Faculty Attitudes and Knowledge Toward Promoting Self-Determination and Self-Directed Learning for College Students With and Without Disabilities

Barbara Hong, Leigh Haefner, and Timothy Slekar
Penn State Altoona

Successful college students are those who know who they are, what they want, and how to achieve their goals. In short, they are self-determined. Even though promoting self-determination has traditionally focused on K-12 students with disabilities, little is known about how higher education faculty members regard these skills. The purpose of this study was to survey faculty attitudes, knowledge, and teaching skills of self-directed learning for college students, both with and without disabilities. Results revealed significant mean differences ($N = 218$) across gender, departments, and academic ranks. Findings could serve as the foundation for future research on how institutional resources could be utilized to facilitate faculty in enhancing pedagogical best practices in promoting self-determination for all students before they graduate. Suggestions and implications for practice are also addressed.

Successful college students are those who know who they are, what they want, what are their strengths and limitations, and how to achieve their goals (Butler, Elaschuk, & Poole, 2000; Gerber, 2002; Reis, McGuire, & Neu, 2000; Ruban, McCoach, McGuire, & Reis, 2003). They are self-determined. Students who are self-determined are more likely to be gainfully employed than those who are not as self-determined (Hitchings & Retish, 2000; Skinner, 2004; Wehman, 2006; Wehman & Yasuda, 2005). These students are more likely to earn a higher income, live more independently, and enjoy a better quality of life (Briel & Getzel, 2005; Madaus, Ruban, Foley, & McGuire, 2003; Stodden, Conway, & Chang, 2003; Wilson, Getzel, & Brown, 2000; Wehmeyer & Schwartz, 1997).

Promoting the self-determination of students with disabilities in K-12 settings has received national attention for more than two decades (Field, Hoffman, & Spezia, 1998; Field, Martin, Miller, Ward, & Wehmeyer, 1998; Wehmeyer, Agran, & Huges, 1998; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). However, this movement has not yet translated into higher education. Little is known about faculty knowledge, attitudes, or skills in promoting self-determination in a college setting. The purpose of this study was to add to this knowledge and to investigate the practices of faculty members toward students, both with and without disabilities, with regard to self-determination.

Various conceptualizations of the term self-determination have been coined over the past years and in different contexts. From the educational perspective, Wehmeyer, Kelchner, and Richards (1996) characterize a self-determined person as one who acts autonomously, who regulates his/her own behaviors, who responds to event(s) in a psychologically empowered manner, and who acts in a self-realizing way. From the adult learning perspective, components of self-determination have been embedded in the concepts of self-regulation such as self-directed learning and a student-centered approach of instruction (Dewey, 1916; Tough, 1978). Regardless of how the concept has been posited, the core principle behind these theories is to prepare students to take charge of their own learning, to take responsibility for their own behavior, and to take control of their own lives regardless of their disabilities.

Students with disabilities who have been accepted into higher education often lack the skills to cope with the demands of higher education (Hong, Ivy, Humberto, & Ehrensberger, 2007). At the same time, these students also struggle to meet the challenges of managing their own education, planning their independent living, and advocating for themselves, often for the first time (Brinkerhoff, McGuire, & Shaw, 2002). Unlike the K-12 setting, higher education is not mandated by the Individuals with Disabilities Education Act (IDEA, 1997) to be responsible for the education and transition of students with disabilities as prescribed in the Individualized Education Program (IEP). The transition into higher education means students with disabilities now have to be more aware of their own disability, be willing to disclose their disability to service providers, be able to regulate their own behaviors, and be their own advocate (Aune, 1991; Bursuck & Rose, 1992; Durlak, 1992; Kakela & Witte, 2000; Ruban et al., 2003; Skinner, 2004; Vogel & Adelman, 2000).

Adjusting to the college environment from secondary schools can be demanding for many youths, and even more so for students with disabilities (Brinkerhoff, McGuire, & Shaw, 2002). Paradoxically, many of these students may choose not to disclose their disabilities because they are "anxious for a new beginning" and do not wish to be associated with a label or be seen as needing accommodations (Getzel & Thoma, 2008, p. 77). Many also do not have sufficient knowledge about their disabilities to properly

communicate their needs (Getzel & McManus, 2005). In addition, many students who are not acquainted with the disability services on college campuses are less likely to access auxiliary aids to increase their chances of success (Wagner, Newman, Cameto, Garza, & Levine, 2005). West, Kregel, Getzel, Zhu, Ispen, and Martin (1993) observed that students feel if they were to disclose their disabilities, faculty members and peers might have a lower expectation of them or deem them as less capable of attending higher education. Alternatively, some students believe that if they have been accepted into college, then their learning disabilities must have been "cured" so they no longer need accommodations (Wagner et al., 2005). Students who feel that they have somehow figured out how to compensate for their difficulties in learning also assume they could now tackle college without assistance. Consequently, instead of utilizing the disability services available to them, students with disabilities struggle through classes and perhaps even risk dropping out of college.

Recent trends suggest there are increasing numbers of students with disabilities being accepted into colleges and universities, but the number of these students who graduate has not been paralleled (Eckes & Ochoa, 2005). According to the National Center for the Study of Postsecondary Educational Supports (2000), only 28% of students with disabilities completed their degrees compared to 54% of non-disabled peers. Many facets of college life may have contributed to this outcome, including financial, social, psychological, and physical reasons (Seidman, 2005, 2007; Tinto, 1994). The one major barrier that has repeatedly drawn attention in the disability literature is that students commonly lack self-determination (Horn, Berktold, & Bobbit, 1999; Hughes & Smith, 1990; Jameson, 2007; Ruban et al., 2003).

The National Association for Higher Education and Disability has stated that the best approach in helping students with disabilities persist in college is to ensure that they develop adequate skills of self-determination (Palmer & Roessler, 2000). Ironically, to date, little is known about the extent to which self-determination is being promoted in higher education (Getzel & Thoma, 2008; Jameson, 2007). Given the large number of students with disabilities being admitted into higher education and the current interest in student retention, this study is timely in understanding how and to what extent faculty members seek to promote self-determination and self-directed learning in higher education for students, with and without disabilities. Self-directed learning is a term used to describe the self-regulatory behaviors of one taking responsibility for his or her own learning (Bolhuis, 1996; Garrison, 1997). The term includes behaviors such as self-instruction, self-management, self-monitoring, self-evaluation, and self-reinforcement (Mithaug, 1993).

The Role of the Faculty

The notion of students directing their own learning lends credence to a major goal of higher education: that is preparing young adults for employment. In particular, the principle behind self-directed learning satisfies those faculty members who rail against the notion of treating students as consumers. Most faculty members expect students who come to college to be independent, responsible, and self-reliant young adults or at least be able to demonstrate the abilities toward refining these skills (National Survey of Student Engagement, 2009; Greene, 2009; Longley, 2007; Shelley, 2007). Unfortunately, many students, with and without disabilities, often have not acquired adequate skills, attitudes, and abilities of self-determination by the time they leave public schools to be functional in society or to meet the demands of the job market. Compared to secondary schools, higher education institutions are generally more demanding because instruction is often given at a faster pace, assignments require more independent effort, and study habits involve more self-monitoring and self-management (Rosenbaum, 2004). In addition, one-on-one interaction with faculty is significantly less frequent than in K-12 schools (Frieden, 2003). Arguably, students with or without disabilities, who lack the core skills in problem solving, goal setting, and self-regulatory behaviors will increasingly find college to be a more frustrating experience rather than a rewarding pursuit.

The 2006 National Longitudinal Transition Study (NLTS) revealed that between 1987 and 2003, students with disabilities being enrolled in postsecondary education rose from 17% to 32% (Wagner, Newman, Cameto, Levine, & Garza, 2006). This growth means faculty members will face a greater need to enhance their knowledge and skills in working with non-traditional learners (Murray, Wren, & Keys, 2008). Walker (1980) observed the central role faculty members play in helping students with disabilities become more self-determined almost three decades ago when he argued, "Support services can make it possible for the handicapped student to enter the postsecondary setting physically, but only faculty members can provide access to knowledge and ways of knowing" (p. 54).

Faculty members are the primary conduits through which students access knowledge (Scott & Gregg, 2000). Successful implementation of any retention program depends on understanding the baseline perceptions of faculty members and identifying potential biases which may become barriers to student retention. It is therefore worthwhile to pursue this line of questioning in order to capture the essence of faculty beliefs about self-determination and its benefits for students, both with and without disabilities. Findings

will add to the existing literature on self-determination for students with disabilities transitioning into higher education. We hope the insights from this study could be used to curtail at-risk students from dropping out and facilitate administration in implementing programs to improve institutional retention and outcomes after graduation.

Method

This study was a replication of the national survey conducted by Wehmeyer, Agran, and Hughes in 2000. Permission was granted to the first author to adapt the instrument for faculty members at one higher education institution. The campus is a public, primarily four-year undergraduate institution that is also part of a larger university system. The college consists of four academic divisions, namely Arts and Humanities; Business and Engineering; Education, Human Development, and Social Sciences; Mathematics and Natural Sciences. The campus enrolled about 4,000 students at the time of the study and offered more than 20 baccalaureate and 9 associate degrees. The targeted participants were full- and part-time faculty members teaching during the fall semester in which the study was conducted. The surveys were mailed to 303 faculty members at the mid-point of the semester.

Instrumentation

The survey of Promoting Self-Determination in Higher Education (PSDHE) was developed using Wehmeyer, Agran, & Hughes' (2000) national survey for teachers involved in the transitional services for students with disabilities between the ages of 14 and 21. With permission, this instrument was expanded and modified to meet the object of this study for the higher education setting. The adapted survey was sent to eight reviewers who are experts in the field of disabilities and higher education in various institutions, including higher education administrators, faculty members from various disciplines, and disability service providers, to examine and critique the constructs of the instrument. Comments were carefully incorporated into the final instrument to enhance validity.

There were two sections in the survey. The first section gathered demographic and academic background information on the faculty member. The instrument also asked for numbers of students considered "at-risk" of failing the faculty member's courses, not making it through their major, and/or dropping out of college (if known). This latter question explored the extent to which faculty members were cognizant of the academic progress of their students toward the mid-point in the semester. The follow-up questions asked faculty members how many of these "at-risk" students had a verified disability.

The second section consisted of questions with menu options and Likert-type responses. The first question asked faculty members if they were familiar with the term "self-determination" and if so, how would they define it and where did they learn about it (e.g., Learning Resource Center; Internet; Education text; Colleagues; Graduate training; Conferences and workshops; Professional journals; or Others).

The next questions asked faculty members to rate on a scale of 1 to 5 (1 = low importance; 5 = high importance) the importance of teaching each of the seven components of self-determination- self-awareness; goal setting and attainment; self-management and self-regulation; choice-making; decision-making; problem-solving; self-advocacy and leadership skills- to college students both with or without disabilities. A general definition of each component was also provided in order to establish a consensus on the generalized meaning. For example, under "Goal Setting & Attainment" the definition was, "teaching students to set goals and develop steps to reach them."

The next question asked faculty members how many of their current students (none; a few; majority; or all) were considered self-determined or have related components of self-determination. Faculty members were asked to rate the extent to which they think promoting self-determination in higher education would benefit students in college and post-college life using a 5-point scale with 1 being "not beneficial" and 5 being "very beneficial." Faculty were then asked to rank (1st = most important; 5th = least important) various groups of students whom they felt needed instruction on self-determination the most. Using a "yes/no" option, faculty members were asked if they were currently teaching or had taught each of the seven components of self-determination. Once again, each component had a brief definition to establish a common framework.

In the last section, faculty were asked to identify reasons that might have led them to decide *not* to provide instruction in any or all of the components of self-determination. The final question used a "yes/no" option and asked if they had implemented any other strategies, activities, or experiential learning pedagogies to promote self-determination.

Analyses

All statistical analysis was conducted using SPSS 17.0 statistical software. Responses were analyzed using descriptive statistics, nonparametric Chi-square analyses, and linear regression. Univariate analysis was used to describe the self-reported attitudes, knowledge, and skills about promoting self-determination. Bivariate analyses

were performed using Pearson's chi-square. Written comments from faculty members were included where appropriate.

Results

We received 221 completed surveys from the initial 303 that were mailed out, giving us a return rate of 73%. Three surveys were discarded due to insufficient information, so the final sample size was 218 surveys. There were equal numbers of male and female respondents, and more than 90% identified themselves as Caucasians. Table 1 shows the respondent demographic information.

Most of the faculty members (32%) were from the department of Arts and Humanities. Almost half were part-time faculty members (46%) with class sizes between 50 and 100 students. When asked if faculty members had any students with a verified disability in their classes, more than 50% of faculty members said they have at least one each semester. When asked how many of these students were considered at-risk, the mean score was 7.8 (*SD=* 9.6). Among these at-risk students, 41% of faculty stated the students also had a verified disability. Table 2 represents the respondent academic standing and class information.

More than one-third of the respondents (38.5%, *n* =84) indicated they were familiar with the term "self-determination." Table 3 lists a variety of definitions of self-determination which were provided by faculty.

The most frequently cited source on where faculty learned about self-determination was educational texts (19%, *n* = 42), followed by other sources (17%, *n* = 37), graduate training (13%, *n*=28), and colleagues (12.4%, *n* = 27). Table 4 breaks down the sources where respondents learned the term in order from highest to lowest.

On a scale of 1 (low) to 5 (high), the composite mean on the importance of teaching each component of self-determination to students with or without disabilities was 30.44 or 4.34 out of 5 (see Table 5). Problem-solving received the highest ranking, followed by self-management or self-regulation, goal setting and attainment, and decision-making. The mean score on the number of students whom faculty members identified as possessing some degrees of self-determination was 2.30 (*SD* = .57). More than 88% (*n* =192) of faculty members acknowledged that it would be beneficial for students to become self-determined in college and post-college life with a mean score of 4.54 out of 5, where higher scores represented greater importance.

Faculty members ranked groups of students who needed instructions on self-determination (1st =

most important, 5th = least important). Almost two-thirds (59.6%) chose "freshmen year" as the most critical group needing instruction on self-determination followed by "all college students" (52.7%), "students at-risk" (38.1%), "students with disabilities" (25%), "certain majors only" (14.7%), and finally, students in their "senior year" (10.6%).

For the "yes/no" (1 = yes, 2 = no), statements on whether or not faculty members had taught any components of self-directed learning, Chi-square analysis revealed a value of 37.86 (*df* = 2, p < .001) with a composite mean of 11.9 (*SD* = 2.13) or 1.7 out of 2. This showed that there were differences in faculty utilization of self-determination strategies. The most frequently cited component taught was problem-solving (75.1%, *SD* = .43), followed by self-advocacy (65.9%, *SD* = .48), self-awareness (65.4%, *SD* = .48), self-instruction (62.7%, *SD*= .48), self-evaluation (52.1%, *SD* = .50), goal-setting (44.7%, *SD* = .49), and self-monitoring and self-reinforcement (22.1%, *SD* = .42).

The most frequently cited reasons for not teaching components of self-determination was the lack of time (49.5%, *n* = 108) and insufficient latitude to provide instruction in this area primarily due to course requirements (44%, *n* = 96). More than one-third said the reasons for not teaching were due to the lack of training about self-determination (38%, *n* = 83) and lack of knowledge on available materials and instructional strategies (38.5%, *n* = 84). The least cited reason was that students would *not* benefit from instruction due to their level of ability or capacity to engage in such behaviors (1.4%, *n* = 3). delineates these reasons.

Univariate analyses of variance with post hoc tests and effect sizes on the importance of teaching components of self-determination skills yielded significant differences for gender [*F*(1, 216) = 12.15, *p < .01*] where female faculty accounted for 53% of the mean difference, meaning female faculty were more likely to teach self-determination than their male counterparts. No significant difference was found across academic departments, number of students taught, years in higher education, age, or ethnicity. In terms of academic standing, no significant difference was found between faculty familiarity with the term "self-determination" and rating of the importance of teaching components of self-determination.

Current faculty practices on teaching components of self-determination were significant across departments [*F*(3, 213) = 5.205, *p = .0020*], by gender [*F*(1, 215) = 13.205, *p < .001*], and by rank of assistant professor [*F*(1, 215) = 3.916, *p=.049*]. Specifically, variations within the department of Education, Human Development, and Social (EHDSS) accounted for 63% of the differences, female faculty accounted for 58% of

Table 1
Respondent Demographic Profile Results

Demographic	%	(*n* = 218)	Mean	(*SD*)
Gender			1.5	(*.50*)
Male	50.0	(*109*)		
Female	50.0	(*109*)		
Age			2.5	(*.85*)
20-29	6.9	(*15*)		
30-49	52.8	(*115*)		
50-59	23.9	(*52*)		
> 60	16.5	(*36*)		
Ethnicity			1.2	(*.79*)
Caucasian	92.2	(*201*)		
Black/ African American	1.8	(4)		
Hispanic/Puerto Rican	1.4	(*3*)		
Asian/Pacific Islander	3.2	(*7*)		
American India/Alaskan	0.5	(*1*)		
Other	0.9	(*2*)		

Table 2
Respondent Academic Information

Demographic	%	(*n* = 218)	Mean	(*SD*)
Academic Department			2.4	(*1.17*)
Arts & Humanities	32.1	(*70*)		
Business & Engineering	14.7	(*32*)		
Education, Human Devt. & Social Sc.	29.4	(*64*)		
Math & Natural Sciences	23.9	(*52*)		
Years Teaching in Higher Education			2.6	(*.96*)
0-3 years	13.3	(*29*)		
4-10 years	33.5	(*73*)		
At least 10 years	32.6	(*71*)		
> 20 years	20.6	(*45*)		
Academic Standing				
Assistant Professor	14.7	(*32*)		
Associate Professor	11.5	(*25*)		
Full Professor	2.8	(*6*)		
Full Time	21.1	(*46*)		
Part Time	46.3	(*101*)		
Tenure Track	11.9	(*26*)		
Tenured	6.0	(*13*)		
Visiting	.9	(*2*)		
Fixed Term	22.5	(*49*)		
Other	3.7	(*8*)		
Class Size			1.89	(*.83*)
No more than 50	36.9	(*80*)		
At most 100	40.1	(*87*)		
Between 100 and 200	19.8	(*43*)		
> 200	3.2	(*7*)		

the differences, and rank of assistant professor accounted for 18% of the differences.

Gender differences were again found to be significant for faculty responses about the benefits of acquiring skills of self-determination in college and after college life [$F(1, 215) = 11.012$, $p < .001$]. Considering the three significant variables of departments, gender, and rank of assistant professor, regression analysis revealed that gender was the most significant predictor for teaching self-determination [$F(3, 213) = 5.454$, $p = .001$].

In terms of faculty skills in integrating

Table 3
Variety of Respondent Definitions of "Self-Determination"

- The capability of deciding and acting on ones future plans
- Choices made based on free will without interference
- Proactively solve problems
- Taking responsibility for oneself
- The ability to direct one's own life
- The ability to know one's strengths and weaknesses
- Ability to make decisions, be disciplined, and solve problems
- Self confidence to act with responsibility
- Accurate self-assessment of strengths
- Engaging in self-reflection, goal-setting, and problem-solving
- The ability to set your own goals and then accomplish them
- Someone who has vision, short and long term goals, and a plan and the motivation to achieve these
- Figuring out yourself, who and what you are, and make decisions on your own
- The belief that achievements are under their control and they are willing to exert efforts to attain it

Table 4
Source where Respondents Learned about Self-Determination

Source	% "yes"	($n = 218$)
Educational Texts	19.3	(*42*)
Other Sources	17.0	(*37*)
Graduate Training	12.8	(*28*)
Colleagues	12.4	(*27*)
Journals	11.0	(*24*)
Conference	7.8	(*17*)
Internet	6.9	(*15*)
Learning Resource Center	5.0	(*11*)

Table 5
Respondent Rating on the Importance of Teaching Self-Determination

Component of Self-Determination	Mean	(*SD*)
Already have adequate skills	4.2	(*1.01*)
Students Admitted should already possess skills	4.4	(*.90*)
Someone else is responsible	4.1	(*.98*)
Insufficient time	4.4	(*.87*)
Insufficient latitude due to course requirements	4.4	(*.87*)
Other areas of instruction are more urgent	4.7	(*.58*)
Students lack capacity to engage in such behavior	4.2	(*.98*)
Already entered college with these skills	30.44	(*4.74*)

components of self-determination and self-directed learning, almost two-thirds (64%, $n = 140$) said they structured assignments, and about half utilized instructional activities and teaching approaches (53%, $n = 116$) and involved students in course input (46%, $n = 100$). Approximately one quarter (22%, $n = 47$) said they employed mentoring programs. Mean scores were significant for different areas across departments in terms of "student involvement in course input" [$F(3, 214) = 3.350$, $p = .02$] and faculty ranked as an assistant professor [$F(1, 216) = 4.219$, $p = .04$].

Both variables accounted for 44% of the mean difference. Faculty "mentoring programs" were also significant across ethnicity [$F(5, 212) = 2.376$, $p = .04$]. No other significant differences were found. Table 7 outlines these frequencies and means.

Discussion

Despite the vast literatures in K-12 settings on helping students with disabilities become self-determined,

Table 6
Respondent Reason for Not Teaching Self-Determination

Reason for *not* teaching self-determination	% "yes"	(*n* = 218)	Mean	(*SD*)
Already have adequate skills	20.2	(*44*)	.20	(*.40*)
Students admitted should already possess skills	20.2	(*44*)	.20	(*.40*)
Someone else is responsible	8.7	(*19*)	.09	(*.28*)
Insufficient time	49.5	(*108*)	.49	(*.50*)
Insufficient latitude due to course requirements	44.0	(*96*)	.44	(*.49*)
Other areas of instruction are more urgent	28.9	(*63*)	.29	(*.45*)
Students lack capacity to engage in such behavior	1.4	(*3*)	.01	(*.12*)
Already entered college with these skills	5.0	(*11*)	.05	(*.22*)
Insufficient training & information	38.1	(*83*)	.38	(*.49*)
Unaware of materials or unfamiliar on instructions	38.5	(*84*)	.39	(*.49*)
None of the above reasons	9.2	(*20*)	.09	(*.29*)

Table 7
Approach for Promoting Self-Determination

Approach	% "yes"	(*n* = 218)	Mean	(*SD*)
Student involvement in course input	45.9	(*100*)	.46	(*.49*)
Structuring assignments	64.2	(*140*)	.64	(*.48*)
Instructional activities and teaching approaches	53.2	(*116*)	.53	(*.50*)
Mentoring programs	21.6	(*47*)	.22	(*.41*)
Others	7.8	(*17*)	.08	(*.27*)

there is a serious lack of research that examines how higher education is continuing with this effort. The rise in number of students with disabilities pursuing 2- or 4-year college degrees presents the need to examine the knowledge and training of higher education faculty for fostering self-directed learning. Findings from this study revealed that most faculty reported having at least one student with a verified disability who was also at-risk in their classes each semester. More than two-thirds of the faculty said they were unfamiliar with the term self-determination. The one-third who reported they were familiar with self-determination were able to adequately define the behaviors, attitudes, and abilities associated with the term. However, sources where the latter group of faculty acquired their knowledge largely stemmed from previous or external encounters, e.g., educational texts, graduate training, colleagues, rather than from resources within the institution, e.g., disabilities services; learning resource centers. This key finding provides grounds for higher education administration to examine how current institutional resources could be used to support both faculty and high needs students. Administrators need to seriously commit resources to both exploring promising practices that may already exist and nurturing faculty development in this direction.

Given the demands of students attending college today, the need to foster self-determination is more urgent now than ever. More than two-thirds of faculty in this study agreed that *all* students, especially those in their freshmen year, would benefit from developing skills of self-determination both during and after college. Findings identified that faculty gender as the most significant predictor correlated to faculty beliefs on the benefits of self-determination and their current practices in teaching self-directed learning. Specifically, female faculty accounted for more than 50% of the mean differences. More than half of the faculty members maintained that they have taught skills in problem-solving (75%), self-advocacy (65.9%), self-awareness (65.4%), and self-instruction (62.7%). Nearly half said they have taught self-evaluation (52.1%) and goal-setting (44.7%) and about one quarter (22%) have taught self-monitoring and self-reinforcement (22.1%). Because female faculty reported they were more likely to teach components of self-determination, this raises an interesting question about whether the ethic of caring might influence the motives of why some faculty choose to empower students through self-directed learning (Noddings, 1984). Noddings maintains that caring is a feminine approach to instinctive teaching and can drive and direct instructional arrangements based on the moral argument that self-determination is good for every student (Noddings, 1987, 1988).

Another interesting finding of this study was the significant variation within the Division of Education, Human Development and Social Sciences. This is

noteworthy because this Division did not have the largest or the smallest number of respondents. Yet, the findings provoked the question of whether faculty in this division and discipline were more prepared to teach a variety of students because of their background in pedagogical training, human development, and learning theory. While this study did not collect each participant's specific program affiliation and cannot address this issue at this time, it certainly raises questions that are worth further investigation and could suggest timely implications for ways in which higher education provides support for the teaching and learning of all students.

The third major finding of this study is in relation to the rank of assistant professor. This group of faculty significantly reported that it was important to teach self-determination skills. Further examination within this academic rank could provide pivotal findings on why this group of faculty, compared to senior or tenured faculty, was more predictive of teaching self-determination. Because this study was based on self-report, it is unknown whether the faculty actually taught any of the components of self-determination their classes. Regardless, from an administrative standpoint, these findings could suggest that assistant professors were more receptive to support and training in improving their teaching of self-directed learning.

It is worthwhile to mention that only a small number of faculty (<9%) reported they felt it was someone else's responsibility to teach self-determination. At the same time, nearly half of them felt they did not have the time or the resources to teach self-determination. These deductions warrant additional inquiry into whether providing faculty with the necessary support, training, and materials would evidently facilitate them in integrating components of self-determination in their teaching and mentoring of students.

When faculty members move beyond grades and challenge students to develop skills in self-instruction, self-monitoring, self-regulation, and problem solving, they are in reality promoting meaningful engagement, proactive learning, and functional life skills. This study found significant mean differences by gender, within departments, and across academic rank for whether or not faculty were teaching self-deterministic behaviors. A vast majority of the faculty members (64%) claimed they structured assignments and utilized instructional strategies (53%) to improve self-directed learning. Furthermore, the faculty approach of involving students in course input alone accounted for more than 40% of the mean difference across departments and the rank of assistant professor.

Analyses among faculty ethnicities also revealed significant differences for faculty who employed mentoring programs as part of their teaching strategy. It

is noteworthy to probe the extent to which tenured faculty across different departments approach the concept of self-determination and the specific strategies they use to empower or mentor students. All of these scrutinies seek to understand why some faculty are willing and able to employ these strategies while others struggle or resist.

Limitations

Caution must be taken not to over-generalize findings from this study or interpret the use of cross-sectional analyses as a suggestion of causality. Almost one-third of faculty members did not respond to the survey. Hence, this limited our conclusions about how faculty at this institution understood self-determination. This study also did not identify a specific disability or degrees of severity, so faculty might have multifarious perceptions of disabilities or students at risk based on their own experiences. As with all self-reporting studies, faculty might not be able to accurately provide judgment about their own attitudes because issues such as disabilities are sensitive. Faculty might also not be accurate in their own pedagogical assessment and possibly inflated their own "halo effect" because it was more "socially acceptable" to support students with disabilities than not to support them (Aaker, Kumar, & Day, 1998; Pike, 1999; Wentland & Smith, 1993).

With these considerations, this study was still valid. The reasons are the following: (1) this study asked faculty to report information that was known to them; (2) the questions were validated by expert reviewers; (3) the questions diminished memory deficits by asking faculty to recollect experiences within the semester; (4) faculty members who responded thought the subject merited some thoughtful response; and (5) the questions did not threaten the privacy of faculty. For these reasons, the findings are worth reflecting on for the intended purpose of this study.

Conclusions

Overall, this study revealed some important findings. If each faculty member has at least one student with a disability in his or her class every semester, that means at this institution there could be at least 218 students who may be at-risk of dropping out if they do not develop skills of self-determination in a timely fashion.

It is important to observe that self-determination is not just for students with disabilities. In the rush to increase learning of all students, higher education cannot forget that the goal of postsecondary education is to adequately prepare students to function in the "real" world. However, for many students with or

without disabilities, transitioning into higher education is a major challenge for the reasons we previously discussed. Making it in the "real" world would be even harder if they do not develop skills of self-determination early in their college careers. Hence, facilitating students to become self-determined means faculty need to proactively promote and support self-directed learning beyond one or two classroom exercises.

Programs on promoting self-directed learning should not be viewed as only an "add-on." Instead, faculty need to recognize that becoming self-determined is an integral constituent of educating the whole student and preparing him or her for a productive life. This study found that many faculty members in this institution appeared to understand the importance and benefits of teaching components of self-directed learning to *all* students. Hence, it is only logical that follow up research analyze how institutional resources such as the disabilities services and the faculty development resource centers should be utilized to reinforce faculty pedagogical strategies in self-directed learning.

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BARBARA S. HONG is an Associate Professor of Special Education and a Senior Fulbright Scholar at Penn State Altoona. She obtained her Ph.D. from Teachers College, Columbia University in addition to three masters in instructional practices for special education. Her areas of research include self-determination, self-empowerment, college students with disabilities, and cognitive psychology. Dr. Hong is a certified school administrator and special education teacher.

LEIGH ANN HAEFNER is an Associate Professor of Science Education and co-coordinator of the Childhood and Early Adolescent Education Program at Penn State Altoona. She obtained a Ph.D. in Curriculum and Instruction, with an emphasis in Science Education from Pennsylvania State University. Her primary research interests include the development of preservice teachers' subject-matter knowledge and reform-oriented pedagogy for student-directed instruction.

TIMOTHY D. SLEKAR is an Associate Professor of Teacher Education, Head of the Division of Education, Human Development, and Social Sciences, and co-coordinator of the Childhood and Early Adolescent Education Program at Penn State Altoona. He obtained his Ph.D. from the University of Maryland. His research in teacher education examines the development of pedagogical knowledge for supporting student-centered learning and the cognitive processes for learning to teach American history. Dr. Slekar is also an education blogger for Huffington Post.