asselin, 2004). Recognized strategies for promoting leisure reading employed by educators, media specialists and librarians are modeling enjoyment of reading, reading aloud and providing choice, access and time for independent reading. The concept of access can be broadly seen as encompassing access to professionals, support activities, allocated time for independent reading, choice of reading material, and the availability of print material (Krashen, 1993; McQuillan & Au, 2001; Moore, Bean, Birdyshaw, & Rycik, 1999). Certainly the relative strengths of these factors vary among school media centers and public libraries as personnel, programs and collections vary. The synergy is easy to see but the elements are hard to separate; yet it is worthwhile to attempt to examine individual factors of access. This study focuses on the factors of choice and physical availability of materials for teen leisure reading.

The concepts of choice and physical access to reading material that is interesting to adolescents include what, how much and where. What materials are available? Is the material what adolescents want to read? How big a selection is there? Where do adolescents find what they want to read? Does convenience matter? Choice of reading material and physical availability are two factors of access relative to independent reading discussed in the literature. Access to materials of their own choosing that they

find interesting can motivate students to read outside of school (Bintz,1993; Ivey & Broaddus, 2001; Tanis, 2003; Worthy, Moorman, & Turner, 1999). Choice is motivating because it gives adolescents control. Teenagers more than anything want to be in command of their choices, rather than being manipulated by those in authority (Guthrie, 2001). A growing body of evidence points to a connection between easy access to reading material and the amount of independent reading in which students engage. Convenient access to reading material, regardless of a student's reading ability, has been associated with more frequent reading (McQuillan & Au, 2001).

Just as independent reading has been shown to positively influence reading ability and achievement so has access to libraries been shown to influence student achievement (Krashen, 1993; 1995, Lance, K.C., 2002; Lance, Welborn, & Hamilton-Pennell, 1993). The positive correlation of student achievement with the quality of school libraries and with public library circulation infers that students are using these libraries. Just as choice of material and convenient physical access are factors that affect teens' recreational reading they may also be factors in teens' use of libraries.

Walter (2003) contends that research about public library service to children and young adults is limited. A greater understanding of the motivations for use of the public library by young people is needed. The model of a combined school/public library has not been studied in relation to its effect on teens' overall use of libraries or specifically their use of libraries for recreational reading. Increased student use of the library and increased circulation has been reported in combined school/public libraries (Kinsey & Honig-Bear, 1994).

Given the value teens place on convenience and choice this researcher is interested if access to the large and more diverse collection of the public library at school in the form of a school housed public library has an effect on how much teens make use of the public library collection for independent reading. This study seeks to explore if a relationship exists between a combined school/public library and library use for recreational reading among high school students.

### *Theoretical Perspectives*

The theoretical framework for this study is based on McQuillan and Au's (2001) concept of physical print access combined with selected dimensions of reading motivation from Wigfield and Guthrie's (1995) theory of reading motivation.

To draw a connection between physical environment (print access) and action (motivation and interest to engage in more frequent reading), McQuillan and Au (2001) used as a theoretical framework a link of the concept of interest (Schiefele, 1991; Worthy et al., 1999) with motivation as it relates to human behavior (Dici & Ryan, 1985; Csikszentmihalyi, 1990; Ryan & Dici, 2000). McQuillan and Au's study was a comprehensive analysis of sources of reading materials and how these sources of access relate to the frequency of voluntary reading in high school students, controlling for the mediating effects of reading ability. Due to the lack of a strong theoretical basis for understanding how physical environments affect learning, McQuillan and Au posit that certain environments affect one's interest and motivation to engage in an activity. Environments can create interest, which in turn can lead to individual motivation and ultimately to greater participation in an activity. In the present study it is the specific

environment and convenience of a combined school/public library that is of interest in understanding its effect on recreational reading motivation.

It is well understood that the amount of reading impacts reading proficiency, and a growing body of evidence points to a connection between easy access to reading material and the amount of reading in which students engage. McQuillan and Au (2001) suggest that there is a relationship between environments that provide greater access to reading materials and motivation to engage in reading. McQuillan and Au note that most studies to date have focused on reading achievement as it relates to reading frequency in school, rather than students' out of school leisure reading activities. Likewise, there has been a greater focus on the reading activity of elementary and middle school students. While school libraries and public libraries were among the considered sources in McQuillan and Au's study, combined school/public libraries were not. Consistent with previous research, McQuillan and Au found that convenient access to reading material, regardless of a student's reading ability, was associated with more frequent reading. In addition, more voluntary reading was associated with higher levels of reading proficiency.

The theoretical basis of this study also draws upon the theory of reading motivation put forward by Wigfield and Guthrie (1995). Wigfield and Guthrie have led and inspired a body of research that investigates the nature and role of motivation in reading. Drawing upon a number of general motivational constructs Wigfield and Guthrie conceptualized dimensions of motivation specifically for reading. Using these distinct dimensions of reading motivation they developed the Motivation for Reading Questionnaire (MRQ). The MRQ has been applied, adapted or revised for reading motivation research in various settings, mostly school-related (Guthrie, Bennett & McGough, 1994; Wigfield & Guthrie,

1997; Tercanlioglu, 2001; Mori, 2002). Tercanlioglu and Mori each applied reading motivation theory and adapted the MRQ to motivation for learning and reading in a foreign language. In the questionnaire for the present study items related to recreational reading motivation draw upon some of the dimensions of reading assessed in Wigfield and Guthrie's MRQ.

Dimensions related to extrinsic motivation salient to reading in school where students' reading performance is evaluated are assumed not to be operative in recreational reading whereas dimensions related to intrinsic motivation and social aspects of reading and efficacy beliefs are likely to operate as motivations for independent reading. Intrinsic motivation refers to being motivated and curious enough to be engaged in an activity for its own sake (Deci & Ryan, 1985). Increased intrinsic motivation has been related to greater interest in the reading material, higher reading performance, and higher frequency and amount of reading (Wigfield & Guthrie, 1997). The dimensions of reading motivation identified by Wigfield and Guthrie that are incorporated in the questionnaire for this study are:

- dimensions based on intrinsic motivation (Deci & Ryan, 1985) and flow experiences (Czikszenmihalyi, 1990, 2000)
  - Curiosity: the desire to learn about a particular topic of interest
  - Aesthetic [reading] involvement: the enjoyment of experiencing different kinds of literary or informal texts.
  - Importance of reading: the individual's valuing of the activity of reading
- a dimension based on the social aspect of reading

- Social: the process of sharing meanings gained from reading with friends and family
- dimensions based on efficacy belief constructs:
  - Reading efficacy: the belief that one can be successful at reading
  - Challenge: the orientation to learning from text

These dimensions for voluntary reading motivation could be conceived of as dimensions of a teen's appetite for reading. An added dimension for this study, convenient print access, can be seen as a ready supply of reading material to satisfy that appetite.

## Literature Review

### *Teens: Reading and Library Use*

*Benefit of reading.* Reading informs, educates, entertains and inspires. Reading is an essential skill. Educators and librarians alike encourage independent reading among students. Independent reading, also known as recreational reading, voluntary reading and leisure reading, is the reading students choose to do on their own, because they want to, for pleasure or information. It is not assigned it is not assessed and it reflects the reader's personal choice of material to be read (Cullinan, 2000). Research indicates that the amount of independent reading apart from school assignments positively correlates with school achievement (Cullinan, 2000; Flowers, 2003; Gardiner, 2001; Krashen, 1993; Krashen, 2004; McQuillan, 1998; Moore et al., 1999; Shiel & Cosgrove, 2002). Cunningham and Stanovich (2003) conclude from their research over the decades that independent out-of-school reading makes a large and unique contribution toward reading ability and achievement. Reading volume, the amount of print exposure, regardless of ability has profound cognitive consequences (Cunningham & Stanovich, 1991; Stanovich & Cunningham, 1993). Reading can help mitigate the effects of socioeconomic status on academic achievement. Engagement in reading and the amount of time a student spends reading has a greater influence on achievement than does socioeconomic status (Topping, Valtin, Roller, Brozo, & Dionisio, 2003).

An important paper published in 1999 by the International Reading Association was the result of a three-year study by the Commission on Adolescent Literacy (CAL) (Moore et al., 1999). This commission was formed to advise and make recommendations concerning the future directions for the field of adolescent literacy. Based on their review of literacy research, the researchers concluded that access to a wide variety of reading material inside and outside of school that adolescents can and want to read supports the continued development of adolescents as readers and writers and is advocated by CAL (Moore et al., 1999, p 4). Time spent reading is related to reading success. Frequency of reading is related to increases in word knowledge, fluency, and comprehension. Time spent reading is associated with attitudes toward subsequent reading. Habitual readers in the present tend to seek out new materials in the future. These students are on the way to lifelong reading. Reading is a worthwhile life experience. Readers can find comfort and delight in print. Vicariously stepping into text worlds can nourish teens' emotions and psyches as well as their intellects (Moore et al., 1999, p 5).

*Decline in voluntary reading in teens.* Many capable teenagers do not choose to engage in independent reading. In a national assessment a mere 25 percent of teens report reading for enjoyment (National Institute for Literacy, nd; Moore et al. 1999). Research at both state and national levels has shown a decline in leisure reading in adolescence (Campbell, Hombo, & Mazzeo, 2000; Donahue, Voelkl, Campbell, & Mazzeo, 1999; Foertsch, 1992), and declining scores in reading achievement (Grigg, Daane, Jin, & Campbell, 2003). Studies show a decline in reading interest and independent reading that starts in middle school and continues through the high school years (Moss & Hendershot, 2002; Watkins & Edwards, 1992; McCoy, 1991). This decline in independent reading has



been attributed to negative attitudes toward reading in general, born out of negative attitudes toward reading for school (Bintz, 1993; Cope, 1997; Sullivan, 1991; Wigfield & Guthrie, 1995).

One study by Moffitt and Wartella (1992) contradicts the apparent decline in adolescent recreational reading. These researchers found that 78 percent of high school students surveyed were leisure readers with an upward trend in leisure reading from freshman year to senior year. In contrast to the 25 percent figure in the NAEP findings, informal polls about teenagers' reading indicate a much higher percentage of teens that read for pleasure. In surveys conducted by SmartGirl, as an activity for the American Library Association's Teen Read Week promotion, and by Publishers Weekly, greater than 70 percent of respondents report reading for fun in their spare time (Chance, 2002; Krashen, 2001; SmartGirl.org, 1999, 2001, 2002, 2003; Milliot, 1998). While these surveys are empirical, they are not administered with sufficient controls so reliability is an issue.

Some researchers assert that adolescents do not lose interest in reading as they progress through school; they just lose interest in school reading (Bintz, 1993). Bean (2002) makes the case that recreational reading is more relevant to adolescents than school reading and advocates the incorporation of captivating and issue-based young adult novels with related activities in the curriculum to foster teenage literacy. In Krashen's review of the research (2002) on the development of attitudes toward reading he concludes that there is far less of a decline in enjoyment of reading than is usually assumed and that at no stage do children show a negative attitude toward leisure or

voluntary reading. Krashen notes a study by McKenna, Kear, and Ellsworth (1995) that shows that attitudes toward school-related reading show a sharp decline with age.

Researchers also identify a busy lifestyle as a reason for adolescent decline in leisure reading. Extracurricular and social activities, jobs, and entertainment in the form of computers, video games, DVDs, and MP3s, compete with the printed word for adolescents' free time (Cope, 1993; Tanis, 2003; Kaczmarek & Stachowiak, 2004).

Aliteracy is "the lack of the reading habit; especially, such a lack in capable readers who choose not to read" (Harris & Hodges, 1981, p.11). Beers (1996a, 1996b) identified that adolescent alliterates have varied attitudes toward reading. In Beers' typology of readers "avid" readers choose to read on their own; "dormant" readers had positive attitudes about reading and planned to be readers someday, but right now they would rather do other things; "uncommitted" readers don't like to read but say they may read in the future. In contrast, "unmotivated" readers do not value reading. These students self reported that they don't read now and do not see themselves as future readers. The challenge to educators and librarians is to motivate the unmotivated, hook the uncommitted, awaken the reading habit in dormant alliterate adolescents, and provide support for teens' continued development as readers, avid and alliterate readers alike.

*Effects of choice and print access on amount of reading.* Personal choice of reading material is closely aligned with positive experiences reading. Choice is a powerful motivator for encouraging reading in school settings. Numerous studies have identified choice of reading material among factors that effect students' attitudes toward reading (Cope, 1993, 1997; Gambrell, 1996; Gutchewsky, 2001; Ivey & Broaddus, 2001; Lesesne, 1991). The loss of choice and control through assigned readings is reported as

one of the causes given by students for the development of negative attitudes toward reading as they progress through school (Sullivan, 1991).

A frequent reason students give for loss of enjoyment and interest in reading is that what they like to read is difficult to find in school (Worthy et al., 1999; Ivey & Broaddus, 2001). Access to materials of their own choosing that they find interesting can motivate students who are resistant to school reading to continue to read purposefully outside of school (Bintz, 1993; Ivey & Broaddus, 2001; Tanis, 2003; Worthy et al., 1999). Evidence for what is motivating points to subjects, genres and materials that are limited in schools, due partially to budget constraints and partly to pressure on educators to supply quality literature (Ivey & Broaddus, 2001; Diaz-Rubin, 1996). But, so-called light reading is a powerful way of encouraging reading (Krashen, 1993). Research suggests that students who have access to materials of interest are more likely to read and thus to improve their reading achievement and attitudes. The strong appeal of high-interest reading materials such as graphic novels and magazines can play an important role in addressing the issue of adolescent aliteracy (Crawford, 2004).

Ready, convenient access to a wide variety of reading material that teens can and want to read has been shown to motivate reading. Providing access to books has a positive effect on students' reading habits (Krashen, 1993). The concept of access can encompass choice, time for reading, and support such as the presence of librarians and media specialists, as well as activities that foster increased reading such as reading aloud and booktalks (Krashen, 1993; McQuillan & Au, 2001; Moore et al., 1999). Access can also be more narrowly defined for studies as in access = print availability (McQuillan & Au, 2001). Physical access in terms of the presence of a school library and the proximity

of a public library positively correlate with increased reading (Krashen, 1993).

McQuillan (1998) reviewed and analyzed numerous studies on reading achievement which show that ready access to a variety of reading materials correlates with increased time spent reading and higher reading scores. In their study of reading frequency as it relates to print access, McQuillan and Au (2001) found that convenient access to reading material, regardless of a student's reading ability, was associated with more frequent reading.

*Effect of libraries on reading and teen use of libraries.* Just as independent reading has been shown to correlate positively with reading ability and achievement so have libraries been shown to influence student achievement. Lance (2002) reviewed the numerous studies that replicate and expand upon his original 1993 study, *The impact of school library media centers on academic achievement*. These studies document the school library's powerful influence on student achievement. Lance found that the size of the library in terms of its staff and its collection is a direct predictor of reading scores (Lance et al., 1993). Mounting evidence shows that the presence of professional librarians and strong staffing in school libraries, larger collections of print and electronic resources, and more funding, correlate with higher student scores on state reading tests. Other significant factors are the extent to which school librarians engage in activities that foster information literacy and the extent to which instructional technology is utilized to extend the reach of the library program beyond the walls of the school library (Lance, 2002). Public library circulation along with high school library quality is also a predictor of reading scores (Krashen, 2001; Krashen, 1995).

From the evidence that public library circulation and quality of school libraries influence achievement, one can infer the students are using these libraries. Just as choice of material and convenient physical access are factors that affect teens' recreational reading they may also be factors in use of libraries by teens. School libraries might be considered a more convenient source of recreational reading material due to the daily access students have, if the library is open. If the school library is not available when students can use it, obviously it will not be a convenient source. On the other hand public libraries may have a greater choice of materials that teens want for recreational reading. Studies of teens' use of libraries reveal an inclination to favor the use of public libraries rather than school libraries. Research indicates that high school students check out fewer books and spend less time in the school library than elementary students (Higgins, 1999). In a study of middle and high school student's use of libraries 58 percent of students found what they needed at the public library as opposed to 22 percent finding what they needed at their school libraries (Enujioké, 1994). A study by Bolin and Dyson (2000) examining library service to children aged 8-14 found that children overwhelmingly (84.2%) cited the public library over the school library as their preferred choice for information and reading material. A broader variety of materials and higher limit on the amount of materials allowed checked out were among the reasons children preferred the public library. (Bolin & Dyson, 2000; Higgins, 1999).

A national survey conducted in 1995 for the National Center for Education Statistics estimated that 23 percent of public library users are young adults between the ages of twelve to eighteen. However, in almost one-third of libraries, young adults constituted 10 percent or less of all patrons, and in only 11 percent of libraries, were over 40 percent of

the patrons young adults. From the point of view of librarians surveyed, competition from other activities lead a list of reasons they attribute to low library usage by young adults in their communities. Lack of interest on the part of teens and lack of knowledge about library services were considered frequent or primary reasons that young adults do not use the library. Lack of transportation was seen as at least sometimes a reason by half of librarians surveyed (Heaviside, Farris, Dunn, & Fry, 1995). Bishop and Bauer (2002) explored the programs, services, and strategies that are successful in attracting young adults to public libraries and found that the top three reasons teens report for using public libraries was for research, to volunteer, and to use the Internet. In the opinion of Bishop and Bauer, services such as attractive and comfortable young adult areas and large collections of books and magazines that interest teenagers are factors that have great potential to encourage library use among teens. Meyers (1999) examined urban teenagers' attitudes to young adults' library services. Teens said that libraries are not cool, the library staff is not helpful or friendly, and service hours are inconvenient. While teens said they valued access to technology, interesting books and materials, a welcoming space for teens, and job or volunteer service opportunities they judged libraries in need of improvement in all these areas. Walter (2003) contends that research about public library service to children and young adults is limited. A greater understanding of how and why young people use the public library is needed.

#### *Combined School/Public Libraries*

School media centers and public libraries are viewed as separate institutions in research on teens' attitudes toward and usage of libraries and in research on factors of

choice of reading material and access to print relative to independent reading. By far teenagers encounter public libraries and school libraries as separate entities. The model of a combined school/public library has not been studied in relation to its effect on teens overall use of libraries or specifically their use of libraries for recreational reading. Given the value teens place on convenience and choice this researcher was interested to ascertain if access to the large and more diverse collection of the public library at school in the form of a school housed public library might have an effect on how much teens make use of the public library collection for independent reading.

Literature that addresses combined school/public libraries is largely descriptive and heavily weighted toward the pros and cons of this controversial model of library service. The literature is replete with lists of factors affecting the success or failure of a school housed public library. The greatest value of this body of literature is to inform the planning undertaken by communities and agencies that consider implementing the joint library model.

A cautionary or outright negative attitude toward combined libraries was prevalent in early studies of the combined school-public library facility starting with Ruth White's landmark 1963 survey (Aaron, 1980; Amey, 1979; Amey & Smith, 1976; Jaffe, 1982; Unger, 1975; White, 1963; Wollard, 1978, 1980a, 1980b). In White's survey librarians were overwhelmingly opposed to locating the public library in the school setting. Later studies presented a more positive attitude (Amey, 1989; Bauer, 1995; Heinold, 1998; Weech, 1979). According to Bauer (1995), Aaron's 1993 review revealed that since 1985 a more positive attitude toward combined libraries prevailed in the literature. A definitive literature survey by Fitzgibbons (2000) that explores the range of cooperative school and

public library relationships in the United States contains a substantial section on joint-use libraries. Reports of particular U.S. combined school-public libraries cited by Fitzgibbons have a positive view (Kinsey & Honig-Bear, 1994; Olson, 1996; Wells, 1994). Much of the more recent literature, although not empirical studies, presents predominantly positive summaries of individual experiences (Bauer, 1998; Blount, 2002; Christopherson, 2002; Covell, 2002; Delsemme, 2003; Dwyer, 1989; Hagen & Salle, 1999; Harrington, 2002; Heath, 1997; Johns, 1999; Kaslon, 2002; Myers, 1999; Nichols, 2002; Owens & Ponis, 1999; Register, 1999; Smith, M., 2002; Smith, S., 2002). There have been few contrastingly negative views (Kleiman, 1999; Moorman, 2002). Guidance for planners of combined libraries continues to be the focus of these success stories as well as other essays, book chapters and government documents (Bundy, 2003; Casey, 2002; Fitzgibbons, 2000, 2001; Owens, 2002; Wisconsin Department of Public Instruction, 1998).

While the literature provides guidance for the planning and operation of combined libraries in order to limit or avoid problems, benefits and advantages are also claimed. Although the earlier literature touted more problems than advantages, one of three benefits identified even in White's seminal survey was a broader collection of books (White, 1963). Access to a better selection of materials in a larger collection with a broader range of formats for both students and the public is a benefit that is rated highly and occurs consistently in the literature (Aaron, 1980; Blount, 2002; Bundy, 2003; Christopherson, 2002; Delsemme, 2003; Hagen & Salle, 1999; Harrington, 2002; Heinold, 1998; Kinsey & Honig-Bear, 1994; Owens & Ponis, 1999; Register, 1999; Smith, 2002; Woolard, 1978). The ability to place holds on items in a library system and



the wider range of reading levels from lower-level children's books to higher level adult books were cited as advantages to students (Harrington, 2002; Kinsey & Honig-Bear, 1994). Another aspect of access that is frequently cited as a benefit of the combined school/public library is increased hours of availability (Aaron, 1980; Blount, 2002; Hagan & Salle, 1999; Heinold, 1998; Owens & Ponis, 1999; Register, 1999; Smith, 2002; Wells, 1994). Evening, weekend and vacation access to the combined library is a real plus in the view of students (Christopherson, 2002). Expanded hours and access to the public library collection at school has been described in terms of convenience (Aaron, 1980; Bundy, 2003; Kinsey & Honig-Bear, 1994). Increased student use of the library and increased circulation has been reported in combined school/public libraries, in some cases a near doubling in both use and circulation (Christopherson, 2002; Delsemme, 2003; Kaslon 2002; Woolard 1978). One article even cited as an advantage to the public library the excellent access to teenagers, a hard-to-reach group in most public libraries (Myers, 1999).

## Research Questions

While school library media centers do collect material for and promote leisure reading, the depth and breadth of the collection may be insufficient to motivate some readers whose leisure reading interests are more fully served by the larger public library collection. This study attempts to examine the relationship between convenience of print access and voluntary reading by high school students, specifically the contribution of convenience of access to the relatively larger and broader collection of a public library system at a combined high school/public library. How does this convenience of access relate to use of public library materials for leisure reading among teens? This study addresses the following research questions:

- What is the relationship between convenient access to the public library collection at a combined school/public library and public library use by high school students?
- What is the relationship between convenient access to the public library collection at a combined school/public library and engagement in leisure reading by high school students?

## Definition of Terms

Recreational reading, voluntary reading, leisure reading and independent reading will be used synonymously in this study. All will refer to the non-school-related reading high school students choose to do on their own, because they want to, for pleasure or information. It is not assigned, it is not assessed, and it reflects the reader's personal choice of material to be read (Cullinan, 2000).

Tanis (2003) chose to define motivation to engage in reading as "making the choice to read" (p.18). By the term reading engagement Guthrie et al. (1994) meant the act of choosing to read frequently for a variety of reasons and comprehending the texts appropriately within the context of the reading situation. In this study reading motivation will encompass factors that lead to choosing to read independently for pleasure or information.

As defined by Bundy (2003) a joint-use library is a library in which two or more distinct library services providers, usually a school and a public library, serve their client groups in the same facility, based on an agreement that specifies the relationship between the providers. The school housed public library also known as the school community library or the combined school/public library is the most common variation on joint-use libraries. There is no boilerplate version of a combined school/public library. The great variation among school-housed public libraries is evident in the literature. Each community where one is established has worked out its own particular relationship

between the school library and the public library in a particular facility. Some communities are rural and sparsely populated and the combined library is the only library service to students and the public alike. Some combined libraries are in urban areas and are branches of a city or county public library system. Most are in schools that serve public school students, less frequent are the community college, college, university or museum housed public libraries.

## Method

### *The High Schools and Libraries in This Study*

Surveys were administered to high school students to explore teen leisure reading and teen use of libraries for leisure reading. The responses from students at a high school with a combined school/public library were compared with those from students who do not have access to the public library at school. Students from two high schools in the Wake County Public School System (WCPSS) in Wake County North Carolina were the subjects in this study, Athens Drive High School in the city of Raleigh, NC and Cary High School in the town of Cary, NC.

The WCPSS is a large and growing school system. The WCPSS student enrollment for the tenth day of school 2004 was 113,954, an increase of 5,479 more than the tenth day of school the previous year. WCPSS high schools account for more than 2,000 of the increase in students. There are 17 high schools currently in the system. Fourteen high schools serve base populations drawn from geographic boundaries and three high schools have magnet programs that draw from the entire district in addition to their base population. The two high schools in this study are not magnet program high schools. Like the school system, the Wake County Public Libraries (WCPL) is a countywide system. The WCPL is comprised of five regional libraries, ten community branch libraries, the Electronic Information Center, the Olivia Rainey Local History Library, a bookmobile

and the Library Administration Building which houses Support Services. Only one of the branches, the Athens Drive Community Library, is a combined school/public library.

Athens Drive High School, opened in 1978 and renovated in 2001-2002, has over 25 years experience serving as home to the Athens Drive Community Library. The combined collection consists of approximately 45,000 volumes, of which approximately 17,700 are school owned, that is, purchased with school funds. The school owned books are incorporated into the WCPL catalog and can circulate in the same way as other public library material, yet can be identified by staff as the school collection in the catalog database. The library has over 125 magazine subscriptions of which 63 are school-owned. In the library students have access to a bank of computers that have password access to the WCPSS network, which provides Internet access and electronic databases, subscribed to by WCPSS. A separate bank of computers on the WCPL network is available to public patrons but not to students during the school day. As a branch of the WCPL students have access at school to the library system collection of more than 1,440,000 volumes. A hold request can be placed on any title in the WCPL online catalog to be picked up by a student at the Athens Drive Community Library branch. The library is open to the public from 8am to 8pm Monday through Thursday, from 8am to 3pm on Friday and from 1pm to 5pm on Sunday.

Cary High School was selected from all the other high schools in the system for the control population based on the greatest similarity in school profile with respect to enrollment and economic and racial data given for the 2001 – 2002 school year (see Table 1). This data was provided on school profiles which were available on the WCPSS website at the time of proposing this study. As of this writing school profiles are no

longer posted on the WCPSS website, however, the information previously compiled in school profiles can be found within numerous reports posted on the WCPSS website. The North Carolina Department of Public Instruction website and the National Center for Education Statistics website are also sources for some of the same data.

**Table 1. Enrollment, % Race and % Economically Disadvantaged for Schools in Study**

	2001 – ‘02		2002 – ‘03		2003 – ‘04		2004 – ‘05	
	<u>Athens</u>	<u>Cary</u>	<u>Athens</u>	<u>Cary</u>	<u>Athens</u>	<u>Cary</u>	<u>Athens</u>	<u>Cary</u>
<b>Enrollment</b>	1747	1690	1748	1921	1769	2209	1760	2410
<b>9<sup>th</sup></b>	515	543	512	634	547	707	511	739
<b>10<sup>th</sup></b>	427	424	416	514	421	595	452	640
<b>11<sup>th</sup></b>	422	378	377	405	400	505	377	531
<b>12<sup>th</sup></b>	383	345	443	368	401	395	420	500
<b>Female</b>	882	851	883	944	895	1067	839	1252
<b>Male</b>	865	839	865	977	874	1142	921	1158
<b>Native Amer.</b>	< 1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
<b>Asian</b>	6%	7%	6%	7%	6%	7%	6%	7%
<b>Black</b>	16%	15%	17%	16%	21%	17%	23%	20%
<b>Hispanic</b>	6%	6%	6%	6%	6%	7%	7%	8%
<b>White</b>	72%	71%	70%	71%	67%	68%	64%	64%
<b>Free or Reduced Price Lunch</b>	10.3%	12.8%	12.40%	13.4%	15.6%	14.3%	18.0%	16%

In the school year that the survey for this study was administered, 2004 – 2005, the Cary High School enrollment had burgeoned to a level that required the 9<sup>th</sup> grade class to be housed at a nearby former middle school campus as a separate Ninth Grade Center. It is projected that in the 2006 – 2007 school year the Cary High School student body will no longer need to be separated and the middle school campus will be revert to a middle school. In 2001-2002, Cary High School and Athens Drive High School were the 5<sup>th</sup> and

6<sup>th</sup> smallest of 15 WCPSS high schools that year. In 2004 – 2005 Cary was the largest and Athens Drive was the 5<sup>th</sup> smallest enrolled of WCPSS's 17 high schools. The distribution of racial and economic data remained similar.

The media center on the main campus of Cary High has a collection of approximately 19,400 volumes and 35 periodical subscriptions. The media center collection at the Cary High Ninth Grade Center has approximately 3500 volumes and no periodical subscriptions. This collection will be transferred to a future new high school in the district as a starter collection when Cary's 9<sup>th</sup> grade rejoins the main campus. As with Athens Drive High School, the computer network available to students at both Cary campuses has access to the Internet and the databases provided by the WCPSS to its high schools. The town of Cary has a branch library that is as centrally located to the student population of Cary High as the Athens Drive Community Library is to its student population. Eva Perry Regional Library in the town of Apex and Cameron Village Regional Library in the city of Raleigh are the regional libraries most convenient to the Cary and Athens student populations.

#### *Study Procedures and Participant Recruitment*

Preliminary permission to conduct this study was obtained by application to the Human Behavior Internal Review Board (IRB) of UNC Chapel Hill. An application for permission to do a research study was also approved by the Wake County Public School System Assistant Superintendent for Research and Evaluation. The principals of both Cary High School and Athens Drive High School gave their consent to conduct the study in the libraries of their respective schools and dates for the study were arranged with the



media specialists at each school. Ethical considerations in this study included participant anonymity and the privacy and confidentiality of library records and usage activity. No personally identifying information was collected from the participants. Informed consent for voluntary participation of participants was obtained by providing a cover letter (Appendix A) describing the study, the voluntary and anonymous aspects of participation and providing contact information for any questions or concerns of the participants. Return of the survey implied consent of the participant. A table was set up at the entrance to the library and students were greeted and invited by the researcher to complete a paper survey and/or a brief use and circulation tally and return them to the researcher as they left the library or by the following day if extra time was needed. A small edible treat was offered as a token of appreciation for completed surveys, as suggested by an astute principal. Students expressed a surprising amount of appreciation for this gesture.

*The student subjects in this study.*

The theoretical population for this study is students at high schools with combined school/public libraries. The control group is students at high schools with a school library media center that is not a combined school/public library. The sample for this study was drawn from students at Athens Drive High School and students at Cary High School. Initially the study was designed to arrive at a representative sample of the student population of each high school by administering the survey in classes of a required subject, English, across a range of academic levels and grades. Access to class time for this study was denied so the survey was administered to students as they accessed the school library. Therefore the sample, at both schools, included students using the school

library for any reason for any amount of time, independently or with a class. This included students accessing the library before school, during lunch, with a class, for independent work during the day, and after school. The after school sampling at Athens Drive, the school with the combined library, was limited to the same hours of operation of the Cary media centers. Because Cary High has a separate facility for the 9<sup>th</sup> grade class this year, the survey was administered for two days on the main campus and for one day at the Ninth Grade Center. The survey was administered for two days at Athens Drive High School.

The goal of at least 100 completed surveys per school had to be expanded as it was nearly exceeded in the first two days of survey administration at Cary's main campus. Of over 100 surveys handed out on the first day at Cary approximately 65 were returned the same day. In total, out of 160 surveys handed out at Cary, 143 completed surveys were returned, a return rate of 88.7 percent; and out of 190 surveys handed out at Athens, 175 completed surveys were returned, a return rate of 92.1 percent. The percentage of the school populations that participated in the surveys was 5.9 percent at Cary and 9.9 percent at Athens. Of the surveys returned, participation by grade, gender, and race is reported in Table 2 below. The grade, gender and racial distribution of the survey were compared with the actual distribution in each school's population. A significant difference was found in all comparisons except gender at Cary, therefore, as Table 2 shows, a demographically representative sample was not achieved.

**Table 2. Response Rate v. Enrollment**

2004-2005 Enrollment	Cary				Athens			
	2410				1760			
	N	% of N	% '04-'05 enrollment	p value	N	% of N	% '04-'05 enrollment	p value
<b>Surveys N</b>	143	100	5.9		175	100	9.9	
<b>Grade 9</b>	51	35.9	30.7		47	26.9	29.0	
<b>Grade 10</b>	45	31.7	26.6		41	23.4	25.7	
<b>Grade 11</b>	32	22.5	22.0		29	26.6	21.4	
<b>Grade 12</b>	14	9.9	20.7		58	33.2	23.9	
<b>Grade N</b>	142			0.016*	175			0.050*
<b>Male</b>	58	41.1	48.0		49	28.0	52.3	
<b>Female</b>	83	58.9	52.0		126	72.0	47.7	
<b>Gender N</b>	141			0.131	175			0.000*
<b>Asian</b>	10	7.1	7.3		8	4.6	6.0	
<b>Black</b>	24	17.1	20.6		45	26.0	23.0	
<b>Hispanic</b>	10	7.1	5.2		6	3.5	6.9	
<b>Multiracial</b>	11	7.9			12	6.9		
<b>White</b>	85	60.7	66.6		102	59.0	63.8	
<b>Amer. Indian</b>			0.3				0.3	
<b>Race N</b>	140			0.000*	173			0.000*

### *Data Collection Instrument*

Student self-reported library use and leisure reading activity was collected via an originally designed survey (Appendix A). Some wording in the survey was customized for each of the different schools. The Athens survey had one additional question. The first part of the survey addresses library use and the second part addresses leisure reading activity. Aspects related to library use are frequency of class and independent visits to a library, estimates of usage of library resources, and estimates of books borrowed. Time estimates of engagement in different categories of leisure reading materials, sources of leisure reading material and motivation for leisure reading were aspects of leisure reading addressed in the survey. Wigfield and Guthrie's Motivation for Reading Questionnaire

(Guthrie et al., 1994; Wigfield & Guthrie 1995), was the model for questions that draw upon dimensions of reading motivation with the addition of original questions designed to assess physical access to the public library collection as a motivator for reading. A brief use and circulation tally was also administered to students to provide a snapshot of library use on the day of the survey as well as a rough tally of books circulated for school or independent use on the day of the survey (Appendix A).

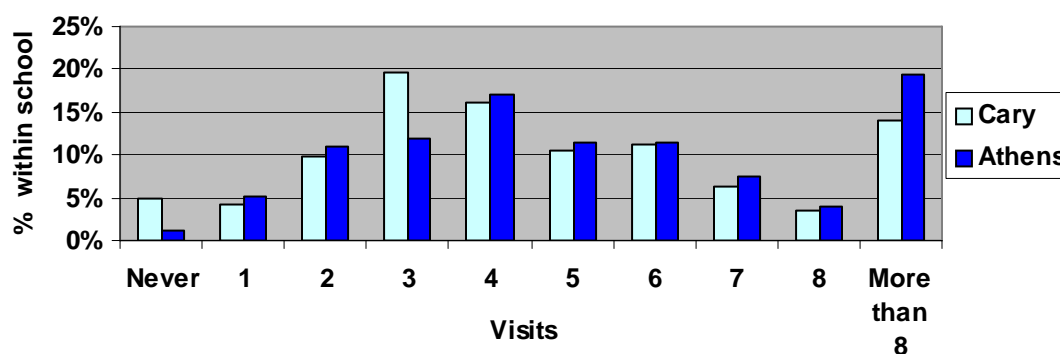
## Findings

An alpha level of .05 was used for all statistical tests except where noted.

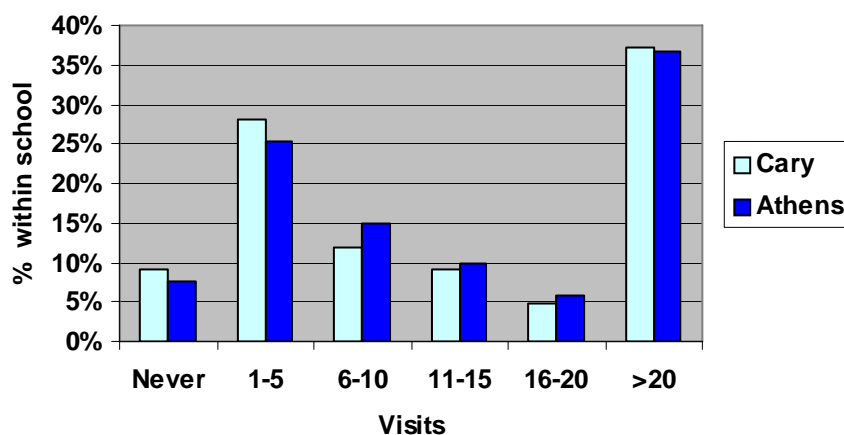
### *Findings Part I – Library Use*

*Library use – visits during the school day.* Students were asked to report to the best of their memory approximately how many times they visited the library at school with a class and on their own during the school day. Visits were compared for significance using SPSS to compute an Independent Samples t-test for equality of means. There was a significant difference at  $p < .075$  for visits to the library with a class. The responses are reported below in Figures 1 and 2 and Table 3.

**Fig. 1. Visits to the school library with a class since the start of the school year**



**Fig. 2. Visits to the school library on own since the start of the school year**



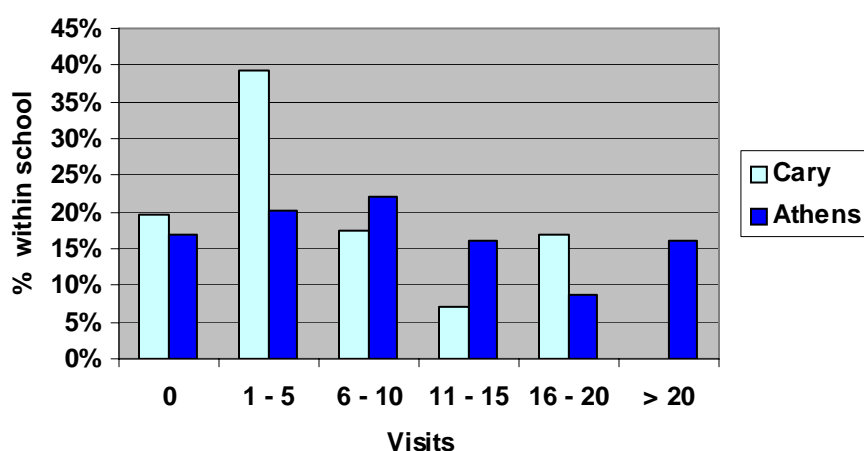
**Table 3. Mean visits to the school library since the start of the school year**

	<u>Cary</u>		<u>Athens</u>		<u>p value</u>
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	
... with a class	143	4.64	175	5.16	0.075
...on own *response recoded to midpoint	143	11.27	174	11.61	0.693

*Library use – visits outside the school day.* Students were asked to report, to the best of their memory, approximately how many times they visited a library outside the school day since the start of the school year. For students at Cary they were asked how many times they visited a WCPL library. Students at Athens were asked how many times they visited the Athens Drive Community Library outside the school day and in addition how many times they visited any other WCPL outside the school day. The questions were asked in terms of the ranges: Never, 1 – 5, 6 – 10, 11 – 15, 16 – 20, and more than 20. The answers were recoded to the midpoints of the ranges as 0, 3, 8, 13, 18, and 23 (for more than 20). The answers to the two questions asked of Athens students were added to yield a total for out of school day visits to a WCPL. The results were compared for

significance using SPSS to compute an Independent Samples t-test for equality of means. There was a significant difference for students visiting a library outside the school day. Students at Athens, with the combined school/public library, used the public library outside the school day 1½ times more on average. The results are reported below in Figure 3 and Table 4. Tables B1 and B2 in Appendix B show N for visits recoded from the questionnaire.

**Fig. 3. Visits to a public library outside the school day**



**Table 4. Mean visits to a public library since the start of the school year**

	<u>Cary</u>		<u>Athens</u>		<u>p value</u>
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	
<b>Athens students to ADCL</b>			173	5.47	
<b>Athens students to any other WCPL</b>			173	4.04	
<b>Cary or Athens students to any WCPL</b>	143	6.73	173	9.51	0.002

Students were asked which branch of WCPL they use most often and to indicate if the reason was most convenient location, most convenient hours, both, and/or another reason.

The responses given appear in Tables 5 and 6 below. Southeast Regional was included in “other” by a few Athens students. One Athens student identified the North Carolina State University library as the library used the most. Athens High School is relatively close to the NCSU campus and a few students take advanced classes at local colleges and the university.

***Table 5. Wake County Public Library most used***

	<u>Cary</u>		<u>Athens</u>	
	<u>N responses</u>	<u>% within school</u>	<u>N responses</u>	<u>% within school</u>
<b>Cary Public Library</b>	92	78.0	14	9.7
<b>Athens Drive Community Library</b>	2	1.7	98	67.6
<b>Eva Perry Regional Library</b>	19	16.1	20	13.8
<b>Cameron Village Regional Library</b>	5	4.2	8	5.5
<b>Other</b>	0	0.0	5	3.4
<b>TOTAL N</b>	118	100%	145	100%

***Table 6. Reason for library preference***

	<u>Cary</u>		<u>Athens</u>	
	<u>N responses</u>	<u>% within school</u>	<u>N responses</u>	<u>% within school</u>
<b>Most convenient Location</b>	97	82.2	118	83.1
<b>Most convenient hours</b>	16	13.6	28	19.7
<b>Other</b>	16	13.6	23	16.2
<b>TOTAL N</b>	118	100%	142	100%

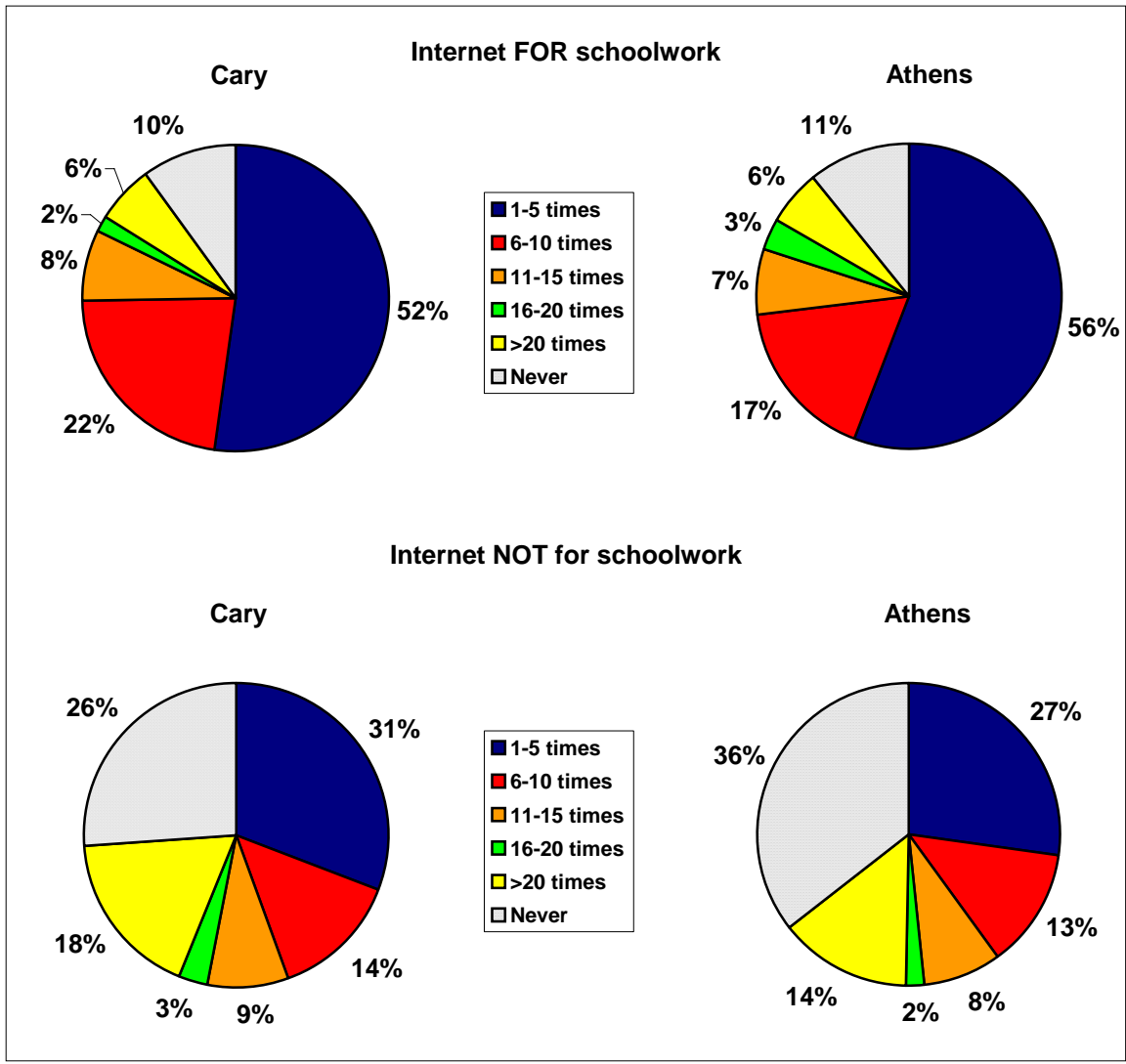
Convenience of location trumped convenience of hours in the reason for selecting the library most used. Students indicating “other” reasons for selecting the library most used included users of the regional libraries who cited: “larger book collection,” “more variety,” “better choices for the style of reading I like,” “a bigger better selection,” and “not as much blocked on the Internet.” Students selecting Athens Drive Community



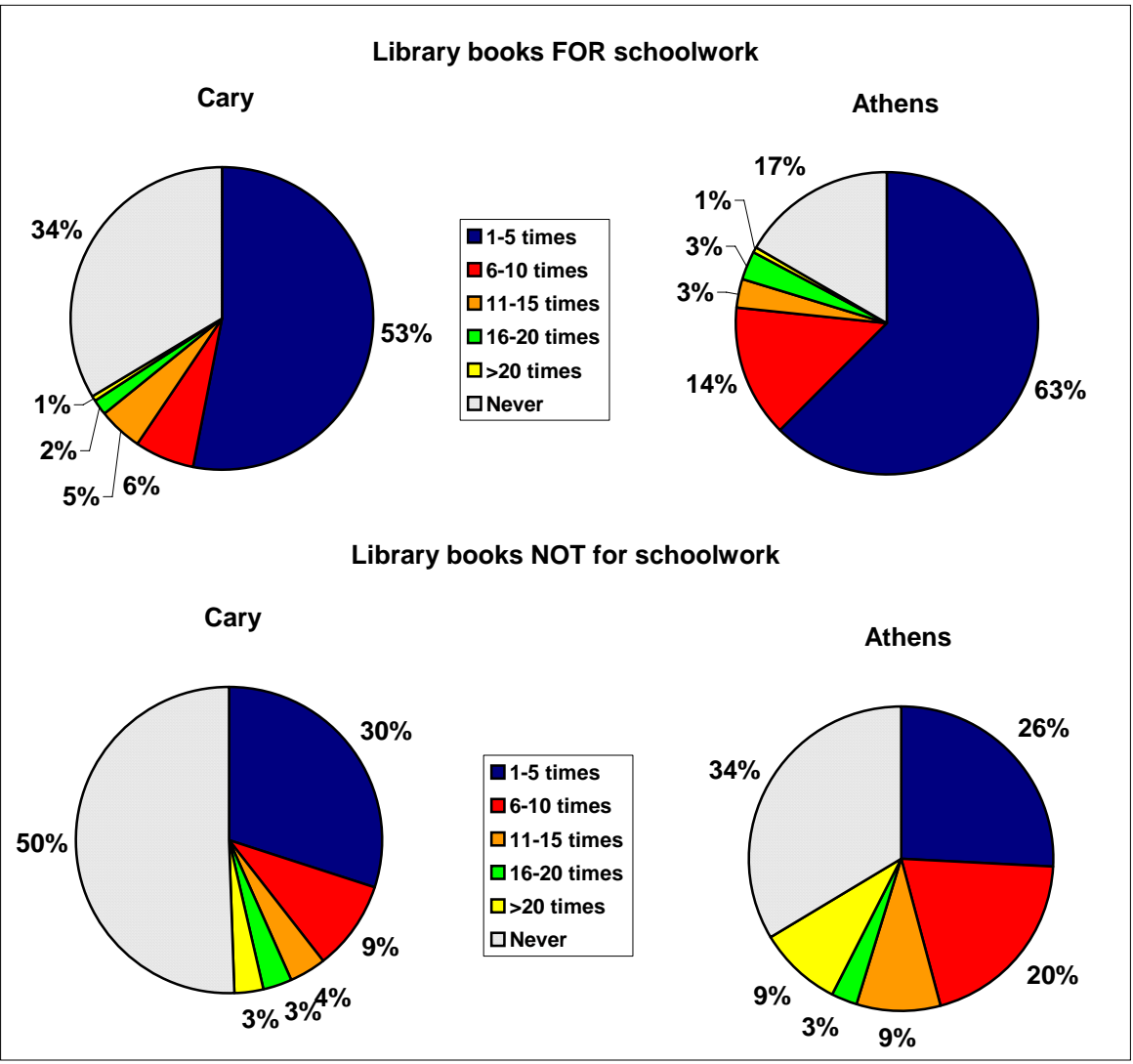
Library as the most used WCPL library and selected “other” all cited reasons that can be attributed to the location of the Athens Drive Community Library in the school, for example: “use of the Internet during lunch,” “to do homework until I am picked up,” “taking a class on the computer,” (possibly NovaNET, an individualized, computer-based instruction program that is used in the WCPSS for high school course credit, remediation, and enrichment) and well as three who stated the obvious “I go to this school,” “its in my school,” “I go to school at Athens.”

*Library use – use of library resources during the school day.* Students were asked, of their visits to the library during the school day since the start of the school year, approximately how many times their purpose was totally or partially to use the Internet, to read or check out a book, to read or check out a magazine, or to read a newspaper either for school work or not for school work. Responses were compared for significance using SPSS to compute a chi-square. There was a significant difference for students reading or checking out books both for schoolwork and not for schoolwork. The results are reported below in Figures 4 – 9 and Table 7. Tables B3- B10 which report the responses from the questionnaire are in Appendix B.

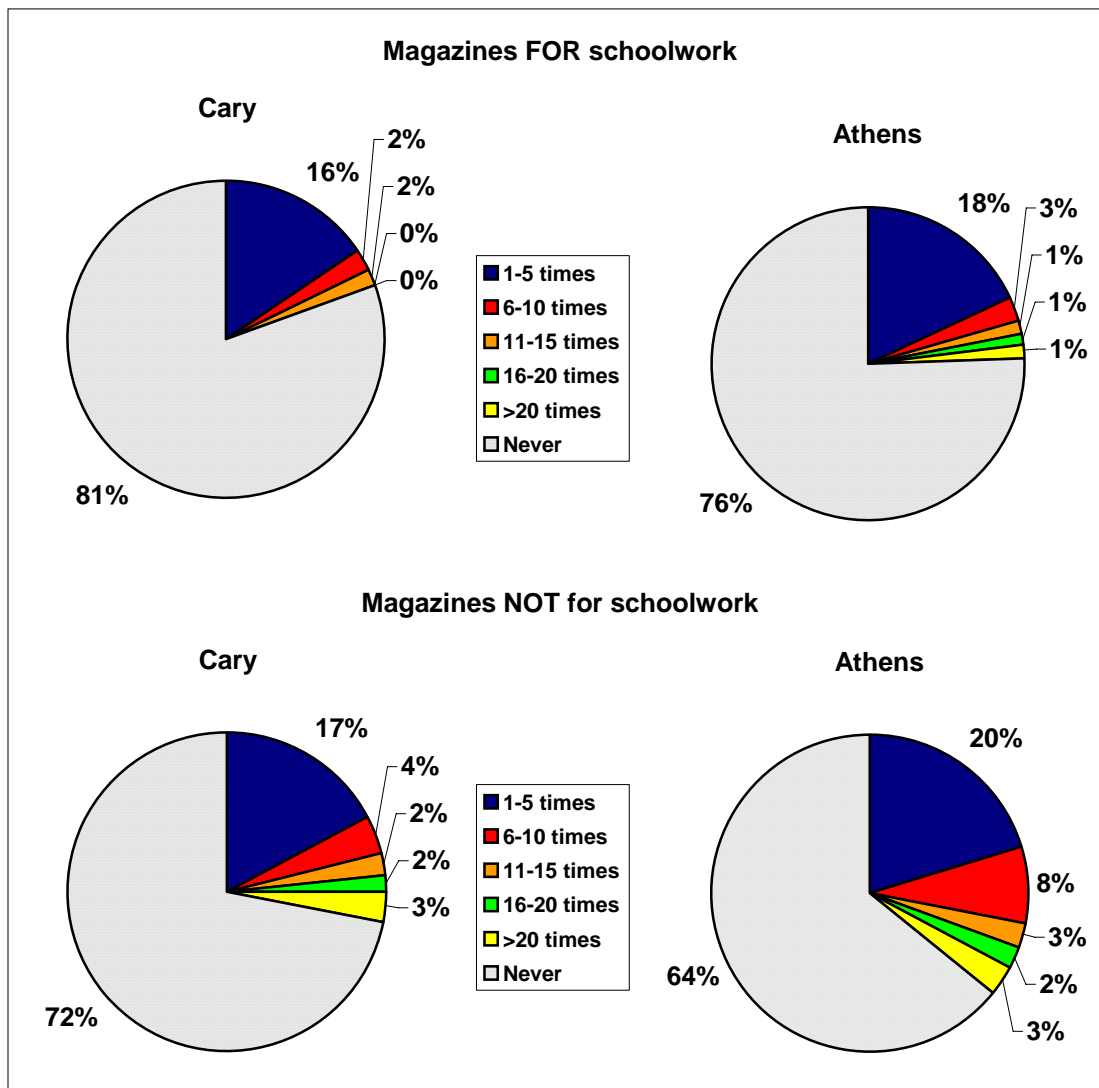
**Fig. 4. Library resources used during the school day: % use of Internet**



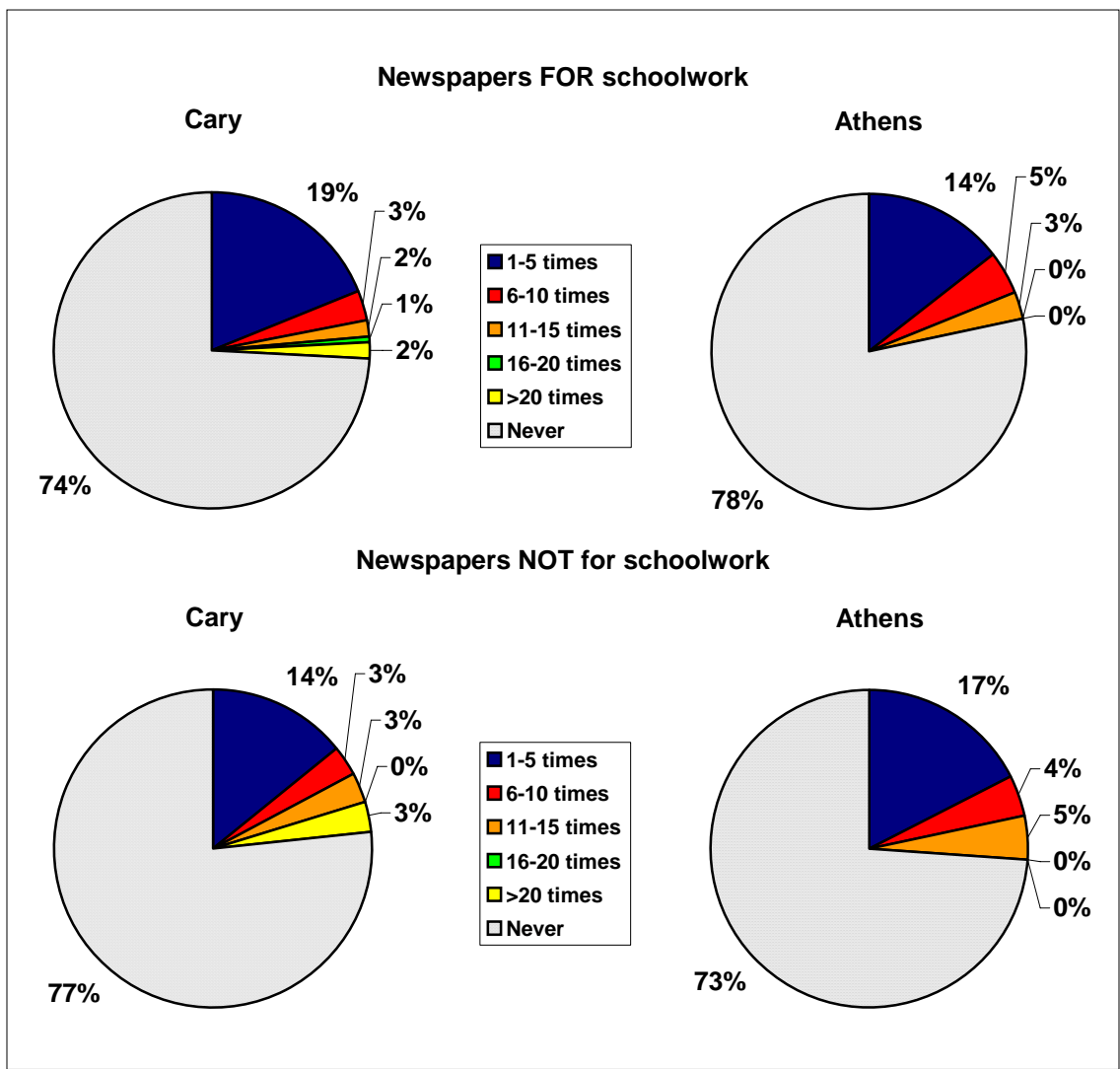
**Fig. 5. Library resources used during the school day: % Use of library books**



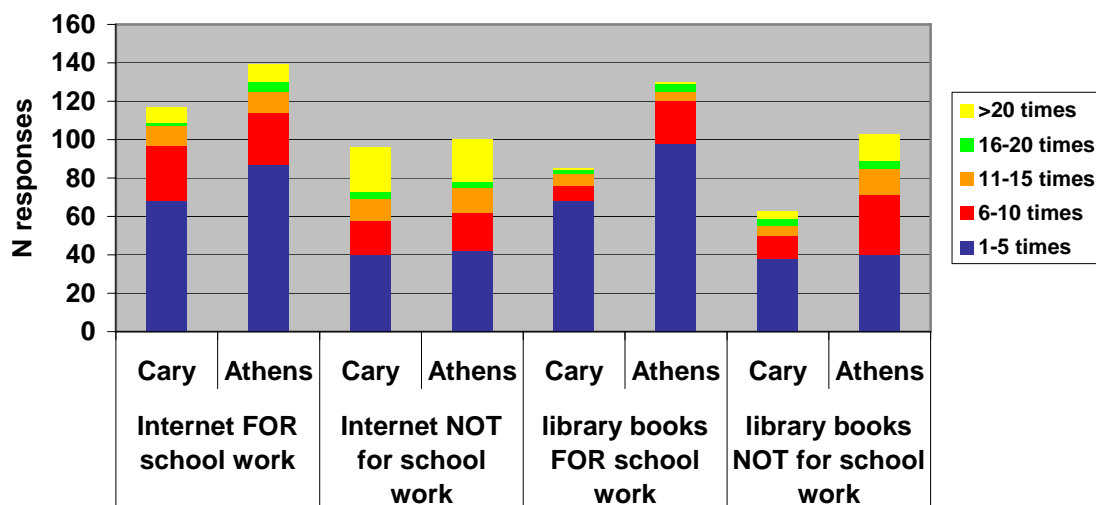
**Fig. 6. Library resources used during the school day: % Use of magazines**



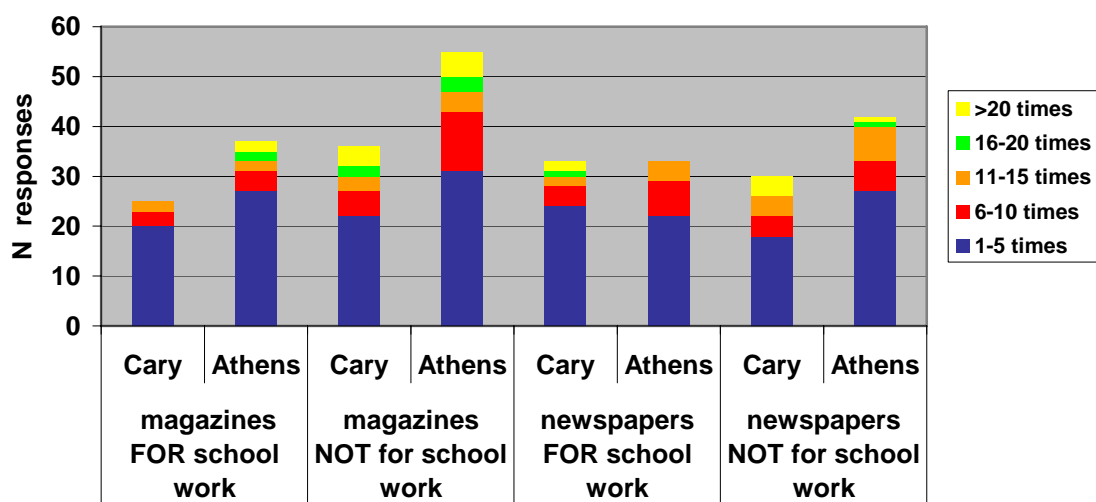
**Fig. 7. Library resources used during the school day: % Use of newspapers**



**Fig. 8. Use of library resources during the school day: Internet and books**



**Fig. 9. Use of library resources during the school day: magazines and newspapers**



**Table 7. Results of chi-square test on use of library resources during the school day**

<u>During the school day</u>	<u>p values</u>
... used the Internet FOR school work	$p = .852$
... used the Internet NOT for school work	$p = .658$
... used library books FOR school work	$p = .014^*$
... used library books NOT for school work	$p = .005^{**}$
... used magazines FOR school work	$p = .568$
... used magazines NOT for school work	$p = .723$
... used newspapers FOR school work	$p = .381$
... used newspapers NOT for school work	$p = .500$

*Library use – use of library resources outside the school day.* Students were asked, of their visits to a library outside the school day since the start of the school year, approximately how many times their purpose was totally or partially to use the Internet, to read or check out a book, to read or check out a magazine, or to read a newspaper either for school work or not for school work. Responses were compared for significance using SPSS to compute a chi-square. There was a significant difference for students who use the Internet for schoolwork outside the school day. The results are reported below in Figures 10 – 15 and Table 8. Tables B11- B18 which report the responses from the questionnaire are in Appendix B.

**Fig.10. Library resources used outside the school day: % Use of Internet**

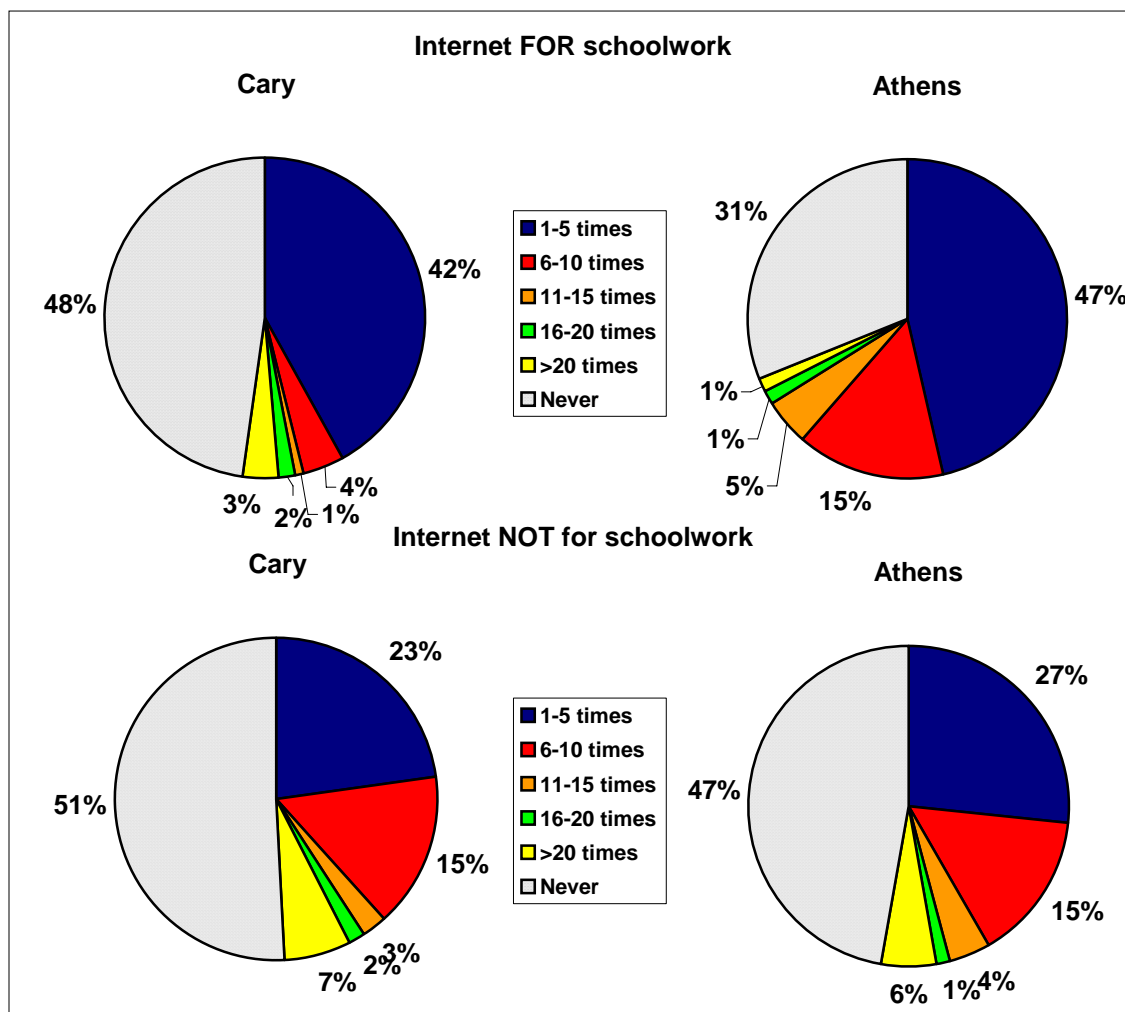
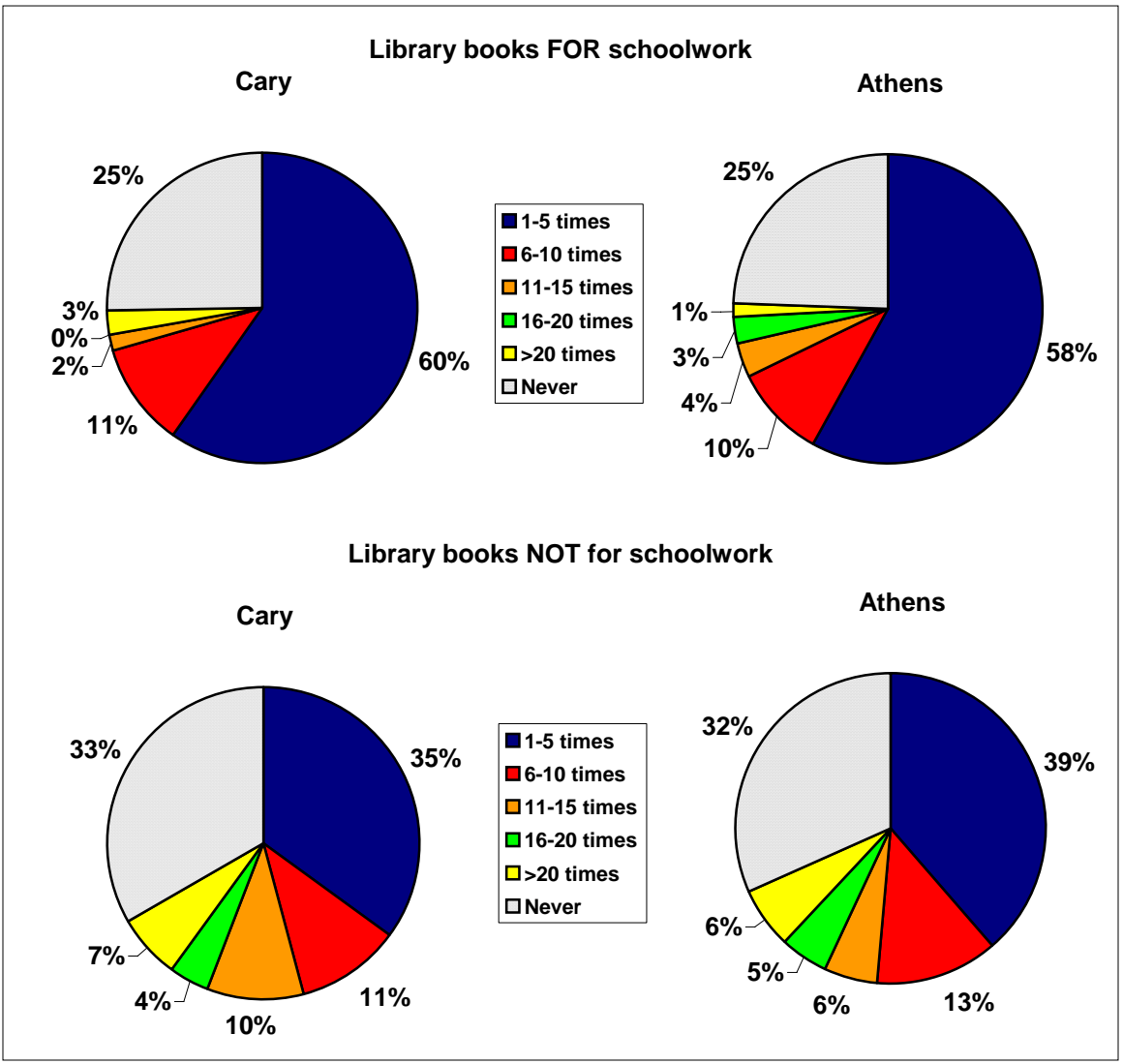


Fig. 11. Library resources used outside the school day: % Use of library books





**Fig. 12. Library resources used outside the school day: % Use of magazines**

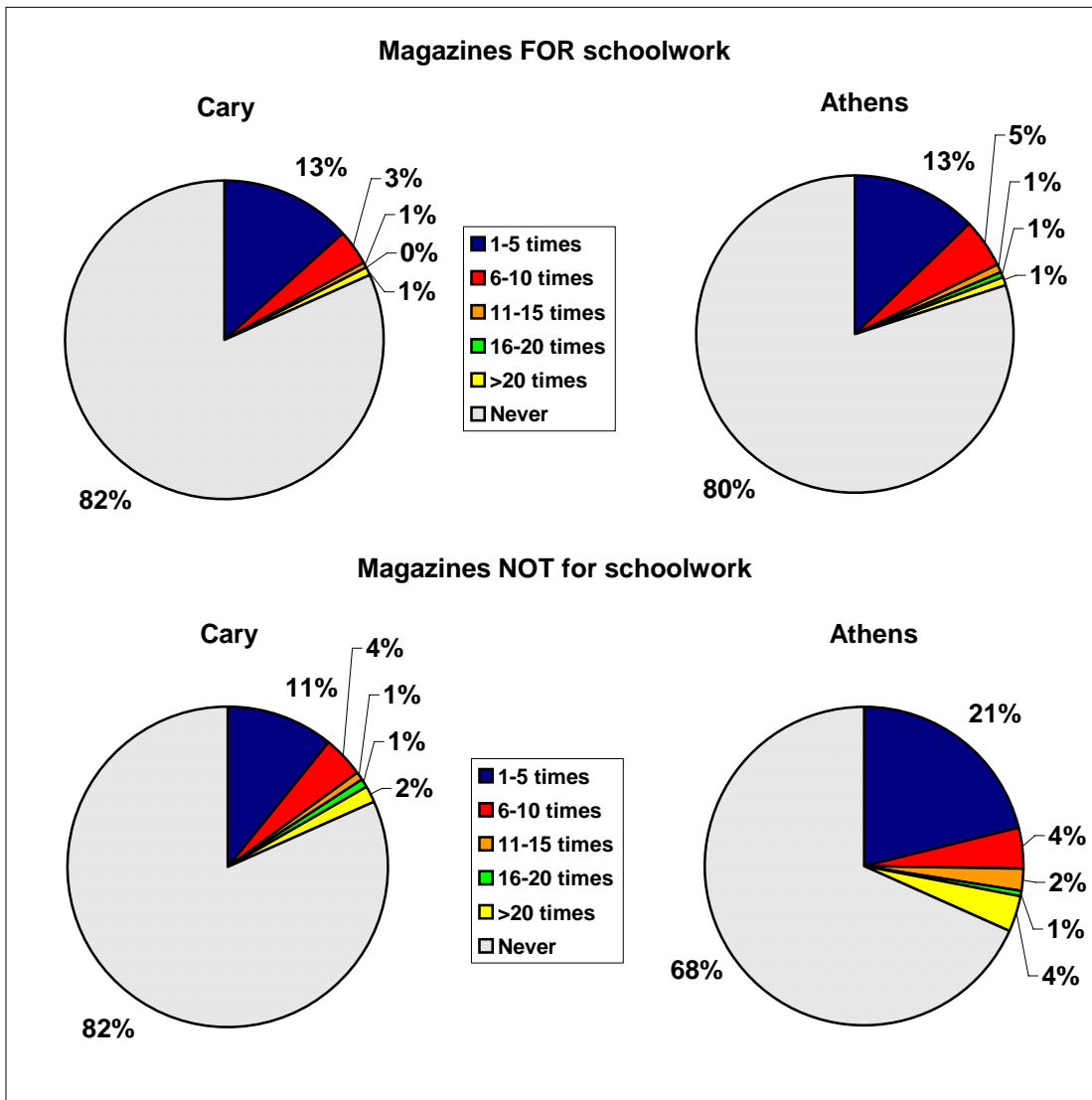
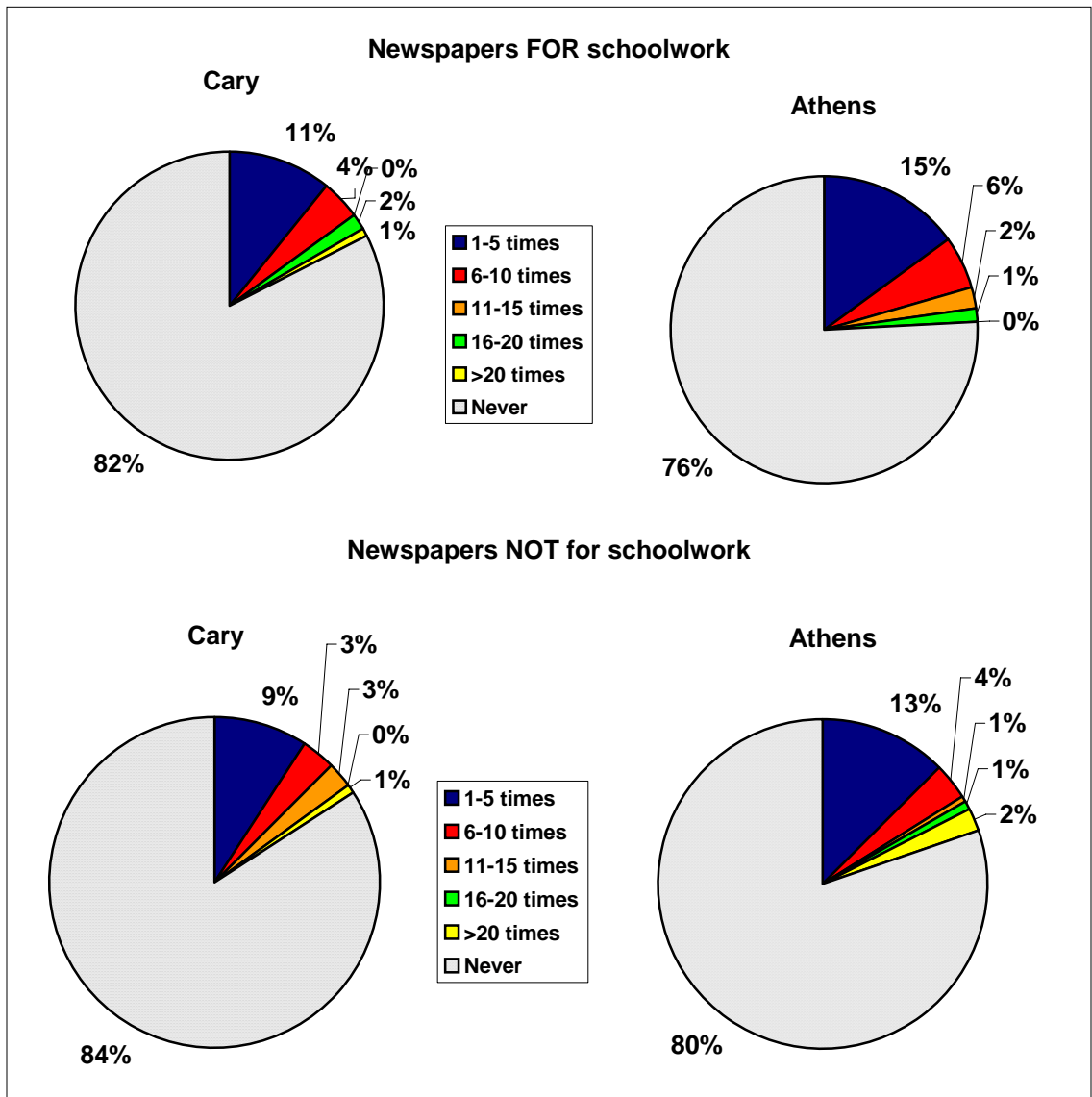
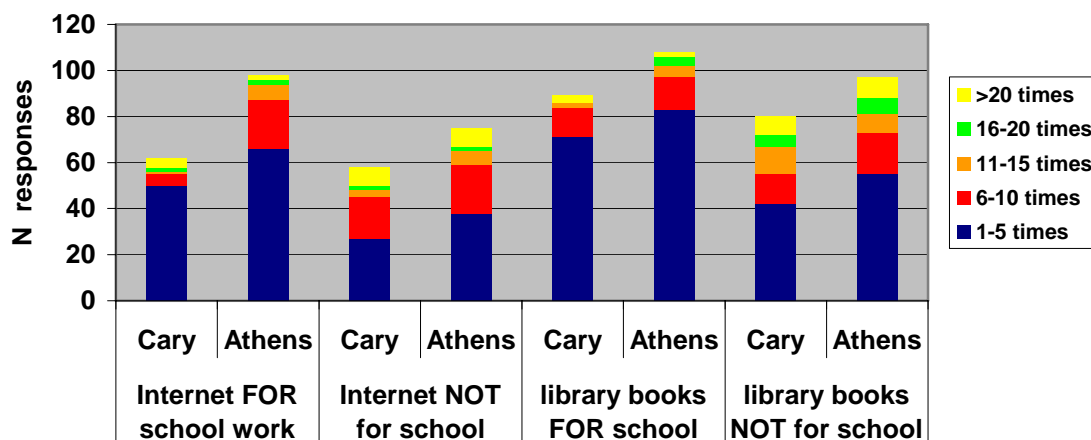


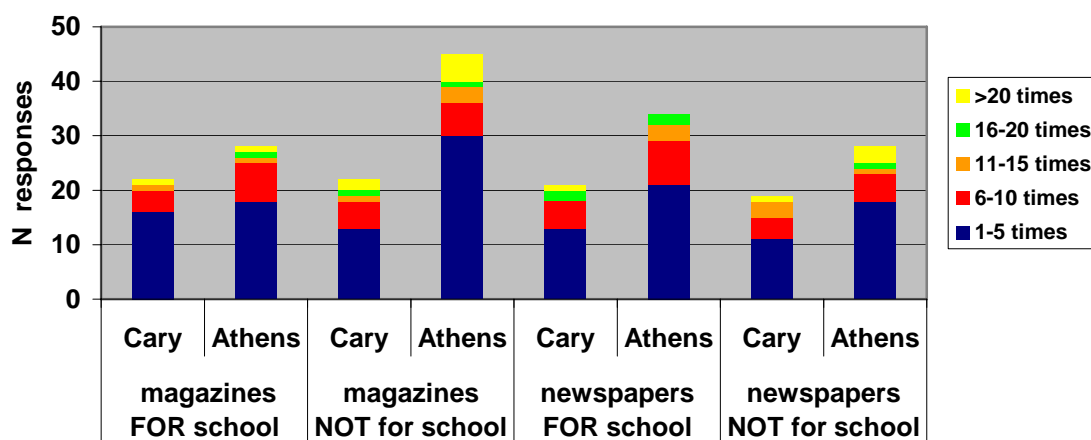
Fig. 13. Library resources used outside the school day: % Use of newspapers



**Fig. 14. Use of library resources outside the school day: Internet and books**



**Fig. 15. Use of library resources outside the school day: Magazines and Newspapers**



**Table 8. Results of chi-square test on use of library resources outside the school day**

<u>Outside the school day</u>	<u>p values</u>
... used the Internet FOR school work	$p = .005^{**}$
... used the Internet NOT for school work	$p = .938$
... used library books FOR school work	$p = .456$
... used library books NOT for school work	$p = .820$
... used magazines FOR school work	$p = .568$
... used magazines NOT for school work	$p = .211$
... used newspapers FOR school work	$p = .398$
... used newspapers NOT for school work	$p = .596$

*Library use – books borrowed.* A hold request can be placed on any book in the WCPL catalog. The next available copy is sent to the library branch designated by the patron placing the request. Students were asked to indicate which WCPL library they are most likely to choose to pick up any requested books as well as estimating the number of hold requests they have placed since the start of the school year. Responses were compared for significance using SPSS to compute a chi-square. There was a significant difference in the number of hold requests placed. The results are reported below in Tables 9 and 10 and Figures 16 and 17.

**Table 9. WCPL most likely to choose for hold request pick up**

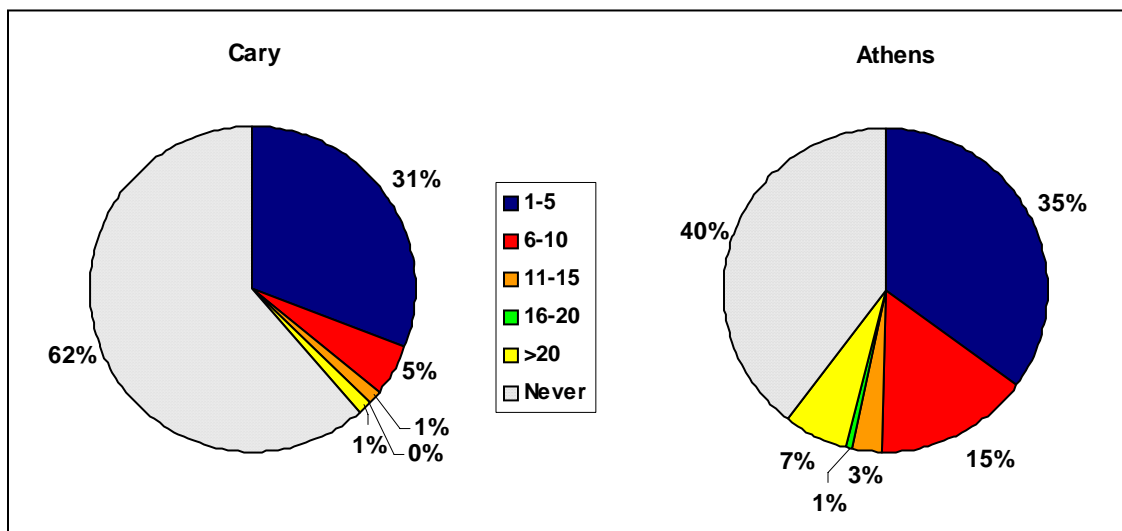
	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Cary Public Library	88	62	5	3
Athens Drive Community Library	2	1	130	77
Eva Perry Regional Library	17	12	13	8
Cameron Village Regional Library	3	2	8	5
Other	1	1	2	1
<b>Would never place a hold request</b>	30	21	12	7
<b>TOTAL N</b>	141	100	170	100%

**Table 10. Hold requests since the start of the school year**

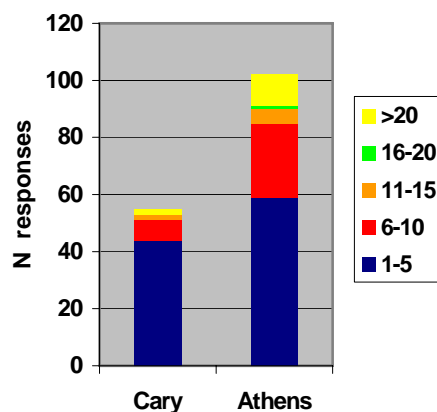
	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	88	61.5	67	39.6
1-5	44	30.8	59	34.9
6-10	7	4.9	26	15.4
11-15	2	1.4	5	3.0
16-20	0	0.0	1	0.6
>20	2	1.4	11	6.5
<b>TOTAL N</b>	143	100%	169	100%

A chi-square test resulted in  $p = .000^{**}$

**Fig. 16. Hold requests since the start of the school year - % within school**



**Fig. 17. Hold requests since the start of the school year: N responses**



Students were asked to recall as best they could approximately how many books they borrowed from school, from other libraries, for schoolwork, not for schoolwork, since the start of the school year and during the previous summer. Responses checked off from a selection of ranges: 0, 1 – 5, 6 – 10, 11 – 15, 16 – 20, and >20 were recoded to midpoints: 0, 3, 8, 13, 18, and 23 (for >20). The sums of the midpoints for each case were calculated

to get totals for all library borrowing. This was done to arrive at total book-borrowing means and Athens students' mean WCPL borrowing, which includes books borrowed at school plus books borrowed at any other WCPL branch. The results were then compared for significance using SPSS to compute an Independent Samples t-test for equality of means. With the exception of books borrowed for summer 2004 leisure reading from all libraries combined there was a significant difference in virtually all library book borrowing as recalled by respondents. It was curious that there was a minimal summer book borrowing reported by Cary students from the Cary High School media center for both schoolwork and leisure reading. A follow up call to the Cary media specialist confirmed that this could not be true. Students are not permitted to borrow from the school media center over the summer. Estimated book borrowing is reported in Table 11 below.

**Table 11. Estimates of books borrowed**

<i>Responses were recoded to midpoint of range to calculate means</i>	<b>Cary</b>		<b>Athens</b>		<b>p value</b>
	<b>N</b>	<b>Mean of midpoints</b>	<b>N</b>	<b>Mean of midpoints</b>	
<b>... since the start of the school year</b>					
...at school FOR schoolwork	142	1.99	174	3.76	0.000*
...at school NOT for schoolwork	141	2.13	174	5.76	0.000*
<b>... at school total</b>	141	4.11	174	9.52	0.000*
... from WCPL** FOR schoolwork	142	2.32	174	5.79	
... from WCPL** NOT for schoolwork	142	4.48	174	9.00	
<b>... from WCPL** total</b>	142	6.80	174	14.79	0.000*
<i>** For Athens students this is the sum of books borrowed at Athens and at any other WCPL branch</i>					
<b>Total borrowed FOR schoolwork***</b>	142	4.31	174	5.79	0.014*
<b>Total borrowed NOT for schoolwork***</b>	142	6.60	174	9.00	0.031*
<b>... all libraries total ***</b>	142	10.91	174	14.79	0.007*
<i>***For Cary students this is the sum of books borrowed at school and from the WCPL</i>					
<b>... during the previous summer break – summer 2004</b>					
...at school FOR schoolwork	142	0.23	169	1.43	0.000*
...at school NOT for schoolwork	142	0.70	173	2.36	0.000*
<b>... at school total</b>	142	0.93	173	3.76	0.000*
... from WCPL** FOR schoolwork	142	0.42	171	2.60	
... from WCPL** NOT for schoolwork	142	3.70	173	5.02	
<b>... from WCPL** total</b>	142	4.11	173	7.60	0.002*
<i>** For Athens students this is the sum of books borrowed at Athens and at any other WCPL branch</i>					
<b>Total borrowed FOR schoolwork***</b>	142	0.64	171	2.60	0.000*
<b>Total borrowed NOT for schoolwork***</b>	142	4.40	173	5.02	0.511
<b>... all libraries total ***</b>	142	5.04	173	7.60	0.034*
<i>***For Cary students this is the sum of books borrowed at school and from the WCPL</i>					

### *Findings Part II – Leisure Reading*

*Leisure reading – sources of leisure reading material.* To begin the leisure reading section of the survey, students were asked to check from a list of material for leisure reading, both print and electronic versions, that they regularly read for their own pleasure or information. This was intended to put the respondent in mind of many possible sources of material for leisure reading. The results are interesting in terms of the leisure reading

preferences of a sample of high school aged teens. The results are reported in Table 12 below in decreasing order of percent of responses of total respondents.

**Table 12. Leisure reading preferences of teens|: % who read material type regularly**

	Total	Cary	Athens
<b>Fiction – print</b>	72.5	75.2	70.2
<b>Magazine – print</b>	58.0	56.2	59.5
<b>Non-fiction – print</b>	52.1	51.1	53.0
<b>Newspaper – print</b>	48.5	51.1	46.4
<b>News – online</b>	48.5	50.4	47.0
<b>Graphic novels, Manga, Comics – print</b>	44.9	47.4	42.9
<b>Informational web sites</b>	39.0	40.9	37.5
<b>Poetry – print</b>	39.0	42.3	36.3
<b>Webzines</b>	38.7	43.8	34.5
<b>Poetry – online</b>	28.2	25.5	30.4
<b>Graphic novels, Manga, Comics – online</b>	22.0	21.2	22.6
<b>Fiction –online / e-books</b>	14.1	13.9	14.3
<b>Other – online</b>	6.6	5.1	7.7
<b>Other – print</b>	3.3	0.7	5.4

“Other” leisure reading material included in the selections of teens in the survey were personal, news and political weblogs, fan fiction, and “Christian books.” “Myspace” a popular on-line social networking service among teens that includes weblogs and “Xanga” a weblog community were specifically mentioned. Fan Fiction is prose written by a fan of an existing fictional world and its characters. These fictional worlds include TV shows, movies, books, games, anime, etc. There are Fan Fiction websites that are communities of fans of popular television shows, movies and books.

In a series of questions, students could indicate their access to the Internet, to magazines, to newspapers and to books. They were also asked to indicate which category represented the source of most of the books they read for leisure. As indicated in the table below, the later question had a lower number of valid responses due to the number that



had to be rejected due to the selection of more than one answer. The responses were then compared for significance using SPSS to compute a chi-square. As reported in Table 13, a higher percentage of Athens students access each type of material at a library. There was a significant difference in the number of students who report access to magazines at a library. Cary students reported a significantly higher percentage for getting most of the books they read for leisure at a store. At  $p < .10$  significance also would include accessing the Internet and newspapers at a library.

**Table 13. Access to material for leisure reading**

	<u>Cary</u>		<u>Athens</u>		<b>p value</b>
	<b>N</b>	<b>% within school</b>	<b>N</b>	<b>% within school</b>	
<b>Access the Internet – all that apply</b>	114		148		
School or public library	55	48.2	87	58.8	0.090
Home computer	103	90.4	128	86.5	0.337
Other	5	4.4	6	4.1	0.894
<b>Get print magazines – all that apply</b>	105		140		
School or public library	27	25.7	53	37.9	0.045*
Buy at a store	52	49.5	73	52.1	0.685
Subscription at home	68	64.8	84	60.0	0.447
Other	5	4.8	9	6.4	0.778
<b>Get print newspapers – all that apply</b>	91		124		
School or public library	22	24.2	44	35.5	0.076
Buy at a store	31	34.1	31	25.0	0.147
Subscription at home	52	57.1	78	62.9	0.393
Other	3	3.3	5	4.0	0.780
<b>Get books – all that apply</b>	113		142		
School or public library	91	80.5	123	86.6	0.189
Buy at a store	90	79.6	107	75.4	0.416
E-book / from internet	10	8.8	20	14.1	0.197
Garage sales / yard sales	21	18.6	25	17.6	0.840
As gifts	55	48.7	71	50.0	0.833
Read what parents or siblings own	56	49.6	71	50.0	0.944
Borrow from friends	52	46.0	78	54.9	0.157
Other	7	6.2	5	3.5	0.317
<b>Get most books – choose one</b>	101		99		
School or public library	49	48.5	52	52.5	0.571
Buy at a store	42	40.6	27	27.3	0.047*
E-book / from internet	1	1.0	1	1.0	0.989
Garage sales / yard sales	0	0.0	3	3.0	0.078
As gifts	2	2.0	2	2.0	0.984
Read what parents or siblings own	6	5.9	8	8.1	0.553
Borrow from friends	5	5.0	6	6.1	0.731
Other	2	2.0	1	1.0	0.573

“Other” leisure reading sources mentioned by respondents included for Internet: a friend’s computer, a parent’s office computer, and Internet cafes such as “The Tek Internet Gaming Center and Cyber Café” and “Gamefrog,” although use of the latter two for reading access and not gaming is questionable. “Other” sources for magazines are

waiting rooms, friends, airlines, beauty salons, gyms (to read while working out), stores (to read at the store but not buy) and, “from an organization whose money for publishing is acquired by voluntary donations.” “Other” newspaper sources reported are the student’s workplace and a coffeehouse. “Other” sources for books were online orders and “from an organization whose money for publishing is acquired by voluntary donations.” One student bought comics only and, sadly, got rid of any gift books.

*Leisure reading – hours of engagement in leisure reading.* In a series of questions students were asked to estimate their choice of the number of hours per day, hours per week or hours per month reading on the Internet, reading magazines, reading newspapers, or reading books for their own pleasure or information. Respondents also had the option of checking that outside of school assignments they do not read a particular material for pleasure or information. For the response of no leisure reading of a particular material SPSS was used to calculate a chi-square to determine significant differences. All responses to hours per day and hours per month were recalculated to hours per week for the purpose of comparison for significance using SPSS to compute an Independent Samples t-test for equality of means with  $N =$  total responses to the question. Zero hours per week for those who indicated no reading the particular material was used in calculating mean hours per week.

Athens students estimated a higher mean hours/week engaged in leisure reading for all materials. There was a significant difference for reading on the Internet and reading magazines. At  $p < .10$  there was also a significant difference for all leisure reading combined. In responses to no leisure reading of a particular material the percentage was

lower for every type of material for the Athens students. There was a significant difference in the response to no reading at all outside of school assignments. At  $p < .10$  there was also a significant difference for no leisure reading on the Internet. It is interesting to note that the mean estimated hours for all leisure reading combined did not reflect a sum of mean estimates of hours for leisure reading of different materials. The estimates of hours per week of leisure reading are summarized in Table 14 below.

**Table 14. Estimated hours per week engaged in leisure reading**

	<u>Cary</u>			<u>Athens</u>			
	N	% of N responses	Mean hours/ week	N	% of N responses	Mean hours/ week	p value
* <i>Reading on the Internet</i>	98		7.80	132		10.29	0.064
<b>Reading on the Internet</b>	130		5.88	157		8.65	0.017*
<b>No leisure reading on the Internet</b>	32	24.6		25	15.9		0.066
* <i>Reading print magazines</i>	92		2.97	114		4.45	0.037*
<b>Reading print magazines</b>	126		2.17	145		3.49	0.022*
<b>No leisure reading of magazines</b>	34	27.0		31	21.4		0.281
* <i>Reading print newspapers</i>	74		3.56	99		4.45	0.331
<b>Reading print newspapers</b>	127		2.08	149		2.96	0.144
<b>No leisure reading of newspapers</b>	53	41.7		50	33.6		0.162
* <i>Reading books</i>	85		7.49	103		8.94	0.284
<b>Reading books</b>	129		4.93	144		6.40	0.160
<b>No leisure reading of books</b>	44	34.1		41	28.5		0.315
<b>All leisure reading combined</b>	131		7.34	142		9.59	0.079*
<b>No leisure reading at all</b>	27	20.6		15	10.6		0.022*

*Leisure reading – motivation for leisure reading.* To examine dimensions of reading motivation for leisure reading a series of questions were presented that were adapted from Wigfield and Guthrie's Motivation for Reading Questionnaire (Guthrie et al., 1994; Wigfield & Guthrie 1995), with the addition of original questions designed to assess physical access to a public library collection as a motivator. The dimensions from

Wigfield and Guthrie used in this survey include dimensions based on intrinsic motivation: curiosity – the desire to learn about a particular topic of interest, aesthetic involvement – the enjoyment of experiencing different kinds of reading material, the importance of reading – the individual’s valuing of the activity of reading; dimensions based on the social aspect of reading – the process of sharing meanings gained from reading with friends and family; dimensions of efficacy: the belief that one can be successful at reading, and challenge – the orientation to learning from text. The responses to these Likert scale questions were compared for significance individually, by dimension subgroups, and as a whole using SPSS to compute an Independent Samples t-test for equality of means. The scale for the questions ranged from 1 = strongly agree to 5 = strongly disagree. Some variables were reverse coded as noted prior to SPSS analysis. A mean of < 3 is closer to agree. For reverse coded variables a mean of < 3 is closer to disagree. As reported in Table 15 below, there were significant differences when the variables were compared as a whole, for the reading motivation dimension subgroups intrinsic, social and access, and for the two individual variables “I read to stay current on popular culture and events or people in the news.” and “The school library has the kind of books I like to read for fun.” At  $p < .10$  four additional individual variables show significance.

**Table 15. Dimensions of Reading Motivation**

	<u>Cary</u>		<u>Athens</u>		p value
	N	Mean	N	Mean	
<b>Reading Motivation Individual Variables</b>					
<b>Intrinsic Variables</b>					
I enjoy books more if they have illustrations.	140	2.87	170	2.86	0.957
I get immersed in interesting stories.	139	1.94	167	1.85	0.420
Reading for my own pleasure or information helps me do better in school.	137	2.62	168	2.42	0.101
It is important to me to be a good reader.	138	2.11	170	1.92	0.120
I read to learn new things on my own.	140	2.46	167	2.24	0.074
I read to stay current on popular culture and events or people in the news.	139	2.92	170	2.62	0.029*
Reading is an enjoyable way to relax.	140	2.51	169	2.38	0.335
<b>Social Variables</b>					
My friends and I like to trade things to read.	140	3.35	166	3.16	0.193
I like to tell others about things I am reading or have read.	139	2.51	170	2.29	0.116
Reading for pleasure isn't cool with my friends. (Reverse coded)	136	2.60	167	2.37	0.083
<b>Efficacy Variables</b>					
If a book is interesting I don't mind if it is hard to read.	141	2.22	169	2.09	0.260
I have no desire to read even if the content is interesting. (Reverse coded)	138	2.19	167	2.01	0.210
I don't like reading when the words are too difficult. (Reverse coded)	138	2.91	170	2.87	0.765
I enjoy books more when they are easy to read. (Reverse coded)	139	3.33	168	3.27	0.603
It's hard to concentrate on reading. (Reverse coded)	136	2.71	168	2.46	0.081
<b>Access Variables</b>					
The public library has the kind of books I like to read for fun.	140	2.55	169	2.48	0.579
The school library has the kind of books I like to read for fun.	138	3.00	170	2.60	0.003*
It is easier to find a book I would like to read at a bookstore than at a library. (Reverse coded)	140	3.55	169	3.41	0.333
<b>Reading Motivation Subgroups</b>					
<b>Intrinsic Variables</b>	140	2.49	170	2.33	0.021*
<b>Social Variables</b>	140	2.82	170	2.60	0.024*
<b>Efficacy Variables</b>	141	2.67	170	2.54	0.152
<b>Access Variables</b>	140	3.03	170	2.83	0.040*
<b>All variables combined</b>	141	2.68	170	2.52	0.007*
<b>All variables combined except Access variables</b>	141	2.61	170	2.45	0.013*

Students were asked to rate their own reading level and the grades they get in school. SPSS was used to calculate a chi-square to determine significant differences. No significant differences between schools were found in student self rating of reading ability or of grades. This self-rating data could be used in future analysis of the survey data to control for perceived reading ability. The results are reported in Table 16 below.

**Table 16. Student self-rating of reading ability and grades**

	<u>Cary</u>		<u>Athens</u>		p-value
	N	% within school	N	% within school	
<b>My reading level is...</b>					
<b>Advanced</b>	63	45.0	84	49.7	0.410
<b>Average</b>	69	49.3	77	45.6	0.514
<b>Below average</b>	8	5.7	8	4.7	0.699
<b>My grades are...</b>					
<b>Excellent</b>	36	25.7	52	30.8	0.327
<b>Good</b>	67	47.9	72	42.6	0.355
<b>Average</b>	31	22.1	40	23.7	0.751
<b>Below average</b>	6	4.3	5	3.0	0.531

### *Findings Part III – In Students’ Own Words*

The survey concluded with asking the students to share any “rants or raves” about reading or libraries in general and any comments about their school and/or public library in particular. Some general patterns emerged from these comments. Statements from students at both schools support the notion that teen readers value choice in reading material and value reading subject matter that is relevant and of interest to them. Some of these statements are:

- “It’s good to have a lot of choices.”
- “I find reading easier and more enjoyable if I am not forced to read the book.”

- “When I read a book I want to read, it is more enjoyable to be reading.”
- “I only like to read on my own if I’m interested in the book.”
- “If I do read, I read Sports Illustrated, the sports page in the newspaper, and articles from www.ESPN.com. I love reading those.”
- “I would find reading more interesting if the books we read in school were more interesting. Reading boring long books in class turns me off to reading in my spare time.”
- “The school system seems to discourage reading by giving us books like Jane Eyre and Great Expectations to read. If those are the best books, the “classics,” and students dislike them, then those students won’t want to read more ‘greats’” and ‘classics’.”

Some teen readers are adamant about reading. Of respondents who voiced a pro-reading sentiment there were twice as many such statements from Athens respondents than from Cary respondents. Pro-reading statements from Cary students were:

- “I read just about anything.”
- “If the book is good I can get lost in that world.”
- “I love reading; it presents a new world to me.”

Pro-reading statements from Athens students were:

- “I love reading.”
- “I love to read a lot of books.”
- “I love to read and do so very often.”
- “Reading is awesome!”
- “Reading is a very good way to increase your vocabulary.”
- “Reading is a great way to accumulate knowledge.”
- “Reading is something that’s important to me for relaxation, entertainment, and knowledge.”

There were very few anti-reading sentiments expressed, both were from Cary respondents.

- “I do not enjoy reading at all.”
- “I honestly despise reading. I hate books. You couldn’t pay me to read. If I’m so bored I may read a comic.”

No time due to schoolwork or a job is the most lamented reason for not reading for pleasure. Some of these teens find time for leisure reading in summer, on vacations, or



during semesters when they don't have heavy reading assignments as with an English class.

- "I love reading but I do not often have the time to read. Schoolwork takes up all my time."
- "Reading is good when you have time. I don't have time." (This respondent cites homework and work.)
- "Once you hit 11<sup>th</sup> & 12<sup>th</sup> grade you have no time to read, especially if you have a job."
- "I read when I don't have English during that semester."
- "I'm too busy to read for pleasure. I pretty much only read assigned books for English."
- "I love to read when I have the time, usually more in the summer or on the weekends."
- "During the summer I read a LOT more."
- "Over the summer, especially on vacations, I will read books for fun."

Statements that reflect some library/media center use and choice issues were made by

Cary students:

- "I only use the school library with a class."
- "I never have time to go to the school library."
- "[The school library] is more for a place to finish homework, involving the use of the Internet."
- "The school library doesn't have a lot of books and few are interesting."
- "[The school library] has barely the books I like."
- "[The school library] don't have my fave authors."
- "[The school library] should have a better leisure reading section."
- "[The school library] has no good magazines like Sports Illustrated."
- "[The school library] surroundings are drab and boring, which discourages reading for leisure purposes."

Statements that reflect combined school/public library use and satisfaction with the choice of material it affords were made by Athens students.

- "Me and my friends love coming to the library."
- "Our school has plenty of books to read."
- "[The library] is a very pleasing place to be and has a variety of great reading material for all interests!"
- "A school and public library is good because there is more to offer."
- "I really like having a public library at school."

Cary students had kudos for public libraries.

- “The public library has better hours and selection.”
- “A public library has all of the books I need.”
- “The Cary library is pretty small but it has the basics I need for research on projects.”
- “I love the public library. I volunteer at it regularly.”
- “The Cary library is an excellent establishment with a great staff.”
- “I really like to go to the Cary Library.”

One Athens student expressed an appreciation for libraries in general:

- “Overall, libraries are wonderful and should be expanded.”

### *Findings Part III – Brief Use and Circulation Tally*

With or without completing the survey, students could complete a tally of use and circulation designed to get a snapshot of library use. At Cary there was one more tally (N = 144) than surveys (N = 143) completed, and at Athens there were thirty-seven more tallies (N = 212) than surveys (N = 175) completed. With only 2 or 3 days of snapshots, a SPSS analysis for significant differences was not done, however it can be noted that the percentage of use of the library for print resources was higher at Athens as well as the percentage of circulation for both schoolwork and leisure reading. Of students contributing to the tally at Athens, 27.4 percent placed hold requests of an average of 2.4 books/student. A summary of the tally data is reported on Tables 17 and 18 below.

**Table 17. Response to Brief Use and Circulation Tally**

<u>Cary</u>				<u>Athens</u>			
Date	N	% male	% female	Date	N	% male	% female
19-Apr	65	42.6	53.8	26-Apr	108	26.9	73.1
20-Apr	33	33.3	66.7	27-Apr	104	30.8	69.2
21-Apr	46	41.3	58.7				
3 days	144			2 days	212		

**Table 18. Summary of Brief Use and Circulation Tally**

Today in the library I ...	<u>Cary</u>		<u>Athens</u>	
	Average % within N / day	school	Average % within N / day	school
used the Internet FOR school	32.3	67.4	62.0	58.5
used the Internet NOT for school	21.0	43.8	38.0	35.8
used print resources FOR school	19.0	39.6	47.0	44.3
used print resources NOT for school	10.7	22.2	26.0	24.5
placed a hold/request for a WCPL book			29.0	27.4
total # holds placed			72.0	
average holds/student hold placer			2.4	
checked out a book for school	10.7	22.2	30.5	28.8
total # books checked out for school	13.7		30.5	
# books checked out for school from hold requests			3.5	
checked out a book for leisure	10.7	22.2	31.5	29.7
total # books checked out for leisure	14.7		33.5	
# books checked out for leisure from hold requests			11.5	
returned a book used for school	9.0	18.8	21.5	20.3
total # books returned used for school	12.0		22.0	
# returned books used for school from hold requests			6.5	
returned a book read for leisure	9.3	19.4	22.0	21.7
total # books returned read for leisure	10.3		24.0	
# returned books read for leisure from hold requests			6.0	

## Discussion

This study set out to explore if a relationship exists between convenient access to the public library collection at a combined school/public library and independent library usage for leisure reading by high school students, and also to explore if there was likewise a relationship between convenient access to the public library collection at a combined school/public library and the engagement in leisure reading by high school students. Library usage was examined in three ways: number of visits, purpose of visits, and number of books borrowed. Leisure reading was examined in terms of where material is accessed, an estimate of the hours engaged in reading for pleasure and an analysis of dimensions of motivation for reading.

### *Independent Library Usage*

Students get exposure to the school library either through use with a class or through independent use. While with a class students use library resources primarily for schoolwork they might also use library resources and materials for leisure purposes. However it is those students who use the library independently, who are choosing to use the library on their own time, immediately before or after school, during lunch, for independent study, or outside the school day who were of interest in this study. It was found that the school with the combined school/public library, Athens, had a significantly higher mean class use of the library as well as a slightly higher mean individual use of the library during the school day. Athens students reported significantly more visits to a library outside the school day since the start of the school year ( $p = .002$ ). Athens students reported a mean of 9.5 visits while Cary students reported a mean of 6.7 visits.

Athens students have access to the combined school/public library until 8 pm Monday – Thursday and therefore can conveniently stay and use the library immediately after school for a longer period. Also, when Athens students use the Athens Drive Community Library after school, in the evening or on Sunday, they have access to the WCPSS computer network and their student network account. It was not surprising than when asked which WCPL the respondent used the most that 68 percent of respondents from Athens chose the Athens Drive Community Library. Most respondents from Cary (78%) use the Cary Public Library. Some respondents from Athens (22.7%) and some respondents from Cary (20.3%) reported using a regional library the most: Eva Perry or Cameron Village. Southeast Regional was included in “other” by a few Athens students. WCPL plans to open a new regional library in the town of Cary. Convenience of location trumped convenience of hours in the reason for selecting the library most used. Three Athens students who responded to “other” as the reason for use of one library over others stated the obvious “I go to this school,” “its in my school,” and “I go to school at Athens.” Convenient access is an important factor in the library use of teens.

Purpose of use was also examined. Students were asked to report the purpose of their independent use of the library in a question asking students to recall approximately how many times a visit on their own to the library during the school day was for each of 4 reasons: 1) to use the Internet, 2) to read or check out a book, 3) to read or check out a magazine, or 4) to read a newspaper either for school work or not for school work. Significant differences were found for students using the library to read or check out books both for schoolwork and not for schoolwork. Students at Athens reported using

library books significantly more for schoolwork ( $p = .014$ ) and significantly more for leisure reading ( $p = .005$ ) on visits to the library on their own during the school day.

A parallel question asked students to recall approximately how many times a visit to a library outside the school day was for these four purposes. Significance was found for students using the Internet for schoolwork. Students at Athens reported using the Internet at a library outside the school day for schoolwork significantly more than Cary students ( $p = .005$ ). This might be attributed to the access Athens students have to the WCPSS network at Athens Drive Community Library outside the school day.

Thirdly, book borrowing was examined as an aspect of library use. With the exception of books borrowed for summer 2004 leisure reading there was a significant difference in virtually all library book borrowing as recalled by respondents. At school, since the start of the school year, Athens students estimate borrowing a mean of 3.8 books apiece for schoolwork and a mean of 5.8 books apiece for leisure while Cary students estimate borrowing a mean of 2.0 books apiece for schoolwork and a mean of 2.1 books apiece for leisure. So in approximately 8 months of school from mid-August to mid-April Athens students completing the survey assert they have borrowed an average of 9.5 books apiece at school compared to Cary students self-report of an average of 4 books. The p-value is .000 for at school borrowing for schoolwork, leisure and total borrowing.

The same pattern is repeated in the students' report of book borrowing from the public library. Cary students' estimate of their book borrowing from the WCPL since the start of the school year was mean of 2.3 books apiece for schoolwork and a mean of 4.5 books apiece for leisure. Athens students' estimate of their book borrowing from all

WCPL branches including Athens Drive Community Library was a mean of 5.8 books apiece for schoolwork and 9.0 books apiece for leisure. In total, since the start of the school year, Athens students estimated borrowing was a mean of 14.8 books apiece from the WCPL and Cary students estimated borrowing was a mean of 6.8 books apiece. Significance was shown ( $p = .000$ ) in a comparison of total WCPL borrowing.

Factoring in school library borrowing for Cary students, total books borrowed at any library for Cary students were 4.3 books apiece for schoolwork and 6.6 books apiece for leisure for a total of 10.9 books borrowed apiece. For Athens students the numbers are the same as for all WCPL borrowing: 5.8 books apiece for school work, 9.0 books apiece for leisure and 14.8 books apiece total. The p-values for borrowing from any library for schoolwork ( $p = .014$ ), leisure ( $p = .031$ ) and in total ( $p = .007$ ) show that the book borrowing of Athens students is significantly greater. Any way book borrowing is compared, at school, at the public library, for schoolwork or for leisure, during the school year Athens students borrow significantly more books.

Recalling book borrowing during the summer break from school 2004 there again was shown a significant difference ( $p = .000$ ) in the number of books borrowed for schoolwork (summer reading assignments, summer school classes?) There was a mean of 2.6 books borrowed for schoolwork by Athens students during the summer and a mean of 0.6 books borrowed by Cary students for schoolwork. It should be noted that the Athens Drive Community Library stocks many copies of titles for summer reading assignments, as does the WCPL. Likewise local bookstores create displays for marketing summer reading assignment selections. Although Athens students had a higher mean for books borrowed from any library for summer leisure reading, 5.0 books for Athens and 4.4

books for Cary, this was the only book borrowing comparison that did not show a significant difference. It was curious that there was summer book borrowing reported by Cary students from the Cary media centers for both schoolwork and leisure reading. A follow up call to the Cary media specialist confirmed that this could not be true; books are not loaned out from the media center during the summer. The reported summer book borrowing from school by 21 Cary students out of 143 responses to this question might be attributed to a halo effect of students reporting what they believe is expected by the researcher. However, any halo effect of inflated book borrowing estimates would be expected equally across subjects from both schools.

A separate aspect of book borrowing that was examined was the use of placing a hold request for a WCPL book. A hold request can be placed on any book in the WCPL catalog. The next available copy of the book is sent to the library branch designated by the patron placing the request. It is through hold requests that Athens students have convenient at school access to over 1,440,000 volumes in the WCPL collection. There was a significant difference ( $p = .000$ ) in the number of hold requests placed. Compose these sentences without numbers to start. From Cary responses, 61.5 percent did not place a hold request since the start of the school year, and 21.3 percent indicated that they would never place a hold request. From Athens responses, 39.6 percent did not place a hold request since the start of the school year, and only 7.1 percent indicated that they would never place a hold request. A full 76.5 percent of Athens students indicated that they would choose to pick up a hold request at Athens Drive Community Library.

While the survey was dependent on respondent recall and estimates of library visits, purpose for use, and book borrowing, a tally administered in conjunction with the survey



aimed to get a snapshot of use for the days over which the survey was administered. With only 2 or 3 days of tally data, an SPSS analysis for significant differences was not done. However the trend of the tally results support the results of the survey. The percentage of use of the library print resources (books, magazines and newspapers) for schoolwork and for leisure was higher at Athens (44.3% for schoolwork, 24.5% for leisure) than at Cary (39.6% for schoolwork and 22.2% for leisure.) on the days the survey and tally were administered. Also, the percentage of book circulation for both schoolwork and leisure reading was higher at Athens. Circulation comparisons were reported on Figure 18.

### *Engagement in Leisure Reading*

To explore the possibility of a relationship between convenient access to the public library collection at a combined school/public library and the engagement in leisure reading of high school students the survey inquired about where teens access material for leisure reading as well as asked for an estimate of how much time the respondent engaged in reading of various materials for his or her own pleasure. In every category, the Internet, magazines, newspapers and books, a higher percentage of Athens students access material at a library. For magazines, newspapers and books a higher percentage of Cary students purchase leisure reading material. There were significant differences in the categories of accessing magazines at a library ( $p = .045$ ) and purchasing most books at a store ( $p = .047$ ). In these cases 37.9 percent of Athens versus 25.7 percent of Cary students reported accessing magazines at a library and 40.6 percent of Cary versus 27.3 percent of Athens students reported buying most of the books they read for pleasure at a

store. At  $p < .10$  accessing the Internet ( $p = .090$ ) and accessing newspapers ( $p = .076$ ) was also significantly greater for Athens students.

It is seen that a higher percentage of teens at Athens, with convenient access to the public library collection at school, use library resources for leisure reading, and a significantly higher percentage of these teens access magazines at a library. A factor that could attribute to the significant difference in the case of magazines is the fact that Athens Drive Community Library has over 125 magazines in its collection whereas Cary has only 35 periodicals in the collection at the main campus and none at the 9<sup>th</sup> grade center. Of course Cary students can access magazines at a public library, but the convenience of access to magazines at the Athens Drive Community Library for browsing and borrowing (non-current issues of magazines can be borrowed) is likely to significantly affect teen access of magazines at a library. Magazines are second to fiction in preference of material for leisure reading, with 58 percent of respondents to this survey including magazines in their leisure reading choices.

It is also seen that a significantly higher percentage of teens at Cary buy books for leisure. A possible factor that could contribute to a significant difference in Cary students purchasing most of their books and higher percentages of Cary students purchasing leisure reading material in all categories is the convenience of access to a bookstore across the street from the high school. The Cary High School main campus is located at a crossroad that includes a shopping center across the street with a Barnes and Noble bookstore and a mall diagonally across the intersection from the high school campus. In contrast the Athens Drive High School campus is located in a park and residential setting. While Athens teens are by no means less likely to frequent commercial venues, the Cary

students have easier access to a commercial book vendor relative to the location of their school.

Athens students estimated a higher mean hours/week engaged in leisure reading for all materials (the Internet, magazines, newspapers, and books) with a significant difference ( $p = .017$ ) for reading on the Internet and reading magazines ( $p = .022$ ). There was also a significant difference ( $p = .022$ ) to the response to “Outside of school assignments, I do not read for pleasure or information,” with 20.6 percent of Cary respondents not reading for pleasure at all versus 10.6 percent of Athens respondents. The percentage of responses to no reading of each material taken separately was lower for the Athens students. It is interesting to note that the students’ mean estimated hours for all leisure reading combined did not reflect a sum of mean estimates of hours for leisure reading of different materials.

Fiction leads the leisure reading preferences of the teens in this study with 72.5 percent of the total sample, both schools combined, reporting that they read fiction regularly for pleasure. In contrast to the 25 percent figure in the NAEP findings, this survey indicates a much higher percentage of teens that read for pleasure. This echoes the results of Moffitt and Wartella (1992) which reports 78 percent of teens read for pleasure. Of all the materials listed for students to check off as read “regularly for pleasure and information” outside of school assignments over 50 percent of students indicate leisure reading of non-fiction books, magazines and fiction books, and every category but two was above 25 percent of teens reading regularly. This bodes well for the influence of leisure reading on the students in both these schools. It has to be considered however that

this sample was a small non-probability sample thus not easily compared to the NAEP findings.

To further explore the possibility of a relationship between convenient access to the public library collection at a combined school/public library and the engagement in leisure reading of high school students the survey examined dimensions of reading motivation. Overall Athens students scored as more strongly motivated toward reading. There were significant differences when the dimensions of reading motivation were compared as a whole ( $p = .007$ ), for the reading motivation dimension subgroups intrinsic ( $p = .021$ ), social ( $p = .024$ ) and access ( $p = .040$ ), but not for the dimension of efficacy. This means that Athens students agreed more strongly with statements reflective of the intrinsic value of reading, with statements reflective of social aspects of reading, and with statements reflective of access to reading material at libraries. From the lack of a significant difference in the dimension of efficacy one could infer that there is not a difference between schools in teens' sense of their ability to read, just in the choice to engage in reading. In a question that asked students to rate their own reading level as advanced, average or below average no significant difference was found comparing responses from the two schools.

The individually significant variables at  $p < .05$  in the reading motivation section were "I read to stay current on popular culture and events or people in the news." ( $p = .029$ ) and "The school library has the kind of books I like to read for fun." ( $p = .003$ ). These individually significant variables could be correlated respectively with Athens students significant response to reading magazines from the library and to the higher numbers of books borrowed from a library, and in particular from the library at school.

### *Limitations of Study*

School assignment is a challenge in the rapidly growing WCPSS. Reassignment decisions are made each year as new schools are opened or old schools are renovated. Cary High School was chosen as the control school for having a similar enrollment and student profile, at least from profiles available at the time of proposing this study. The much-expanded enrollment at Cary High School and the remote location of the 9<sup>th</sup> grade class were a surprise to the researcher upon receiving approval from the WCPSS. Despite the disparity in enrollment the racial and free or reduced lunch distribution at Cary and Athens remained similar in the 2004 – 2005 school year. A different high school with a more similar enrollment along with a similar profile would likely have been chosen as the control. Also, the commercial versus residential setting of the schools was not taken into consideration in choice of control school and may have been an intervening factor in Cary students' book buying.

This exploratory study is limited by several other factors. First, this was a non-probability sample. The sample size is small, limited to only two high schools, one with and one without a combined school public library. Second, teens were asked to make estimates of library usage variables and amount of time engaged in leisure reading. While it is hoped that self-report data from adolescents is honest and accurate, there could be cases where estimates are exaggerated or misleading. Like all self-report data, this survey data is open to distortion. Thirdly, mediating variables such as effect of reading ability, economic status, education of parents, personalities of librarians or programs that may affect how available material is presented and promoted to motivate teens to read for pleasure are not examined by this study. Individual librarians' or media specialists'

personalities and curricular and extra curricular activities designed to promote and support recreational reading can have intervening effects on teens' choice to read for pleasure. Fourth, factors that influence physical access to desirable print for teen recreational reading such as amount of material, diversity of material, and convenience factors such as distance to the facility housing the material and hours of operation can vary greatly in different communities. The community or school profile of other combined school/public libraries can have numerous factors that differ from the characteristics of the community and the schools in this study. For all these reasons the results of this study should be viewed as preliminary and of limited generalizability.

## Summary / Future Research

In sum, with regard to the question, “Does a relationship exist between convenient access to the public library collection at a combined school/public library and independent library usage for leisure reading by high school students?” the conclusion is yes, the findings showed that there is a positive relationship as evidenced by students at the school with a combined school/public library making more independent visits during the school day and significantly more visits to a library outside the school day, by significantly more use of the library during the school day to read or check out books both for schoolwork and not for schoolwork and a significant difference in virtually any way book borrowing during the school year is compared: at school, at the public library, for schoolwork or for leisure. There was also seen a significant difference in hold requests, use of print resources and circulation as seen in snapshot data. Convenience of location is a strong reason for a teen to choose to use a library.

In sum, with regard to the question, “Is there a relationship between convenient access to the public library collection at a combined school/public library and the engagement in leisure reading by high school students?” again, the conclusion is yes, the findings support a positive relationship as evidenced by a higher percentage of teens with convenient access to the public library collection at school using library resources for leisure reading, and a significantly higher percentage of these teens accessing magazines at a library. Conversely there are a significantly higher percentage of teens without the combined school/public library that buy most of the books they read for leisure. Evidence

also indicates that teens with convenient access to the public library collection at school engage in more hours of leisure reading with significantly fewer students who responded, “Outside of school assignments, I do not read for pleasure or information.” Finally, students at the school with convenient access to the public library collection scored significantly more motivated toward reading on a reading motivation scale. Intrinsic, social and access dimensions of reading motivation each showed a significant difference in motivation, however the a lack of a difference in the dimension of efficacy indicated no significant difference in the perception reading ability between the two populations, yet the other dimensions indicated a significant difference in the motivation to engage in reading by the teens at the school with the combined school/public library. An individually significant access variable was “The school library has the kind of books I like to read for fun.”

From the preliminary results of this exploratory study there is an apparently positive affect of a combined school/public library on the library use and leisure reading of high school aged teens. There are ways that the results of this study could be strengthened or the analysis of the data could be extended. Focus group interviews could be conducted at both of the high schools in the study to corroborate the results of the study and expand on student opinion of combined school/public libraries. The data could be further analyzed to correlate for perceived reading ability and perceived academic achievement with library use and leisure reading.



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## **Appendix A**

### **A Survey of Teen Library Use and Leisure Reading Cover Letter, Tally and Survey**

So that the formatting of the survey is not disrupted, the body of the survey starts on the following page. The following pages are inclusive of the cover letter, the Brief Use and Circulation Tally and the Survey of Teen Library Use and Leisure Reading. Although the survey and tally for Cary High School and Athens Drive High School are essentially the same, there is some customization to suit the school. Both versions are provided.

Dear Student,

I am conducting research on the use of school and public libraries by teenagers. In particular, I am interested in the use of school and public libraries for independent, voluntary, leisure reading: **the reading you choose to do because you want to**, for pleasure or information. I am a graduate student in the School of Information and Library Science, UNC – Chapel Hill. This research is for my Masters thesis.

You are being asked to be in this study because you are a teen user of a library. Your participation in this study is voluntary and anonymous. Voluntary means that you do not have to participate if you do not want to. Anonymous means that you do not identify yourself in this study. You may choose to not answer a question for any reason.

There are two ways that you may join in this study. You may do one or both.

1. Complete the **Brief Use and Circulation Tally** and return to the researcher as you leave the library today or report this information verbally to the researcher as you leave. This should take no more than 1 min.
2. Complete the longer **Survey of Teen Library Use and Leisure Reading**. This survey has two parts. The first part of the survey asks questions about your use of libraries, both school and public. The second part of the survey asks questions related to the reading you do that is NOT done for school assignments.

This survey may take approximately 30 minutes. You may turn this in today to the researcher as you leave the library or, if you do not have time to complete this survey during your time in the library today you may place your completed survey in the designated box at the circulation desk by \_\_\_\_\_.

If you have any questions or concerns about the study, please contact me at xxx-xxxx or email at [hubbe@email.unc.edu](mailto:hubbe@email.unc.edu), or my advisor, Professor Evelyn Daniel at xxx-xxxx or email at [daniel@ils.unc.edu](mailto:daniel@ils.unc.edu).

The Behavioral Institutional Review Board of the University of North Carolina at Chapel Hill has approved this study. If you have any questions about your rights as a research participant in this study please contact the Behavioral IRB at 962-7761 or email at [aa-irb@unc.edu](mailto:aa-irb@unc.edu).

You should keep this cover letter so that you can refer to the contact information provided. Returning either or both the completed Tally or the Survey connotes your consent to participate in this study.

Thank you for participating in this survey.

Elizabeth Hubbe  
School of Information and Library Science  
University of North Carolina at Chapel Hill

**Brief Use and Circulation Tally – Cary High School**

Date \_\_\_\_\_

Grade \_\_\_\_\_

Gender      \_\_\_\_ male      \_\_\_\_ female

**Today in the library I...****(Check all that apply)**

\_\_\_\_\_ Used the Internet for a school assignment

\_\_\_\_\_ Used the Internet for non-school related reason

\_\_\_\_\_ Used print resources (books, magazines, newspapers) for a school assignment

\_\_\_\_\_ Used print resources (books, magazines, newspapers) for independent reading.

**(Please fill in number of books)**

Of all the books I checked out today

\_\_\_\_\_ Books were for a school assignment

\_\_\_\_\_ Books were for independent reading

Of all the books I returned today

\_\_\_\_\_ Books were for a school assignment

\_\_\_\_\_ Books were for independent reading



## Brief Use and Circulation Tally – Athens Drive High School

Date \_\_\_\_\_

Grade \_\_\_\_\_

Gender        \_\_\_\_\_male        \_\_\_\_\_female

### Today in the library I... (Check all that apply)

\_\_\_\_\_ Used the Internet for a school assignment

\_\_\_\_\_ Used the Internet for non-school related reason

\_\_\_\_\_ Used print resources (books, magazines, newspapers) for a school assignment

\_\_\_\_\_ Used print resources (books, magazines, newspapers) for independent reading.

### (Please fill in number of books)

Requested / placed a hold for \_\_\_\_\_ books from the library catalog for pick up at Athens at a later date.

Of all the books I **checked out** today

\_\_\_\_\_ Books were for a school assignment

\_\_\_\_\_ Books for a school assignment had been placed on hold for pick up at Athens

\_\_\_\_\_ Books were for independent reading

\_\_\_\_\_ Books for independent reading had been placed on hold for pick up at Athens

Of all the books I **returned** today

\_\_\_\_\_ Books were for a school assignment

\_\_\_\_\_ Books for a school assignment had been placed on hold for pick up at Athens

\_\_\_\_\_ Books were for independent reading

\_\_\_\_\_ Books for independent reading had been placed on hold for pick up at Athens

## **A Survey of Teen Library Use and Leisure Reading**

First, a bit of information about you:

Your grade:

9<sup>th</sup>       10<sup>th</sup>       11<sup>th</sup>       12<sup>th</sup>

Your gender:

Female       Male

Your race:

Amer. Indian     Asian     Black     Hispanic     Multiracial     White

Highest level of education of mother/female guardian that you live with:

\_\_\_\_ Does not apply  
\_\_\_\_ Less than High School  
\_\_\_\_ High School Diploma  
\_\_\_\_ Associates Degree  
\_\_\_\_ Bachelors Degree  
\_\_\_\_ Masters Degree  
\_\_\_\_ Doctoral Degree

Highest level of education of father/male guardian that you live with:

\_\_\_\_ Does not apply  
\_\_\_\_ Less than High School  
\_\_\_\_ High School Diploma  
\_\_\_\_ Associates Degree  
\_\_\_\_ Bachelors Degree  
\_\_\_\_ Masters Degree  
\_\_\_\_ Doctoral Degree

## Library Use Survey

[Cary High School version]

This part of the questionnaire pertains to your use of libraries, both school and public libraries.

1. To the best of your memory, approximately how many times did you visit the school library/media center **with a class** since the start of this school year?

**Circle one.**

Never    1    2    3    4    5    6    7    8    more than 8

2. To the best of your memory, approximately how many times did you visit the school library/media center **on your own**, not with a class, since the start of this school year?

**Circle one.**

Never    1-5    6-10    11-15    16-20    more than 20

If you answered Never → *Skip to #12*

Of your visits to the school library/media center **on your own**, not with a class, since school started this year, about how many times was your purpose totally or partially for any of following reasons?

**Indicate the approximate number of visits by checking in the appropriate column.**

	Never	1-5	6-10	11-15	16-20	> 20
3. To use the Internet to seek online information <b>FOR</b> a school assignment.						
4. To use the Internet to seek online information <b>NOT</b> for a school assignment.						
5. To read or check out a book <b>FOR</b> a school assignment.						
6. To read or check out a book <b>NOT</b> for a school assignment.						
7. To read or check out magazines <b>FOR</b> a school assignment.						
8. To read or check out magazines <b>NOT</b> for a school assignment.						
9. To read a newspaper <b>FOR</b> a school assignment						
10. To read a newspaper <b>NOT</b> for a school assignment						

11. disregard

12. To the best of your memory, approximately how many times did you visit any Wake County public library since the start of this school year?

**Circle one.**

Never

1-5

6-10

11-15

16-20

more than 20

If you answered Never → *Skip to # 23*

13. Which branch of the Wake County Public Libraries do you use most often?

**Check one.**

- Cary Library
- Athens Drive Library
- Eva Perry Regional Library
- Cameron Village Regional Library
- Other: \_\_\_\_\_

14. What is the reason you use the public library checked above most often?

**Check all that apply.**

- Most convenient location for me
- Most convenient hours for me
- Other \_\_\_\_\_

Of your visits to any Wake County public library since school started this year, about how many times was your purpose totally or partially for any of following reasons?

**Indicate the approximate number of visits by checking in the appropriate column.**

	Never	1-5	6-10	11-15	16-20	> 20
1. To use the Internet to seek online information <b>FOR</b> a school assignment.						
2. To use the Internet to seek online information <b>NOT</b> for a school assignment.						
3. To read or check out a book <b>FOR</b> a school assignment.						
4. To read or check out a book <b>NOT</b> for a school assignment.						
5. To read or check out magazines <b>FOR</b> a school assignment.						
6. To read or check out magazines <b>NOT</b> for a school assignment.						
7. To read a newspaper <b>FOR</b> a school assignment						
8. To read a newspaper <b>NOT</b> for a school assignment						

A hold request can be placed on any book in the Wake County Public Libraries catalog. The next available copy of the book is sent to the library branch designated by the person placing the request.

15. To the best of your memory, approximately how many books did you place a hold request for since the start of this school year?

**Circle one.**

None      1-5      6-10      11-15      16-20      more than 20

16. If you were to place a hold request for a book where would you most likely choose to pick it up?

**Check one.**

\_\_\_\_\_ Cary Library

\_\_\_\_\_ Athens Drive Library

\_\_\_\_\_ Eva Perry Regional Library

\_\_\_\_\_ Cameron Village Regional Library

\_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_ I would never place a hold request for a book.

Recall as best you can approximately how many books you borrowed during the various time periods given below.

**Indicate the approximate number of books by checking in the appropriate column.**

	0	1-5	6-10	11-15	16-20	> 20
<b>SINCE THE START OF THIS SCHOOL YEAR</b>						
Books borrowed from the school library/media center <b>FOR</b> schoolwork						
Books borrowed from the school library/media center <b>NOT</b> for schoolwork						
Books borrowed from any Wake County public library <b>FOR</b> schoolwork						
Books borrowed from any Wake County public library <b>NOT</b> for schoolwork						
<b>OVER SUMMER BREAK 2004</b>						
Books borrowed from the school library/media center <b>FOR</b> schoolwork						
Books borrowed from the school library/media center <b>NOT</b> for schoolwork						
Books borrowed from any Wake County public library <b>FOR</b> schoolwork						
Books borrowed from any Wake County public library <b>NOT</b> for schoolwork						

## Library Use Survey

[Athens Drive High School version]

This part of the questionnaire pertains to your use of libraries, both school and public libraries. The Athens Drive Community Library is a combined school/public library that is open year round to the public Monday – Thursday: 8am to 8pm, Friday: 8am – 3:30pm, and Sunday afternoon: 1pm – 5pm. The library opens to Athens students at 7:15 am on school days.

- For this survey, **“during the school day”** includes visits anytime from the time the library opens to students at 7:15 until 3:30 pm on days that school is in session.
- For this survey **“outside the school day”** includes visits that extended beyond or began after 3:30 pm on days that school is in session, as well as evenings, Sundays and anytime on days that school is not in session.
- Visits that began before 3:30 pm on a school day and extended beyond 3:30 pm count as **BOTH** a visit “during the school day” and “outside the school day.”

9. To the best of your memory, approximately how many times did you visit the Athens Drive Library **with a class** since the start of this school year?  
**Circle one.**

Never    1    2    3    4    5    6    7    8    more than 8

10. To the best of your memory, approximately how many times did you visit the Athens Drive Library **on your own**, not with a class, **during the school day**, since the start of this school year?  
**Circle one.**

Never    1-5    6-10    11-15    16-20    more than 20

If you answered Never → **Skip to #11**



Of your visits to the Athens Drive Library **on your own**, not with a class, **during the school day**, since school started this year, about how many times was your purpose totally or partially for any of following reasons?

Indicate the approximate **number of visits** by checking in the appropriate column.

	Never	1-5	6-10	11-15	16-20	> 20
11. To use the Internet to seek online information <b>FOR</b> a school assignment.						
12. To use the Internet to seek online information <b>NOT</b> for a school assignment.						
13. To read or check out a book <b>FOR</b> a school assignment.						
14. To read or check out a book <b>NOT</b> for a school assignment.						
15. To read or check out magazines <b>FOR</b> a school assignment.						
16. To read or check out magazines <b>NOT</b> for a school assignment.						
17. To read a newspaper <b>FOR</b> a school assignment						
18. To read a newspaper <b>NOT</b> for a school assignment						

19. To the best of your memory, approximately how many times did you visit the Athens Drive Library **outside the school day** since the start of this school year?

**Circle one.**

Never      1-5      6-10      11-15      16-20      more than 20

20. To the best of your memory, approximately how many times did you visit any other Wake County public library since the start of this school year?

**Circle one.**

Never      1-5      6-10      11-15      16-20      more than 20

If you answered Never to BOTH 11 and 12      ➔ **Skip to # 23**

21. Which branch of the Wake County Public Libraries do you use most often **outside the school day?**

**Check one.**

- Cary Library
- Athens Drive Library
- Eva Perry Regional Library
- Cameron Village Regional Library
- Other: \_\_\_\_\_

22. What is the reason you use the public library checked above most often?

**Check all that apply.**

- Most convenient location for me
- Most convenient hours for me
- Other \_\_\_\_\_

Of your visits to the Athens Drive Library or any other Wake County public library **outside the school day** since school started this year about how many times was your purpose totally or partially for any of following reasons?

**Indicate the approximate number of visits by checking in the appropriate column.**

	Never	1-5	6-10	11-15	16-20	> 20
23. To use the Internet to seek online information <b>FOR</b> a school assignment.						
24. To use the Internet to seek online information <b>NOT</b> for a school assignment.						
25. To read or check out a book <b>FOR</b> a school assignment.						
26. To read or check out a book <b>NOT</b> for a school assignment.						
27. To read or check out magazines <b>FOR</b> a school assignment.						
28. To read or check out magazines <b>NOT</b> for a school assignment.						
29. To read a newspaper <b>FOR</b> a school assignment						
30. To read a newspaper <b>NOT</b> for a school assignment						

A hold request can be placed on any book in the Wake County Public Libraries catalog. The next available copy of the book is sent to the library branch designated by the person placing the request.

31. To the best of your memory, approximately how many books did you place a hold request for since the start of this school year?

**Circle one.**

None      1-5      6-10      11-15      16-20      more than 20

32. If you were to place a hold request for a book where would you most likely choose to pick it up?

**Check one.**

- Cary Library
- Athens Drive Library
- Eva Perry Regional Library
- Cameron Village Regional Library
- Other: \_\_\_\_\_
- I would never place a hold request for a book.

Recall as best you can approximately how many books you borrowed during the various time periods given below.

**Indicate the approximate number of books by checking in the appropriate column.**

	0	1-5	6-10	11-15	16-20	> 20
<b>SINCE THE START OF THIS SCHOOL YEAR</b>						
33. Books borrowed at Athens Drive Library <b>FOR</b> schoolwork						
34. Books borrowed at Athens Drive Library <b>NOT</b> for schoolwork						
35. Books borrowed while visiting any other Wake County public library <b>FOR</b> schoolwork						
36. Books borrowed while visiting any other Wake County public library <b>NOT</b> for schoolwork						
<b>OVER SUMMER BREAK 2004</b>						
37. Books borrowed at Athens Drive Library <b>FOR</b> schoolwork						
38. Books borrowed at Athens Drive Library <b>NOT</b> for schoolwork						
39. Books borrowed while visiting any other Wake County public library <b>FOR</b> schoolwork						
40. Books borrowed while visiting any other Wake County public library <b>NOT</b> for schoolwork						

## Leisure Reading Survey

[Same for both high schools]

This part of the questionnaire pertains to any reading **NOT** done for school assignments. That is **reading you choose to do because you want to**, for pleasure or information. This can include reading from magazines, newspapers and books as well as online magazines, online newspapers, other online news and information sites or e-books.

41. Check any of the following (either print or electronic versions or both) that you regularly read for your own pleasure or information **NOT for school assignments**. Check in the print version column if it is a physical book, magazine or newspaper. Check in the electronic version column if you access this material via the Internet.

**Check all that apply.**

Print Version	Electronic Version	
		Magazines / webzines
		Newspapers / online news articles
		Non-fiction books / informational web sites
		Graphic novels, manga or comic books
		Fiction books [other than graphic novels, manga or comics] / e-books
		Poetry
		Other:

42. For pleasure or information, **NOT for school assignments**, on average, how much time do you spend on the Internet reading online magazines, online newspapers, or other online news and information sites?

**Record your answer in the category that works best for you.**

<b>Choose only one category</b>	_____ Hours per day reading on the Internet
	OR
	_____ Hours per week reading on the Internet
	OR
	_____ Hours per month reading on the Internet
	OR
	_____ Outside of school assignments, I don't read online magazines, online newspapers, or other online news and information sites at all.
	<b>→ Skip to #36</b>

43. I access the Internet for reading online magazines, online newspapers, or other online news and information sites for pleasure or information from...

**Check all that apply.**

\_\_\_\_\_ School or public library computer

\_\_\_\_\_ Home computer

\_\_\_\_\_ Other \_\_\_\_\_

44. For pleasure or information, **NOT for school assignments**, on average, how much time do you spend reading magazines in the printed version?

**Record your answer in the category that works best for you.**

<b>Choose only one category</b>	_____ Hours per day reading magazines
	OR
	_____ Hours per week reading magazines
	OR
	_____ Hours per month reading magazines
	OR
	_____ Outside of school assignments, I don't read print magazines at all. ➔ <i>Skip to #38</i>

45. I get the print magazines that I read for pleasure or information from...

**Check all that apply.**

\_\_\_\_\_ School or public library

\_\_\_\_\_ Buy at a store

\_\_\_\_\_ Subscription (yours or someone's at your home)

\_\_\_\_\_ Other \_\_\_\_\_

46. For pleasure or information, **NOT for school assignments**, on average, how much time do you spend reading newspapers in the printed version?

**Record your answer in the category that works best for you.**

<b>Choose only one category</b>	_____ Hours per day reading newspapers
	OR
	_____ Hours per week reading newspapers
	OR
	_____ Hours per month reading newspapers
	OR
	_____ Outside of school assignments, I don't read print newspapers at all.
	➔ <i>Skip to #40</i>

47. I get the print newspapers that I read for pleasure or information from...

**Check all that apply.**

- \_\_\_\_\_ School or public library
- \_\_\_\_\_ Buy at a store
- \_\_\_\_\_ Subscription (yours or someone's at your home)
- \_\_\_\_\_ Other \_\_\_\_\_

48. For pleasure or information, **NOT for school assignments**, on average, how much time do you spend reading books or e-books of any genre?

➤ *This includes non-fiction, fiction, graphic novels, manga, comic books, poetry, etc.*

**Record your answer in the category that works best for you.**

<b>Choose only one category</b>	_____ Hours per day reading books
	OR
	_____ Hours per week reading books
	OR
	_____ Hours per month reading books
	OR
	_____ Outside of school assignments, I don't read books or e-books at all.
	➔ <i>Skip to #43</i>

49. I get the books I read for pleasure or information from....

**Check all that apply.**

- School or public library
- Bookstores
- e-book (downloaded from Internet)
- Garage sales / yard sales
- I get books as gifts.
- I read books my parents or siblings have.
- I borrow books from friends
- Other \_\_\_\_\_

50. I get **most** of the books I read for pleasure or information from....

**Check one.**

- School or public library
- Bookstores
- e-book (downloaded from Internet)
- Garage sales / yard sales
- I get books as gifts.
- I read books my parents or siblings have.
- I borrow books from friends
- Other \_\_\_\_\_

51. Now thinking about **ALL** the reading you do for your own pleasure or information, about how many hours do you spend reading **NOT for school assignments?**

**Record your answer in the category that works best for you.**

<b>Choose only one category</b>	<input type="checkbox"/> Hours per day reading for my own pleasure or information
	OR
	<input type="checkbox"/> Hours per week reading for my own pleasure or information
	OR
	<input type="checkbox"/> Hours per month reading for my own pleasure or information
	OR
	<input type="checkbox"/> Outside of school assignments, I do not read for pleasure or information.

Rate how much you agree or disagree with the following statements about reading by checking in the appropriate column.

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
52. If a book is interesting I don't mind if it is hard to read.					
53. I enjoy books more if they have illustrations.					
54. I get immersed in interesting stories.					
55. The public library has the kind of books I like to read for fun.					
56. Reading for my own pleasure or information helps me do better in school.					
57. I have no desire to read even if the content is interesting.					
58. My friends and I like to trade things to read.					
59. I don't like reading when the words are too difficult.					
60. It is important to me to be a good reader.					
61. I like to tell others about things I am reading or have read.					
62. The school library has the kind of books I like to read for fun.					
63. Reading for pleasure isn't cool with my friends.					
64. I enjoy books more when they are easy to read.					
65. I read to learn new things on my own.					
66. I read to stay current on popular culture and events or people in the news.					
67. It's hard to concentrate on reading.					
68. Reading is an enjoyable way to relax.					
69. It is easier to find a book I would like to read at a bookstore than at a library.					



70. How would you rate your reading level?

**Check one.**

Advanced – I like to read books meant for people in higher grade levels

Average – I am comfortable reading books for people at my grade level

Below Average - I can read books for my grade level, but sometimes I have trouble with the words

71. How would you rate the grades you get in school?

**Check one.**

I get excellent grades.

I get good grades.

I get average grades.

My grades are below average.

Please share any rants or raves about reading or libraries in general and any comments about your school and/or public library or your personal reading in particular.  
Thank you for taking this survey.

## Appendix B

### Supplemental Tables

**Table B1. Visits by Athens students outside the school day since the start of this school year**

Visits (Recoded)	... to Athens Drive Community Library		... to any other WCPL	
	N	% within school	N	% within school
Never = 0	45	26.0	62	35.8
1-5 = 3	69	39.9	71	41.0
6-10 = 8	31	17.9	20	11.6
11-15 = 13	7	4.0	10	5.8
16-20 = 18	10	5.8	2	1.2
>20 = 23	11	6.4	8	4.6
<b>TOTAL N</b>	173	100%	173	100%
<b>Mean from response recoded to midpoint</b>	5.47		4.04	

**Table B2. Visits to a public library (including ADLC for Athens students) outside the school day since the start of this school year - sum of recoded midpoints**

Visits (Recoded)	Cary		Athens	
	N	% within school	N	% within school
0	28	19.6	29	16.8
3	56	39.3	35	20.2
6			31	17.9
8	25	17.5	7	4.0
11			25	14.5
13	10	7.0	3	1.7
16			11	6.4
18	8	5.6	1	0.6
20	16	11.2	3	1.7
21			8	4.6
23			8	4.6
26			2	1.2
28			3	1.7
31			2	1.2
33			2	1.2
38			3	0.2
<b>TOTAL N</b>	143	100%	173	100%
<b>Mean from response recoded to midpoint</b>	6.73		9.51	

**Table B3. During the school day - used the Internet FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	13	10.0	17	10.9
<b>1-5 times</b>	68	52.3	87	55.8
<b>6-10 times</b>	29	22.3	27	17.3
<b>11-15 times</b>	10	7.7	11	7.1
<b>16-20 times</b>	2	1.5	5	3.2
<b>&gt;20 times</b>	8	6.2	9	5.8
<b>TOTAL N</b>	130	100%	156	100%

---

**Table B4. During the school day - used the Internet NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	34	26.2	55	35.5
<b>1-5 times</b>	40	30.8	42	27.1
<b>6-10 times</b>	18	13.8	20	12.9
<b>11-15 times</b>	11	8.5	13	8.4
<b>16-20 times</b>	4	3.1	3	1.9
<b>&gt;20 times</b>	23	17.7	22	14.2
<b>TOTAL N</b>	130	100%	155	100%

---

**Table B5. During the school day - used library books FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	43	33.5	26	16.7
<b>1-5 times</b>	68	53.1	98	62.8
<b>6-10 times</b>	8	6.3	22	14.1
<b>11-15 times</b>	6	4.7	5	3.2
<b>16-20 times</b>	2	1.6	4	22.6
<b>&gt;20 times</b>	1	0.8	1	0.6
<b>TOTAL N</b>	128	100%	156	100%

---

**Table B6. During the school day - used library books NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	64	50.4	52	33.5
1-5 times	38	29.9	40	25.8
6-10 times	12	9.4	31	20.0
11-15 times	5	3.9	14	9.0
16-20 times	4	3.1	4	2.6
>20 times	4	3.1	14	9.0
<b>TOTAL N</b>	127	100%	155	100%

---

**Table B7. During the school day - used magazines FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	103	80.5	114	75.5
1-5 times	20	15.6	27	17.9
6-10 times	3	2.3	4	2.6
11-15 times	2	1.6	2	1.3
16-20 times	0	0.0	2	1.3
>20 times	0	0.0	2	1.3
<b>TOTAL N</b>	128	100%	151	100%

---

**Table B8. During the school day - used magazines NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	92	71.9	98	64.1
1-5 times	22	17.2	31	20.3
6-10 times	5	3.9	12	7.8
11-15 times	3	2.3	4	2.6
16-20 times	2	1.6	3	2.0
>20 times	4	3.1	5	3.3
<b>TOTAL N</b>	128	100%	153	100%

---

**Table B9. During the school day - used newspapers FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	95	74.2	120	78.4
1-5 times	24	18.8	22	14.4
6-10 times	4	3.1	7	4.6
11-15 times	2	1.6	4	2.6
16-20 times	1	0.8	0	0.0
>20 times	2	1.6	0	0.0
<b>TOTAL N</b>	128	100%	153	100%

---

**Table B10. During the school day - used newspapers NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	98	76.6	113	72.9
1-5 times	18	14.1	27	14.4
6-10 times	4	3.1	6	4.6
11-15 times	4	3.1	7	2.6
16-20 times	0	0.0	1	0.0
>20 times	4	3.1	1	0.0
<b>TOTAL N</b>	128	100%	155	100%

---

**Table B11. Outside the school day used the Internet FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
Never	57	47.9	44	31.0
1-5	50	42.0	66	46.5
6-10	5	4.2	21	14.8
11-15	1	0.8	7	4.9
16-20	2	1.7	2	1.4
>20	4	3.4	2	1.4
<b>TOTAL N</b>	119	100%	142	100%

---

**Table B12. Outside the school day used the Internet NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	60	50.8	67	47.2
<b>1-5</b>	27	22.9	38	26.8
<b>6-10</b>	18	15.3	21	14.8
<b>11-15</b>	3	2.5	6	4.2
<b>16-20</b>	2	1.7	2	1.4
<b>&gt;20</b>	8	6.8	8	5.6
<b>TOTAL N</b>	118	100%	142	100%

---

**Table B13. Outside the school day used library books FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	30	25.2	35	24.5
<b>1-5</b>	71	59.7	83	58.0
<b>6-10</b>	13	10.9	14	9.8
<b>11-15</b>	2	1.7	5	3.5
<b>16-20</b>	0	0.0	4	2.8
<b>&gt;20</b>	3	2.5	2	1.4
<b>TOTAL N</b>	119	100%	143	100%

---

**Table B14. Outside the school day used library books NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
<b>Never</b>	40	33.3	45	31.7
<b>1-5</b>	42	35.0	55	38.7
<b>6-10</b>	13	10.8	18	12.7
<b>11-15</b>	12	10.0	8	5.6
<b>16-20</b>	5	4.2	7	4.9
<b>&gt;20</b>	8	6.7	9	6.3
<b>TOTAL N</b>	120	100%	142	100%

---

**Table B15. Outside the school day used magazines FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
<b>Never</b>	97	81.5	113	80.1
<b>1-5</b>	16	13.4	18	12.8
<b>6-10</b>	4	3.4	7	5.0
<b>11-15</b>	1	0.8	1	0.7
<b>16-20</b>	0	0.0	1	0.7
<b>&gt;20</b>	1	0.8	1	0.7
<b>TOTAL N</b>	119	100%	141	100%

---

**Table B16. Outside the school day used magazines NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
<b>Never</b>	97	81.5	97	68.3
<b>1-5</b>	13	10.9	30	21.1
<b>6-10</b>	5	4.2	6	4.2
<b>11-15</b>	1	0.8	3	2.1
<b>16-20</b>	1	0.8	1	0.7
<b>&gt;20</b>	2	1.7	5	3.5
<b>TOTAL N</b>	119	100%	142	100%

---

**Table B17. Outside the school day used newspapers FOR schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	N	% within school	N	% within school
<b>Never</b>	98	82.4	107	75.9
<b>1-5</b>	13	10.9	21	14.9
<b>6-10</b>	5	4.2	8	5.7
<b>11-15</b>	0	0.0	3	2.1
<b>16-20</b>	2	1.7	2	1.4
<b>&gt;20</b>	1	0.8	0	0.0
<b>TOTAL N</b>	119	100%	153	100%

---

**Table B18. Outside the school day used newspapers NOT for schoolwork**


---

	<u>Cary</u>		<u>Athens</u>	
	<u>N</u>	<u>% within school</u>	<u>N</u>	<u>% within school</u>
Never	100	84.0	115	80.4
1-5	11	9.2	18	12.6
6-10	4	3.4	5	3.5
11-15	3	2.5	1	0.7
16-20	0	0.0	1	0.7
>20	1	0.8	3	2.1
<b>TOTAL N</b>	<b>119</b>	<b>100%</b>	<b>155</b>	<b>100%</b>

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