

## Social Capital – An Alternative Model to College Graduation

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### Abstract

To encourage college students to stay enrolled and to graduate remains a challenge for educators and educational policymakers. There are basically two lines of actions in addressing the issue of student persistence. One is directed towards eliminating or reducing the risk factors such as poor student services and hostile learning environment; while the other towards promoting and reinforcing certain qualities and contextual factors that encourage students to stay and achieve their educational goals. The proposed paper aims to explore a theoretical construct that consists of factors that help students continue the college career they initiate and complete their educational programs.

### Introduction

As more and more entry positions in the workforce require a college credential and the earnings gap between college and high school graduates becomes increasing widened, attaining a college degree becomes the key to achieving economic success and up-ward social mobility (Institute for Higher Education Policy, 2005). Though increase in college attendance has been witnessed in recent decades, college graduation rates have declined since 1983. According to Barton (2002), during a period of 10 year (1983 to 2001) the graduation rate dropped from 52.2% to 41.9% for public four-year institutions and from 59.5% to 55.1% for private four-year institutions.

College dropouts have proved to be a liability for higher education institutions. The costs of student attrition to institutions include lost revenue (e.g., fees and tuitions) and increased expenses. For individual students, not attending college is a disadvantage; dropping out in the mid of college career could become a greater risk in some ways. Research has suggested that the economic return of attending college without attainment of a degree are negligible and a college dropout earns no more than a high school graduate (Zucker & Dawson, 2001; Grubb, 1995). Apart from the fact that earning a few college credits does not increase one's earning power, college dropouts have likely forgone their employment opportunity to attend college and been burdened with a loan to support their temporary stay. The delay in earning an income coupled with a loan payment will put them at greater jeopardy of earning a living.

### Literature Review

To encourage college student to stay enrolled and to graduate poses a challenge for educators and educational policymakers. There are basically two lines of actions in addressing the issue of student persistence and graduation. One is directed towards eliminating or reducing the risk factors such as poor student services and hostile learning environment; while the other towards promoting and reinforcing certain qualities and contextual factors that encourage students to stay and achieve their educational goals. The approach of this proposed paper is oriented towards the second direction with a focus on a single theoretical construct- **Social Capital**, which is composed of factors contributing to college persistence and graduation.

Broadly speaking, social capital concerns relationships, norms, networks, and social interactions. It is closely interrelated to other capitals such as human, cultural and economic capitals.

Social capital is a term widely used in diverse meanings and contexts. For Pierre Bourdieu (1985) social capital is defined as the sum of the actual or potential resources linked to networks or institutionalized social relationships; for Putman (1995), as networks, norms, and trust that enable members of the community to pursue common objectives; and for Coleman (1988), as a variety of entities with two common elements: (1) possessing some form of social structure, and (2) facilitating certain actions within the structure. Despite the differences in definition, the following common characteristics of social capital are observed in a variety of studies in economics, organizational behavior, political science, public health, sociology, and education: (1) relational (Bourdieu, 1985; Coleman, 1990; Portes, 1998; Woolcock, 2001), (2) normative (Coleman, 1988, 1990; Cote & Healy, 2001; Dika & Singh, 2002; Portes, 1998), (3) causal (Coleman, 1988, 1990; Dika & Singh, 2002; Portes, 1998; Putnam, 1995; Woolcock, 2001), and (4) multidimensional (Nahapiet & Ghoshal, 1998; Putnam, 2000; Zhang et al., 2008).

In the context of education, social capital is conceptualized in terms of its function in producing human capital (skills and competences). It is lodged in the structure of relationships between students and faculty, other remembers at school, their peers and friends, their parents and siblings, and the people in the community. It motivates and facilitates learning and lends emotional and moral support for students to persist and achieve their educational goals (Coleman, 1988; Kim and Schneider, 2005).

Popular as a concept, social capital is underdeveloped as a measurable construct. This arises from the fact that social capital is inherently abstract and requires subjective interpretation in the process of translating into operational measures (Grootaert et al., 2002; Narayan & Cassidy, 2001). Because of its involvement in subjective interpretation, measures for social capital are varied in different fields as well as within a given discipline. In addition, social capital is a multidimensional concept and its multidimensionality entails a set of measures to be effective.

### **Purpose of the Study**

The current study is based on the assumption that social capital contributes to college graduation. It aims to explore the theoretical construct developed in “A theory of Success for Disadvantaged Children: Reconceptualization of Social Capital in the Light of Resilience” (Zhang and others, 2008). According to Zhang, social capital consists of three major dimensions: structural, normative, and interactive. The structural dimension of social capital refers to social structures where relationships and networks reside and where resources are accessible. It is a platform that allows interactions happen. For instance, teacher-student relation makes interactions between the student and the teacher possible and enables the student to benefit from the interactions. The normative dimension consists of mores and values embedded in the social structures that guide and regulate the interactions and transactions among people who share a same social structure. In the case of college students, this dimension of social capital includes obligation, expectation, and trustworthiness espoused and shared by the family, the college, and the circle of friends. The active dimension registers activities and interactions that happen on the structural platform regulated by the norms (2008).

Accordingly, the following research question was addressed: is there a relationship between social capital at college and student graduation? Under each research question, several sub-questions were also addressed. Research Question I further investigated: (1) is there a relationship between structural social capital and student graduation? (2) Is there a relationship between normative social capital and student graduation? And (3) is there a relationship between active social capital and student graduation?

### **Methodology**

The sample of this study consisted of 757 students who participated in National Survey of Student Engagement (NSSE) 2005 at State University of New York (SUNY) Fredonia. Forty two students

were excluded from data analysis because of missing information. Among the 715 students who were included in analysis, 437 (61.1%) graduated within 4 years, which was operationally defined as the dependent variable of graduation.

NSSE data contains information on a wide range of student experiences at college. Several variables were composed based on their relevance to the theoretical framework of the current study. The following variables were derived from a variety of questions:

### ***Structural dimension***

#### (1) Supportive environment

- a. Campus environment provides the support you need to help you succeed academically
- b. Campus environment helps you cope with your non-academic responsibilities (work, family, etc.)
- c. Campus environment provides the support you need to thrive socially
- d. Campus environment encourages contact among students from different economic, social, and racial or ethnic backgrounds

#### (2) Quality of relationships

- a. Quality of relationships with other students
- b. Quality of relationships with faculty members
- c. Quality of relationships with administrative personnel and offices

### ***Normative dimension***

#### (3) General expectations

- a. To what extent have your examinations during the current school year challenged you to do your best work?
- b. Working harder than you thought you could to meet an instructor's standards or expectations
- c. Spending significant amounts of time studying and on academic work
- d. Using computers in academic work
- e. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)

#### (4) Coursework requirements

- a. Coursework emphasizing analysis of the basic elements of an idea, experience or theory
- b. Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations
- c. Coursework emphasizing the making of judgments about the value of information, arguments, or methods
- d. Coursework emphasizing application of theories or concepts to practical problems or in new situations
- e. Number of assigned textbooks, books, or book-length packs of course readings
- f. Number of written papers or reports of 20 pages or more
- g. Number of written papers or reports between 5 and 19 pages

### ***Active dimension***

#### (5) Interaction with college faculty

- a. Talked about career plans with a faculty member or advisor
- b. Discussed ideas from your readings or classes with faculty members outside of class

- c. Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
  - d. Received prompt feedback from faculty on your academic performance (written or oral)
  - e. Used e-mail to communicate with an instructor
  - f. Discussed grades or assignments with an instructor
- (6) Interaction with peers
- a. Asked questions in class or contributed to class discussions
  - b. Made a class presentation
  - c. Worked with other students on projects during class
  - d. Worked with classmates outside of class to prepare class assignments
  - e. Tutored or taught other students
  - f. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
  - g. Had serious conversations with students of a different race or ethnicity than your own
  - h. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
- (7) Utilization of resources
- a. Participating in co-curricular activities (organizations, publications, student government, sports, etc.)
  - b. Community service or volunteer work
  - c. Foreign language coursework & study abroad
  - d. Study abroad
  - e. Using electronic technology to discuss or complete an assignment
  - f. Attended an art exhibit, gallery, play, dance, or other theatre performance
  - g. Exercised or participated in physical fitness activities

## **Discussion of Findings**

A seven-predictor logistic model was fitted to the data to test research hypothesis that there is a relationship between social capital and student graduation. The logistic regression was carried out by the Binary Logistic procedure in SPSS® version 14 in the Windows 2007 environment.

To examine the overall fit of the logistic model, Hosmer and Lemeshow (H-L) chi-square test was used and the results are displayed in the following (Table 1).

**Table 1. -- Hosmer and Lemeshow Test**

Step	Chi-square	df	Sig.
1	8.936	8	.348

The inferential goodness-of-fit test yielded a  $X^2$  (8) of 8.936 and was insignificant ( $p > .05$ ), meaning that we fail to reject the null hypothesis that there is no difference between observed and model-predicted values. In another word, the finding of non-significance on this test suggests that the model fits the data well and the research hypothesis is tenable.

To investigate further which measures of social capital could predict college graduation within 4 years, a Wald test was used to examine the significance of logistic regression coefficients for each independent variable (see Table 2).

**Table 2. -- Variables in the Equation**

	B	S.E.	Wald	df	Sig.	Exp(B)	.0% C.I. for EXP(B)	
							Lower	Upper
Constant	-3.635	0.610	35.520	1	0.000	0.026	NA	NA
Supportive environment	0.012	0.026	0.199	1	0.656	1.012	0.961	1.065
Quality of relationships	-0.052	0.039	1.842	1	0.175	0.949	0.880	1.023
General Expectations	0.111	0.026	18.349	1	0.000	1.118	1.062	1.176
Coursework requirements	0.024	0.021	1.300	1	0.254	1.025	0.983	1.069
Interaction with faculty	-0.059	0.032	3.419	1	0.064	0.943	0.886	1.004
Interaction with peers	0.023	0.024	0.905	1	0.341	1.024	0.976	1.074
Utilization of resources	0.086	0.029	8.749	1	0.003	1.090	1.029	1.154

Table 2 indicates that the effect of two variables is significant by the Wald statistic: (1) general expectations and (2) utilization of resources ( $p < .05$ ). The test of the intercept (i.e., the constant in Table 2) was significant too ( $p > .05$ ), implying that the intercept should be kept in the model.

A classification table was also produced to demonstrate the validity of predicted probability (Table 3). According to the classification table (with the cutoff set at 0.5), the prediction for students who graduated within 4 years was more accurate than that for those who did not. The overall correct prediction was 68.5%, an improvement over the chance level of 61.1%.

**Table 3. - The Observed and Predicted Frequencies for Graduation by Logistic Regression with the Cut-off of .05 as Compared to those by Null Model**

Null Model	Predicted		% Correct
	Yes	No	
Observed			
Yes	437		100.0%
No	278		0.0%
Overall % correct			61.1%

  

Logistic Model	Predicted		% Correct
	Yes	No	
Observed			
Yes	398	39	91.1%
No	186	92	33.1%
Overall % correct			68.5%

The logistic regression results indicate that the measures of social capital, with NSSE 2005 data collected at SUNY Fredonia, can jointly predict college student graduation. They support that hypothesis postulated earlier that the likelihood of a college student graduating within four years is positively related to social capital at the college. In other words, social capital has a positive impact upon student graduation within four years.

Two measures are found to have effect on student graduation according to Wald test. The Wald statistic shows that when general expectation increases by one unit, the odds of student graduation (over non-graduation) within 4 years will improve by a factor of 1.118, that is, 11.8%.

When utilization of resources increases by one unit, the odds of student graduation will improve by 9%.

### **Limitations of This Study**

Like any other studies that use existing data, this study is limited by the discrepancy between the conceptual framework that guided NSSE data collection and that for the present study though efforts have been made to reduce the discrepancy by selecting and composing new variables according the theoretical framework of social capital used in study. Secondly, the sampled students consisted of freshmen and seniors in spring 2005; the tracking of their graduation was limited to 4-year time frame. Consequently, graduation from college was operationally defined as graduation from college within 4 years and this narrow definition excluded students who successfully graduated from their program after 4 years. Third, some data used in the study are perceptual instead of factual information, which invite different interpretations.

### **Implications of the Results**

The study presents an alternative approach to college graduation. The knowledge generated by this study will be beneficial to our understanding of issues regarding college graduation and to policies and programs aiming to increase student graduation rates. It allows faculty and administrators to invest and prioritize their efforts and intervention in the areas that help students persist through college graduation.

One of the findings of the study indicates that the normative and active dimensions of social capital, especially the general expectation and utilization of resources, can contribute to student graduation within 4 years. These findings are consistent with the results of research on expectation and academic performance (Lopez, 1996; Dika & Singh, 2002; Pribesh & Downey, 1999). The findings of this study indicate that setting high standards pays off. Investment in and encouragement of utilization of social and technological resources will be beneficial to both students and the institution.

The availability of relations and social networks on campus is the necessary condition for the utilisation of resources. However, this does not guarantee the impact of social capital if the active dimension remains void (Zhang, et al, 2007). The finding on utilization of resources agrees with assertion and similar claim by Coleman (1988). The services and opportunities a campus provides constitute favourable conditions for student success. However, it is the act of taking advantages of the services and opportunities on the student part that produce effects and facilitate their successful completion of their programs. This finding suggests that college campuses should not only provide adequate resources and opportunities, but also encourage students to make full use of what the campuses provide.

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