

# Validation of the College Interaction Self-Efficacy Questionnaire: Students With and Without Disabilities

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*The authors report on two investigations of the self-efficacy beliefs of students who do and do not have a physical disability.*

Higher education for people with physical disabilities is particularly important for attaining self-sufficiency through effective competition in the job market. New laws have resulted in improved educational opportunities, and many colleges and universities have recently removed architectural barriers to students with disabilities. These changes have allowed increasing numbers of people with disabilities to attend colleges and universities (cf. Fichten, 1987). The eventual success of these students depends not only on their mastery of academic tasks but also on their interpersonal experiences. Indeed, data indicate that difficulties in adjusting to college life and social isolation are among the most common problems faced by students with disabilities (Penn & Dudley, 1980).

Interaction between students who do and do not have disabilities can be made difficult by a variety of factors. These include lack of knowledge about appropriate behavior, anxiety, and the belief that one cannot behave effectively in the situation. Two recent studies on social skills

showed that both nondisabled students and those with disabilities know the right thing to say or do when interacting with each other (Fichten & Bourdon, 1986a) and that a skill deficit model, by itself, cannot explain interaction difficulties. The results of this investigation suggested, however, that worry about what the other person thinks and about the adequacy of one's own behavior contributes to problems in interaction. Thus, cognitive variables seem to be implicated in lack of comfort during interaction between nondisabled individuals and those with physical disabilities.

Self-efficacy expectations (i.e., the belief that one can successfully execute a task or a behavior [cf. Bandura, 1977]) can influence whether or not one engages in interaction as well as how comfortable one feels. Not only have successful behavioral outcomes been shown to increase expectations of personal mastery, but strong self-efficacy beliefs have been shown to precede and to predict successful behavior. The construct of self-efficacy has now been shown to be important in various areas (cf. Libman, Rothenberg, Fichten, & Amsel, 1985).

In the area of social skills, Moe and Zeiss (1982) have developed a reliable and valid measure of self-efficacy expectations concerning the ability to demonstrate various personal attributes (e.g., friendliness, warmth, attractiveness). But different social situations can require different behaviors (Eisler, Hersen, Miller, & Blanchard, 1975). Therefore, for this study we developed and validated a measure of self-efficacy expectations concerning the ability to interact effectively in academic settings with a

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same-sex peer who does or does not have a physical disability.

The importance of evaluating self-efficacy beliefs in the context of interaction between non-disabled college students and their peers with physical disabilities follows from what is known in other problem areas. When an individual has little self-confidence, there is avoidance of the target behavior, and under these conditions the problem will persist or worsen. There is every reason to believe that low confidence in one's ability to function competently with a peer who has a physical disability will lead to a similar pattern.

A measure of self-efficacy expectations about interaction in the college context can have a variety of counseling and research applications such as evaluation of the cognitive dimension of successful and unsuccessful social behavior and identification of low-confidence areas, which may then be emphasized in a cognitive or skills training program. The scale may be administered at various points during training to evaluate cognitive changes, assess the mediational link between cognitive and behavioral events, and provide an additional basis for judging when training might be appropriately terminated. Such an instrument can also be used both as a cognitive measure of the outcome of training and as a prognostic variable in studying the maintenance of gains in cognitive or social skills training programs.

This investigation included two studies. Study 1 was designed to provide reliability and validity data for the newly developed measure. In Study 2 we evaluated a modified version of the original scale and extended the validation by (a) providing data on the self-efficacy expectations of non-disabled students and those who use a wheelchair concerning interacting with each other and (b) providing comparative information on the expectations of nondisabled students about being able to interact comfortably with two different groups of students with disabilities: those who use a wheelchair and those with a visual impairment.

## STUDY 1: METHOD

### Participants

The participants were 175 volunteer 1st- and 2nd-year college students, 72 men and 103

women. All were enrolled in psychology courses and were part of a larger investigation. The mean age of participants was 19 years; none had physical disabilities.

### Instruments

**General Information Form.** This measure included questions about sex, age, absence or presence of a physical disability, and previous contact with people who have physical disabilities (e.g., relative, volunteer, friend, or acquaintance).

**Social Situations Questionnaire (SSQ).** This measure (Fichten & Bourdon, 1986a) lists 11 common social interaction situations between students who use a wheelchair and those who do not. Each social situation, described as a hypothetical interaction between the respondent and a same-sex college student, is followed by the question: "What do you say or do?" Participants write their answers. Appropriateness of responses is rated on a 6-point scale according to a scoring manual (Fichten & Bourdon, 1986b).

**Attitudes Toward Disabled Persons Scale (ATDP)—Form O.** This widely used standardized measure (Yuker, Block, & Young, 1970) consists of 30 Likert-type items for assessing the degree to which people see the adjustment and needs of people with disabilities as different from those of nondisabled people. Data provided by the authors indicate good psychometric properties for the scale. The single summary score is usually interpreted as a measure of acceptance or rejection of people with physical disabilities, with higher ratings showing more acceptance.

**College Interaction Self-Efficacy Scale (CISES).** This 47-item measure was developed for this study to evaluate the Level and Strength of self-efficacy expectations concerning interaction between same-sex college students. Respondents are asked to indicate whether or not they can comfortably perform a variety of interaction behaviors (e.g., asking a same-sex student, Judy or David, for a favor). Item selection was based on interviews with students without physical disabilities, students with physical disabilities, nondisabled students who had had extensive contact with students with disabilities, and the data from a previous study (Fichten & Bourdon, 1986a); item content reflects common interaction behaviors between nondisabled students and between nondisabled and wheelchair

user students. For each behavior respondents believe they can do comfortably, they indicate how confident they are of this, on a 10-point scale where scores range from *very uncertain* (10) to *certain* (100). The scale yields two scores: self-efficacy Level and Strength. Scoring follows Bandura's (1977) system. The Level of self-efficacy is the number of items respondents indicate they can do with a degree of confidence equal to or greater than 20, divided by the total number of items. Strength of self-efficacy is the sum of the confidence ratings divided by the total number of items. Both Level and Strength scores are expressed as percentages.

**Self-Efficacy Questionnaire For Social Skills (SEQSS).** This measure (Moe & Zeiss, 1982) provides self-efficacy Level and Strength scores by asking respondents to indicate whether they can be warm, attractive, friendly, socially skillful, trusting, assertive, humorous, confident, open, self-disclosing, fluent, clear communicators and whether they can maintain a positive outlook in each of 12 social situations. Scoring is identical to that of the CISES. In this investigation we used only four of the social situations, those that involve interaction with acquaintances rather than with close friends or total strangers; scores were prorated.

### Procedure

Participants were randomly assigned to two experimental conditions: hypothetical interaction with a student who used a wheelchair or with a nondisabled student. Those in the nondisabled experimental condition completed all measures (except the ATDP) with reference to a same-sex nondisabled student (order of presentation of the two self-efficacy measures was counter-balanced). The other students completed the measures with reference to a same-sex wheelchair user student. Students in the wheelchair user experimental condition did not complete the SEQSS because this measure had not been validated for interaction with people with disabilities. Instead, they completed the ATDP, a measure of attitudes toward persons with disabilities.

## STUDY 1: RESULTS

Because all students did not complete every measure, the sample sizes for various analyses differed.

### Reliability of the CISES

The relationship between odd- and even-numbered items was examined to evaluate the internal consistency of the CISES; this was done in each of the two groups. Spearman-Brown correlation coefficients for Level scores ranged from .94 to .98 ( $df=20$ ). Pearson product-moment correlation coefficients for Strength scores ranged from .94 to .99 ( $df=20$ ). All were significant at the .01 level or better.

Item analysis results showed that scores on all Level and Strength items correlated positively with total scores. For those participants in the nondisabled experimental condition, 79% of the Level items correlated significantly, whereas 85% of the Level items in the wheelchair user experimental condition correlated significantly ( $p<.05$  or better on point-biserial correlation coefficients,  $df=28$  for each group). The corresponding values for Strength were 91% and 89%, respectively (Pearson  $r$  values,  $df=28$  for both groups).

### Validity of the CISES

To obtain concurrent validity estimates, CISES, ATDP, and Social Situations Questionnaire (SSQ) scores were correlated (means in the nondisabled experimental condition were CISES Level = 78.72%, CISES Strength = 58.54%, and SSQ = 4.68; means in the wheelchair user experimental condition were CISES Level = 79.80%, CISES Strength = 62.61%, SSQ = 4.77, and ATDP = 78.90). It can be seen in Table 1 that CISES Level and Strength scores were highly and significantly correlated in both experimental conditions. Strength scores were also significantly but moderately related to SSQ and ATDP scores in the wheelchair user experimental condition. In the nondisabled experimental condition CISES scores were not significantly related to SSQ scores.

To examine the relationship between scores from the CISES and the SEQSS, we correlated Strength and Level scores from the two measures in the nondisabled condition. The Pearson product-moment correlation coefficients presented in Table 1 show good agreement between the two measures. Also, a strong relationship was found on both measures between Level and Strength scores [CISES  $r(95) = .82$ ,  $p<.001$ ; SEQSS:  $r(37) = .87$ ,  $p<.01$ ].

**TABLE 1**  
**Concurrent Validity of CISES: Correlations Among Selected Variables**

Variable	CISES		SSQ	ATDP
	Level	Strength		
CISES				
Level		.81***	.20	.18
Strength	.82***		.37**	.23*
SSQ	.12	.11		.17
SEQSS				
Level	.65**	.61**	—	—
Strength	.90**	.61**	—	—

Note. Wheelchair user condition above the diagonal ( $n=69$  to 70). Nondisabled experimental condition below the diagonal ( $n=60$  to 96, except for SEQSS where  $n=38$ ).

\* $p<.05$ .  
 \*\* $p<.01$ .  
 \*\*\* $p<.001$ .

One would expect that self-efficacy beliefs about interaction with a student who uses a wheelchair would be lower than those about interaction with a nondisabled student. Nevertheless, a  $2 \times 2$  (Sex  $\times$  Experimental Condition) between groups analysis of variance (ANOVA) comparison between groups on self-efficacy Strength scores revealed no significant main effects or interactions (given the strong relationship between CISES Level and Strength scores, only the latter were used; this method has the advantage of being based on continuous rather than dichotomous scores). Within the wheelchair user experimental condition, however, a  $2 \times 2$  (Sex  $\times$  Contact) between groups ANOVA comparison between groups showed that students who had had previous contact with people who have a disability had higher self-efficacy Strength scores ( $M=66.26$ ) than did those who had not had such contact ( $M=56.82$ ),  $F(1, 66)=5.30$ ,  $p<.05$ .

#### STUDY 1: DISCUSSION

Results indicate that for both groups of participants the CISES measure has good internal consistency and acceptable validity. The results also show that self-efficacy beliefs concerning interaction with a peer who uses a wheelchair are related, although modestly, to knowledge of appropriate behavior and to attitudes toward people with disabilities, there are no significant differences between scores in the wheelchair user and in the nondisabled experimental conditions.

Students who had had previous contact with people who have a disability, however, indicated stronger self-efficacy beliefs about interacting with a person who uses a wheelchair than did students who had had no such contact.

One reason for the lack of difference between scores of the two groups may have been "personalization" of the hypothetical other participant in the interaction (i.e., identifying the hypothetical person as "Judy" or "David"). In addition, respondents had difficulty making binary decisions about whether they could or could not perform a behavior comfortably. Therefore, in Study 2 the format of the self-efficacy measure was modified, some items were dropped from the scale, and all references to "Judy" or "David" were eliminated.

#### STUDY 2: METHOD

The goals of this study were to (a) evaluate the validity of a revised measure of self-efficacy expectations, (b) compare the expectations of nondisabled students and those who use a wheelchair about their ability to interact comfortably with each other, and (c) examine the self-efficacy expectations of nondisabled students concerning interaction with students who have a visual impairment.

#### Participants

Participants were 155 volunteer college and university students. Of these, 138 (47 men, 91

women) had no disabilities and 17 (11 men, 6 women) used a wheelchair. Mean age for the nondisabled students was 20; the mean age of wheelchair user students was 26 (it is common for students with disabilities to be somewhat older than their nondisabled peers). Those students using wheelchairs had used them for 6 to 29 years, with an average of 15 years.

#### Instruments

*College Interaction Self-Efficacy Questionnaire (CISEQ)*. The CISEQ, a 40-item revision of the CISES, is found in Appendix A. We made the following modifications in the questions: (a) seven items with low item-to-total correlations were dropped, (b) references to "Judy" or "David" were eliminated, and (c) all items referred to classmates "of the same sex as you," thereby eliminating the effects of personalization that may result in overly favorable evaluations (Scheier, Carver, Schultz, Glass, & Katz, 1978). The scoring system was also modified. Instead of asking participants to indicate whether they could perform a task comfortably, in the revised measure they are asked how comfortable they would feel if they were to engage in each behavior (on a 6-point scale with responses that range from *very uncomfortable* [1] to *very comfortable* [6]). Self-efficacy Level is scored as follows: each item that respondents indicate they could perform comfortably (i.e., a score equal to or greater than 4 on a 6-point scale) is attributed a score of 1 provided the confidence score is equal to or greater than 20; scores are summed and divided by the total number of items (i.e., 40) to yield a percentage self-efficacy Level score. The self-efficacy Strength score is also expressed as a percentage and is calculated by totaling the confidence ratings for all items that respondents indicated they could perform comfortably and dividing by the total number of items (i.e., 40).

The CISEQ's format is a departure from Bandura's (1977) original formulation; however, in most conceptualizations and measures of self-efficacy expectations the assumption that one is able to perform the behavior with reasonable comfort is implicit. The CISEQ Level of self-efficacy expectations score is an evaluation of being comfortably performing a variety of interpersonal behaviors, and the Strength score is a measure of confidence in being able to do so. Slightly different versions of the measure enable

students to respond in terms of interaction with a nondisabled student, a student who uses a wheelchair, and a student with a visual impairment.

*Social Activity Questionnaire (SAQ)*. This eight-item measure (Glasgow & Arkowitz, 1975) assesses dating frequency and comfort and satisfaction with current dating behaviors. Scoring is done on an item-by-item basis. In this study we used one item: "In social situations with members of the opposite sex, I usually feel (1) relaxed and comfortable, (2) somewhat anxious and inhibited, (3) very anxious and inhibited."

*Social Avoidance and Distress Scale (SAD)*. The SAD (Watson & Friend, 1969) measures anxiety or distress experienced in a variety of social situations. It is one of the most widely used measures of general social functioning (Arkowitz, 1981). The higher the score, the greater the social anxiety.

*Coopersmith Self-Esteem Inventory—Adult Form (SEI)*. A frequently used objective measure of self-esteem, the SEI (Coopersmith, 1981) consists of 25 statements. Respondents indicate for each statement whether it is "like me" or "unlike me." Data indicate that the measure is a valid instrument for the evaluation of self-esteem (Demo, 1985).

*College Interaction Self-Statement Test (CISST)*. This questionnaire (Fichten & Amsel, in press) is used to evaluate automatic thoughts concerning hypothetical social interaction with a same-sex nondisabled student or a same-sex student who uses a wheelchair. Respondents imagine that they are involved in the situation and indicate how comfortable they would feel using a 6-point scale ranging from *very uncomfortable* (1) to *very comfortable* (6). Respondents then indicate, using 5-point scales, how often they would have each of 40 thoughts. The measure yields five scores: Comfort Interacting and the frequency of Self-Referent Positive, Self-Referent Negative, Other-Referent Positive, and Other-Referent Negative thoughts. The scale has acceptable psychometric properties (Fichten, Amsel, & Robillard, 1987).

#### Procedure

All of the participants who use a wheelchair and 53 of the nondisabled students completed the CISEQ and CISST with reference to interaction with a nondisabled student; they also completed the SAD and the SEI as well as the SAQ scale.

Another 57 of the nondisabled students completed the CISEQ and CISST with reference to interaction with a student who uses a wheelchair, and the remaining 28 nondisabled students completed these measures with reference to interaction with a student who has a visual impairment. All participants completed an information form that asked about sex, age, duration of the disability (if any), and ease with nondisabled students, students who use a wheelchair, and students with a visual impairment (6-point scales).

## STUDY 2: RESULTS

Because CISEQ Level and Strength scores were found, again, to be highly correlated with each other (Pearson  $r$  values ranged from .91 to .95), only Strength scores were used in the analyses. We conducted correlational analyses to examine the relationship between CISEQ Strength scores and age, duration of disability (if applicable), SAD, SAQ, SEI, ease with students, and CISST scores. Results in Table 2 show that self-efficacy Strength scores were related, in the expected direction, to social anxiety (SAD), dating anxiety (SAQ), self-esteem (SEI), ease with students, comfort interacting, and the frequency of CISST Self-Referent and Other-Referent thoughts. Age and duration of disability were not found to be related to self-efficacy scores.

To compare the self-efficacy expectations of the two groups, the CISEQ Strength scores of the students who use a wheelchair (i.e., beliefs concerning interactions with nondisabled students) were compared to those of nondisabled students in both the nondisabled and wheelchair user conditions; no significant differences were found on these comparisons.

The self-efficacy expectations of nondisabled students concerning interaction with the three groups (i.e., students who use wheelchairs, nondisabled students, and students with visual impairments) were examined in a one-way between groups ANOVA comparison; this revealed no significant differences. Planned comparisons were made on CISEQ Strength scores in the nondisabled and visually impaired conditions as well as in the nondisabled and wheelchair user conditions. Although neither comparison reached significance, the means in Table 3 suggest that nondisabled students have somewhat stronger self-efficacy expectations when relating to nondisabled students

than when relating to students who use a wheelchair [ $t(108) = 1.40, p < .10$  (one-tailed)].

## STUDY 2: DISCUSSION

The results of Study 2 show that the modified CISEQ is significantly related to social and dating anxiety, self-esteem, comfortable interaction, and the absence of negative thoughts. Students who use a wheelchair and nondisabled students were found to have similar self-efficacy beliefs concerning interaction with nondisabled students. In addition, nondisabled students had similar self-efficacy beliefs concerning interaction with nondisabled students and students with visual impairments. Findings regarding nondisabled students' self-efficacy expectations concerning interaction with students who use a wheelchair were ambiguous; had the sample of nondisabled students been divided into two groups, those who had and those who had not had previous contact with people who have a disability, the results regarding self-efficacy expectations concerning interaction with students who use a wheelchair might have been more clear-cut.

## CONCLUSION

The results of the two studies suggest that the instrument developed for this investigation has merit as a measure of self-efficacy expectations concerning interaction with same-sex students who do and do not have physical disabilities. The scale has good internal consistency; scores are logically related to relevant variables such as comfort during interaction, self-esteem, and social anxiety; and scores are modestly related to knowledge of effective behavior with a person who uses a wheelchair as well as to attitudes toward people who have a disability. Furthermore, the results show that nondisabled students who have had previous contact with people who have a disability have higher self-efficacy expectations concerning interaction with people who use a wheelchair than do people who have had no such contact.

The self-efficacy expectations of nondisabled students and students who use a wheelchair concerning interaction with nondisabled peers were not found to differ. The results also indicate that nondisabled individuals have similar self-efficacy expectations concerning interaction with

TABLE 2  
Correlations Between CISEQ Strength of Self-Efficacy Scores and Other Measures

Participants	Type of stimulus person	SAD	SAQ	SEI	Ease with students <sup>a</sup>	Comfort Interacting	CISST			
							Negative Thoughts		Positive Thoughts	
						Self-Referent	Other-Referent	Self-Referent	Other-Referent	
Wheelchair users	Nondisabled	-.43	-.54*	.55*	.21	.56*	-.32	-.46	-.12	-.24
Nondisabled	Nondisabled	-.59*	-.45	.44	.44***	.60**	-.50**	-.39*	.06	-.09
Nondisabled	Wheelchair users				.60***	.49*	-.36	-.70***	.45*	.09
Nondisabled	Visually impaired				.48**	.58**	-.50**	-.17	-.16	-.14

Note. Pearson product-moment correlation coefficients. Degrees of freedom are as follows: wheelchair users  $df = 10$  to 16, nondisabled students in nondisabled experimental condition  $df = 28$  to 41 (except for SAD, SAQ, and SEI  $df = 14$ ), wheelchair user experimental condition  $df = 24$  to 56, visually impaired experimental condition  $df = 24$  to 27.

<sup>a</sup>Refers to ease with students who are nondisabled (for wheelchair user participants and the first group of nondisabled participants) and with wheelchair users and visually impaired students (for the second and third group of nondisabled participants, respectively).

\* $p < .05$ .

\*\* $p < .01$ .

\*\*\* $p < .001$ .

TABLE 3  
CISEQ Strength Scores

Participants	Type of stimulus person					
	Nondisabled		Visually impaired		Wheelchair user	
	M	SD	M	SD	M	SD
Nondisabled	57.48	23.34	56.90	22.17	51.30	23.04
Wheelchair user	58.48	23.52				

visually impaired and nondisabled peers. Some individuals, especially those who have had no previous contact with people who have a disability, may, however, have lower self-efficacy expectations concerning interaction with people who use a wheelchair.

Such a pattern of self-efficacy expectations concerning social interaction with peers who have a visual impairment and those who use a wheelchair is consistent with findings on disability hierarchies (i.e., preferences for individuals with a physical disability) in the college context. For example, it has been shown that college students prefer to interact on academic tasks with students who use a wheelchair, but they prefer to be in social situations with students who have a visual impairment (Stovall & Sedlacek, 1983). Similarly, college students are more at ease with students with visual impairments than with students who use a wheelchair (Fichten, Amsel, Robillard, & Judd, 1987).

The CISEQ is a preliminary measure, however, and the two studies described have some methodological limitations. First, the findings of the two studies are based on somewhat different versions of the self-efficacy measure. Second, although nondisabled people are generally less comfortable with individuals who have a physical disability than they are with nondisabled people, corresponding differences in self-efficacy beliefs were not consistently found in this investigation. This inconsistency in the findings may have been due to social desirability factors or to the content of items. We believe, however, that it resulted from not controlling for previous experience with individuals who have a disability in Study 2. As Bandura (1977) has suggested, enactment of a particular behavior may be the best means of ensuring strong self-efficacy expectations. Therefore, previous contact with people who have disabilities, especially if this contact was extensive and had positive consequences, may have affected the nondisabled students' self-efficacy expectations concerning interaction with people who have

physical disabilities. In future research on self-efficacy expectations concerning interaction with people who have a disability, the contact factor should be incorporated in the design.

#### Enhancing Self-Efficacy Expectations

In this investigation as well as in many others, strong self-efficacy expectations have been shown to be related to effective performance and low social anxiety (cf. Lipman, Rothenberg, Fichten, & Amsel, 1985). Therefore, strengthening the self-efficacy beliefs of both students who have disabilities and nondisabled students concerning interaction with each other is desirable. But how is this best accomplished?

The rehabilitation and social psychology literatures suggest that extended contact based on an equal status between students with disabilities and nondisabled students can not only increase understanding, reduce prejudice, enhance comfort, and promote interaction, but it can also alter self-efficacy expectations (cf. Amsel & Fichten, in press; Fichten, in press). In the context of higher education, many opportunities exist for exposure in the form of contact between students with disabilities and their nondisabled peers on an equal status basis. To enable the integration of students with disabilities into college life, it is particularly important that both student services personnel and professors take steps to ensure that the potential for such contact is realized.

Professors, student groups, and student services personnel who attempt to encourage collaboration and cooperation between students with disabilities and their nondisabled peers should ensure that there is reciprocity. If possible, there should be a superordinate goal such as a group or team project that requires collaboration between students because such a cooperative set has been shown to be particularly effective both in changing attitudes and encouraging interaction (cf. Aronson & Osherow, 1980; Johnson, Johnson, & Maruyama, 1983). People who an-

ticipate future interaction with an individual are more likely to focus on that person's positive attributes than are people who do not anticipate such interaction (Knight & Vallacher, 1981). Therefore, contact, once initiated, should be seen to involve future interaction.

Recently, rehabilitation workers have stressed the need to consider the social skills of students with disabilities (e.g., Gresham, 1984; Van Hasselt, Hersen, & Kazdin, 1985). Indeed, Gresham (1984) suggested that social skills training for students with disabilities who lack such skills could contribute not only to successful interaction but also to fostering high self-efficacy expectations in social situations.

Students with disabilities need to have the same repertoire of social skills as do their peers without disabilities. In addition, they may also need to have skills that ease the tension and strain of interaction. For example, the results of a number of studies (e.g., Belgrave & Mills, 1981; Evans, 1976; Hastorf, Wildfogel, & Cassman, 1979) suggest that some people with disabilities, those who, in an appropriate context, mention the disability themselves, indicate that they accept words such as *see*, *hear*, and *walk* as part of everyday life, and talk about some of the advantages of having the disability, are likely to change the attitudes of others and produce a positive impression.

But contact based on equal status, even when both groups of students possess the requisite social skills, will not achieve the desired goal of full integration if students feel uncomfortable, have low self-efficacy beliefs, or have weak expectations that interaction will achieve desired goals. It is the challenge of college student personnel to ensure that in these situations the expectations of all concerned groups are positive and have the potential to promote interaction.

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#### APPENDIX A College Interaction Self-Efficacy Questionnaire

This questionnaire deals with social behavior between students. For each item indicate *how comfortable you would feel* in such a situation, with 1 being *very uncomfortable* and 6 being *very comfortable*, and *how certain you are about your answer*, with 10 being *very uncertain* and 100 being *very certain*. The word *classmate* refers to a student of the same sex as you whom you do not know well.

1. Being introduced to a (V/W) classmate, of the same sex as you, whom you don't know well
2. Initiating a conversation with a (V/W) classmate, of the same sex as you, whom you don't know well
3. Keeping a conversation going with a (V/W) classmate about class topics
4. Keeping a conversation going with a (V/W) classmate about movies and television shows
5. Being asked by a (V/W) classmate to join him or her before class starts
6. Asking a (V/W) classmate to join you for coffee in the cafeteria
7. Being asked by a (V/W) classmate to do some research in a library that he or she cannot get to
8. Refusing to help a (V/W) classmate when you are busy
9. Refusing to help a (V/W) classmate when you feel that he or she could do a task by himself or herself
10. Asking a (V/W) classmate for a favor

11. Asking a (V/W) classmate to accompany you to a campus get-acquainted party
12. Being asked by a (V/W) classmate to accompany him or her to a campus get-acquainted party
13. Refusing a (V/W) classmate's request to accompany him or her to a campus get-acquainted party
14. Being asked by a (V/W) classmate for your class notes when you need them yourself
15. Refusing to lend your class notes to a (V/W) classmate when you need them yourself
16. Talking with classmates (including a V/W student) about dates, sex, and sports
17. Strongly disagreeing with a (V/W) classmate
18. Expressing anger at a (V/W) classmate
19. Going out to a bar with classmates (including a V/W student) to celebrate the end of term
20. Inviting a (V/W) classmate to a party at your home
21. Going downtown with a (V/W) classmate on a nice day
22. Going to a restaurant with a (V/W) classmate
23. Going to a bar with a (V/W) classmate
24. Offering help to a (V/W) classmate when he or she refused your offer of help last week
25. Telling a (V/W) classmate to make less noise if he or she disturbs you in the library
26. Asking a (V/W) classmate to do his or her fair share of a two-person course project
27. Reminding a (V/W) classmate about the \$5.00 he or she borrowed from you last month
28. Leaving a (V/W) classmate waiting at the front door for someone to pick him or her up
29. Asking a (V/W) classmate for a loan of \$5.00
30. Asking a (V/W) classmate if you could join him or her at the only table where there is room in the cafeteria
31. Criticizing a (V/W) classmate for not giving others a chance to talk in your course discussion group
32. Being criticized by a (V/W) classmate for not giving others a chance to talk in your discussion group
33. Saying something to a (V/W) classmate after he or she has spilled a soft drink on your desk
34. Discussing with a (V/W) classmate the best means of getting to a restaurant
35. Being asked by a waitress what a (V/W) classmate at your table wants to order
36. Being assigned by a professor to work with a (V/W) classmate on a two-person course project
37. Using words like *Italian* and *ethnic* (*see* and *vision*/*walk* and *run*) with a (V/W) classmate if he or she is Italian
38. Asking a (V/W) classmate what it's like to (have a visual impairment/be in a wheelchair) be in a plaster cast if he or she has one
39. Being asked by a (V/W) classmate for help (to locate a classroom/getting up a stair) getting audiovisual equipment up a stair
40. Offering help to a (V/W) classmate (to locate a classroom/get up one stair) carry some audiovisual equipment up one stair

*Note.* Phrases in parentheses refer to interaction with a visually impaired student or a student who uses a wheelchair. V stands for visually impaired; W stands for wheelchair user. Without the information in parentheses, the statements refer to nondisabled students.