2007

Academic and Social Self-Efficacy in Honors and Non-Honors University Students

Carmen Marie Krapfl
University of Northern Iowa

ACADEMIC AND SOCIAL SELF-EFFICACY IN HONORS AND NON-HONORS UNIVERSITY STUDENTS

A Thesis

Submitted

in Partial Fulfillment

of the Requirements for the Designation

University Honors with Distinction

Carmen Marie Krapfl

University of Northern Iowa

May 2007

This Study by Carmen Krapfl

Entitled "Academic and Social Self-Efficacy in Honors and Non-Honors University Students"

has been approved as meeting the thesis or project requirement for the

Designation University Honors with Distinction

5/2/07

Date Dr. Kim MacLin, Honors Thesis/Project Advisor

5/2/07

Date Jessica Moon, Director, University Honors Program

Running head: ACADEMIC AND SOCIAL SELF-EFFICACY

Academic and Social Self-Efficacy in Honors and Non-Honors University Students

Carmen Krapfl

University of Northern Iowa

Abstract

Self-efficacy research has shown that successful past experiences have an influential impact on self-efficacy (Bandura, 1977). The purpose of this study was to compare academic and social self-efficacy between university honors and non-honors students. It was hypothesized that honors students would score higher on academic self-efficacy, but would have lower social self-efficacy than their non-honors peers. Participants were invited to complete questionnaires on self-efficacy and background information. Results show that honors and non-honors students do not differ significantly in their general or social self-efficacy, but honors students had significantly higher academic self-efficacy. Further research is needed into the cause of this difference in academic self-efficacy between honors and non-honors students.

Academic and Social Self-Efficacy in Honors and Non-Honors University Students

Self-efficacy can be described as a confidence in one's ability to successfully complete tasks in order to achieve certain goals. This confidence in ability can largely impact the activities people choose to engage in. Self-efficacy can influence many aspects of life. For instance, those with high academic self-efficacy may be more motivated to attain advanced academic degrees or succeed at a higher level than those with lower academic self-efficacy. The same concept can be applied to social self-efficacy. Learning what groups have lower academic and social self-efficacy can help determine those in need of interventions to help raise their overall confidence in their abilities to complete certain tasks. Little past research has focused on university honors students' self-efficacy, and even less has compared self-efficacy between honors and non-honors students. The purpose of this study is to measure social and academic self-efficacy levels between honors and non-honors university students.

Self-Efficacy

The concept of perceived self-efficacy was first conceived by Albert Bandura in 1977 to aid in his research on cognitive behavior modification (Gore, 2006). Since then self-efficacy has become a popular area of research for many social psychologists. Self-efficacy has been defined by Bandura (1995) as, "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). The term has been used to measure confidence in a variety of specific areas, such as verbal, math, social, and nutrition self-efficacy. Self-efficacy's importance can be attributed to its positive effect on life experiences. For instance, research by Mone, Baker, and Jeffries (1995) has shown that positive changes in self-efficacy can improve academic performance.

One's perceived self-efficacy can influence a variety of areas of life. For instance, Chemers, Hu, and Garcia (2001) explained that perceived self-efficacy can affect the, "particular courses of action a person chooses to pursue, the amount of effort that will be expended, perseverance in the face of challenges and failures, resilience, and the ability to cope with the demands associated with the chosen course" (p. 55). Because self-efficacy levels have such an influential impact on one's life decisions, it is important to recognize groups with lower levels of perceived self-efficacy in order to increase these levels. Raising one's self-efficacy levels may increase success in both academic and social arenas.

Bandura has cited four areas affecting self-efficacy levels (as cited in Anderson et al., 2001). They include: mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states. Mastery experiences are successful personal experiences in a certain area. Vicarious experiences are observations of others succeeding in one's environment. Social persuasion includes outside reinforcement for behaviors, such as encouragement. The fourth component, physiological and emotional states, involves personal signs of anxiety, such as increased heart rate or feelings of nervousness that influence one's perception of a situation. Being aware of one's signs of stress can more accurately cope with the stress and feel more confident in handling stressful situations in the future. Having an optimistic attitude may allow added confidence and hope for one's future ability to succeed. Bandura's research has shown that the best way to strengthen self-efficacy is to have successful personal experiences that prove one's ability to succeed. These successful experiences can raise a person's confidence that they will continue to be successful with further related goals.

Although personal success has been shown to increase levels of self-efficacy, the difficulty in achieving such success can affect one's future levels. Research has shown that those who easily achieve success expect quick success in the future and are more negatively affected by subsequent failures (Bandura, 1995). Those with a realistic view of what they can accomplish can then create goals that they have a high likelihood of achieving, which will continue to raise self-efficacy levels. Success is an important way to raise self-efficacy levels, but it is more beneficial if the path to success involves hard work and perseverance. Working hard to achieve a goal can cause a greater sense of accomplishment than one which is easily attained. Reaching a difficult goal may encourage one to pursue other challenging goals in the future.

The benefits of high self-efficacy are numerous. Bouffard-Bouchard's (2001) research revealed that individuals in a high self-efficacy group finished significantly more cognitive problems than the low self-efficacy group, even though the members of both groups had equal levels of knowledge and experience in the test area. This finding provides some evidence on how influential self-efficacy levels can be on performance. The Bouffard-Bouchard (2001) study also found that there was a strong positive correlation between self-efficacy and math problem success. Those feeling confident in their abilities were more likely to succeed.

Further investigation by Bouffard-Bouchard found that high self-efficacy students had higher achievement goals than a lower self-efficacy group (2001). These more challenging goals could lead the high self-efficacy students to both pursue and succeed at more challenging activities. Research by Chemers, Hu, and Garcia (2001) found that high self-efficacy students, "set higher aspirations, showed greater strategic flexibility in the search for solutions, achieved higher performance, and were more accurate in evaluating the level of their performance than

were students of equal ability who received less positive feedback" (p. 55-56). This research links high self-efficacy levels to persistence and ingenuity in achieving set goals.

Research on self-efficacy has identified correlations with many other positive attributes. For instance, students with more optimistic attitudes were found to have higher efficacy levels (Chemers et al., 2001). These positive attitudes may encourage those high in self-efficacy to develop higher goals and be more confident in their striving to achieve them. Several studies have shown that self-efficacy is correlated with success and persistence in one's academic major (Lent, Brown, & Larkin, 1984; Lent, Brown, & Larkin, 1986; Multon, Brown, & Lent, 1991). It seems logical that those feeling more confident in their ability to succeed would be more likely to pursue a task through adversity. Further research has found that high self-efficacy students had greater academic expectations and better academic performance, lower stress levels, fewer health complications, and better adjustment than low self-efficacy students (Chemers et al, 2001). These characteristics are helpful for continued success, which can raise self-efficacy levels further.

Locke and Latham (1990) found that those with high self-efficacy tend to engage in more challenging goals than those with low self-efficacy (). Having more challenging goals may allow for greater successes throughout life. This may explain why university students may choose to enroll in college honors programs. These students may have a greater desire to enroll in an intellectually stimulating and challenging environment than those students who choose not to join an honors program.

Academic Self-Efficacy

Numerous research studies have focused on self-efficacy in educational settings such as primary schools, secondary schools, and post-secondary institutions. Much of this research on academic self-efficacy was based on university students. Lackaye, Margalit, Ziv, & Ziman (2006) have described academic self-efficacy as a, "perceived capability to manage learning behavior, master academic subjects, and fulfill academic expectations" (p. 112). This confidence in one's academic abilities can have a substantial impact on one's educational career and future life in general.

Research has shown that college students with high self-efficacy levels perform significantly better academically than less confident students (Chemers et al, 2001; Elias & Loomis, 2002). Academic self-efficacy has also been linked with academic persistence, interest in academic endeavors, and academic achievement (Chemers et al, 2001; Zimmerman, Bandura, & Martinex-Pons, 1992). The link between academic self-efficacy and influential aspects of education, such as interest and achievement, highlight how important academic self-efficacy is for one's confidence in educational settings, and, consequently, success in this area. This idea is supported by Chemers et al.'s findings that academic self-efficacy is correlated with college students' confidence in successfully completing academic courses (2001). Not surprisingly, this confidence in success was found to be predictive of grades in school (Chemers et al., 2001).

Students with high self-efficacy levels appear to have several defining characteristics. They include: using effective cognitive strategies, managing time and learning environments efficiently, and organizing their work in a more effective fashion (Chemers et al, 2001). These strategies may be linked to higher grades in students with high self-efficacy. This may explain

the positive relation between high school grade point averages (GPA) and higher than average academic self-efficacy and academic accomplishments (Chemers et al., 2001). Academic self-efficacy and GPA may have a cyclical effect in that those with high GPA's have had many mastery experiences and thus have high levels of academic self-efficacy, and vice versa.

Social Self-Efficacy

Academic performance appears to be impacted by both academic and social self-efficacy. Those with skills in social situations can have many advantages in an academic setting. Social self-efficacy has been defined by Anderson and Betz (2001) as a, "confidence in one's ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships in social life and career activities" (p. 98). This definition highlights the idea that social adeptness can be beneficial in both personal and career arenas. This idea is also supported by Ferrari and Parker's (1992) research that has shown social self-efficacy expectations are related to academic performance in first-year college students. Additional research has found a correlation between excellence in academic work and successful communication with peers, university faculty, and college staff members (Fan & Mark, 1998; Gerdes & Mallinckrodt, 1994).

Social self-efficacy's effects may influence more areas than just achievement in academic environments. Research has shown that personal adjustment and social acceptance on campus is at least as influential as academic aspects in retaining college students (Gerdes et al., 1994). This means that intelligent students may still be at a disadvantage in terms of retention if they have low social skills. Such findings may influence universities' strategies to decrease college dropout rates by targeting interpersonal skills. By focusing on activities that increase university

students' sense of adjustment and acceptance, universities can increase the chances that students will satisfactorily finish their college years, or graduate at all.

Social self-efficacy research has found a significantly negative correlation between social self-efficacy and shyness (Smith & Betz, 2000). It may be that shyness inhibits social interaction, which is related to fewer successful social experiences and lower social self-efficacy levels. On the other hand, lower social self-efficacy levels may cause shyness. Studies have also shown that shyness significantly decreases career development in young adults (Smith et al., 2000). This link may indicate that improving college students' self-efficacy levels will not only benefit them while enrolled in college, but also throughout their lives by increasing their career development.

Honors Students

If mastery experiences help raise self-efficacy levels, it would seem logical that high achieving college students would have high academic self-efficacy levels. University honors students are a subset of the student population that has achieved relatively high academic success in order to be in their respective program. Research has shown that honors students take their schoolwork more seriously and have more concern for their grades than do non-honors students (Rinn & Plucker, 2004). Honors students' concern for their academic work may explain why they have been accepted in a university honors program, another academic achievement. In addition to honors college students having more academic concern, these students also are more academically motivated than non-honors students, which may serve to create more academic mastery experiences for them (Mathiasen, 1985).

Honors students appear to have several personality characteristics that benefit their course work. For instance, honors students have high needs for achievement (Rinn et al., 2004). This drive for achievement can help honors students excel in their academic activities. Gifted college students have been found to be more likely to be self-oriented perfectionists that are more concerned with accomplishing the individual goals they set than average college students (Neumeister, 2004). This research has also shown that self-oriented perfectionists have higher levels of intrinsic motivation than people who are not self-oriented perfectionists (Neumeister, 2004). Intrinsic motivation can be very beneficial in college, when students tend to have less outside encouragement for success. Honors students may be motivated to do well academically because they wish to succeed at the goals they set themselves instead of those set by others.

These characteristics may allow honors students to engage in behaviors that benefit their academics. Research has shown that college honors students are prompt in finishing assignments, seldom procrastinate, and use study time effectively (Mathiasen, 1985). Their effective behaviors may be linked to their enjoyment in activities related to education. For example, college honors students enjoy solving difficult problems and are confident in making decisions (Mathiasen, 1985). Other characteristics of gifted college students include nonconforming and independent attitudes (Mathiasen, 1985; Rinn et al., 2004), and a preference for autonomy, non-authoritarianism, and liberalism (Rinn et al., 2004). More solitary time may encourage honors students to spend greater amounts of time studying or completing academic work than those with a more social attitude, and also provide fewer successful social experiences for honors students.

Research Purpose and Rationale

Many studies have dealt with academic and social self-efficacy, but none have compared self-efficacy levels between honors and non-honors students. This study examined levels of both academic and social self-efficacy in university honors and non-honors students. Little research has concentrated on honors students, and even less has studied university honors students' self-efficacy levels. Two hypotheses were developed for the experiment. First, it was hypothesized that honors program students would have higher levels of academic self-efficacy than non-honors students due to more validating and successful academic experiences. It was believed that the previous academic achievements that honors students received would give them a higher sense of academic accomplishment and confidence in their academic abilities than non-honors students who may have fewer academic successes. Bandura's self-efficacy theory explains that past successful experiences raise self-efficacy levels. In contrast, non-honors students may tend to have fewer mastery experiences and, consequently, have lower academic self-efficacy levels than honors students.

Research on academic differences between honors and non-honors groups supports the hypothesis that honors students would have higher academic self-efficacy than non-honors college students. A study by Shushok (2003) reported that gifted honors students had higher academic achievement than gifted non-honors students and average-ability counterparts. This suggests that membership in a university honors program has a significant impact on academic success, even when academic ability is taken into consideration. It has been found that honors students have significantly higher GPAs, academic self-concepts, and career aspirations than

non-honors college students (Gresham, Evan, & Elliott, 1988; Rinn, 2004). This link serves as further evidence that honors students may have higher academic self-efficacy levels.

The second hypothesis of the study involved social self-efficacy levels between honors and non-honors students. It was theorized that non-honors students would have higher levels of social self-efficacy than honors students due to more mastery experiences in social interactions.

As mentioned previously, research by Rinn (2004) has shown that gifted college students are more likely to be nonconforming, independent, and prefer more autonomy than students of average intellectual ability. Honors students' tendency to prefer independence is not conducive to extensive social interactions with peers. If honors students have fewer and less substantive social interactions with peers than non-honors students, it is less likely that they will have as many successful social experiences as their counterparts. Fewer social interactions will provide fewer opportunities for successful social experiences. As Bandura's self-efficacy theory explains, fewer mastery experiences may lead to lower levels of self-efficacy. This idea may directly apply to social self-efficacy levels in honors and non-honors college students.

Previous research appears to support the hypothesis that non-honors students will have lower social self-efficacy levels than honors students. Honors students have been found to be more introverted than students of average academic ability (Rinn, 2004). Their introversion may also decrease the number and quality of social interactions they engage in. Because honors students devote a greater proportion of their time and effort to academic pursuits than non-honors students, honors students may have less time and energy to invest in social relationships. Their high need for achievement could cause them to place less emphasis on creating and building

strong social relationships. If honors students devote less time to the social aspect of their lives, it is likely that they will have had fewer successful social experiences.

When asked about their social abilities, academically gifted students admit that they have fewer social skills than their non-gifted peers (Ablard, 1997). Students with high academic success describe themselves as less socially adept, less socially active, and less popular than students with less academic success (Ablard, 1997). In summation, numerous studies of honors and non-honors groups support the hypotheses of this experiment. As stated by Ablard (1997) "academically talented students appear to be less vulnerable to academic adjustment difficulties but more vulnerable to social adjustment difficulties" (p. 110). In accordance with this view, the connection between academic and social self-efficacy levels and inclusion in a university honors program was studied.

To determine whether the aforementioned self-efficacy differences existed, both honors and non-honors university students were invited to complete several questionnaires evaluating general self-efficacy, social self-efficacy, and academic self-efficacy. Background information on the participants was also gathered.

Method

Participants

Participants included both honors and non-honors students at a midwestern public university. A total of 102 participants were involved in the study, including 53 honors students and 49 non-honors students. Honors students were identified through a background questionnaire. Students in the university honors program must meet several criteria for inclusion in the program. First, students applying to the program as freshman must have an American

College Test (ACT) score of 27 or higher and be in the top 10% of their high school graduating class. Those wishing to join the program upon transferring must have at least a 3.30 grade point average (GPA) and provide a recommendation letter. Current honors students must then maintain a 3.30 GPA in order to remain in the program. Non-honors students were required to be enrolled at the university at the time of the study.

Participation in the study was voluntary and was attained through two recruiting procedures. First, honors students were invited to participate through honors class announcements, flyers, and mass e-mails to honors program students. Those choosing to participate received a free lunch for doing so. Non-honors students were recruited through the Psychology Department's Psychology Study Participant Manager (PSPM), an online system for managing psychology research studies. Non-honors students were given one-half research credit toward their introductory psychology course requirement in exchange for participation in the study.

The majority of participants were female ($N = 70$) with a total of 32 male participants. In terms of honors affiliation, 79% of honors student participants were female ($N = 42$) and 21% ($N = 11$) classified themselves as male honors students. This inequality in terms of gender could be due to the gender ratio of the university honors program. The gender distribution for non-honors students was more balanced with 21 males and 28 females. Participants divided into three racial groups, including Asian ($N = 1$), Caucasian ($N = 98$), and Hispanic ($N = 3$). Those participating in the study ranged in age from 18 to 42 years ($M = 20.1$).

Materials

Participants were asked to complete a demographic questionnaire that assessed age, gender, race/ethnicity, year in school, undergraduate major, GPA, ACT score, number of colleges applied to and accepted to, and whether they were members of the university's honors program. They then completed several questionnaires measuring different aspects of self-efficacy, including general self-efficacy, social self-efficacy, and academic self-efficacy. Scales used to assess academic self-efficacy focused on specific academic tasks college students perform frequently. Albert Bandura's research has shown that self-efficacy measures are more predictive of academic success when questions address specific tasks (Multon et al., 1991).

Self-efficacy scale. The Self-Efficacy Scale consists of two subscales: general self-efficacy and social self-efficacy. The general self-efficacy section of the scale contains 17 items from three factors, including, "(a) willingness to initiate behavior, (b) willingness to expend effort in completing the behavior, and (c) persistence in the face of adversity" (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, and Rogers, 1982). The social self-efficacy component of the scale includes 6 questions about whether students easily make friends, their ability in social situations, and their persistence in gaining new friendships. Reliability coefficients for the general self-efficacy and social self-efficacy sections are .86 and .71, respectively (Sherer et al., 1982).

Social sources scale. The Social Sources Scale, consisting of 40 questions, assesses social self-efficacy levels. Questions on the scale cover topics such as comfortableness with speaking in public, encouragement in social aspects, having social role models, and past success with making friends. These questions have been grouped into four different categories,

including emotional arousal, social persuasion, vicarious learning, and past performance. The four sections are congruent to the four factors Bandura attributes to affecting self-efficacy levels, including past performance, vicarious learning, emotional arousal, and social persuasion (Anderson & Betz, 2001). Assessments of the scale's internal consistency reliability have revealed the following coefficient alpha values: Past Performance (.80), Vicarious Learning (.77), Emotional Arousal (.91), and Social Persuasion (.87) (Anderson et al., 2001).

Children's multidimensional self-efficacy scales. Academic self-efficacy was evaluated using two subscales from the Children's Multidimensional Self-Efficacy Scales, developed by Bandura (1989) and used with children aged 14-16 years. The instrument was chosen for this study due to the academic nature of the questions that mapped well onto college students' experiences. The two subscales, self-efficacy for self-regulated learning and self-efficacy for academic achievement, involve academic tasks helpful for success. The 11 self-efficacy for self-regulated learning questions focus on the student's ability to complete tasks such as taking class notes, finishing class work before deadlines, and organizing academic activities. The self-efficacy for academic achievement section includes nine questions about how well students can learn such topics as English grammar, biology, and use computers. Reliability research on the two subscales revealed that they were quite reliable, with the self-efficacy for self-regulated learning scale having a coefficient of .87 and the self-efficacy for academic achievement scale with a coefficient of .70 (Zimmerman et al., 1992).

College self-efficacy instrument. Nine of the 19 total questions of the College Self-Efficacy Instrument (CSEI) were used in this study to further investigate participants' academic self-efficacy scores. The last ten questions of the CSEI involve social self-efficacy questions

that were not pertinent to the study. Research on the instrument has shown that those who have a high score expect to be involved in campus clubs and organizations, interact with university faculty, and use college facilities more than those who score lower (Gore, 2006). The first seven questions of the scale used for the study were found to be most closely related to a course performance factor, and, thus, focus on academic self-efficacy (Solberg, O'Brien, Villareal, Kennel, and Davis, 1993). These questions include issues such as writing a research paper, taking good class notes, and doing well on class exams. The last two questions used relate to social self-efficacy, and were most closely linked to a roommate factor (Solberg et al., 1993). They involve how well the student is able to socialize and get along with his or her college roommate. Research on the College Self-Efficacy Instrument has revealed that there is a strong relationship between participants' GPAs and end of semester CSEI scores, but this relationship is not as strong at the beginning of the semester (Gore, 2006). In accord with this finding, participants completed this questionnaire in the middle half of the spring semester.

Procedure

Honors students. Honors students were invited to participate in the study through mass e-mails to members of the university's honors programs, flyers in the Honors Cottage, and announcements made by the experimenter in honors program classes. The honors research sessions took place in the Honors Cottage, where students were greeted by the experimenter and given the informed consent sheet. Those who agreed to participate and signed the informed consent sheet were given the College Experiences Questionnaire, consisting of a demographic questionnaire, the Self-Efficacy Scale, the Social Sources Scale, two subscales of the Children's Multidimensional Self-Efficacy Scale, and the College Self-Efficacy Instrument. Upon

completion, honors participants were thanked and given a debriefing statement. The debriefing statement outlined the purpose of the study, an explanation of self-efficacy, how the research results would be used, and contact information for those with further questions. Students were then invited to help themselves to pizza, cookies, and pop as thanks for their participation.

Non-honors students. Non-honors students signed up for the study using the university's PSPM system. Upon entering the research room, students were greeted and given an informed consent sheet. Those wishing to participate signed the informed consent sheet and were given the College Experiences questionnaire, identical to that given to honors students. Upon completion of the questionnaire, students were thanked for their participation and given a debriefing form identical to that used with the honors students. The experimenter attempted to keep conditions of the honors and non-honors research sessions as similar as possible with both groups given the same materials and given the same directions. Later that day the experimenter gave participants one-half research credit for their participation using the Psychology Department's PSPM system.

Further research on variables affecting academic self-efficacy scales has revealed that academic self-efficacy scales are weak indicators of academic performance when they are conducted during the first semester of college (Gore, 2006). To compensate for this effect, this study was conducted during the spring semester of the academic year.

Results

Preliminary Analyses

Results showed that the honors students (M = 3.78, SD = .23) had higher average GPAs than non-honors students (M = 3.22, SD =.52). In terms of ACT scores between the groups, honors students (M = 29.3, SD = 2.3) also had higher average scores than non-honors students (M = 23.3, SD = 3.46). This, of course, is to be expected, given the requirements for being in the honors program.

Analyses of Hypotheses

The hypothesis that honors students would have higher levels of academic self-efficacy than non-honors students was shown in this study. Analysis using an independent groups t-test revealed significant differences between honors and non-honors students for academic self-efficacy scales. Results of the academic section of the College Self-Efficacy Instrument showed significantly higher scores for honors students (M = 29.32, SD = 3.57) than non-honors students (M = 27.29, SD = 3.58), t = 2.873, p = .01. Similarly, significant differences for the Children's Multidimensional Self-Efficacy Scale sections used, which measures academic self-efficacy levels, were found. Honors students (M = 115.98, SD = 11.26) scored significantly higher on the two sections than their non-honors counterparts (M = 107.18, SD = 11.50), t = 3.90, $p < .001$. When the two sections of the Children's Multidimensional Self-Efficacy Scale were statistically analyzed separately, it was found that both sections had significant differences between honors and non-honors groups. For instance, the self regulated learning section produced higher scores for honors students (M = 62.92, SD = 8.34) than non-honors students (M = 58.47, SD = 8.32), t = 2.70, p = .01. In terms of the academic achievement category, non-honors students (M = 48.71,

SD = 5.75) scored significantly lower than honors students (*M* = 53.06, *SD* = 5.34), $t = 3.95$, $p < .01$.

There were no differences between groups on the Self-Efficacy Scale (general and social self-efficacy), nor were there differences on the Social Sources Scale.

Supplementary Analyses

The general self-efficacy section from the Self-Efficacy Scale was found to be correlated to several other sections of the College Experiences Questionnaire. For instance, the general self-efficacy factor was significantly correlated to the social self-efficacy section of the Self-Efficacy Scale, $r = .334$, $p < .01$. The significant correlation for social self-efficacy questions was also apparent between the general self-efficacy section and the Social Sources Scale, $r = .307$, $p < .01$. A positive correlation with general self-efficacy was also found for the academic sections of the Children's Multidimensional Self-Efficacy Scales, $r = .418$, $p < .01$, and the academic section of the College Self-Efficacy Instrument, $r = .327$, $p < .01$.

The four sections of the Social Sources Scale were positively correlated with the social self-efficacy category of the Self-Efficacy Scale, (Emotional Arousal, $r = .747$, $p < .01$; Social Persuasion, $r = .701$, $p < .01$; Vicarious Learning, $r = .407$, $p < .01$; Past Performance, $r = .65$, $p < .01$). The self-regulated learning section of the Children's Multidimensional Self-Efficacy Scales is positively correlated with the social section of the Self-Efficacy Scale at a significant level, $r = .196$, $p < .05$, while the academic achievement section of the scale is not, $r = .002$, $p > .05$. The self-regulated learning section of the Children's Multidimensional Self-Efficacy Scales was also found to be significantly correlated to the Vicarious Learning section, a component of the Social Sources Scale, $r = .248$, $p < .02$. Another surprising finding was that the Vicarious

Learning section of the Social Sources Scale was significantly correlated to both the academic sections of the Children's Multidimensional Self-Efficacy Scales, $r = .249$, $p < .02$, and the academic section of the College Self-Efficacy Instrument, $r = .34$, $p < .01$.

Correlations were found between GPA and ACT scores of all participants, $r = .60$, $p < .01$. The ACT is used to predict college GPAs, an indicator of college success. A Pearson Product-Moment Correlation has shown that the Academic Self-Efficacy Scale is correlated to both participant GPAs, $r = .48$, $p < .01$, and ACT scores, $r = .48$, $p < .01$. The academic questions from the College Self-Efficacy Scale also have significant correlations with GPA, $r = .40$, $p < .01$, and ACT scores, $r = .32$, $p < .01$.

Several correlations were found between gender of the whole sample (honors and non-honors students) and sections of the College Experiences Questionnaire. For instance, gender differences were found for the general self-efficacy section of the scale, with males scoring significantly higher ($M = 82.72$, $SD = 6.92$) than females ($M = 78.89$, $SD = 9.32$), $t = 2.08$, $p = .04$. On the other hand, females showed higher rates ($M = 113.34$, $SD = 11.42$) of academic self-efficacy of the Children's Multidimensional Self-Efficacy Scales than males ($M = 108.28$, $SD = 13.14$), $t = -1.98$, $p = .05$. Females also showed higher scores ($M = 28.89$, $SD = 3.39$) than males ($M = 27.16$, $SD = 4.11$) on the academic section of the College Self-Efficacy Instrument, $t = -2.23$, $p = .03$. Continuing with this trend, females had higher levels ($M = 51.86$, $SD = 4.97$) of the Social Sources Scale's Vicarious Learning than males ($M = 49.41$, $SD = 7.05$), $t = -2.04$, $p = .04$.

This unequal distribution of scores in terms of gender carried over to gender comparisons within the non-honors group, with higher female scores ($M = 51.71$, $SD = 4.12$) than male scores

($M = 47.67$, $SD = 7.85$) on the Vicarious Learning sub-category of the Social Sources Scale, $t = -2.34$, $p = .02$. The Vicarious Learning section was the only area of significant difference between genders in the non-honors participant group. There were no significant gender differences in the honors group.

Discussion

General Self-Efficacy

The current study was conducted to examine the relations between academic and social self-efficacy levels between honors and non-honors university students. Due to the fact that there is little research on honors students and even less research on academic and social self-efficacy levels on university honors students, this study highlights a need for further research. The current study on honors and non-honors students' general self-efficacy has found no significant differences between the two groups. This may be due to honors and non-honors students finding their own niches of success, even if they are in very different areas. Albert Bandura, a leading researcher in the field of self-efficacy, has written extensively about how beneficial successes are to one's feeling of mastery over a subject area, which leads to higher self-efficacy levels (Bandura, 1995; Bandura, 1977). Surprisingly, even failures can cause a sense of mastery if approached with the right attitude. For instance, one who repeatedly fails at entering an academic program may feel a greater sense of accomplishment when their persistence results in their later admittance. Albert Bandura has found, "occasional failures that are later overcome by determined effort can strengthen self-motivated persistence if one finds through experience that even the most difficult obstacles can be mastered by sustained effort" (Bandura, 1977, p. 195).

Both of these ideas can be used to explain the lack of significant differences in terms of general self-efficacy between honors and non-honors students. Although these two groups may have varying numbers of successes in their lives, they may feel a greater sense of mastery through repeated successes. On the other hand, if the two groups have different experiences in terms of failure rates, their self-efficacy may be raised through persistence in the face of failure with subsequent success. These two groups appear to have similar levels of overall confidence in their ability to perform in general. This sense of confidence in one's abilities is important in life. It encourages those with realistic self-efficacy levels to pursue desired goals and gain more successes in life thus increasing self-efficacy levels further. Albert Bandura's research has also shown that, "after strong efficacy expectations are developed through repeated successes, the negative impact of occasional failures is likely to be reduced" (Bandura, 1977, p. 195). Strong self-efficacy levels can serve as a protective factor when one is faced with future obstacles. Persistence in the face of adversity can have a strong impact on one's ability to overcome life's hurdles.

Although research appears to show that high levels of self-efficacy are important to cushion failures and increase the likelihood of success, accurate levels of self-efficacy are most beneficial (Bandura, 1986). As with most areas of life, moderate levels of self-efficacy appear to be the most beneficial for future success. Those with unrealistically high self-efficacy will most likely experience successive failures as they attempt to attain goals they are incapable of. In contrast, those with unrealistically low self-efficacy will set low goals for themselves, and, consequently, will not reach their full potential.

Academic Self-Efficacy

Results indicate that honors and non-honors students have significant differences in terms of academic self-efficacy with honors students having higher scores than non-honors students. Although past research has not studied academic self-efficacy in honors students, research has shown that they tend to have higher academic self-concepts than average-ability students (as cited in Gresham et al., 1988; & as cited in Rinn, 2005). This difference may be due to honors students having more previous academic successes than non-honors students. Honors students may also have overcome academic failures to gain a feeling of achievement that has encouraged them to pursue more academically challenging goals. These challenging academic goals may have resulted in increasing further their academic self-efficacy, and helped them gain achievements to allow them to qualify for the University Honors Program. Further research into what has caused university honors students' higher academic self-efficacy may aid in finding ways to increase students' academic self-efficacy levels.

It is possible that honors students have personality characteristics that separate them from non-honors students with lower academic self-efficacy. Past research has shown that honors students tend to have a higher need for praise or acceptance than non-honors students (Mathiasen, 1985). This need for encouragement may cause honors students to strive for academic success in order to receive the praise that need. More formal recognition is usually given in academic areas, and may explain why honors students strive to excel in this area. Recognition in academic aspects, such as honor roll status and other academic excellence awards, tends to be more formal and frequent than recognition in other areas. Continued research is needed into whether honors students have a stronger predisposition for a need for

encouragement than non-honors students, and whether this need moderates their academic efforts and consequential higher academic self-efficacy levels.

Research has shown that college honors students have higher needs for achievement before entering a university honors program (Hickson & Driskill, 1970). This shows that college honors programs do not cause students' high needs for achievement. Instead, they appear to exist even before entering college. This supports the idea that honors students may have fundamental personality differences from non-honors students that are recognizable at a young age. Further investigation is needed on whether children's personality characteristics, especially needs for achievement, can predict their future behavior.

Research on academic confidence may support the idea of honors students having personality or behavioral differences from non-honors students. Research has shown that more confident students work harder are more persistent, and utilize better learning and problem-solving techniques than low-confidence students (Bandura, 1977; & Bandura, 1997). It is unknown whether these characteristics are learned through successful academic processes or are caused by basic personality differences between students with varying levels of academic confidence. This area is in need of more research.

Honors students' higher need for achievement recognition should be taken into consideration when designing programs for academically gifted students at the elementary, high school, and university levels. Classes and activities that lead to praise for honors students' success may raise their self-efficacy levels and encourage them to pursue further successes. This praise and recognition may also encourage honors students to remain in honors programs and feel comfortable and accepted in them. Courses that allow students to utilize their skills and

share them with others may increase satisfaction in honors courses. Honors students may be more willing to join honors programs when they learn that current members enjoy the program and feel a sense of belonging in the program.

Honors program teachers and directors should take these results into consideration in order to increase program retention rates and overcome stigmas attached to honors program affiliation. Stigmas related to honors students' social inabilities should be avoided in response to results on social self-efficacy in honors students. This research indicates that honors students appear to have similar levels of social confidence to non-honors students, and this should be taken into consideration when interacting with honors students.

Similarly, several research studies have found that college honors students have high needs for achievement, approval, and autonomy (Cowell & Entwistle, 1971; Hickson & Driskill, 1970; Palmer & Wohl, 1972). These characteristics are important for designing an honors program sensitive to the unique needs of honors students. Honors students need to feel successful. This can be accomplished by giving students rigorous but achievable goals to pursue. The benefits of challenging goals have been recognized. For instance, "According to Bandura, when a person aspires to a high achievement goal, she is more apt to exert the self-monitoring and to sustain the efforts required to reach a satisfactory solution" (Bouffard-Bouchard, 2001, p. 361).

Creating high achievement goals can motivate honors students to excel and gain more confidence in their abilities. These goals can include tasks that honors students can choose on their own and work on independently. When students accomplish these goals, they will feel added success in that they were able to choose their own path and succeed by their own doing. It

is important that students are recognized and given positive feedback for these achievements, which will encourage their future strivings for high yet attainable aspirations. Instilling in honors students this sense of control over their own success and a feeling of confidence in their academic abilities can have long-term positive affects for their future areas of study and careers.

Even though high intelligence can increase the probability of academic success, high academic confidence may also have beneficial effects. For example, research has shown that, "academically underprepared students with a high academic self-concept earned higher grades in college algebra than academically underprepared students with a low academic self-concept" (House, 2001, p. 111). This research shows that even when controlling for academic preparedness, self-concept has a strong impact on academic performance. It is believed that a combination of honors students' intelligence and confidence in their academic abilities has allowed for their inclusion in a university honors program, a sign of academic success. This hypothesis is supported by a study documenting that highly intelligent student with high academic self-efficacy had better exam performance (Elias et al., 2002).

Further research supports the importance of academic self-efficacy on college success. As Chemers et al. have outlined, "Students who enter college with confidence in their ability to perform well academically do perform significantly better than do less confident students" (2001, p. 61). These findings are significant for high school administrators, teachers, and counselors. If high school graduates are equipped with confidence in their academic abilities, they will be more likely to succeed in college. Working to increase students' academic self-efficacy at all age levels can increase their rate of success throughout life.

Social Self-Efficacy

Comparisons between social self-efficacy scores for honors and non-honors students have inconclusive results. It appears that honors and non-honors students do not differ significantly in terms of their confidence in their social abilities. This may be due to honors students' social opportunities gained through the honors program. Honors program members are able to register for honors-only courses that have more of a focus on discussion and presentation than other university courses. These added opportunities to interact with fellow honors students and professors may allow honors students to practice their social skills more than they could in non-honors courses. These social opportunities could allow honors students added success and confidence in their social abilities, which would explain the lack of support of the study's second hypothesis. Honors students are also offered social opportunities through various honors extracurricular organizations and recreational activities. In these smaller groups honors students may be able to form stronger relationships with other honors students than they could in a non-honors setting. Added social experiences could largely impact honors students' social experiences in college. This may explain why elementary gifted students were found to have lower social self-efficacy than non-gifted students (Gresham et al., 1988). It may be that the aforementioned social opportunities in college increase honors students' social self-efficacy levels. This relationship should be further researched in order to help gifted students feel confident in their social abilities regardless of their age.

Non-honors students' social self-efficacy scores could be attributed to their possible outgoing nature. Research has shown that verbally talented students' abilities are more obvious in everyday situations (as cited in Ablard, 1997). Verbally talented non-honors students may

stand out in their classes in terms of social abilities and this could help account for their confidence in their abilities. If one is treated as though they are socially talented, they will be more likely to engage in social activities and feel more comfortable with their social skills. These areas of social opportunity for both honors and non-honors students could account for relatively equal levels of social self-efficacy between the two groups.

Previously mentioned research appears to signify that both academic and social self-efficacy impact academic performance. Those more willing to participate in class discussions, ask questions during class, and approach professors outside of class may have an advantage over those too shy to do so. A stronger sense of belonging in one's class may also encourage one to put forth more effort in class and be more motivated to excel. It appears that strong social self-efficacy can be beneficial in several aspects of life, including academic performance.

Activities concentrating on raising the social self-efficacy levels of university students may have beneficial effects in terms of college retention rates. A study by Ferrari and Parker (1992) has linked social self-efficacy expectations to academic performance in first-year college students. Other research has found that being socially accepted is one of the strongest predictors of adjustment in an educational setting (as cited in Fan et al., 1998). Due to the importance of social self-efficacy in college performance and adjustment, it would be helpful if universities could create programs to increase their students' social self-efficacy in order to increase the college success rates in terms of GPA and graduation and retention rates.

If colleges required a social self-efficacy scale to be completed when registering for classes, they would be able to identify and target students with low self-efficacy. By targeting these individuals, it may be possible to increase their chances of raising social self-efficacy

levels and consequently increasing their retention college retention rates. Colleges could offer students educational sessions on how meet friends in college, give oral presentations, and approach faculty members. Learning these skills could also increase students' academic performance. For instance, it has been found that high achieving students had more informal contact with faculty, less concern about their weight, and more confidence with facing future challenges (Gerdes et al., 1994). It appears that students can benefit greatly by learning a few helpful strategies for success in college. Further research on effective intervention programs would be helpful for college students' future success.

Limitations

Due to the recruitment technique differences between the honors and non-honors groups it is possible that participants in the two groups may differ by other factors than just their inclusion in a university honors program. For example, honors students willing to complete the questionnaire may be more active in the honors program due to the fact that the honors group research sessions occurred in the Honors Cottage. Honors students who are involved in honors programs and classes would be more likely to visit the Honors Cottage to complete the questionnaire. Several honors courses housed in the Honors Cottage were targeted for the study. Making announcements in honors courses made it more likely that honors students actively enrolled in honors courses would complete the study. Honors students active in the honors program may have several different characteristics than honors students who are inactive members. Their activity in the program may be indicative of their social connection to the program and its members and their satisfaction with the program, and these differences may have affected study results.

The differences in terms of study location and rewards may have also affected results. Honors students were given the questionnaire in the Honors Cottage, while separate research sessions were held for non-honors students in various classrooms on the university campus. Honors students completing the study were given food and pop for doing so, while non-honors students received course research credit. The difference in compensation may have affected participants' motivation to complete the study and their questionnaire data.

In terms of demographic information, there were several differences between the honors and non-honors groups. Honors students varied greatly in terms of gender, with many more female honors students than male honors students completing the survey. This may be due to the larger proportion of females in the University Honors Program in general. The difficulty in recruiting honors students to participate in the survey affected the gender proportions. In contrast, non-honors students were almost equal in relation to gender.

The use of Bandura's Children's Multidimensional Self-Efficacy Scales to measure academic self-efficacy may have its own set of limitations. Using a scale used with children age 14-16 may not be adequate for measuring college students' self-efficacy levels, as children and university students may respond differently to academic self-efficacy questions.

Summary

This study has highlighted that honors and non-honors students differ in terms of their academic self-efficacy levels, with honors students displaying higher levels of academic self-efficacy, but are similar in terms of general self-efficacy levels and social self-efficacy levels. Research has found that, "gifted college students have important intellectual and social needs that differ from those of average-ability college students" (Rinn et al., 2004, p.63). It is

important for honors program facilitators to keep in mind how honors students differ from non-honors students, and plan honors programs accordingly. Additionally, administrators and educators in general can benefit from recognizing the importance of academic self-efficacy for college success, and strive to boost self-efficacy in this domain for all students. In conclusion, although there appear to be differences in academic self-efficacy levels between honors and non-honors students, these groups may be more similar than most people think.

References

Ablard, K.E. (1997). Self-perceptions and needs as a function of type of academic ability and gender. *Roeper Review, 20(2),* 110-117.

Anderson, S.L., & Betz, N.E. (2001). Sources of social self-efficacy expectations: Their measurement and relation to career development. *Journal of Vocational Behavior, 58,* 98-117.

Bandura, A. (1989). *Multidimensional scales of perceived self-efficacy.* Unpublished test, Stanford University, Stanford, CA.

Bandura, A. (1995). *Self-efficacy in changing societies.* Cambridge, New York: Cambridge University Press.

Bandura, A. (1997). *Self-efficacy: The exercise of* control. New York: Freeman.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84(2),* 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bouffard-Bouchard, T. (2001). Influence of self-efficacy on performance in a cognitive task. *The Journal of Social Psychology, 130(3),* 353-363.

Boulter, L.T. (2002). Self-concept as a predictor of college freshman academic adjustment. *College Student Journal, 36(2),* 234-246.

Chemers, M.M., Hu, L., & Garcia, B.F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93(1),* 55-64.

Cowell, M.D., & Entwistle, N.J. (1971). The relationship between personality, study attitudes, and academic performance in a technical college. *British Journal of Educational Psychology, 4,* 85-90.

Elias, S., & Loomis, R. (2002). Utilizing need for cognition and perceived self-efficacy to predict academic performance. *Journal of Applied Social Psychology, 32(8)*, 1687-1702.

Fan, C., & Mak, A. (1998). Measuring social self-efficacy in a culturally diverse student population. *Social Behavior and Personality, 26(2)*, 131-144.

Ferarri, J.R., & Parker, J.T. (1992). High school achievement, self-efficacy, and locus of control as predictors of freshman academic performance. *Psychological Reports, 1,* 515-518.

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling & Development, 72,* 281-288.

Gore, P.A. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Assessment, 14(1)*, 92-115.

Gresham, F.M., Evans, S., & Elliott, S.N. (1988). Self-efficacy differences among mildly handicapped, gifted, and nonhandicapped students. *The Journal of Special Education, 22(2)*, 231-241.

Hamner, T.J., & Turner, P.H. (2001). *Parenting in contemporary society.* Boston: Allyn and Bacon.

Hickson, R.H., & Driskill, J.C. (1970). Needs for achievement: Differences between honors and non-honors students. *The Journal of Experimental Education, 38(3)*, 37-38.

House, J.D. (2001). The predictive relationship between academic self-concept, achievement expectancies, and grade performance in college calculus. *The Journal of Social Psychology, 135(1)*, 111-112.

Lackaye, T., Margalit, M., Ziv, O., & Ziman, T. (2006). Comparisons of self-efficacy, mood, effort, and hope between students with learning disabilities and their non-LD-matched peers. *Learning Disabilities Research & Practice, 21(2)*, 111-121.

Lent, R.W., Brown, S.D., & Larkin, K.C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. *Journal of Counseling Psychology, 31(3)*, 356-362.

Lent, R.W., Brown, S.D., & Larkin, K.C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology, 33(3),* 265-269.

Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Marsh, H.W. (1987). The big-fish-little-pond effect on academic self-concept. *Journal of Educational Psychology, 79(3)*, 280-295.

Mathiasen, R.E. (1985). Characteristics of the college honors student. *Journal of College Student Personnel, 26(2),* 171-173.

Mone, M.A., Baker, D.D., & Jeffries, F. (1995). Predictive validity and time dependency of self-efficacy, self-esteem, personal goals, and academic performance. *Educational and Psychological Measurement, 55,* 716-727.

Multon, K.D., Brown, S.D., & Lent, R.W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38(1)*, 30-38.

Neumeister, K.L. (2004). Understanding the relationship between perfectionism and achievement motivation in gifted college students. *Gifted Child Quarterly, 48(3)*, 219-231.

Palmer, A.B., & Wohl, T. (1972). Some personality characteristics of the honors student. *College Student Journal, 6,* 106-111.

Rinn, A.N. (2005). Trends among honors college students: An analysis by year in school. *The Journal of Secondary Gifted Education, 16(4)*, 157-167.

Rinn, A.N., & Plucker, J.A. (2004). We recruit them, but then what? The educational and psychological experiences of academically talented undergraduates. *Gifted Child Quarterly, 48(1)*, 54-67.

Schwarzer, R., & Fuchs, R. (1995). Self-efficacy and health behaviours. In *Predicting health behaviour: Research and practice with social cognition models*. Retrieved December 12, 2006, from http://web.fu-berlin.de/gesund/publicat/conner9.htm

Sherer, M., Maddux, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R.W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports, 51*, 663-671.

Shushok, F.S., Jr. (2003). Educating the best and the brightest: Collegiate honors programs and the intellectual, social and psychological development of students. *Research in Higher Education, 24,* 73-95.

Smith, H., & Betz, N.E. (2000). Development and validation of a scale of perceived social self-efficacy. *Journal of Career Assessment, 8(3)*, 283-301.

Solberg, V.S., O'Brien, K., Villareal, P., Kennel, R., & Davis, B. (1993). *Hispanic Journal of Behavioral Sciences, 15(1)*, 80-95.

Zimmerman, B.J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 29(3)*, 663-676.

Zorkina, Y., & Nalbone, D.P. (2003). Effect of induced level of confidence on college students' performance on a cognitive task. *Current Research in Social Psychology, 8(11),* 148-162.

Table 1

Honors and Non-Honors Students' Scores on the College Experiences Questionnaire

	General SE		Social SE		Social Sources		AcademicSE		ACollege		SCollege	
Students	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Honors	79.19	8.36	25.26	3.60	187.92	25.31	115.98	11.26	29.32	3.57	14.00	28.82
Non-Honors	81.06	9.21	24.61	5.79	181.35	32.16	107.18	11.50	27.29	3.58	8.22	1.86

University of Northern Iowa
Standard Application for Human Participants Review

Note: Before Completing Application, Investigators Must Read **Information for Investigators**

All items must be completed and the form must be typed or printed electronically. Submit 3 hard copies to the Human Participants Review Committee, Office of Sponsored Programs, 213 East Bartlett, 0394

Title of proposal: Academic and Social Self-Efficacy in Honors and Non-Honors University Students

Project Type(s): Faculty/Staff Research Class Project Thesis/Dissertation Indep Study

Grant/Contract Other, Specify

Name of Principal Investigator (PI): Carmen Krapfl

Status: Faculty Undergraduate Student Graduate Student Staff

PI Department: Psychology Faculty Advisor Dept(if different)

PI Phone: (563) 880-9060 PI Email: carmenk@uni.edu

PI Campus Mailing Address/Mail Code 9105 University Ave Apt 8 Cedar Falls, IA 50613

Source of Funding: University of Northern Iowa Honors Program

Agency's Number (if assigned):

Data collection dates: Beginning January 22, 2007 Through April 6, 2007

Project Status: New Renewal Modification Grant-Compet. Renewal Grant-Non-compet.Renewa

---

Please provide the date that the PI and faculty sponsor (if applicable) completed IRB training/certification in Human Participants Issues and attach a copy of the certificate if not already on file with the IRB.

PI DATE 10/5/2005 Certificate Attached On File

FACULTY SPONSOR DATE 8/1/2001 Certificate Attached On File

SIGNATURES: The undersigned acknowledge that: 1. this application represents an accurate and complete description of the proposed research; 2. the research will be conducted in compliance with the recommendations of and only after approval has been received from the UNI IRB. The PI is responsible for reporting any serious adverse events or problems to the IRB, for requesting prior IRB approval for modifications, and for requesting continuing review and approval.

	TYPED NAME	SIGNATURE	DATE
Principal Investigator (s):	Carmen Krapfl		12/7/2006
Faculty sponsor (required for all student projects):	Kim MacLin		12/7/2006

SUMMARY OF ACTIVITY. In **lay language**, answer in spaces provided (add numbered and referenced sheets when necessary). Do not refer to an accompanying grant or contract proposal.

A. PURPOSE OF RESEARCH. Explain **1)** why this research is important and what the primary purposes are, and **2)** what question(s) or hypotheses this activity is designed to answer, and **3)** if this is a class project, explain whether and how the data will be used or presented outside the classroom.

1) Self-efficacy can be described as a confidence is one's ability to complete tasks in order to achieve certain goals. .This confidence in ability can largely impact the activities people choose to engage in and succeed at. Self-efficacy in regards to social and academic areas can influence many aspects of life. For instance, those with high academic self-efficacy may be more motivated to attain advanced academic degrees or succeed at a higher level than those with lower academic self-efficacy. The same concept can be applied to social self-efficacy. Learning what groups have lower academic and social self-efficacy can determine who is in need of interventions to help raise their overall confidence in their abilities to complete certain tasks in life. The purpose of this study is to measure social and academic self-efficacy levels between honors and non-honors university students. Little past research has focused on university honors students' self-efficacy, and none has compared self-efficacy between honors and non-honors students.

2) This study's hypotheses include:

   a. Honors students will have higher academic self-efficacy than non-honors students.

   b. Non-honors students will have higher social self-efficacy than honors students.

3) N/A

B. RESEARCH PROCEDURES INVOLVED. 1. Provide a complete description of: a. the study design, and b. all study procedures that will be performed (e.g., presentation of stimuli, description of activity required, topic of questionnaire or interview, name of psychological test). Provide this information for each phase of the study (pilot, screening, intervention and follow-up). Attach study flow sheet, if desired.

Attach questionnaires, interview questions/topic areas, scales, and/or examples of stimuli to be presented to participants.

Both honors and non-honors students will sign up for the study through UNI's Psychology Study Participant Manager (PSPM) system. Approximately 50 participants are needed for the honors group and 50 more for the non-honors group. Participants will be presented with the informed consent sheet (please refer to attached page 7) when they enter the research laboratory. Those that accept and sign the informed consent sheet will be invited to complete the Background Questionnaire to gather information such as their age, gender, major, GPA, and high school ACT score (refer to attached page 8). The Self-Efficacy Scale will then be given to participants to measure their general self efficacy (refer to attached page 9). The Self-Efficacy Scale includes a broad range of questions that pertain to confidence levels in completing tasks, being successful at such tasks, facing difficulties, and socializing with others. Participants will then be asked to complete the Social Sources Scale to measure their

social self-efficacy (refer to attached page 12). Questions on the Social Sources Scale ask about the participants' ability to make friends, feel comfortable around peers, interacting in social situations, and the social competency of role models. Next, participants will be invited to complete the College Self-Efficacy Instrument (refer to attached page 20). The College Self-Efficacy Instrument includes questions related to students' confidence and ability to complete regular college tasks, such as writing research papers, taking class notes, and managing time efficiently. Lastly, two subscales, self-efficacy for self-regulated learning and self-efficacy for academic achievement, from the Children's Multidimensional Self-Efficacy Scales will be used to measure participants' academic self-efficacy (refer to attached page 17). The two scales relate to academic abilities such as concentrating in class, organizing schoolwork, participating in class discussions. None of the questionnaires contain sensitive material that would make participants feel embarrassed or uncomfortable. After completing the self-efficacy scales, participants will be thanked and dismissed.

C. DECEPTION: If any deception or withholding of complete information is required for this activity, explain why this is necessary and attach a protocol explaining if, how, when, and by whom participants will be debriefed. Attach debriefing script.

D. PARTICIPANTS

1. Approximately how many participants will you need to **complete** this study?

   Number: 100 Age Range(s): 18 years or older

2. What characteristics (inclusion criteria) must participants have to be in this study? (Answer for each participant group, if different.)

   To be included in the study, participants must be current undergraduate students enrolled at the University of Northern Iowa. Participants of the honors group must currently be members of the university's honors program. University Honors students must meet several criteria for inclusion in the program. First-year college students with an ACT score of at least 27 and in the top 10% of their high school graduating class are automatically invited to join the honors program. Transfer students with at least a 3.30 college GPA are eligible to apply for admission to the program. All university honors students are required to maintain at least a 3.30 GPA. Participants of the non-honors group must be undergraduate students at the University of Northern Iowa during the spring semester of 2007.

3. Describe how you will recruit your participants and who will be directly involved in the recruitment. Key personnel directly responsible for recruitment and collection of data must complete human participant protection training. (Attach all recruiting advertisements, flyers, contact letters, telephone contact protocols, scripts, web site template, etc.)

   Participants for both the honors and non-honors group will sign up for the study through the university's PSPM system. Honors students will be recruited by e-mail mailings with links to the PSPM website and fliers displayed in the Honors Cottage. Both the principal investigator, Carmen Krapfl, and the faculty advisor, Kimberly MacLin, will have access to the system and be involved in recruitment of participants.

4. How will you protect participants' privacy during recruitment? (Attach letters of cooperation & agreement from any and all agencies, institutions or others involved in participant recruitment.)

   Honors students' privacy will be protected during recruitment by sending a mass e-mail to all honors students, and posting fliers in the Honors Cottage. Nothing will be sent to students' private residences. Non-honors students' privacy will be protected by only being recruited through the customary posting on the PSPM system.

5. Explain what steps you will take during the recruitment process to minimize potential undue influence, coercion or the appearance of coercion. If participants are employees, students, clients, or patients of the PI or any key personnel, please describe how undue influence or coercion will be mitigated.

   Those eligible for the study will be invited to participate, but will not be forced to do so. There will be no negative consequences for anyone who chooses not to engage in the study. While completing the surveys, any participants who wish to stop partaking in the study may do so at any time without consequence.

6. Will you give participants gifts, payments, services without charge, or course credit? If course credit is provided, please provide a listing of the research alternatives and the amount of credit given for participation and alternatives.

   No Yes If yes, explain:

   Participants in both the non-honors and honors group will receive 1 research credit through the PSPM system for partaking in the study. Those wishing not to engage in this study may instead sign up for another research study in the PSPM system for research credit, or follow specified guidelines for alternative projects to receive research credit as outlined by their professor.

7. Where will the study procedures be carried out? If any procedures occur off-campus, who is involved in conducting that research? (Attach copies of IRB approvals or letters of cooperation from non-UNI research sites if procedures will be carried out elsewhere. Letters of cooperation are required from all schools where data collection will take place, including Price Lab School.)

   On campus Off campus Both on- and off-campus

   Do offsite research collaborators involved in participant recruiting have human participants protection training?

   No Yes Don't know Not applicable – no offsite collaborators

E. RISKS AND BENEFITS

1. All research carries some social, economic, psychological, or physical risk. Describe the nature and degree of risk of possible injury, stress, discomfort, invasion of privacy, and other side effects from all study procedures, activities, and devices (standard and experimental), interviews and questionnaires. Include psychosocial, emotional and political risks as well as physical risks.

   The study carries no risk of physical injury. Mild discomfort may occur while completing the questionnaires due to determining one's perceived capabilities in academic and social areas. Invasion of privacy will be minimal in the study. Names of participants will be taken in order to give research credit for those in the non-honors and honors research groups. No identifying information will be included in data collection and analysis. Psychosocial, emotional, and political risks will be minimal.

2. Explain what steps you will take to minimize risks of harm and to protect participants' confidentiality, rights and welfare. (If you will include protected groups of participants which include minors, fetuses in utero, prisoners, pregnant women, or cognitively impaired or economically or educationally disadvantaged participants, please identify the group(s) and answer this question for each group.)

   Participants in both groups will complete the study in a safe room on campus where there will be little chance of harm. Participants' identifying information will not be used for data collection or analysis in the study.

3. Study procedures often have the potential to lead to the unintended discovery of a participant's personal medical, psychological, and/or psycho-social conditions that could be considered to be a risk for that participant. Examples might include disease, genetic predispositions, suicidal behavior, substance use difficulties, interpersonal problems, legal problems or other private information. How will you handle such discoveries in a sensitive way if they occur?

   Data that participants submit for the study will not be connected to their names or other identifying information. Those filling out questionnaires for the study will remain anonymous.

4. Describe the anticipated benefits of this research for individual participants in each participant group. If none, state "None."

   None

5. Describe the anticipated benefits of this research for society, and explain how the benefits outweigh the risks.

   The results of the study may help to highlight groups of undergraduate students that are in need of interventions to improve their confidence in academic and social areas. By revealing

the groups with low self-efficacy, society can focus on helping people with low self-efficacy feel more confident about their abilities in life, which may encourage them to be happier and more successful in the future. By acknowledging groups with lower self-efficacy, it will be possible to work to help them raise it at an earlier age, which could benefit them throughout their lifetimes.

F. CONFIDENTIALITY OF RESEARCH DATA

1. Will you record any direct participant identifiers (names, Social Security numbers, addresses, telephone numbers, locator information, etc.)

   No Yes If yes, explain why recording identifiers is necessary and describe the coding system(s) you will use to protect against disclosure.

   Recording the names of participants in each group will be used for the sole purpose of giving the course credit for study participation.

2. After data collection is complete, will you retain a link between study code numbers and direct identifiers after the data collection is complete?

   No Yes If yes, explain why this is necessary and for how long you will keep this link.

3. Describe how you will protect data against disclosure to the public or to other researchers or non-researchers. Other than members of the research team, explain who will have access to data (e.g., sponsors, advisers, government agencies) and how long you intend to keep the data. If data will be collected via web or internet, please include information on security measures, use of passwords, encryption, access to servers, firewalls, etc.

   Data collected for this study will be kept confidential. Disclosure of information to the public will be prevented by using a secure on-campus computer that requires an entrance password to view participants' confidential information. Access to the data on this computer will be restricted to the principal investigator and faculty advisor.

4. Do you anticipate using any data (information, interview data, etc.) from this study for other studies in the future?

   No Yes If "Yes," explain and **include this information in the consent form**.

G. ADDITIONAL INFORMATION

1. Will you need access to participants' medical, academic, or other personal records for screening purposes or during this study?

   No Yes. If yes, specify types of records, what information you will take from the records and how you will use them. **Permission for such access must be included in the consent information**.

2. Will you make sound or video recordings or photographs of study participants?

No Yes. If yes, explain what type of recordings you will make, how long you will keep them, and if anyone other than the members of the research team will be able to see them.

Inclusion of photographs or recordings must be included in the consent information.

H. CONSENT FORMS/PROCESS Check all that apply.

Written Consent (Attach a copy of all consent and assent forms for each participant group.)

Oral Consent (Attach a written script of oral consent and assent for each participant group and justification for waiver of documentation of consent)

Elements of Consent Provided via Letter or Electronic Display (Attach written justification of waiver of documentation of consent along with text of consent for letter or display)

Waiver of Consent (Attach written justification of waiver of consent process. Note that waiver of consent is extremely rare and would only be granted if the consent process itself posed a greater risk to participants than did participation in the research)

UNIVERSITY OF NORTHERN IOWA
INFORMED CONSENT

Name of Investigators: Carmen Krapfl, Principal Investigator
Kimberly MacLin, Faculty Sponsor

Invitation to Participate: You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision about whether or not to participate.

Nature and Purpose: This study is designed to measure levels of academic and social self-efficacy in University of Northern Iowa undergraduate students.

Explanation of Procedures: You are invited to complete several questionnaires. This study will last approximately one half hour.

Discomfort and Risks: Risks to participation are minimal. Participants of this study may experience slight discomfort or inconvenience while completing the questionnaires.

Benefits and Compensation: Participants will be compensated with one half research credit for partaking in this study. Withdrawal from the study will not affect research credit compensation.

Confidentiality: Information obtained during this study which could identify you will be kept confidential. The summarized findings with no identifying information may be published in an academic journal or presented at a scholarly conference.

Right to Refuse or Withdraw: Your participation is completely voluntary. You are free to withdraw from participation at any time or to choose not to participate at all, and by doing so, you will not be penalized or lose benefits to which you are otherwise entitled.

Questions: If you have questions about the study you may contact Kimberly MacLin at the Department of Psychology, University of Northern Iowa 319-273-2302. You can also contact the office of the IRB Administrator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.

Agreement: I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant) (Date)	**(Signature of investigator) (Date)**
(Printed name of participant)	**(Signature of advisor) (Date)**

College Experiences Questionnaire

General Instructions: Read the instructions for each section. There are no right and wrong answers, so your careful reading and answering of this questionnaire is appreciated.

Instructions: For each question, please fill in the blank corresponding to your answer.

1. Age: _____

2. Gender:
   (1) Male
   (2) Female

3. Race/Ethnicity:
   (1) African American
   (2) Asian
   (3) Caucasian
   (4) Hispanic/Latino
   (5) Native American/Pacific Islander
   (6) Biracial/Multiracial

4. Year in School:
   (1) Freshman
   (2) Sophomore
   (3) Junior
   (4) Senior
   (5) Graduate Student

5. Undergraduate Major: _____

6. Undergraduate Major GPA: _____

7. Undergraduate Cumulative GPA: _____

8. ACT Score: _____ (if you took it multiple times, indicate all scores)

9. Number of Colleges/Universities You Applied To:_____

10. Number of Colleges/Universities You Were Accepted To: _____

11. Are you a member of the University of Northern Iowa's Honors Program?
    (1) Yes
    (2) No

Instructions: Please circle the number that best represents your answer.

12. When I make plans, I am certain I can make them work.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

13. One of my problems is that I cannot get down to work when I should.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

14. If I can't do a job the first time, I keep trying until I can.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

15. When I set important goals for myself, I rarely achieve them.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

16. I give up on things before completing them.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

17. I avoid facing difficulties.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

18. If something looks too complicated, I will not even bother to try it.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

19. When I have something unpleasant to do, I stick to it until I finish it.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

20. When I decide to do something, I go right to work on it.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

21. When trying to learn something new, I soon give up if I am not initially successful.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

22. When unexpected problems occur, I don't handle them well.

1 2 3 4 5 6

23. I avoid trying to learn new things when they look too difficult to me.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

24. Failure just makes me try harder.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

25. I feel insecure about my ability to do things.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

26. I am a self-reliant person.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

27. I give up easily.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

28. I do not seem capable of dealing with most problems that come up in life.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

29. It is difficult for me to make new friends.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

30. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

31. If I meet someone interesting who is hard to make friends with, I'll soon stop trying to make friends with that person.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

32. When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

33. I do not handle myself well in social gatherings.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

34. I have acquired my friends through my personal abilities at making friends.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

35. Making friends always made me nervous.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

36. I was uncomfortable around my peers in school.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

37. I get a sinking feeling when I think of interacting in social situations.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

38. I get really uptight in social situations.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

39. I almost never got uptight in social situations.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

40. I usually didn't worry about how I'd do in social situations.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

41. Social situations made me feel uneasy and confused.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

42. I have usually been at ease in social situations.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

43. Parties made me feel uncomfortable and nervous.

1 2 3 4 5 6

Strongly Disagree *Strongly Agree*

44. Speaking in public made me nervous.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

45. People have told me that I was easy to talk to.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

46. My peers told me that I was easy to talk to.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

47. I received strong encouragement to socialize as a child.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

48. Older people have told me that I was skilled in social situations.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

49. Other people see me as being poor in social situations.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

50. My parents encouraged me to be proud of my social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

51. I was encouraged to use my social skills in my career choice.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

52. High school teachers rarely complimented my social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

53. My parents encouraged me to develop my social skills

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

54. My adviser has told me that I was socially skilled.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

55. My favorite teachers had good social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

56. Many of the adults I admired had good social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

57. My career role models have had poor social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

58. My friends tended to avoid social situations.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

59. My parents do not have good social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

60. In general, the people I look up to have good social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

61. Many adults I know have good social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

62. Many of my friends are in majors which don't require social skills.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

63. My parents interacted with my friends.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

64. I knew few people who were talented socially.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

65. I always had difficulty making friends.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

66. I always had a lot of friends.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

67. I had a lot of people around while I was growing up.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

68. I received good grades in classes that required giving speeches.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

69. I always feel like I know what I am doing in social situations.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

70. Social situations have always been difficult for me.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

71. I went to fewer parties than most of my high school acquaintances.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

72. When I feel stuck in a social interaction I work at it until it is solved.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

73. I have always been skilled socially.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

74. I tried to improve my social skills whenever I could.

1	2	3	4	5	6
Strongly Disagree					*Strongly Agree*

Instructions: Please circle the number that best represents your answer.

How well can you:

75. finish homework assignments by deadlines?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

76. study when there are other interesting things to do?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

77. concentrate on school subjects?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

How well can you:

78. take class notes of class instruction?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

79. use the library to get information for class assignments?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

80. plan your schoolwork?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

81. organize your schoolwork?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

82. remember information presented in class and textbooks?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

83. arrange a place to study without distractions?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

84. motivate yourself to do schoolwork?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

85. participate in class discussions?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

86. learn general mathematics?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

87. learn algebra?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

88. learn science?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

How well can you:

89. learn biology?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

90. learn reading and writing language skills?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

91. learn to use computers?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

92. learn foreign languages?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

93. learn social studies?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

94. learn English grammar?

1	2	3	4	5	6	7
Not well at all		*Not too well*		*Pretty well*		*Very well*

Instructions: Please circle the number that best represents your answer.

How often do you:

95. research a term paper

1	2	3	4	5
Never				*Very often*

96. write course papers

1	2	3	4	5
Never				*Very often*

97. do well on your exams

1	2	3	4	5
Never				*Very often*

98. take good class notes

1	2	3	4	5
Never				*Very often*

How often do you:

99. keep up to date with your schoolwork.

1	2	3	4	5
Never				*Very often*

100. manage time effectively

1	2	3	4	5
Never				*Very often*

101. understand your textbooks.

1	2	3	4	5
Never				*Very often*

102. get along with roommate(s)

1	2	3	4	5
Never				*Very often*

103. socialize with your roommate(s)

1	2	3	4	5
Never				*Very often*

Please turn in your papers to the experimenter. Thank you very much for your participation!