College freshmen dispositional readiness: Examining the perceptions

Jennifer Dovre

University of Northern Iowa

Let us know how access to this document benefits you

Copyright ©2013 Jennifer Dovre

Follow this and additional works at: https://scholarworks.uni.edu/grp

Recommended Citation
https://scholarworks.uni.edu/grp/1965

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.
Abstract
Evidence shows that many young people are unprepared for the transition from high school to college. Much of the research surrounding this problem has focused on determining the skills required at the postsecondary level, while a few have turned the focus on dispositions required. Additionally, there has been little or no research on the dispositions specified in the AASL (2007) Standards for 21st Century Learners in relation to college readiness. The purpose of this descriptive study is to determine the perceptions held by key players, i.e., high school seniors, high school teachers, and college freshmen, regarding the AASL dispositions students should bring to higher education from high school. The researcher collected perspectives of key players from a small Midwestern rural high school through a survey and analyzed where the key players’ understandings align and how they differ. The results indicate small gaps, but an overall consistency in understanding of the dispositions required for success at the college level, further indicating that this population of students is aware of the dispositions required for postsecondary coursework. More extensive research should be carried out to accurately determine attention to these dispositions as high schools prepare students for postsecondary education.
COLLEGE FRESHMEN DISPOSITIONAL READINESS: EXAMINING THE PERCEPTIONS

A Graduate Research Paper
Submitted to the
Division of School Library Studies
Department of Curriculum and Instruction
In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts
UNIVERSITY OF NORTHERN IOWA

by
Jennifer Dovre
May 2013
This Research Paper by: Jennifer Dovre

Titled: College Freshmen Dispositional Readiness: Examining the Perceptions

has been approved as meeting the research requirement for the

Degree of Master of Arts.

Jean Donham

Date Approved: 4/18/2013

Graduate Faculty Reader

Karla Krueger

Date Approved: 4/18/2013

Graduate Faculty Reader

Jill M. Uhlenberg

Date Approved: 4/22/2013

Head, Department of Curriculum and Instruction
Evidence shows that many young people are unprepared for the transition from high school to college. Much of the research surrounding this problem has focused on determining the skills required at the postsecondary level, while a few have turned the focus on dispositions required. Additionally, there has been little or no research on the dispositions specified in the AASL (2007) Standards for 21st Century Learners in relation to college readiness.

The purpose of this descriptive study is to determine the perceptions held by key players, i.e., high school seniors, high school teachers, and college freshmen, regarding the AASL dispositions students should bring to higher education from high school. The researcher collected perspectives of key players from a small Midwestern rural high school through a survey and analyzed where the key players’ understandings align and how they differ. The results indicate small gaps, but an overall consistency in understanding of the dispositions required for success at the college level, further indicating that this population of students is aware of the dispositions required for postsecondary coursework. More extensive research should be carried out to accurately determine attention to these dispositions as high schools prepare students for postsecondary education.
# TABLE OF CONTENTS

LIST OF TABLES ................................................................................................ vii

CHAPTER 1. INTRODUCTION ............................................................................ 1

Problem Statement .............................................................................................. 1
Deficiencies ......................................................................................................... 4
Audience .............................................................................................................. 4
Purpose ................................................................................................................ 5
Research Questions ............................................................................................. 5
Assumptions ........................................................................................................ 6
Limitations ........................................................................................................... 6
Definitions ........................................................................................................... 6

CHAPTER 2. LITERATURE REVIEW ................................................................. 8

Skills Required for Student Success at the College Level ............................... 8
Dispositions Necessary for Learning at the College Level ......................... 12
Strategies to Facilitate Transition from High School to College ................ 17
Academic Libraries' Experiences with First Year College Students .......... 21
Summary ........................................................................................................... 23

CHAPTER 3. METHODOLOGY ........................................................................ .25

Methods .............................................................................................................. 25
Data Collection .................................................................................................. 26
Data Analysis ..................................................................................................... 29

CHAPTER 4. RESULTS ....................................................................................... 30

Dispositions Required for Success in Senior-Level Courses ..................... 30
Dispositions Required at the College Level: Perceptions and Reality ....... 31
<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Importance of Dispositions for High School Success</td>
</tr>
<tr>
<td>2</td>
<td>Importance of Dispositions for College Success</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

It is August in Ames and the soon-to-be college freshmen are arriving. Big box stores have flyers out and are pushing shopping carts full of dorm supplies. The tech stores are touting the latest, greatest must-haves for university life. The bookstores, battling the Internet, are slapping on their used stickers and lining up course books. Soon, the dust will settle and classes will begin. Meanwhile at the high school ten miles down the road, teachers are gearing up for a new school year with a new crop of students. Three months ago, we watched the seniors graduate and wished them well as they headed for their college towns. And then, our work completed, we started planning for fall and a new group of students. Now, our graduates are beginning their college studies, and we hope they have been equipped with the skills to succeed at college. But are they prepared? Have we teachers, concentrated as we are with our ever-revolving student populations, prepared students for college work? Do we know what is expected of them? Will they be ready?

Problem Statement

It is the mission of secondary schools to prepare students to be successful in their endeavors after high school. For many students, the next step is a postsecondary education. Students need to be prepared for this next step, whether it is a community college, private college, or a public university. In September of 2012, Lyndsey Layton and Emma Brown of The Washington Post addressed SAT results for the high school class of 2012, which were the lowest they have been in forty years. Another common college readiness exam, the ACT, has revealed similar results. In August of 2011, Ben
Wolfgang, of *The Washington Times*, reported on the American College Testing Program's (ACT) annual survey, stating, “three out of four graduates aren’t fully prepared for college” (para. 2). A student’s ACT or SAT Assessment Score, a national college admissions exam, is required for many college applications. It can determine whether an applicant is admitted into the college of their choice, and if so, how much financial assistance he or she might receive. According to ACTstudent.org (2012), questions on the test “are directly related to what you have learned in your high school courses in English, mathematics, reading and science” (para. 1). After stating the alarming statistics revealed by ACT scores, Wolfgang pointed to the consequences that come along with a lack of readiness: higher dropout rates in college, more taxpayer dollars being spent on remedial courses, and a burden for college professors who put aside the content of their courses to reteach secondary concepts. Although these college readiness tests are not the only way to measure student preparedness, they do add to the growing body of evidence that suggests a gradual decline in readiness.

The ACT and SAT scores demonstrate a lack of academic skills among potential college students; however, experts suggest that academic skills are not the only indicator of college success. Two researchers from Community College Research Center, Melinda Mechur Karp and Rachel Hare Bork (2012) carried out a study where they found “that certain non-academic skills, behaviors, and attitudes are equally germane to college success” (para. 2). They go on to stress that non-academic college readiness is not considered as often as academic college readiness, and thus, it remains unclear and unaddressed by key players.

On a similar note, David Conley, researcher and educator at the Educational
Policy Improvement Center, and his colleagues have spent years researching college and career readiness. Their studies involve examining the skills necessary at the postsecondary level. A recent article by Conley and McGaughy (2012) lists the skills students need to be successful in a variety of postsecondary learning environments:

- study skills, time-management skills, persistence, and ownership of learning...students need to have a range of cognitive strategies at their disposal, such as the ability to formulate problems, collect information, interpret and analyze findings, communicate in a variety of modes, and do all of this with precision and accuracy. These strategies are particularly important when students are confronted with tasks that require them to apply content knowledge in novel and nonroutine ways. (p. 31)

Even though these studies, and others like them, have worked to unveil the mysteries surrounding what skills are necessary to succeed at the postsecondary level, key players are still left wondering if students are amply prepared. College educators have voiced their opinions, however. Achieve.org, a nonprofit organization that works to improve education standards and career readiness, published a document that provides statistics regarding the perspectives of college professors. One of these statistics states:

- Only 18% of college professors feel that most of their students come to college extremely or well prepared. And, only 7% of college instructors at two-year institutions say that most of their students come to college extremely or very well prepared. (Achieve.org, “What College Leaders are Saying About College and Career Readiness,” para. 2)

Bill Wise, former West Virginia governor, was quoted, “There simply has not been alignment or coordination between the K-12 system and the higher education system about what students need to know” (Wolfgang, 2011, para. 10). It is important in many school districts to align the curriculum; i.e., to provide a scope and sequence of what should be taught at each grade level. Without this alignment, teachers are often frustrated that students enter their grade level lacking the skills necessary to learn the
material appropriate for their age. This is important, but as any educator knows, merely writing down the skills and benchmarks is not enough. Real dialogue, exchange of experiences, and a common mission must be shared across grade levels. As difficult as this may be for colleagues working in the same district, or even the same building, the barrier is more challenging for those at the secondary and postsecondary levels. Each aims to educate those with whom they work and to prepare them for life after their education. But it is unclear what dialogue exists between these two levels of education.

The American Association of School Librarians (AASL) has developed *Standards for the 21st-Century Learner* (2007) that “serve as a tool for school librarians to use to shape the learning of students in the school” (American Library Association of School Librarians, 2012, para.1). Within these standards are dispositions that students should demonstrate. These include: initiative, leadership, confidence, creativity, critical stance, adaptability, resilience, persistence, open-mindedness, curiosity, and productivity. Instruction and expectations for these dispositions span the curriculum and benefit students beyond the walls of the school building. This, therefore, is an area where teacher librarians can play an active role in better preparing students for their postsecondary education.

**Deficiencies**

Evidence suggests that students are not prepared for postsecondary learning experiences, and research has shown that there is more to college success than mastery of academic skills. Additionally, researchers and college librarians, who work closely with professors of entry-level courses, know which dispositions and skills are necessary to be college-ready (Conley & McLaughy, 2012). The experiences of professors in today’s
college classrooms have been explained. What needs further exploration is whether high school students and high school teachers understand the dispositions specified in the AASL standards and the value of these dispositions for success in college. Also important is whether teachers expect students to demonstrate these dispositions in high school.

**Audience**

Gaining the perceptions held by key players is valuable for educators who aim to better prepare students for higher education. Knowledge of the specific gaps in understandings can help those involved in education reform, especially in the area of college and career readiness, to better explain what is happening when students move from high school to college. Additionally, high school teacher librarians, using the AASL (2007) *Standards for 21st Century Learners* as a guidepost for curriculum planning, can use knowledge of these perceptions to better serve students advancing into higher education.

**Purpose**

The purpose of this study was to determine the perceptions held by key players, i.e., high school seniors, high school teachers, and college freshmen, regarding the dispositions students should bring to higher education from high school. The researcher analyzed where the key players' understandings aligned and how they differed.

**Research Questions**

This study was framed around the following queries:

Among educators and students, how consistent is the understanding of dispositions likely to lead to college success as evidenced in responses to these research questions:

a. What dispositions are required for success at the high school level?
b. What dispositions do high school seniors believe they will need to be successful at college?

c. What dispositions do college freshmen believe are necessary for success in college courses?

Assumptions

This author assumed that dispositions are not commonly taught, nor expected, at the high school level, but that students at the college level will be able to identify dispositions necessary for their success. Additionally, the author assumed that dispositions are nurtured, rather than taught directly, and this assumption informed the structure of the survey questions.

Limitations

This study only included the perceptions of key players from one high school and one class of high school graduates. These college students had been exposed to a teacher librarian for only one year during their high school education. Additionally, measuring dispositions is difficult and often subjective.

Definitions

College Readiness: “the content knowledge and skills high school graduates must possess in English and mathematics – including, but not limited to, reading, writing communications, teamwork, critical thinking and problem solving – to be successful in any and all future endeavors. Of course, readiness for college and careers depends on more than English and mathematics knowledge; to be successful after high school, all graduates must posses the knowledge, habits and skills that can only come from a
rigorous, rich and well-rounded high school curriculum.” (Achieve.org, “What is College- and Career- Ready?” para. 1)

**Dispositions:** “characteristics that animate, motivate, and direct abilities toward good and productive thinking and are recognized in the patterns of one’s frequently exhibited, voluntary behavior” (Richhart, 2001, p. 146).
CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to determine the perceptions held by key players, i.e., high school seniors, high school teachers, and college freshmen, regarding the dispositions students should bring to higher education from high school. The researcher analyzed where the key players’ understandings aligned and how they differed. Research related to this study was divided into four facets: skills required for student success at the college level, dispositions necessary for learning at the college level, strategies to facilitate the transition from high school to college, and academic libraries’ experiences with first-year college students.

Skills Required for Student Success at the College Level

In an effort to better inform high school educators, college educators, and future college students, many studies have sought to define the skills and behaviors needed for college success. These studies have covered general skills and skills related to specific disciplines.

Conley’s (2003) research focused on the lack of clarity about what students must know and be able to do in order to succeed as first year college students. The goal of his research was to define the knowledge and skills required of students in entry-level courses. Four hundred faculty members and administrators from 20 American universities were involved in meetings and reviews with the intent of identifying what students must know and be able to do to succeed in postsecondary education. To analyze the data, national academic content standards were examined and used for comparison. Multiple peer reviews were employed to strengthen the standards and ensure their
validity, while consultants with expertise in standards development contributed suggestions for improvement. As a result, this study produced a list of factors necessary for success at the college level: critical thinking; analytical thinking and problem solving; willingness to accept critical feedback and make adjustments; openness to failure; cope with frustrating learning tasks; express one’s self in writing and orally; discern relative importance and credibility of various sources of information; draw inferences and reach conclusions independently; and use technology as an assistive tool. This study provides a starting point for understanding the skills needed for success.

On a smaller scale, a study focusing on three universities in California provided an additional look at skills needed for academic achievement. With so many students entering college unprepared, a faculty task force from California (2002) set out to discover what faculty from higher education institutions think about their students’ ability to read, write, and think critically, as well as what their experience with these students had taught them about student preparedness. The study was designed to determine what college faculty expected of students’ reading, writing, and critical thinking; their perceptions of student preparation; and factors that impact students’ academic success. Two hundred and eighty-nine college faculty who had experience teaching freshmen-level courses served as the pool of participants in this study. The sample of faculty taught courses that spanned the curriculum. The participants completed web-based interviews. The study unveiled the skills and habits of mind (dispositions) students need to be successful, according to college faculty in California. The skills and dispositions stemming from the study are numerous, and shared in full in Academic Literacy: A Statement of Competencies Expected of Students Entering California’s Public Colleges
These can be briefly summarized as: critical thinking, reflective and insightful reading, imaginative and compelling writing, and articulate listening. (p. 52). Students were expected to demonstrate specific abilities through reading, writing, and oral communication. When writing, instructors expected students to reexamine a thesis, reconsider points or arguments, reshape throughout composition. While reading, students should evaluate, synthesize and analyze, determine author’s purpose, evaluate quality of an argument, and draw connections with other issues and one’s experience. The researchers found that skills cannot work alone; students must bring dispositions to perform the skills. These dispositions were identified by faculty as being important: exhibit curiosity, experiment with new ideas, see other points of view, challenge their own beliefs, ask questions for clarification, be attentive in class, come to class prepared, and complete assignments on time.

In addition to these general studies, research has been carried out in specific disciplines that further explain skills needed. A panel for the National Research Council (2002), made up of college and university physics professors and high school science professors, developed a study to investigate the factors that make physics AP programs effective in American high schools. The panel set out to define the general characteristics that can be implemented in AP/IB programs to improve the quality of the program. After observing several AP programs, the panel determined that students in AP programs were getting by with memorization. The panel stressed that effective instruction requires students to apply and refine prior understandings:

Students must learn to identify and examine assumptions hidden in their reasoning; to monitor the quality and consistency of their understanding; to formulate, implement, critique, and refine models of physical phenomena; and to make use of a spectrum of appropriate representational tools. (p.449)
Similarly, Corbishley and Truxaw (2010) carried out research in the field of mathematics. Knowing that students may not be ready for the rigors of college, the researchers conducted a study to examine the perceptions college mathematics instructors have of mathematical readiness of average incoming freshmen and which mathematical topics college mathematics instructors perceive as being the most important for success in college-level mathematics. The study involved questionnaires that were distributed to 22 college mathematics, representing eight different public colleges and universities. Each of the instructors taught between 30-250 freshmen students within a given year. The questionnaire included three free response questions and 30 scaled items related to instructor perceptions about specific mathematical skills of incoming freshmen and opinions about the importance of each skill. The participants’ perceptions and opinions from the survey were analyzed using statistical techniques for the scaled items and coding for the free response items. The data were then classified and inspected for patterns and themes. The analysis of the instructor questionnaires showed a majority of incoming freshmen do not enter college with the proper mathematical skills to complete required math courses at the college level. The results demonstrate disconnect between what instructors perceive as the actual mathematical ability of students and the importance they place on specific mathematical skills. The study also revealed what mathematics instructors believe to be important skills of incoming freshmen. The most important was reasoning and generalization. This involves: finding connections, reflecting on reasoning, justifying answers, developing own conjectures, and use reasoning strategies to solve a problem.

The research revealed no disagreement about the lack of students’ academic
preparation at the college level. Each of these studies demonstrates the importance of making known what it expected of students at the college level. What can be drawn from these studies is that the academic skills cannot stand by themselves. Woven within all of these studies are the dispositions that support academic skills.

**Dispositions Necessary for Learning at the College Level**

Larose, Robertson, Roy & Legault (1998) designed a study to evaluate and compare the extent to which academic and intellectual factors and nonintellectual learning dispositions predict academic success in college for first-year students. It was projected that nonintellectual factors would serve as a more accurate predictor of entering students’ success than the traditional intellectual measures. One hundred seventy-nine first-year students, previously labeled at-risk by the college of admissions, participated in the study. Four types of data were collected: High School Rank, Scholastic Aptitude Test (SAT), Cumulative GPA over three semesters (1993-1994), and results from a 50-item questionnaire (Test of Reactions and Adaptation in College) to gauge students’ beliefs, emotional reactions, and behaviors in learning situations. Dispositions targeted were: fear of failure, examination of anxiety, examination preparation, quality of attention, assistance from peers, seeking help from teachers, giving priority to college studies, belief in effective working methods, and belief in easiness. The questionnaire was administered before students began college coursework and again after three semesters of coursework. The data were analyzed and the relationship between each item was examined. After analysis, Larose, Robertson, et al. found that when dispositions are assessed prior to students’ college experience, they improve the prediction of academic success, beyond the prediction provided by examining high school rank and SAT scores.
The study showed nonintellectual factors contribute to academic success in college. The dispositions that showed the strongest correlation to high school rank were examination preparation, seeking help from teacher, assistance from peers, and quality of attention.

Karp and Bork (2012) also understood that there are certain skills and attitudes necessary for student success at college, but they had found these expectations to be largely unclear or unspoken, so students don’t know what they are. The researchers sought to define the unspoken expectations students must abide by to be successful. To carry out this study, the researchers focused on three community colleges, which amounted to 96 full-time college students and 72 college staff. Interviews including questions about expectations of students, expectations of the institution, and student needs were carried out. The researchers analyzed each transcript to determine main themes and themes needing more exploration. Karp and Bork also developed a matrix of categories from the data to determine which were the most prominent descriptors of the role of a community college student. Karp and Bork found that the expectations community college students face is much different than those they have faced in their lives thus far. The college experience requires students to be self-aware and to employ their own strategies to create a structure. Karp and Bork also defined four components of the college students’ role: develop new academic habits to support success (independence, reflection, initiative), cultural know-how, balance multiple roles, and seek help when needed (p. 10). When students understand this, they have a better chance of success.

More specifically, Stupnisky, Renaud, Daniels, Haynes and Perry (2008) were interested in studying critical thinking disposition. Focus on critical thinking as a
disposition important for college and the workplace has been increasing, but the researchers found there is little known about what leads to critical thinking and how it directly impacts academic achievement. The researchers set out to prove that perceived academic control—students' belief that they have some control over their academic success—is a predictor of critical thinking disposition, and that the reverse is also true. These two constructs were believed to work together to influence academic success.

Participation included 1196 first-year students from three cohorts between 1997-2000. Participants completed two questionnaires, with the second being administered six months after the first. Both were designed to measure students' critical thinking disposition and perceived academic control. Institutional records of students' high school academic performance (GPA) and college cumulative grade point averages were also collected. Responses from the questionnaires were organized into tables, and all correlations between critical thinking dispositions and GPA were noted. The same is true for correlations between perceived academic control and GPA. By comparing the results to high school and college GPA, the researchers determined at what point dispositions have an impact on academic performance. The researchers found a reciprocal relationship between critical thinking disposition and perceived academic control. Students tend to engage in critical thinking more when they feel their efforts will make a difference. Similarly, students with a strong disposition to think deeply have been shown to increase their control beliefs. The study by Stupnisky et al. found both constructs to have "high potential impact on college student success" (p. 524).

Additionally, Larose, Bernier, and Tarabulsy (2005) examined the relationship between attachment state of mind, learning dispositions, and academic performance.
during the college transition. Attachment state of mind is described as an individual’s degree of dependence upon another for safety and security. The researchers hoped to determine the relationship between attachment state of mind and dispositions toward learning and schoolwork. The second goal of the study was to investigate the impact of students’ learning dispositions on students’ academic performance. Sixty-two students were randomly selected for the longitudinal study. At the beginning of the study, students were near completion of high school. The study followed students through their first three semesters of college. Four different types of data were collected: both high school and college academic records, face to face interviews used to determine the participants attachment state of mind, and a 50-item questionnaire (TRAC) designed to measure students’ learning dispositions. The data collected from the interviews was recorded and transcribed. Students were classified into an attachment category: free-autonomous, enmeshed-preoccupied, dismissing, or unresolved. The responses from the learning dispositions questionnaire were coded and organized into categories.

Larose, Bernier, and Tarabulsy (2005) analyzed the data to determine what correlation existed between students’ attachment state of mind and their learning dispositions; students’ learning dispositions and academic performance; and attachment state of mind and academic performance. The study indicated that learning dispositions are related to students’ academic performance. When comparing dispositions to high school and college performance, the evidence showed learning dispositions have greater influence at the college-level. The dispositions most strongly related to academic success were: quality of examination preparation, priority given to studies, and quality of attention. In terms of attachment state of mind, the study showed that autonomous
students handle the transition to college better. The researchers stated, “Security of attachment in late adolescence appears to favor security of exploration by providing the student with emotional, cognitive and behavioral resources that have been shown to favor college success” (p. 287). Thus, the role played by dispositions on academic success is clear, as is the impact of a student’s autonomy on those learning dispositions.

A study crafted by Lotowski, Robbins, and Noeth (2004) investigated the relationship between dispositions and student retention. There was a clear relationship between retention and student success, so the findings regarding dispositions leading to student retention were of concern to those hoping to better understand factors involved in improving students’ chance for success. The goal of this particular study was to establish which factors, academic and nonacademic, have the greatest impact on retention and success at the postsecondary level. One hundred nine studies on the topic of postsecondary retention were reviewed. Studies were selected if they met the following criteria: participants were full-time students enrolled in a four-year institution, examined factors involved in college retention, and reported all necessary information about the study. Data collected from the sample of studies included nonacademic factors that showed a noticeable relationship to retention, the extent to which they have an impact, and traditional academic factors that play a role in retention prediction. Analysis revealed that both college retention and academic performance are more accurately predicted when nonacademic factors are paired with the traditional academic factors. The data were combined and analyzed as one body of evidence. Both academic and nonacademic factors were examined to determine which serve as the best predictors for retention, thus success, in postsecondary institutions. The study revealed that of all the nonacademic
factors, academic self-confidence and achievement motivation had the strongest correlation with academic performance. The nonacademic factors that impact student retention were academic self-confidence, academic goals, institutional commitment, social support, and social involvement.

Dispositions these studies held in common were: seeking help when needed, belief in ability to achieve, setting academics as a priority, and autonomy. These dispositions are clearly linked to academic success. According to the previous studies, dispositions are not typically broadcasted to students as factors that contribute to their success as they transition to college.

Strategies to Facilitate Transition from High School to College

The lack of preparation when students arrive on campus has not gone unnoticed by college administrators. Administrators understand that preparedness is directly related to retention, and thus, it is of concern. Postsecondary institutions have developed various strategies for assisting students as they move from high school coursework to the college experience.

Pan, Guo, Alikonis, and Bai (2008) examined the effectiveness of intervention programs at the university level on student retention and academic performance. The researchers hoped to discover which freshmen orientation programs work, how they work, and which ones work better. One thousand, three hundred five first-year, full-time students at a Midwest urban university participated in this study. Every participant had been voluntarily enrolled in an intervention program for advising, academic help, first-year experience, social integration, or general orientation. A university enrollment database and records from the invention programs were used to collect data. Data
collected included retention rates over three years, college cumulative GPA over the same three years, and student characteristics: gender, ethnicity, high school GPA, and college selectivity. The data were analyzed in two parts. The first measure was to determine the programs' impact on retention rates. The researchers compared the three-year retention rates to student characteristics and program characteristics. To determine the programs' impact on academic performance, the three-year cumulative GPA was compared to student characteristics and program characteristics. The researchers analyzed the correlation between characteristics and retention rates or GPA. Based on their analysis, Pan et al. found that early intervention programs improve retention rates for first-year students, with academic-help programs showing the largest impact. Several intervention programs also improved student GPA, namely, social integration and general orientation programs.

Adding to this research, Schrader and Brown (2008) examined the effectiveness of an intervention program for first-year college students designed to facilitate the transition to postsecondary education. The study examined students' change in knowledge, attitudes, and behaviors as a result of the first-year program. Nine hundred four entering freshmen at a Northeastern university were included in the study. Six hundred-seventy students were enrolled in a first-year program, while 234 students who elected not to enroll in an intervention program were used as the comparison group. Participants responded to a 40-item battery, measuring knowledge, attitudes, and behaviors. Each item was in a scaled response format. The questionnaire was administered at the beginning of the school year and again at the end. The questions from each category (knowledge, attitudes, behaviors) were grouped into smaller components to
provide for easier analysis of responses. The scores from the scaled questions were used, and averages were calculated. This procedure was followed for the second administration of the battery. The calculations were used to examine the relationship between first-year programs and the comparison group. Schrader and Brown (2008) found a correlation between the first-year program and learning. Specifically, when compared with the control group, students in first-year programs showed greater gains in their Knowledge of Resources (items pertained to the use of resources, including technological resources) and Attitudes Toward Interactions (items pertained to interactions one might experience on campus and the influences critical to those interactions).

Having high school students enroll in college courses, in addition to their high school classes, is another common strategy to help prepare students for college rigors. Students experience college coursework incrementally to ease the transition. Often, this opportunity is reserved for upper level high school students, but some programs are available to younger students. Taczak and Thelin (2009) studied effectiveness of fourteen- and fifteen-year-olds being enrolled in high school and college courses. They sought to find out the effect of dual enrollment programs on teaching and learning in a college-level composition course that is taught by a college instructor. Six dual enrolled students, ages 14 and 15, were the focus of the study, along with the instructor of the course. The researchers attended class daily and recorded detailed notes in addition to holding interviews with the six dual-enrolled students and the course instructor, following up with an exit survey at the end of the session. The researchers also collected all classroom materials and reviewed students writing assignments. Data from this study indicated that some dual enrollment students have not developed the cognitive
capabilities to handle the rigors of a college composition course. Students needed time to
develop more maturity to reap full benefits from a dual-enrollment program.

The previous studies did not take into account the role a library program can have on student achievement. Smalley (2004) was interested in understanding the impact of a school library program on student success at a community college. She designed a study to determine if students who graduate from a high school with a school library program/certified teacher librarian perform better at college. Five hundred and six college students who were enrolled in a first year Information Research semester-long course were selected for Smalley's study. All students had attended a public high school in one of the three local school districts for four years. Smalley recorded the name of the high school from which students had graduated and students' postsecondary midpoint scores and final letter grade for the Information Research course. The scores and grades were examined and grouped into thirds: high, medium, low. The researcher compiled the data into a table, showing the midpoint scores and final scores in relationship to the high school students had attended. Smalley's research showed that students who attended a high school that employed a library media teacher performed better by the midpoint check, and a large number went on to receive an A for the course when compared to the other two school districts. The study showed that when students received information literacy instruction throughout their secondary education, they brought a better understanding about information research to their college experience.

It is clear that intervention programs help ease the transition from high school to college and provide for greater academic success. As is evidenced in this last study, high school librarians can make a difference. Likewise, when academic librarians are part of
Academic Libraries’ Experiences with First Year College Students

When research focused on the skills and dispositions necessary for postsecondary success are examined, one can see a strong correlation between the information skills of importance to academic librarians. Thus, the experiences of academic librarians must be considered when seeking to understand the first-year students’ experience.

As part of a library program assessment, Dunn (2002) wanted to determine the minimum information competency skills of first-year students. She designed a study to measure and describe the information skills students have when they begin college. Three thousand, three hundred California State University students were chosen randomly for the study. A quantitative questionnaire, requiring participants to work through six different scenarios was delivered via telephone interview. Student responses were evaluated based on breadth and depth of the responses to determine their information competency skill level. If a student referred to several types of resources or ideas (breadth) and was able to elaborate on how they would carry out those responses (depth), it was determined the student had a high level of information competence. Dunn’s study revealed a lack in students’ experience with research and evaluating information. Lower breadth and depth scores correlated positively with lower usage of library resources, computer literacy, and reference materials in the home. Thus, students were coming to college lacking information skills. These skills have been shown to be a factor in academic achievement, and academic librarians find it in their realm of interest to develop these skills.

In a study conducted by Voelker (2006), academic librarians at Kent State
University began thinking about how to better familiarize first-year students with the library, and they realized they didn’t have a firm grasp on the experiences, skills, and needs of this key patron group. Since learning communities were already being employed on campus, the three academic librarians chose to implement their study with an already-formed community. They chose to work with the Science Learning Community, intended for first-generation college students in a science-related major. Data for the study were collected through a focus group consisting of six students out of the 25 enrolled in the course. To improve accuracy, the focus group session was videotaped and detailed notes recorded. Comments were coded to find common themes. Through the study, the academic librarians at Kent State University found that students benefited from the instruction and believed they would benefit from more instruction in the future. The reference librarians also learned that students held discomfort/anxiety with the library prior to instruction, and they determined reaching students beyond the walls of the library might ease this tension. This exploratory outreach study proved to be successful and led the team of librarians to consider ways to move forward and continue to work to meet the needs of first-year students.

As in every other discipline, library instruction never reaches a point of perfection and can always be improved. In her study, Baker (2006) followed an eight-year period where academic librarians at Abilene Christian University in Texas wanted to improve a library unit for freshmen and transfer students that they felt was ineffective at teaching research skills. Baker hoped to reveal the teaching strategies that were effective and which needed improvement, all as a means to improve the unit. The study included 1,040 students at the college, the library faculty, and a handful of course instructors from
various disciplines. Data were primarily collected through course evaluations completed by students, library faculty teaching the unit, and course instructors. Additionally, data were collected through interviews with focus groups consisting of students who had participated in the library unit. Comments from the course evaluation were reviewed. The most common responses were weighted as most important, and from there the library faculty defined two to three lessons learned from the data. These lessons were used to refine the unit design. Baker (2006) summarized lessons learned from the eight-year study into two factors for a successful first-year library unit: a focus on the research skills that are necessary for academic classes, along with timeliness and relevance. Students need to see how the research skills can be immediately applied to a course-related assignment in order to take instruction seriously.

These studies revealed that students lack information literacy skills when they enter college, but they benefit from library instruction. The last study discussed also showed that academic librarians experience difficulties when trying to cover everything students need in such a short amount of time. One can assume that they would be more effective if the students came with research experiences and skills to build upon. Thus, high school librarians seem likely to have a role in supporting students’ transition to postsecondary education.

**Summary**

Research examined for this study included skills required for student success at the college level, dispositions necessary for learning at the college level, strategies to facilitate the transition from high school to college, and academic libraries’ experiences with first-year college students. Previous studies have shown that although it is important
for students to arrive at postsecondary institutions with skills, it is essential for success that those skills are accompanied by dispositions of seeking help when needed, belief in ability to achieve, setting academics as a priority, and autonomy. These dispositions are very similar to the AASL (2007) *Standards for 21st-Century Learners* dispositions: initiative, confidence, productivity, and independence.

The related studies have examined the dispositions necessary at the college level, but the perceptions of high school students regarding the dispositions they see as necessary has yet to be investigated. Similarly, the experiences of high school teachers regarding their understanding and expectations of dispositions necessary at the postsecondary level could provide a better understanding of why we see a gap in the preparedness of students when they transition from secondary to postsecondary education.
CHAPTER 3
METHODOLOGY

Evidence shows that many young people are unprepared for the transition from high school to college. Much of the research surrounding this problem has focused on determining the skills required at the postsecondary level, while a few have turned the focus on dispositions required. There has been little or no research on the dispositions specified in the AASL (2007) *Standards for 21st Century Learners* in relation to college readiness. The purpose of this study was to determine the perceptions held by key players, i.e., high school seniors, high school teachers, and college freshmen, regarding the AASL dispositions students should bring to higher education from high school. The researcher collected perspectives through a survey and analyzed where the key players' understandings aligned and how they differed. The researcher sought Institution Research Board approval from the University of Northern Iowa prior to collecting data. In addition, the researcher obtained a letter of cooperation from the participating school district.

**Methods**

To support analysis, the research method for this study was a descriptive study. According to Wildemuth (2009), “Descriptive studies are conducted for the purpose of understanding a phenomenon or setting that is complicated – it is too complex to take in with just a superficial observation of it” (p. 27). Descriptive studies often contain mixed data sources that are analyzed to better describe the complex situation or phenomenon. For this study, the data sources were survey responses from three different populations: high school students, high school teachers, and college students.
Wildemuth (2009) stated specific reasons why descriptive studies could be used: “you need to explore a new phenomenon or construct... you may wish to understand a phenomenon in more depth... or to understand a particular phenomenon for the particular purpose of using that understanding to improve a system’s or program’s design” (p. 28).

In the case of this study, the transition from high school to college is the phenomenon. It has proven to be complicated to understand how or why some students succeed while others do not. Many factors influence postsecondary success. This study attempted to understand one aspect of college readiness that has a clear connection to the role of the school library: dispositions.

A limitation of this methodology is that descriptive studies do not arrive at a conclusion; instead, they describe a situation or phenomenon. Further, this study focused on the perceptions of key players in one high school and graduates from the same high school. The results provide a perspective limited to this particular context.

This study assumed the responses of current high school students and current college freshmen to be representative of the experiences of the school’s students and graduates. Additionally, this research study assumed that core classes provide accurate representation of a student’s high school experience in this district.

**Data Collection**

The population for this study included current seniors at a small Midwestern rural high school, current core teachers at the same school, and graduates from the school district who are enrolled as freshmen at a postsecondary institution during the 2012-2013 academic year. According to the district’s official registrar, the total number of 2012-2013 seniors enrolled is 109. During homeroom, a class all seniors are required to attend
daily, the researcher explained the study and invited students to participate. Parent Permission forms were distributed to students who were 17 years old or younger. A web-based survey (see Appendix A) was administered via a link sent to the campus portal of all students who were given parental permission to participate. The survey results were anonymous and automatically returned via the online survey program.

The second population of interest was current high school teachers who taught senior level core courses (science, math, language arts, social sciences). There were four teachers responsible for the core curriculum (one in each department). A web-based survey (see Appendix B) was administered via e-mail where a link to the survey was provided. To increase the response rate from teachers, a thank-you/reminder email was sent one week following the initial email invitation (Dillman, 2007, as cited in Hank, Jordan, & Wildemuth, 2009, p. 261). All teachers responded within the two weeks, but had they not, the researcher would have placed a paper copy of the survey in the teacher mailboxes to encourage participation.

Students who graduated from the same high school in 2012 and were currently in their first year at a postsecondary institution served as the third population for data collection. Based on exit surveys from May 2012, there were a total of 93 students, out of 115 total graduating seniors, who had planned to attend college in the fall of 2012. These students were contacted via a social networking site (Facebook). The 2012 class president invited participants to a Class of 2012 Facebook group. The researcher posted to the group an invitation to participate in the survey along with a link to access the web-based survey. For students that were reachable through Facebook, the directory on the
institution's website was used to locate contact information. Using the preferred email address, participants were sent a link to a web-based survey (see Appendix C).

As noted above, data were collected through administration of three different survey questionnaires. Each survey was specifically designed to address the particular experience of the population. Likewise, the survey questions addressed the dispositions specified in the *Standards for 21st Century Learners* (AASL, 2007). In his article, "From IQ to IC: a dispositional view of intelligence," Ritchhart (2001) synthesized six dispositions from analyzing a number of widely accepted lists. This synthesis narrows the field of dispositions, yet still encompasses all AASL dispositions (see Appendix D). Ritchhart’s list simplifies the process, making work with the dispositions more manageable. Thus, Ritchhart’s labels for dispositions were used to design each survey questionnaire. Appendix E demonstrates the relationship between the dispositions and the survey questions. Likert scale responses were sought from participants.

Czaja and Blair (2005) and Dillman (2007) warn of the limitations associated with surveys: “Designing the survey instrument is a critical task in planning survey research because it will influence the number of responses you receive and the validity of those responses” (as cited in Hank, Jordan, & Wildemuth, 2009, p. 257). Surveys must be brief, so questions may not get to the heart of the issue; clarity of questions will determine the respondents’ answers; all possibilities for responses may not be offered, so the answers may not be entirely accurate; a high level of nonresponse is likely, and follow-up questions are not possible with survey research. The researcher used a small sample group of high school juniors to identify weaknesses in the design of the survey. Based on this feedback, the researcher made minor adjustments to the wording of survey questions.
Data Analysis

Measuring the perspectives of the participants was not achievable through observation. Thus, the survey employed Likert scales. Choemprayong and Wildemuth (2009) say of Likert scales:

"This format is very flexible and has been widely used in ILS and many other disciplines. A measurement instrument using this format would include several individual items/statements, each rated separately. The scores would then be aggregated to obtain each respondent's measure on the construct of interest." (p. 279)

Through the use of scaled responses, the researcher counted the frequency of responses for each question to both describe the experience of the population and compare that experience to the other two populations.
CHAPTER 4

RESULTS

Although there is evidence that students transitioning from high school to college are unprepared for the expectations that accompany college-level coursework, the problem still persists. The purpose of this descriptive study was to explore the perceptions of the key players involved, and to see where the perceptions aligned or differed, with the intention of describing why this phenomenon may be occurring. Three populations were the focus of this study: high school seniors, high school instructors teaching senior level courses, and college freshmen, all stemming from the same Midwestern secondary institution. Participants were invited to participate in the study by email and the high school’s campus portal (Infinite Campus). A link to the web-based survey was provided along with the invitation. For students under the age of 18, parent permission forms were distributed and collected prior to students taking the survey. Perspectives were collected using Likert scaled survey questions.

Dispositions Required for Success in Senior-level Courses

The perspectives of high school educators responsible for teaching senior-level courses and the perspectives of high school seniors were collected. Out of the five instructors who primarily teach high school seniors, all five provided responses to the survey questionnaire. Of the 109 enrolled high school seniors, 59 (54%) completed the survey. The survey questions were designed to provide an answer to the research question: what dispositions are required for success at the high school level? Two questions addressed each of the six dispositions. Table 1 shows the data collected from both surveys.
Table 1

*Importance of Dispositions for High School Success*

<table>
<thead>
<tr>
<th>Dispositions</th>
<th>Not Sure</th>
<th>Not Important</th>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers</td>
<td>Students</td>
<td>Teachers</td>
</tr>
<tr>
<td></td>
<td>$n=5$</td>
<td>$n=59$</td>
<td>$n=5$</td>
</tr>
<tr>
<td>Open-minded</td>
<td>10%</td>
<td>2.5%</td>
<td>0%</td>
</tr>
<tr>
<td>Curious</td>
<td>0%</td>
<td>2.5%</td>
<td>0%</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>10%</td>
<td>3.4%</td>
<td>0%</td>
</tr>
<tr>
<td>Truth-seeking (Persistent)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Strategic (planful, systematic, analytical)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Skeptical (requiring evidence)</td>
<td>0%</td>
<td>0.9%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The results displayed in Table 1 show that, according to high school instructors, all six of the dispositions are deemed as important for success in at least 90% of senior-level courses, with four of them (curiosity, truth-seeking, strategic, skeptical) being important in all courses. According to high school seniors, truth-seeking is the disposition most important for success in their courses, with 94 percent of respondents agreeing. All other dispositions were believed important by roughly 80 percent of the population surveyed. Thus, there is a slight discrepancy between what instructors believe they expect of students and what students see as important for success in those same courses.

**Dispositions Required at the College Level: Perceptions and Reality**

In addition to asking high school seniors which dispositions are required for success in their courses, the respondents were also asked to disclose their personal beliefs about the general importance of each disposition. The questions on the second section of
the survey were designed to provide an answer to the research question: what dispositions do high school seniors believe they will need to be successful at college? Again, 59 out of the population of 109 enrolled students responded to the survey. The responses appear in Table 2, alongside the responses from the third survey of college students, described below.

Table 2

*Importance of Dispositions for College Success*

<table>
<thead>
<tr>
<th>Dispositions</th>
<th>Not Sure</th>
<th></th>
<th>Not Important</th>
<th></th>
<th>Important</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HS</td>
<td>College</td>
<td>HS</td>
<td>College</td>
<td>HS</td>
<td>College</td>
</tr>
<tr>
<td></td>
<td>n=59</td>
<td>n=39</td>
<td>n=59</td>
<td>n=39</td>
<td>n=59</td>
<td>n=39</td>
</tr>
<tr>
<td>Open-minded</td>
<td>2.5%</td>
<td>2.6%</td>
<td>6.8%</td>
<td>12.8%</td>
<td>90.7%</td>
<td>84.6%</td>
</tr>
<tr>
<td>Curious</td>
<td>4.2%</td>
<td>1.3%</td>
<td>11%</td>
<td>15.4%</td>
<td>84.8%</td>
<td>83.3%</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>0.9%</td>
<td>5.1%</td>
<td>14.3%</td>
<td>12.8%</td>
<td>84.8%</td>
<td>82.1%</td>
</tr>
<tr>
<td>Truth-seeking (Persistent)</td>
<td>1.7%</td>
<td>0%</td>
<td>6.8%</td>
<td>10.3%</td>
<td>91.5%</td>
<td>89.7%</td>
</tr>
<tr>
<td>Strategic (planful, systematic, analytical)</td>
<td>2.5%</td>
<td>2.6%</td>
<td>11.9%</td>
<td>6.4%</td>
<td>85.6%</td>
<td>91%</td>
</tr>
<tr>
<td>Skeptical (requiring evidence)</td>
<td>4.2%</td>
<td>2.6%</td>
<td>15.3%</td>
<td>14.1%</td>
<td>80.5%</td>
<td>83.3%</td>
</tr>
</tbody>
</table>

The third survey sought the perspectives of students enrolled in their freshmen year at a postsecondary institution. Out of the 93 students believed to have enrolled in a postsecondary institution, 39 (43%) participated in the survey. Although the survey responses are not specific to a student’s experience at a type of postsecondary institution, the participants were evenly divided among the type of institution they attend: 15 (38%) attend a four-year university, 10 (26%) a private college, and 14 (36%) a community college. The survey was not designed to reveal the differences in expectations between
various types of postsecondary institutions, thus the responses were collected as whole
group. The survey was designed to answer the research question: Which dispositions do
college freshmen believe are necessary for success in college courses? Table 2 shows the
data collected from the survey of college freshmen, alongside the responses of high
school seniors, described in the previous paragraph.

As presented in Table 2, the responses show high school seniors' perceptions of
dispositions that are important to be closely aligned with the experiences of college
freshmen. In most cases, high school seniors believed dispositions to be slightly more
important than college students claim them to be, with the exceptions being the
dispositions of strategic and skeptical. The same three dispositions had the highest
percentage of students (high school and college) believing them to be important: open­
minded, curiosity, and strategic.

**Summary**

The primary research question for this study was: among educators and students,
how consistent is the understanding of dispositions likely to lead to college success? The
survey responses from high school teachers showed that the dispositions are expected for
students to be successful in their courses, thus high school teachers understand the
dispositions to be important for success. When compared to the perspectives of high
school seniors in those courses, a large majority of students agreed that the dispositions
were important for their success. High school seniors, when asked to share their personal
belief regarding the importance of the dispositions, had a large percentage of respondents
believing the majority of dispositions were important for success. Again, when compared
to the college students' experiences, the beliefs of high school seniors were closely
aligned. It should be noted that a goal of this study was to gain the perspectives of the key players involved in the transition from high school coursework to college coursework. Because of this, a limitation of this descriptive study was that the survey responses were based on perceptions, and therefore, were a subjective view of the situation.
CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

The researcher collected the perspectives of key players regarding dispositions noted in the AASL (2007) *Standards for 21st Century Learners*. The researcher had the ultimate goal of answering the research question: Among educators and students, how consistent is the understanding of dispositions likely to lead to college success? Specifically, each survey questionnaire was designed to discover (1) what dispositions are required for success at the high school level, (2) what dispositions high school seniors believe they will need to be successful at college, (3) and what dispositions college freshmen believe are necessary for success at college. The understandings of key players were compared to better understand dispositional readiness at the college level.

Conclusion

After seeking the perspectives of high school instructors and high school seniors, the researcher found that all six dispositions (open-minded, curious, metacognitive, strategic, skeptical, and truth-seeking) were expected at the high school level, with truth-seeking standing out among the others. Based on the survey responses, nearly all senior-level courses expect these dispositions for success, thus the understandings of high school educators involved in creating expectations for students seem to be consistent with research on what is needed in college courses. Even so, not all students agreed that the disposition was required for success, indicating that communication of the expectation could be improved to help all students understand the requirement.

Survey responses from high school seniors regarding their views on the importance of the specific dispositions revealed that most of the respondents believed the
dispositions are important. Interestingly, for nearly all of the dispositions, the percentage of students who personally believed the disposition to be important was higher than the percentage of students who felt the dispositions were required at the high school level. Therefore, although many students understand the importance of the dispositions, it may be that not all students are practicing application of such dispositions. Considering this alongside Richhart’s (2001) definition of dispositions: “characteristics that animate, motivate, and direct abilities toward good and productive thinking and are recognized in the patterns of one’s frequently exhibited, voluntary behavior” (p. 146), it seems apparent that if these characteristics are not practiced often, they are not truly dispositions: patterned behavior that is voluntarily and frequently exhibited.

The perspectives of college freshmen showed that the dispositions were held to be important for college success, but with a smaller percentage in agreement than the other two participant groups. For nearly all of the dispositions, a larger percentage of high school students believed the disposition was more important than college students claimed it to be, but the difference in percentages was quite small. Specifically, there were two dispositions that had the largest difference in understanding of importance: open-minded and strategic. There may be many factors for these differences in understanding, but, in terms of the open-mindedness differential, it seems natural for students in a small rural area to believe they will need to broaden their perspectives once they get to college. They imagine encountering a more diverse population and studying bigger ideas. It is interesting that, in reality, fewer college students find open-mindedness to be important for success. Despite the minor differences in understanding, the results from the surveys indicate that students transitioning from this Midwestern rural high
school to postsecondary education are accurate in their understanding of which
dispositions are required for success.

As is the case with descriptive studies, there is not a clear conclusion to be
discovered. This study indicates that although many students may be entering
postsecondary institutions unprepared, the students graduating this year, from this high
school, should be entering with an understanding of the dispositions they will be expected
to utilize for success.

**Recommendations**

Since the researcher was seeking the perspectives of the key players, the results
from this study were based on self-reporting and thus entirely subjective. Employing a
more objective study would improve and balance the results. Collection of course
assignments and syllabi from both the high school and college level instructors to
objectively determine which dispositions are expected might be one method of
understanding the dispositional expectations at both levels. However, since the
dispositions expected may not be easily determined through the course assignments,
observation of student and teacher behavior would provide a more accurate view of
expectations. In addition, this study only looked at one graduating class and one class of
seniors. Taking a longitudinal approach to this study would provide a larger sample and
perhaps a more accurate view of the gaps or consistencies in understandings.
REFERENCES


APPENDIX A

SURVEY FOR HIGH SCHOOL SENIORS (HS)

0-Not Sure 1-Not Important 2-Somewhat Important 3-Very Important

To succeed in your high school classes, how important is it for you to:

1. Consider opinions different from your own? 0 1 2 3
   Personally, how important do you view this skill? 0 1 2 3
2. Explore a course topic in further detail than required by your assignment?
   Personally, how important do you view this skill? 0 1 2 3
3. Reflect on the ways you are growing as a learner?
   Personally, how important do you view this skill? 0 1 2 3
4. Persist through challenges to learn the material?
   Personally, how important do you view this skill? 0 1 2 3
5. Present ideas clearly to others in formal and informal situations?
   Personally, how important do you view this skill? 0 1 2 3
6. Question the validity and accuracy of all information presented to you?
   Personally, how important do you view this skill? 0 1 2 3
7. Look for bias in yourself and others?
   Personally, how important do you view this skill? 0 1 2 3
8. Demonstrate curiosity in your courses?
   Personally, how important do you view this skill? 0 1 2 3
9. Be aware of your previously held beliefs?
   Personally, how important do you view this skill? 0 1 2 3
10. Adapt your strategies/resources/focus to achieve success?
    Personally, how important do you view this skill? 0 1 2 3
11. Show how evidence leads to a decision or conclusion?
    Personally, how important do you view this skill? 0 1 2 3
12. Pose questions and investigate answers beyond the collection of superficial facts?
    Personally, how important do you view this skill? 0 1 2 3
APPENDIX B

SURVEY FOR HIGH SCHOOL TEACHERS (TCH)

0-Not Sure 1-Not Important 2-Somewhat Important 3-Very Important

In your course, to be successful, how important is it for students to:

1. Consider opinions different from their own? 0 1 2 3
2. Explore a course topic in further detail than required by an assignment? 0 1 2 3
3. Reflect on the ways they are growing as a learner? 0 1 2 3
4. Persist through challenges to learn the material? 0 1 2 3
5. Present ideas clearly to others in formal and informal situations? 0 1 2 3
6. Question the validity and accuracy of all information presented to them? 0 1 2 3
7. Look for bias in themselves and others? 0 1 2 3
8. Demonstrate curiosity? 0 1 2 3
9. Be aware of their previously held beliefs? 0 1 2 3
10. Adapt their strategies/resources/focus to achieve success? 0 1 2 3
11. Explain how evidence leads to a decision or conclusion? 0 1 2 3
12. Pose questions and investigate answers beyond the collection of superficial facts? 0 1 2 3
APPENDIX C

SURVEY FOR FIRST YEAR COLLEGE STUDENTS

0-Not Sure  1-Disagree  2-Somewhat Agree  3-Agree

1. Have your college courses required/expected you to consider opinions different from your own? 0 1 2 3

2. Do you/your peers benefit from exploring a course topic in further detail than required by your assignment? 0 1 2 3

3. Throughout your courses, are you expected to reflect on the ways you are growing as a learner? 0 1 2 3

4. Have your courses required you to persist through challenges to learn the material? 0 1 2 3

5. Have you had to present ideas clearly to others in formal and information situations? 0 1 2 3

6. Do your courses require you to question the validity and accuracy of all information presented to you? 0 1 2 3

7. At the college level, are you expected to look for bias in yourself and others? 0 1 2 3

8. At the college level, are you expected to demonstrate curiosity in your courses? 0 1 2 3

9. Have your courses required you to be aware of your previously held beliefs? 0 1 2 3

10. Have you had to adapt your strategies/resources/focus to achieve success? 0 1 2 3

11. Do your courses require you to explain how evidence leads to a decision or conclusion? 0 1 2 3

12. Are you expected to pose questions and investigate answers beyond the collection of superficial facts? 0 1 2 3
APPENDIX D

SIMPLIFYING THE AASL DISPOSITIONS FOR 21ST-CENTURY LEARNERS

The table below shows how the dispositions from Ritchhart’s (2001) analysis and the AASL standards “dispositions” can be aligned to simplify the AASL dispositions from nine labels to six.

<table>
<thead>
<tr>
<th>Ritchhart’s Synthesized Dispositions</th>
<th>AASL Standards “Dispositions”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-minded</td>
<td>3.2.3: Demonstrate teamwork by working productively with others. 4.2.3: Maintain openness to new ideas by considering divergent opinions, changing opinions or conclusions when evidence supports the change, and seeking information about new ideas encountered through academic or personal experiences. 4.2.4: Show an appreciation for literature by electing to read for pleasure and expressing an interest in various literary genres.</td>
</tr>
<tr>
<td>Curious</td>
<td>4.2.1: Display curiosity by pursuing interests through multiple resources. 4.2.2: Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>1.2.2: Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.</td>
</tr>
</tbody>
</table>
| Truth-seeking (Persistent) | 1.2.3: Demonstrate creativity by using multiple resources and formats.  
1.2.5: Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.  
1.2.6: Display emotional resilience by persisting in information searching despite challenges.  
1.2.7: Display persistence by continuing to pursue information to gain a broad perspective.  
2.2.1: Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.  
2.2.4: Demonstrate personal productivity by completing products to express learning.  
3.2.2: Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions. |
|---------------------------|-------------------------------------------------------------------------------------------------------------|
| Strategic (Planful, systematic, analytical) | 2.2.2: Use both divergent and convergent thinking to formulate alternative conclusions and test them against the evidence.  
2.2.3: Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.  
3.2.1: Demonstrate leadership and confidence by presenting ideas to others in both formal and informal situations. |
| Skeptical (requiring evidence) | 1.2.1: Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.  
1.2.4: Maintain a critical stance by questioning the validity and accuracy of all information.  
2.2.3: Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.  
2.2.3: Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.  
3.2.2: Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions. |
APPENDIX E
ALIGNMENT OF DISPOSITIONS AND SURVEY QUESTIONS

<table>
<thead>
<tr>
<th>Ritchhart's Synthesized Dispositions</th>
<th>Survey Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(HS) = High School Senior Survey</td>
</tr>
<tr>
<td></td>
<td>(TCH) = High School Teacher Survey</td>
</tr>
<tr>
<td></td>
<td>(COL) = College Study Survey</td>
</tr>
<tr>
<td>Open-minded</td>
<td>(HS) 1: Consider opinions different from your own?</td>
</tr>
<tr>
<td></td>
<td>(HS) 7: Look for bias in yourself and others?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 1: Consider opinions different from their own?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 7: Look for bias in themselves and others?</td>
</tr>
<tr>
<td></td>
<td>(COL) 1: Have your college courses required/expected you to consider opinions different from your own?</td>
</tr>
<tr>
<td></td>
<td>(COL) 7: At the college level, are you expected to look for bias in yourself and others?</td>
</tr>
<tr>
<td>Curious</td>
<td>(HS) 2: Explore a course topic in further detail than required by your assignment?</td>
</tr>
<tr>
<td></td>
<td>(HS) 8: Demonstrate curiosity in your courses?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 2: Explore a course topic in further detail than required by an assignment?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 8: Demonstrate curiosity?</td>
</tr>
<tr>
<td></td>
<td>(COL) 2: Do you/your peers benefit from exploring a course topic in further detail than required by your assignment?</td>
</tr>
<tr>
<td></td>
<td>(COL) 8: At the college level, are you expected to demonstrate curiosity in your courses?</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>(HS) 3: Reflect on the ways you are growing as a learner?</td>
</tr>
<tr>
<td></td>
<td>(HS) 9: Be aware of your previously held beliefs?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 3: Reflect on the ways they are growing as a learner?</td>
</tr>
<tr>
<td></td>
<td>(TCH) 9: Be aware of their previously held beliefs?</td>
</tr>
<tr>
<td></td>
<td>(COL) 3: Throughout your courses, are you expected to reflect on the ways you are growing as a learner?</td>
</tr>
<tr>
<td></td>
<td>(COL) 9: Have your courses required you to be aware of your previously held beliefs?</td>
</tr>
</tbody>
</table>
| Truth-seeking (Persistent) | (HS) 4: Persist through challenges to learn the material?  
(HS) 10: Adapt your strategies/resources/focus to achieve success?  
(TCH) 4: Persist through challenges to learn the material?  
(TCH) 10: Adapt their strategies/resources/focus to achieve success?  
(COL) 4: Have your courses required you to persist through challenges to learn the material?  
(COL) 10: Have you had to adapt your strategies/resources/focus to achieve success? |
| --- | --- |
| Strategic (planful, systematic, analytical) | (HS) 5: Present ideas clearly to others in formal and informal situations?  
(HS) 11: Show how evidence leads to a decision or conclusion?  
(TCH) 5: Present ideas clearly to others in formal and informal situations?  
(TCH) 11: Explain how evidence leads to a decision or conclusion?  
(COL) 5: Have you had to present ideas clearly to others in formal and information situations?  
(COL) 11: Do your courses require you to show how evidence leads to a decision or conclusion? |
| Skeptical (requiring evidence) | (HS) 6: Question the validity and accuracy of all information presented to you?  
(HS) 12: Pose questions and investigate answers beyond the collection of superficial facts?  
(TCH) 6: Question the validity and accuracy of all information presented to them?  
(TCH) 12: Pose questions and investigate answers beyond the collection of superficial facts?  
(COL) 6: Do your courses require that you question the validity and accuracy of all information presented to you?  
(COL) 12: Are you expected to pose questions and investigate answers beyond the collection of superficial facts? |