

# **Assessing the Processes and Outcomes of Academic Advising at a Large, Urban, Public University: Going Beyond Satisfaction**

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## Abstract

This paper describes a comprehensive approach to evaluating academic advising services at a large, urban public university. Two investigations are described in an effort to enhance understanding of advising outcomes and processes, what have students have learned from their advising experiences, what students consider the most important aspects of their advising experiences, what aspects of the advising experience contribute to academic success variables and intended advising outcomes, and if students' perceptions of advising differ by background (e.g., gender, ethnicity, admit status, etc.) and advising experiences (e.g., whether students met with the same advisor or different advisors). Results suggest that advising has a positive impact on students' academic success, learning outcomes, and levels of academic self-efficacy. One noteworthy finding is that the degree to which advisors empower/facilitate goal achievement positively affects Academic Hope and in turn Academic Hope positively impacts cumulative grade point averages. Findings also indicate that students who meet with the same advisor are significantly more satisfied than students who meet with different advisors. Results from a pre-post analysis imply that students made significant gains in the following areas: confidence to persist and achieve goals despite obstacles, academic planning and goal setting self-efficacy, career decision making self-efficacy, and level of campus engagement.

# **Assessing the Processes and Outcomes of Academic Advising at a Large, Urban, Public University: Going Beyond Satisfaction**

## **Introduction**

Many students attending urban institutions possess characteristics that place them at a greater risk for academic failure and attrition: not completing a rigorous high school college-preparatory curriculum, being first generation college students, attending classes part-time, living off campus, and significant off-campus work commitments. These students are often juggling work and family responsibilities along with school, and may need support in terms of achieving their academic goals. Academic advising often provides student with the informational, personal, and academic support necessary for them to attain academic success.

The importance of advising as a factor in student academic success is recognized by students, faculty, and administrators. In the literature the quality of advising has been reported as an important component in students' successful transitions to college life (Steele and McDonald, 2000), academic and social integration (Fox, Zakely, Morris, and Jundt, 1993), adjustment and need satisfaction during the first year (Kramer and Spencer, 1989), decision-making processes in selecting the appropriate academic programs and careers (Creamer, 2000; McCalla-Wiggins, 2000), achievement of maximum potential (O'Banion, 1972), and academic success and retention (Gordon & Habley, 2000; Pascarella & Terenzini, 1991). Despite the widespread recognition of the importance of advising, there are relatively few comprehensive investigations of its effectiveness in the published literature (Banta, Hansen, Black & Jackson, 2003). Additionally, most of the studies focus on satisfaction with advising rather than assessment of student learning outcomes and academic success indicators. Cuseo (2004) asserts that:

Evaluating the effectiveness of academic advisors and advisement programs sends a strong and explicit message to all members of the college community that advising is an important professional responsibility; conversely, failure to do so tacitly communicates the message that this student service is not highly valued by the institution.

## **Current Study**

The primary purpose of this study was to determine the following: if the current academic advising services offered by Advising Center housed in University College (UC) (an academic unit housing various academic support programs for incoming students) was meeting the needs of students; understand the impacts of advising on student's knowledge levels, attitudes, and behaviors; and demonstrate how advising has enhanced academic success. As such, this study was designed to help provide an informed perspective about the major strengths and deficiencies of advising services. Multiple measures were employed to gain insight into the complex advising processes and outcomes. This paper presents results from two investigations: 1) a web-based survey administered to a random sample of University College students and 2) a pre-post questionnaire administered in learning community courses. It is notable that we went beyond assessment of student satisfaction with advising and assessed students' academic success (e.g., levels of engagement, grade point averages, decided on a major or future career), learning outcomes, levels of academic self-efficacy, and what academic advising strategies were associated with particular outcomes. While implementing the assessment plan and interpreting results, a series of questions guided us:

1. What have students have learned from their advising experiences?
2. What are students' perceptions of their advising experiences?
3. What do students consider the most important aspects of their advising experiences?
4. What aspects of the advising experience contribute to academic success variables and intended advising outcomes?
5. What are the processes and outcomes of UC advising?

6. Do students' perceptions of advising differ by background (e.g., gender, ethnicity, admit status, etc.) and advising experiences (e.g., whether students met with the same advisor or different advisors)?
7. How does the advising help students make successful transitions?

### **Study 1: Understanding Process And Outcomes Of University College Advising: A Web-Based Survey**

This section focuses exclusively on a web-based survey administered in spring 2005. A series of analyses were conducted in an effort to more comprehensively understand the following: 1) the processes and outcomes of UC advising services, 2) students' perceptions of their advising experiences, 3) what students consider the most important aspects of their advising experiences, 4) what aspects of the advising experience contribute to academic success variables and positive perceptions of the UC advising environment, 5) what students have learned from their advising experiences, and 6) if students perceptions of advising differ by background (e.g., gender, ethnicity, admit status, etc.) and advising experiences (e.g., whether students met with the same advisor or different advisors).

#### **Method and 2005 Survey Instrument**

A random sample of 2000 University College students were asked to voluntarily fill out the "University College Academic Advising Survey" (please see Appendix A to view the survey; adapted from the instrument developed in 1996 by Elizabeth Goering and Ron Sandwina). Only degree seeking students were included in the sample. In an effort to increase survey response rates, students who submitted the survey (they were allowed to skip items) were entered into a drawing to win 1 of 40 possible rewards including Apple iPod Shuffles (valued at \$99.00), a semester E parking pass (valued at \$52.00), and money on their JagTags (valued at \$20).

The instrument was designed to measure students' perceptions about various aspects of academic advising at IUPUI. In the primary section of the instrument, students were asked to

rate each of 48 aspects of their experience with their current or most recent advisor on two five-point Likert-type scales: a Satisfaction Scale (1= *Strongly Agree* to 5= *Strongly Disagree*) and an Importance Scale (1= *Very Important* to 5= *Very Unimportant*).

A Principal Components Analysis with Varimax rotation was conducted in order to break the 48 items into common factors. After suppressing factor loadings of less than 0.30, six factors emerged. (see Table 1 below for factors and factor loadings). Factor 1 contained 11 items, including “my advisor treats me with respect,” “my advisor is a good listener,” and “my advisor is trustworthy.” This factor, labeled “Interaction Style” demonstrated extremely high levels of internal reliability, with the satisfaction subscale having a Cronbach’s alpha of .957, and the importance subscale having an alpha level of .942. Factor 2, labeled “Knowledgeable” contained nine items, including “my advisor is knowledgeable about the degree requirements needed for a degree in my school,” “my advisor understands my school’s academic rules and policies,” and “my advisor provides accurate information.” This factor also had a very high degree of internal consistency; the satisfaction subscale had an alpha level of .942, and the importance subscale had an alpha level of .883. Factor 3 was labeled “Student Familiarity” and included items such as “my advisor is familiar with my academic goals,” “my advisor is familiar with my academic progress,” and “my advisor is familiar with my career goals.” Cronbach’s alpha for the satisfaction subscale of this factor was .945, while the alpha level for the importance subscale was .911. The fourth factor was comprised of five items, including “my advisor is knowledgeable about how to conduct a job search,” and “my advisor is knowledgeable about student organizations in my major”, and was given the label “Connections.” This factor also demonstrated high levels of internal consistency, with a Cronbach’s alpha of .896 for the satisfaction subscale, and .854 for the importance subscale. The final factor was labeled “Professionalism” and included four items, such as “my advisor is readily available,” “my

advisor is flexible in arranging meeting times with me,” and “my advisor promptly returns my phone calls.” This four-item factor also demonstrated high levels of internal consistency, with a Cronbach’s alpha of .867 for the satisfaction subscale, and .830 for the importance subscale. Factor 6 contained 9 items, including “my advisor helps me set concrete academic goals,” “my advisor encourages me to continue to pursue my goals even when I encounter difficulties,” my advisor helps me develop alternatives when I have face obstacles,” and “my advisor helps me develop my academic strengths.” This factor, labeled “Academic Goal Facilitation” demonstrated extremely high levels of internal reliability, with the satisfaction subscale having a Cronbach’s alpha of .959, and the importance subscale having an alpha level of .939 (see Table 1 below for factors and factor loadings). One item was removed from factor 6 due to the fact that it did not have a high factor loading: “helps me make decisions about course selection.”

**Table 1. Academic Advising Survey Factors with Item Factor Loadings**

<b>Factor 1: Interaction Style</b>	<b>Factor Loading</b>
Item 11: Treats me with respect	.792
Item 13: Treats me fairly	.779
Item 14: Is a good listener	.764
Item 17: Is friendly	.761
Item 18: Is approachable	.740
Item 15: Is open-minded when making decisions	.688
Item 12: Is trustworthy	.673
Item 19: Shows genuine concern for me	.660
Item 16: Motivates me to do my best work	.576
Item 23: Provides adequate information	.539
Item 25: Makes my duties, responsibilities and obligations clear to me	.395
**Satisfaction scale $\alpha = .957$ **Importance scale $\alpha = .942$	
<b>Factor 2: Knowledgeable</b>	<b>Factor Loading</b>
Item 4: Is knowledgeable about the degree requirements needed for a degree in my school	.820
Item 3: Is knowledgeable about the general requirements needed for a degree in my school	.812
Item 2: Understands my school's academic rules and policies	.753

Item 1: Understands university rules and policies	.708
Item 6: Is knowledgeable about the content of courses in my major	.675
Item 22: Provides accurate information	.559
Item 7: Is knowledgeable about when and how often courses in my major are offered	.550
Item 8: Is able to answer my questions about the graduation process	.506
Item 5: Is knowledgeable about the content of courses outside my major	.476
**Satisfaction scale $\alpha = .942$	
**Importance scale $\alpha = .883$	
<b>Factor 3: Student Familiarity</b>	<b>Factor Loading</b>
Item 29: Is familiar with my academic goals	.768
Item 27: Knows my name	.729
Item 30: Is familiar with my career goals	.706
Item 34: Is familiar with my academic progress	.684
Item 32: Treats me as an individual, not a number	.593
Item 28: Is able to help me set goals	.563
Item 33: Understands how my personal life affects my academic progress	.562
Item 31: Is willing to work with me to achieve my goals	.506
Item 26: Is well-prepared for our meetings	.403
**Satisfaction scale $\alpha = .945$	
**Importance scale $\alpha = .911$	
<b>Factor 4: Connections</b>	<b>Factor Loading</b>
Item 36: Is knowledgeable about how to conduct a job search	.764
Item 38: is knowledgeable about student organizations in my major	.657
Item 35: Is knowledgeable about career opportunities in my major	.592
Item 37: Is knowledgeable about whom to contact if he or she can't answer a question	.541
Item 24: Makes his or her duties, responsibilities and obligations clear to me	.519
**Satisfaction scale $\alpha = .896$	
**Importance scale $\alpha = .854$	
<b>Factor 5: Professionalism</b>	<b>Factor Loading</b>
Item 10: Is readily available	.764
Item 9: Is flexible in arranging meeting times with me	.749
Item 20: Promptly returns my phone calls	.680
Item 21: Provides information in a timely manner	.542
**Satisfaction scale $\alpha = .867$	
**Importance scale $\alpha = .830$	
<b>Factor 6: Academic Goal Facilitation</b>	<b>Factor Loading</b>
Item 39: helps me set concrete academic goals.	.766
Item 40: encourages me to continue to pursue my goals even when I encounter difficulties.	.607
Item 41: helps me develop alternatives when I face obstacles.	.551
Item 42: helps me develop my academic strengths.	.737
Item 43: helps me explore career and major alternatives.	.712



Item 45: discusses other campus resources as needed (e.g., Math Assistance Center, Writing Center, Mentoring, Career Center, Financial Aid).	.539
Item 46: makes useful referrals.	.677
Item 47: understands my unique needs and abilities.	.708
Item 48; understands the needs of students with diverse backgrounds (ethnicity, religious, income, gender, sexual orientation, etc.).	.679
Satisfaction scale $\alpha = .959$ ; Importance scale $\alpha = .939$	

Another section of the survey consisted items designed to measure the construct of “Academic Hope.” Hope is defined as “the process of thinking about one’s goals, along with the motivation to move toward those goals (agency), and the ways to achieve those goals (pathways)” (Snyder, 1995, p. 355). According to Snyder, Shorey, Cheavens, Pulvers, Adams, and Wiklund (2002) hope scale scores of incoming freshmen were shown to predict overall grade point averages even while controlling for scores on entrance examinations. Due to the fact that one of the major goals of UC academic advising is to facilitate the achievement of students’ personal academic goals and help them achieve success even in the face of substantial obstacles (e.g., work and family commitments, academic under-preparation, inability to get into competitive degree-granting schools such as Nursing and Business, etc.), it seemed appropriate to add a measure of Academic Hope during the 2005 survey administration. The Academic Hope scale employed in this current study was adapted from Snyder, Sympson, Ybasco, Borders, Babyak, and Higgins, 1996. Students were asked the rate their degree of agreement (ranging from 1= definitely false to 8=definitely true). The following items comprised the hope scale: “If I should find myself in a jam, I could think of many ways to get out of it,” “At the present time, I am energetically pursuing my academic goals.” “There are lots of ways around any school-related problems that I am facing now,” “Right now I see myself as being pretty successful,” “I can think of many ways to reach my current academic goals,” and “At this time, I am meeting the goals I have set for myself.” The 6-item scale had a coefficient alpha of .888.

## **Participants**

There were 346 University College students who responded to the Academic Advising Survey in 2005. There were approximately 164 students who did not receive the survey due to “undeliverable messages” and “returned e-mails” (e.g., mailboxes were full). Thus, the adjusted response rate was 19%. Respondents did not significantly differ from non-respondents with regard to average credit hours, age, SAT scores, conditional admit status, or ethnicity. However, respondents were significantly more likely to be female (70%) compared to non-respondents (60%). Respondents were also more likely to be beginning freshmen (34%) compared to non-respondents (27%). Respondents had higher average high school percentile ranks (mean=60.64) compared to non-respondents (mean=55.09) (based on an independent samples t-test,  $p < .05$ ). Lastly, respondents had higher average cumulative spring grade point averages (mean=2.71) compared to non-respondents (mean=2.41) (based on an independent samples t-test,  $p < .05$ ).

## **Results**

### Understanding Students’ Perceptions of their Advising Experiences

Shown in the Tables 2 and 3 are students’ perceptions of what they experienced during the advising process and their importance ratings (all items rank ordered by mean). It is noteworthy that mean ratings were relatively high for all items suggesting generally positive perceptions of the UC advising processes. Students were most likely to experience advisors who treated them with respect; were friendly, fair, trustworthy, approachable, good listeners, open minded, timely, and accurate; and understood IUPUI rules and policies. Students were also asked to rate the importance of various aspects of the advising process. The following characteristics of advisors and methods of advising were the most important to students: respectful, trustworthy, provide accurate information, knowledgeable about the degree-granting-school general and specific requirements, good listeners, fair, understand school’s (e.g., Liberal Arts, Business,

Public and Environmental Affairs, Science, etc.) academic rules and policies, provide adequate information, and approachable. Displayed in Tables 4 and 5 are students' perceptions of what they experienced during the advising process and their importance ratings (6 Factors rank-ordered by mean). Results suggest that they were very few discrepancies between what students experienced during the advising process and what they considered important. However, according to the respondents it is critical that UC advisors are knowledgeable about the general requirements needed for a degree and about the school specific degree requirements. Although knowledge of general and specific school degree requirements were ranked 4<sup>th</sup> and 5<sup>th</sup> with regard to mean "importance" ratings, they were ranked 12<sup>th</sup> and 21<sup>st</sup> with regard to students' mean agreement levels of the degree to which they experienced UC advisors with this type of knowledge.

**Table 2. University College Advising Results: Students' Perceptions of UC Advising Processes (N=346)**

	N	<sup>a</sup> Mean	Std. Deviation
1. treats me with respect.	346	4.43	0.67
2. is friendly.	346	4.36	0.75
3. treats me fairly.	344	4.33	0.70
4. understands University rules and policies.	346	4.29	0.72
5. is trustworthy.	344	4.25	0.80
6. is approachable.	345	4.25	0.81
7. is a good listener.	344	4.21	0.88
8. is open-minded when making decisions.	344	4.13	0.89
9. provides information in a timely manner.	346	4.13	0.81
10. provides accurate information.	344	4.05	0.92
11. helps me make decisions about course selection.	345	4.03	0.98
12. is knowledgeable about the general requirements needed for a degree in my school.	345	4.03	0.97
13. is knowledgeable about whom to contact if he or she can't answer a question.	340	4.03	0.93
14. provides adequate information.	346	4.03	0.94
15. is well-prepared for our meetings.	338	4.02	0.93
16. is willing to work with me to achieve my goals.	346	4.00	0.85
17. makes my duties, responsibilities and obligations clear to me.	343	3.99	0.97
18. shows genuine concern for me.	345	3.95	1.02
19. motivates me to do my best work.	341	3.95	1.03

20. understands my school's (e.g., Liberal Arts, Business, Public and Environmental Affairs, Science, etc.) academic rules and policies.	341	3.95	1.01
21. is knowledgeable about the degree requirements needed for a degree in my school.	340	3.92	1.02
22. treats me as an individual, not a number.	345	3.90	1.07
23. is flexible in arranging meeting times with me.	332	3.89	0.99
24. discusses other campus resources as needed (e.g., Math Assistance Center, Writing Center, Mentoring, Career Center, Financial Aid).	330	3.88	1.03
25. is knowledgeable about the content of courses outside my major.	339	3.86	0.87
26. is able to answer my questions about the graduation process.	299	3.84	0.94
27. makes his or her duties, responsibilities and obligations clear to me.	343	3.84	0.97
28. is able to help me set goals.	344	3.83	1.06
29. is knowledgeable about the content of courses in my major.	336	3.83	1.00
30. is knowledgeable about how to conduct a job search.	312	3.82	0.89
31. is knowledgeable about when and how often courses in my major are offered.	337	3.81	0.98
32. helps me set concrete academic goals.	338	3.81	0.99
33. encourages me to continue to pursue my goals even when I encounter difficulties.	346	3.81	1.04
34. makes useful referrals.	320	3.81	1.03
35. helps me develop alternatives when I face obstacles.	332	3.79	0.98
36. is knowledgeable about career opportunities in my major.	336	3.78	1.03
38. is readily available.	337	3.75	1.05
40. is knowledgeable about student organizations in my major.	320	3.73	0.94
41. helps me explore career and major alternatives.	325	3.73	1.04
42. promptly returns my phone calls.	287	3.71	1.10
43. helps me develop my academic strengths.	337	3.69	1.02
44. is familiar with my academic goals.	339	3.67	1.19
45. understands my unique needs and abilities.	332	3.61	1.09
46. knows my name.	337	3.61	1.25
47. understands how my personal life affects my academic progress.	340	3.60	1.16
48. is familiar with my career goals.	336	3.56	1.20

<sup>a</sup>Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

**Table 3. University College Advising Results: Students' Rating of UC Advising Processes in terms of Importance (N=346)**

	N	<sup>A</sup> MEAN	STD. DEVIATION
1. treats me with respect.	334	4.73	0.53
2. is trustworthy.	335	4.71	0.54
3. provides accurate information.	336	4.69	0.56
4. is knowledgeable about the general requirements needed for a degree in my school.	332	4.69	0.61
5. is knowledgeable about the degree requirements needed for a degree in my school.	331	4.69	0.62
6. is a good listener.	333	4.68	0.58
7. treats me fairly.	333	4.67	0.59

8.	understands my school's (e.g., Liberal Arts, Business, Public and Environmental Affairs, Science, etc.) academic rules and policies.	331	4.64	0.67
9.	provides adequate information.	337	4.64	0.55
10.	is approachable.	335	4.62	0.64
11.	is open-minded when making decisions.	334	4.61	0.60
12.	is friendly.	335	4.61	0.66
13.	understands University rules and policies.	332	4.58	0.67
14.	is knowledgeable about the content of courses in my major.	332	4.57	0.66
15.	provides information in a timely manner.	334	4.57	0.57
16.	is knowledgeable about whom to contact if he or she can't answer a question.	333	4.55	0.65
17.	helps me make decisions about course selection.	335	4.54	0.62
18.	shows genuine concern for me.	335	4.53	0.72
19.	is well-prepared for our meetings.	333	4.52	0.65
20.	makes my duties, responsibilities and obligations clear to me.	334	4.50	0.66
21.	is knowledgeable about when and how often courses in my major are offered.	333	4.50	0.72
22.	motivates me to do my best work.	335	4.50	0.79
23.	helps me develop alternatives when I face obstacles.	333	4.49	0.69
24.	treats me as an individual, not a number.	335	4.49	0.70
25.	is readily available.	333	4.46	0.70
26.	is knowledgeable about career opportunities in my major.	332	4.46	0.68
27.	is willing to work with me to achieve my goals.	334	4.45	0.67
28.	helps me develop my academic strengths.	334	4.45	0.70
29.	encourages me to continue to pursue my goals even when I encounter difficulties.	332	4.45	0.70
30.	is flexible in arranging meeting times with me.	331	4.44	0.71
31.	helps me explore career and major alternatives.	333	4.44	0.74
32.	helps me set concrete academic goals.	335	4.43	0.71
33.	is familiar with my academic progress.	333	4.43	0.68
34.	discusses other campus resources as needed (e.g., Math Assistance Center, Writing Center, Mentoring, Career Center, Financial Aid).	331	4.42	0.73
35.	is able to help me set goals.	337	4.42	0.73
36.	is able to answer my questions about the graduation process.	327	4.41	0.84
37.	is familiar with my academic goals.	335	4.39	0.77
38.	promptly returns my phone calls.	326	4.39	0.81
39.	makes his or her duties, responsibilities and obligations clear to me.	335	4.37	0.76
40.	understands my unique needs and abilities.	332	4.36	0.73
41.	makes useful referrals.	329	4.34	0.74
42.	is knowledgeable about how to conduct a job search.	327	4.34	0.78
43.	is knowledgeable about the content of courses outside my major.	333	4.32	0.76
44.	is familiar with my career goals.	336	4.31	0.79
45.	understands how my personal life affects my academic progress.	333	4.31	0.80
46.	understands the needs of students with diverse backgrounds (ethnicity, religious, income, gender, sexual orientation, etc.).	319	4.28	0.85
47.	is knowledgeable about student organizations in my major.	327	4.18	0.89
48.	knows my name.	333	4.16	0.95

<sup>a</sup> Mean ranges from 1-5 where Very Important=5; Important=4; Undecided=3; Unimportant=2; and Very Unimportant=1; missing responses and N/As were excluded from the analysis.

**Table 4. University College Advising Results: Students' Perceptions of UC Advising Processes (6 Factors rank ordered by mean rating) (N=346)**

	<b>N</b>	<b><sup>a</sup>Mean</b>	<b>Std. Deviation</b>
Factor 1: Interaction	330	4.19	0.70
Factor 2: Knowledgeable	289	3.97	0.79
Factor 5: Professionalism	282	3.87	0.82
Factor 4: Connections	298	3.83	0.81
Factor 6: Academic Goal Facilitation	262	3.77	0.89
Factor 3: Student Familiarity	318	3.76	0.93

<sup>a</sup>Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

**Table 5. University College Advising Results: Students' Rating of UC Advising Processes in terms of Importance (6 Factors rank ordered by mean rating) (N=346)**

	<b>N</b>	<b><sup>a</sup>Mean</b>	<b>Std. Deviation</b>
Factor 1: Interaction	326	4.62	0.51
Factor 2: Knowledgeable	320	4.57	0.51
Factor 5: Professionalism	318	4.46	0.57
Factor 6: Academic Goal Facilitation	304	4.43	0.59
Factor 3: Student Familiarity	321	4.39	0.59
Factor 4: Connections	317	4.39	0.60

<sup>a</sup> Mean ranges from 1-5 where Very Important=5; Important=4; Undecided=3; Unimportant=2; and Very Unimportant=1; missing responses and N/As were excluded from the analysis.

**Understanding What Aspects of the Advising Experience Contribute to Academic Success Variables and Positive Perceptions of the UC Advising.**

The survey instrument was designed to ascertain what components of the advising processes and students' experiences contributed to academic success variables (e.g., cumulative grade point averages and commitment to academic goals). A series of multiple and simple regression analyses were employed to examine the relationships between academic advising experiences (processes) and intended outcomes. When interpreting the results of all reported investigations, one must be aware of several limitations. It is critical to note that causal relationships can't be inferred given the methodology employed in this survey research. Thus, caution should be taken when interpreting the results of the linear regression procedures.

Advising Processes Significantly Predict Spring Cumulative Grade Point Average. A

multiple regression was performed to determine the relationship between advising experiences and cumulative grade point average (GPA) at the end of the 2005 spring semester. Results indicated that the 6 Advising Factors (Interaction, Knowledgeable, Professionalism, Academic Goal Facilitation, Student Familiarity, and Connections) marginally predicted spring cumulative GPA (adjusted  $R^2 = .027$ ,  $F(6, 195) = 1.89$ ,  $p < .10$ ). Shown in Table 6 are the relative contributions of each “Factor” (treated as variables) in the analysis. Only the students’ experiences with levels of advisor professionalism and knowledge seemed to make notable contributions in predicting spring GPAs. Thus, the more students experienced advisors who were “professional” (e.g., readily available, flexible in arranging meeting times, promptly returns phone calls, provides timely information) the higher their spring GPA. A somewhat surprising finding is that the higher the GPA, the less knowledgeable the advisors were perceived to be. It is possible that high performing students tend to be more critical of advisors’ knowledge levels. Again, causal relationships can’t be inferred given the methodology employed in this survey research. It is possible that academically successful students are more likely to perceive advisors as having a high degree of professionalism rather than professionalism impacting academic performance levels.

**Table 6. Multiple Regression: Advising Processes and Cumulative Spring Grade Point Average**

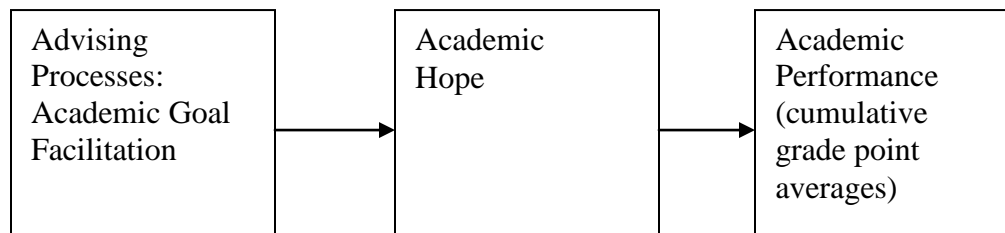
<u>Criterion Variables</u>	<u>Std. Beta Weight</u>	<u>t</u>	<u>df</u>	<u>prob.</u>
Factor 1: Interaction	-.123	-.765	195	.445
Factor 2: Knowledgeable	-.286	-2.111	195	.036
Factor 3: Student Familiarity	.139	.709	195	.479
Factor 4: Connections	.182	1.023	195	.308
Factor 5: Professionalism	.244	1.915	195	.057
Factor 6: Goal Facilitation	-.263	-1.499	195	.135

## Quality of Advisors' Goal Facilitation/Empowerment Affects Academic Success

Indirectly Through its Positive Influence on Academic Hope. Again, a series of simple regressions were conducted in an effort to determine relationships between various components of the advising process and critical outcomes. UC advising services have been designed to help empower students to make informed decisions, to accept of the responsibility for their college success, and to set goals for achievement in college. As such, advisors strive to facilitate goal achievement among students so that students persist in their goal pursuits even when difficulties arise. Results of a series of regression analyses suggested that the degree to which advisors empower/facilitate goal achievement positively affects cumulative grade point average through its positive influence on Academic Hope. Shown in Figure 1 below is the theoretical relationship between advising processes, Academic Hope, and academic success (cumulative grade point average at the end of spring semester). There was no significant positive relationship between Factor 6: Academic Goal Facilitation (e.g., helps me set concrete academic goals, encourages me to continue to pursue my goals even when I encounter difficulties, helps me develop alternatives when I have face obstacles) and cumulative GPA. However, there was a positive significant relationship between Factor 6: Academic Goal Facilitation and students' scores of the Academic Hope scale (adjusted  $R^2 = .012$ ,  $F(1, 259) = 4.066$ ,  $p < .05$ ). There was also a strong positive relationship between students' scores of the Academic Hope scale and cumulative GPA at the end of spring semester (adjusted  $R^2 = .085$ ,  $F(1, 342) = 32.805$ ,  $p < .0001$ ). Results have implications in terms of using advising practices that help foster Academic Hope which in turn may positively impact academic performance. Again, this is merely a *theoretical model* and other variables not included in the model may effect Academic Hope scores and academic performance.



**Figure 1: Theoretical Model: Advising, Academic Hope and Academic Performance**



Interaction Style Significantly Predicts Students' Levels of Academic Goal Acceptance.

One of the major intended outcomes of UC advising services is to help students to accept responsibility for achieving their academic goals. It was predicted that advising interactions that build relationships through a process of developmental advising would help students make decisions about their personal academic goals. In order to test this hypothesis, a regression was conducted to determine if a high level of Factor 1: Interaction Style (e.g., advisor(s) treats students with respect, advisor(s) is a good listener, advisor(s) motivates students to do their best work, advisor(s) is open-minded when making decisions) significantly predicted a high level of acceptance of responsibility for achieving academic goals. Students were asked the rate their level of agreement to the following question on a 5 point Likert-type scale: "I have learned to accept responsibility for achieving my academic goals." Results suggested that Interaction Style was positively associated with self-reported degree of academic goal acceptance (adjusted  $R^2 = .074$ ,  $F(1, 251) = 10.99$ ,  $p < .0001$ ).

Advisors' Knowledge Levels Significantly Predict Students' Awareness Levels of Degree Granting School Certification Processes. One of the major goals of UC advising is to assist student with getting certified into a degree granting school. Various educational interventions have been implemented to help UC advisors become more knowledgeable about

school and degree requirements so that advisees are well informed about the steps necessary to help students become certified into a degree granting school. As such, it was predicted that the more knowledgeable advisors were (e.g., knowledgeable about general and specific degree requirements, understands schools' rules and policies, provides accurate information, etc.), the more students would be familiar with the process of getting into a school. Students were asked the rate their level of agreement to the following question on a 5 point Likert-type scale: "I know process of getting into a school." Results suggested that Factor 2: Knowledgeable did significantly predict students' levels of knowledge regarding getting into a school (adjusted  $R^2 = .108$ ,  $F(1, 286)=35.726$ ,  $p<.0001$ ).

#### Connections Predicts Degree to Which Students have Selected a Major or Future Career.

Helping students make decisions regarding a major or future career is an important component of UC advising services. Factor 3 (Connections) was designed to tap the students' perceptions of advisors' ability to help them make career and major decisions (e.g., knowledgeable about how to conduct a job search, knowledgeable about student organizations in my major, knowledgeable about career opportunities in my major). Students were asked the rate their level of agreement to the following question on a 5 point Likert-type scale: "I have decided on a on a major or future career." Results of a regression analysis confirmed that Factor 3: Connections significantly predicted the degree of career/major selection (adjusted  $R^2 = .010$ ,  $F(1, 297)=3.905$ ,  $p<.05$ ).

#### Advisors' Levels of Familiarity Significantly Predict Students Feelings of Belonging.

Helping students feel a sense of belonging at IUPUI is another important objective of UC advising services. Advisors try to develop relationships with advisees and familiarize themselves with students' lives and academic goals. As such, it was expected that the more familiar with students advisors were perceived to be, the stronger the students' feelings of belonging. Students

were asked the rate their level of agreement to the following question on a 5 point Likert-type scale: “I feel a sense of belonging at IUPUI.” Results suggested that Factor 3: Student Familiarity (e.g., familiar with my academic goals; knows my name; familiar with my academic progress; treats me as an individual, not a number; well-prepared for our meetings. etc.) significantly predicted students’ levels of sense of belonging (adjusted  $R^2 = .180$ ,  $F(1, 317) = 70.726$ ,  $p < .0001$ ). Table 7 summarizes the statistically significant relationships between advising processes and intended outcomes.

**Table 7. Statistically Significant Relationships between Advising Processes and Outcomes**

Advising Process or Characteristic	Outcome for Students
Interaction Style	Accept responsibility for achieving academic goals
Knowledgeable	Know the process of getting into a degree granting school
Connections	Selected a major or future career
Student Familiarity	Feel a sense of belonging at IUPUI

Advising Interaction Style and Level of Familiarity Make the Most Substantial Contributions to Overall Advising Satisfaction. A multiple regression was conducted in order to ascertain what aspects of the advising process made the most substantial contributions to students’ levels of overall advising satisfaction. Students were asked the rate their level of agreement to the following question on a 5 point Likert-type scale: “Overall I am satisfied with my advising experiences at IUPUI.” As expected, results indicted that the students’ levels of advising experiences with Interaction, Knowledgeable, Professionalism, Academic Goal Facilitation, Student Familiarity, and Connections strongly predicted overall satisfaction with advising services (adjusted  $R^2 = .560$ ,  $F(6, 194) = 42.132$ ,  $p < .0001$ ). Shown in Table 8 are the relative

contributions of each “Factor” (treated as variables) in the analysis. Results suggested that advisors who are perceived to have positive interaction styles and are familiar with students make the most impact on students’ overall perceptions of their advising experiences.

**Table 8. Multiple Regression: Advising Processes and Overall Advising Satisfaction**

<u>Criterion Variables</u>	<u>Std. Beta Weight</u>	<u>t</u>	<u>df</u>	<u>prob.</u>
Factor 1: Interaction	.224	2.073	194	.040
Factor 2: Knowledgeable	.098	1.072	194	.285
Factor 3: Student Familiarity	.328	2.461	194	.015
Factor 4: Connections	.014	.117	194	.907
Factor 5: Professionalism	.024	.285	194	.776
Factor 6: Goal Facilitation	.117	.994	194	.321

Understanding if Students’ Perceptions of Advising Differ by Background Characteristics and Type of Advising Experiences (e.g., whether The Students Met with the Same Advisor or Different Advisors)

A series of independent samples t-tests were conducted to determine if there were significant differences between students from different sub groups with regard to their perceptions of advising and importance ratings. Results indicated that there were no differences based on gender, admit status, full or part-time enrollment status, or first-generation status. However, there were significant differences based on ethnicity and age. The most notable differences were found between students who meet with different advisors compared to students who met with the same advisor each time (e.g., had an “assigned” advisor). Tables 12-14 display the results.

Results imply that ethnic minority students (African American, Latino/a, and Asian Americans) consider Interaction Style more important than students in the “all others” group (means=4.32 and 4.16 respectively) ( $t(324)= 2.16, p<.05$ ). It is possible that having advisors that are respectful, fair, friendly, approachable, good listeners, and open-minded are more salient factors when ethnic minority students enter into an advising relationship.

Returning adult students (age 25 and older) were significantly less satisfied compared to younger students for 3 out of the 6 advising process factors: Knowledgeable ( $t(287) = -2.46$ ,  $p < .05$ ), Familiarity ( $t(316) = -1.99$ ,  $p < .05$ ), and Connections ( $t(296) = -2.48$ ,  $p < .05$ ). Results imply that older students do not find advisors as knowledgeable, as familiar with their needs, and as connected compared to traditional- aged students. There were no significant differences in terms of importance ratings between returning adults and traditional-aged students (see Table 9).

There were several significant and important differences between students who almost always met with the same advisor and students who almost always met with different advisors (see Table 10 for a visual representation of results). Students who met with the same advisors were significantly more satisfied compared to students who met with different advisors for all 6 advising process factors: Interaction Style ( $t(287) = 7.39$ ,  $p < .0001$ ), Knowledgeable ( $t(248) = 6.51$ ,  $p < .0001$ ), Familiarity ( $t(275) = 9.07$ ,  $p < .0001$ ), and Connections ( $t(257) = 6.960$ ,  $p < .0001$ ), Professionalism ( $t(243) = 7.872$ ,  $p < .0001$ ), and Academic Goal Facilitation ( $t(229) = 8.473$ ,  $p < .0001$ ). Students who almost always met with the same advisor had higher ratings of importance for Interaction Style ( $t(284) = 3.34$ ,  $p < .001$ ), Student Familiarity ( $t(279) = 3.72$ ,  $p < .0001$ ), Professionalism ( $t(280) = 2.12$ ,  $p < .05$ ), and Academic Goal Facilitation ( $t(264) = 2.15$ ,  $p < .05$ ). Students who always met with the same advisor were more likely to meet with their advisor compared to students who almost always met with different advisors ( $t(300) = 5.17$ ,  $p < .0001$ ). Most importantly, students who almost always met with the same advisor also had significantly higher levels of positive advising outcomes in the following areas: knowing what is required to succeed academically ( $t(300) = 2.40$ ,  $p < .05$ ), knowing about helpful campus resources to succeed academically ( $t(299) = 4.23$ ,  $p < .0001$ ), knowing the process of getting into a school ( $t(299) = 2.81$ ,  $p < .01$ ), knowing which courses fulfill major requirements ( $t(296) = 2.78$ ,  $p < .01$ ),

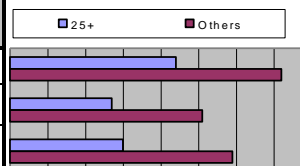
feeling a sense of belonging to IUPUI ( $t(300)=2.96, p<.01$ ), tendency to recommend advising services to other students( $t(299)=5.43, p<.0001$ ), overall satisfaction with advising services( $t(299)=7.15, p<.0001$ ), and overall satisfaction with IUPUI experiences( $t(300)=3.56, p<.0001$ ). There were no significant differences between students who almost always met with the same advisor and students who almost always met with different advisors with regard to cumulative GPA at the end of spring semester, high school percentile ranks, age, or credit hours. However, students who almost always met with the same advisor had significantly lower average lower SAT scores (mean= 944) compared to students who almost always met with different advisors (Mean=1003)( $t(87)=2.31, p<.05$ ).

One approach that has been used to help students establish relationships with academic advisors is having advisors as an integral part of the Instructional Teams for first-year seminar courses. In fact, over half of the students (57%) who reported that they almost always met with the same advisors reported that they had taken a first-year seminar course. Students who took a first-year seminar course were significantly more satisfied with advising Interaction Styles (N=158; Mean=4.29) (N=138; Mean=4.11) ( $t(295)=2.17, p<.05$ ) and Academic Goal Facilitation (N=139; Mean=4.51) (N=134; Mean=4.34) ( $t(271)=2.36, p<.05$ ) compared to students who did not participate in a first year seminar course(see Table 11). There were no other significant differences in terms of advising processes and outcomes when comparing seminar participants with non-participants. It is critical to note that beginning freshmen were significantly more satisfied in the following areas: Interaction Style, Knowledgeable, Student Familiarity, Connections, Professionalism, and Goal Facilitation. Beginning freshmen also reported that Student Familiarity was more important to them compared to other students in the sample. A large proportion of freshmen reported that they met with the same advisor (61%) compared to students who were not beginning freshmen (32% reported that they met with the same advisor). These findings suggest that the relationship developed through the process of meeting with the

same advisor has notable effects on the advising intended outcomes. Results have serious implications in terms of future advising practices.

**Table 9. Significant Differences between Returning Adults and Traditional Aged Students**

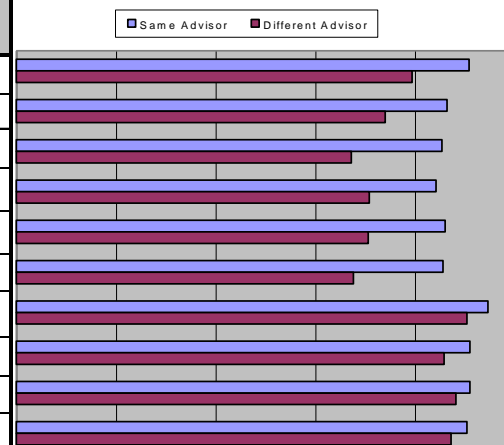
<i>Academic Advising Survey Factors:</i>	<i>N</i>	<sup>a</sup> 25+	<i>N</i>	<sup>a</sup> Others
Factor 2- Knowledgeable	58	3.74	231	4.02
Factor 3- Student Familiarity	72	3.57	246	3.81
Factor 4- Connections	61	3.6	237	3.89



<sup>a</sup>Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

**Table 10. Significant Differences between Students Who Almost Always Met With the Same Advisor and Students Who Almost Always Met with Different Advisors**

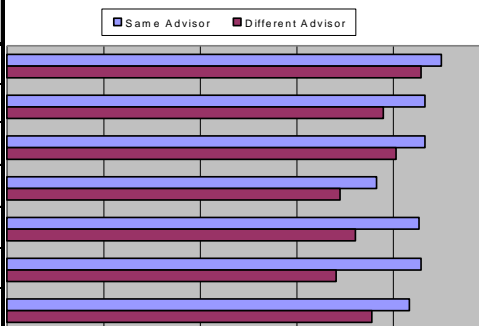
<i>Academic Advising Survey Factors:</i>	<i>N</i>	<sup>ab</sup> Same Advisor Mean	<i>N</i>	<sup>ab</sup> Different Advisor Mean
Factor 1- Interaction Style	122	4.54	167	3.97
Factor 2- Knowledgeable	108	4.32	142	3.70
Factor 3- Student Familiarity	117	4.27	160	3.36
Factor 4- Connections	109	4.21	150	3.54
Factor 5- Professionalism	103	4.3	142	3.53
Factor 6- Academic Goal Facilitation	94	4.28	137	3.38
Importance Factor 1- Interaction Style	121	4.73	165	4.52
Importance Factor 3- Student Familiarity	119	4.55	162	4.29
Importance Factor 5- Professionalism	118	4.55	164	4.41
Importance Factor 6- Academic Goal Facilitation	112	4.52	154	4.36



<sup>a</sup> Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

<sup>b</sup> Mean ranges from 1-5 where Very Important=5; Important=4; Undecided=3; Unimportant=2; and Very Unimportant=1; missing responses and N/As were excluded from the analysis.

<i>Academic Advising Outcomes:</i>	<i>N</i>	<sup>a</sup> Same Advisor Mean	<i>N</i>	<sup>a</sup> Different Advisor Mean
I know what is required of me to succeed academically.	127	4.50	175	4.29
I know about campus resources to help me succeed academically.	126	4.33	175	3.90
I know which courses fulfill requirements for my major.	124	4.33	174	4.03
I feel a sense of belonging at IUPUI.	127	3.83	175	3.45
I would recommend the advising services to other students.	127	4.27	174	3.61
Overall, I am satisfied with my advising experiences at IUPUI.	127	4.29	174	3.41
Overall, I am satisfied with my experiences at IUPUI.	127	4.17	175	3.78



<sup>a</sup> Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

**Table 11. Significant Differences between Students Who Participated in A First-Year Seminar and Those Who Did Not Participate**

Academic Advising Factors:	N	Seminar	N	Non-Seminar
Interaction Style	158	4.29	138	4.11
Academic Goal Facilitation	139	4.51	134	4.34

### **Study 2: Understanding Students' Learning Gains: A Pre-Post Design**

The purpose of this investigation was to assess students' perceptions of the benefits and self-reported learning outcomes of the advising services. Academic advising is a major component of first year seminar courses. Advisors are members of seminar instructional teams and instruct with the following major goals in mind: 1) students will accept responsibility for their college success, set goals, and commit to an academic plan/major, 2) students will apply academic success strategies (e.g., demonstrate knowledge of time management strategies and know effective strategies for studying), 3) students will be know how to cope, adjust to college life, and continue to pursue goals despite obstacles, and 4) students will be familiar with appropriate campus services and become more engaged at the university.

### **Method**

Students enrolled in first-year seminar classes (most are linked to discipline courses to form a "learning community.") (Please see the Advising Assessment Appendix to view copies of the surveys). Please note that the surveys were designed to assess the advising component of first-year seminar courses. No students in the sample were under 18 years old. First-year students



were asked to complete the surveys during class time in University College first-year seminar courses. The pre-survey was administered during class time at the beginning (the second class period) of the semester and the post-survey was administered during class time at the end of the semester (the last class period).

## **Participants**

A total of 740 students completed the pre-survey. The sample was comprised of 24% males and 75% females. Of students responding to the pre-test, 61% were White/Caucasian, 11% African American, 2% Asian American, and 2% Latino/a. Ninety-four percent of the respondents were full-time students, whereas the other 6% held part-time status at IUPUI. Forty-one percent of the respondents were admitted conditionally and the other 59% were regular admits. Respondents to the pre-test survey had a mean age of 19 years ( $SD=2.59$ ), with a mean high school percentile of 62 ( $SD=19.60$ ). The fall semester grade point average was 2.57 ( $N=579$ ;  $SD=1.08$ ). There were 154 missing values because the some respondents failed to include their student identification number and responses could not be linked to institutional data.

A total of 494 students completed the post-survey. The sample was comprised of 20% males and 53% females. Of students responding to the post-test, 59% were White/Caucasian, 8% African American, 1% Asian American, and 1% Latino/a. Ninety-three percent of the respondents were full-time students, whereas the other 7% held part-time status at IUPUI. Thirty-three percent of the respondents were admitted conditionally and the other 67% were regular admits. Respondents to the pre-test survey had a mean age of 19 years ( $SD=3.37$ ), with a mean high school percentile of 63 ( $SD=19.93$ ). The fall semester grade point average was 2.85 ( $N=358$ ;  $SD=.844$ ). There were 136 missing values because the some respondents failed to

include their student identification number and responses could not be linked to institutional data.

There were 294 respondents that were included in all the pre-post analyses. Due to the fact that we had to rely on students' self-reported identification numbers, many respondents were dropped from the pre-post dataset (paired samples t-tests were conducted thus requiring student identification numbers on the pre-and post-surveys to correspond with one another). Similar to the pre-test sample, 24% were males (N=65), and 76% females (N=243). There were a total of 20 missing responses. The pre-post sample was as diverse as the pre-test sample, with 75% of the sample being White/Caucasian, 12% African American, 2% Asian American, and 2% Hispanic/Latino. Thirty-two percent of the respondents were admitted conditionally and the other 68% were regular admits. The pre-post test sample was also comparable to the pre-sample in terms of being comprised of students with full-time status: 94% (N=258) of the respondents had full-time status, while only 6% (N=16) were part-time students. Respondents to the pre-post survey had a mean age of 19 years ( $SD=3.10$ ), with a mean high school percentile of 64 ( $SD=19.47$ ). The fall semester grade point average was 2.86 (N=274;  $SD=.840$ ). Please note that the differences between the samples must be taken into consideration when interpreting the results. It seems that the students who responded to both surveys were more academically prepared and performed better academically than students who completed the pre-test instrument only.

## **Results**

A Principal Components Analysis with Varimax rotation was conducted on the pre-post sample survey in order to break the 25 items into common factors. After suppressing factor loadings of less than 0.30, five factors emerged (see Table 12 below for factors and factor loadings). Please note that "factors" were formed based on a combination of factor loadings,

scale reliabilities, and face validity (the items were designed to assess advising learning outcomes in first-year seminar courses). Factor 1 contained 6 items, including “I can think of many ways to reach my current academic goals” and “At the present time, I am energetically pursuing my academic goals” This factor, labeled “Academic Goal Persistence” demonstrated high levels of internal reliability, with the subscale having a Cronbach’s alpha of .853. The second factor was comprised of five items, including “I have a good understanding of my academic goals” and “I have learned to accept responsibility for achieving my academic goals.” This factor was labeled “Academic Goal setting Efficacy” and demonstrated high levels of internal consistency, with a Cronbach’s alpha of .814. Factor 3 contained 4 items including “I have a good understanding of how to decide on a major or future career,” “I know which courses fulfill requirements for my major,” and “I am able to identify links between my chosen major and possible careers” and was given the label “Career Decision Making Efficacy.” This factor also demonstrated high levels of internal consistency, with a Cronbach’s alpha of .811. Factor 4, labeled “Academic Success Strategies” contained three items: “I can maintain a balance between school and my personal life,” “I can maintain a balance between school and work demands” and “I understand the amount of time I need to devote to studying” This factor also had an acceptable degree of internal consistency; the subscale had an alpha level of .707. A fifth factor was created due to the *face validity* of the items and intended measurement goal. Factor 5 contained two items, including “I feel confident that I will be able to complete my degree,” and “I feel confident that I will complete my degree in a timely manner.” This factor, labeled “Confidence in Degree Completion” demonstrated an acceptable level of internal reliability, with the subscale having a Cronbach’s alpha of .831. The final factor was labeled “Campus Engagement” and included four items: “I know about campus resources to help me succeed academically,” “I have a good understanding of ways to become engaged at IUPUI (co-curricular and campus life activities),” “I feel a sense of belonging at IUPUI” and “The advisor/advisee relationship is

important to a student’s overall academic experience.” This four-item factor had an acceptable internal consistency, with a Cronbach’s alpha of .566. Although, some of the “scales” contain relatively few items and do not have extremely high reliabilities, this method of combining items was preferred over using single items when employing inferential statistical procedures such as regressions and paired samples t-tests.

**Table 12. Academic Advising Survey Factors with Item Factor Loadings**

<b>Factor 1: Academic Goal Persistence</b>	<b>Factor Loading</b>
Item 15: At the present time, I am energetically pursuing my academic goals.	.496
Item 16: There are lots of ways around any school-related problems that I may face.	.454
Item 17: I can think of many ways to reach my current academic goals.	.494
Item 18: At this time, I think I can achieve the goals I have set for myself.	.662
Item 21: I am able to meet the demands and requirements of college.	.716
Item 22: I can successfully manage and cope with stress.	.545
Item 23: I can adjust to college life.	.430
Goal Persistence scale $\alpha = .853$	
<b>Factor 2: Goal Setting Efficacy</b>	<b>Factor Loading</b>
Item 4: I have a good understanding of my academic goals.	.501
Item 9: I know what is required of me to succeed academically.	.612
Item 10: I have learned to accept responsibility for achieving my academic goals.	.652
Item 11: I have an academic plan for the next year.	.262*
Item 12: I feel that I can make good decisions about my academic plan.	.395
Goal Setting Efficacy scale $\alpha = .814$ : *included due to face validity of item and a priori scale development.	
<b>Factor 3: Career Decision Making Efficacy</b>	<b>Factor Loading</b>
Item 5: I have a good understanding of how to decide on a major or future career.	.704
Item 6: I know which courses fulfill requirements for my major.	.771
Item 7: I know the process of getting into a degree granting school (e.g. Business, Nursing, Education, etc.).	.774
Item 8: I am able to identify links between my chosen major and possible careers.	.679
Career Decision Making Efficacy scale $\alpha = .811$	
<b>Factor 4: Academic Success Strategies</b>	<b>Factor Loading</b>
Item 1: I understand the amount of time I need to devote to studying.	.742

Item 13. I can maintain a balance between school and my personal life.	.537
Item 14. I can maintain a balance between school and work demands.	.551
**Academic Success Strategies scale $\alpha = .707$	
<b>Factor 5: Confidence in Degree Completion</b>	<b>Factor Loading</b>
Item 19. I feel confident that I will be able to complete my degree.	.754
Item 20. I feel confident that I will complete my degree in a timely manner.	.796
** Confidence in Degree Completion scale $\alpha = .831$ ; this "factor" was formed based on face validity of items and a priori item development.	
<b>Factor 6: Engagement</b>	<b>Factor Loading</b>
Item 2: I know about campus resources to help me succeed academically.	.704
Item 3: I have a good understanding of ways to become engaged at IUPUI (co-curricular and campus life activities).	.648
Item 24: I feel a sense of belonging at IUPUI.	.396
Item 25: The advisor/advisee relationship is important to a student's overall academic experience.	.094*
** Engagement scale $\alpha = .566$ ; *Included due to face validity of item and a priori scale development.	

\*\* Reliability analysis performed on pre-post dataset, pre-items (n=294).

### Descriptive Statistics

Displayed in Tables 13 and 14 are the descriptive statistics rank ordered by mean rating for each of the samples. Results suggest that students felt confident about their ability to accept responsibility for achieving my academic goals, complete their degrees, and had a good understanding of academic goals and amount of time needed to devote to studying at pre and post-testing. However, students seemed to lack a sense of belonging at IUPUI and a feeling of confidence about managing stress at post test.

Students were asked to report approximately how often they met with a University College adviser and what type of advising they received during the post-test administration. Tables 16 and 17 display the frequencies.

**Table 13. Descriptive Statistics for Pre-Advising Survey (Rank Ordered by Mean Rating)**

Item:	N	<sup>a</sup> Mean	Std. Deviation
1. I have learned to accept responsibility for achieving my academic goals.	727	4.37	.67
2. I feel confident that I will be able to complete my degree.	720	4.31	.70
3. I have a good understanding of my academic goals.	728	4.30	.83
4. I understand the amount of time I need to devote to studying.	738	4.29	.74
5. I know what is required of me to succeed academically.	732	4.27	.68
6. The advisor/advisee relationship is important to a student's overall academic experience.	725	4.25	.80
7. At this time, I think I can achieve the goals I have set for myself.	731	4.20	.70
8. I can adjust to college life.	731	4.12	.70
9. I am able to meet the demands and requirements of college.	734	4.12	.68
10. At the present time, I am energetically pursuing my academic goals.	728	4.12	.80
11. I feel confident that I will complete my degree in a timely manner.	726	4.10	.79
12. I can maintain a balance between school and work demands.	674	4.01	.77
13. I can maintain a balance between school and my personal life.	737	4.00	.74
14. I feel that I can make good decisions about my academic plan.	731	3.97	.83
15. I have a good understanding of how to decide on a major or future career.	730	3.94	1.08
16. I can think of many ways to reach my current academic goals.	733	3.93	.80
17. There are lots of ways around any school-related problems that I may face.	728	3.77	.80
18. I am able to identify links between my chosen major and possible careers.	715	3.76	1.00
19. I feel a sense of belonging at IUPUI.	733	3.73	.91
20. I can successfully manage and cope with stress.	732	3.70	.92
21. I know about campus resources to help me succeed academically.	735	3.69	.88
22. I have a good understanding of ways to become engaged at IUPUI (co-curricular and campus life activities).	739	3.64	.94
23. I know which courses fulfill requirements for my major.	711	3.38	1.20
24. I know the process of getting into a degree granting school (e.g. Business, Nursing, Education, etc.).	716	3.27	1.13
25. I have an academic plan for the next year.	725	3.26	1.11

<sup>a</sup> Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing responses and N/As were excluded from the analysis.

**Table 14. Descriptive Statistics for Post-Advising Survey (Rank Ordered by Mean Rating)**

Item:	N	<sup>a</sup> Mean	Std. Deviation
1. I have learned to accept responsibility for achieving my academic goals.	492	4.31	.73
2. I understand the amount of time I need to devote to studying.	494	4.30	.69
3. I know what is required of me to succeed academically.	492	4.27	.72
4. I feel confident that I will be able to complete my degree.	491	4.22	.83
5. I have a good understanding of my academic goals.	493	4.19	.84
6. I know about campus resources to help me succeed academically.	492	4.17	.71
7. At this time, I think I can achieve the goals I have set for myself.	492	4.14	.77
8. The advisor/advisee relationship is important to a student's overall academic experience.	489	4.13	.86
9. I can adjust to college life.	494	4.13	.75
10. I have a good understanding of how to decide on a major or future career.	489	4.12	.94
11. I feel that I can make good decisions about my academic plan.	492	4.10	.76
12. I am able to meet the demands and requirements of college.	494	4.10	.74
13. I know which courses fulfill requirements for my major.	476	4.08	.92
14. I am able to identify links between my chosen major and possible careers.	491	4.04	.89
15. I can think of many ways to reach my current academic goals.	492	4.00	.78
16. Overall, I am satisfied with my experiences at IUPUI.	481	3.99	.84
17. I feel confident that I will complete my degree in a timely manner.	491	3.98	.89
18. I have an academic plan for the next year.	491	3.98	.96
19. I can maintain a balance between school and work demands.	463	3.97	.81
20. I have a good understanding of ways to become engaged at IUPUI (co-curricular and campus life activities).	491	3.97	.84
21. At the present time, I am energetically pursuing my academic goals.	492	3.96	.89
22. There are lots of ways around any school-related problems that I may face.	492	3.96	.78
23. I can maintain a balance between school and my personal life.	493	3.95	.82
24. I would recommend the University College advising services to other students.	472	3.95	.98
25. Overall, I am satisfied with my University College advising experiences at IUPUI.	473	3.92	.97
26. I know the process of getting into a degree granting school (e.g. Business, Nursing, Education, etc.).	488	3.84	1.02
27. I can successfully manage and cope with stress.	494	3.78	.91
28. I feel a sense of belonging at IUPUI.	491	3.72	1.00

<sup>a</sup> Mean ranges from 1-5 where Strongly Agree =5 Agree=4 Undecided= 3 Disagree=2 Strongly Disagree=1; missing

responses and N/As were excluded from the analysis.

**Table 15. In the Last Semester, How frequently did you meet With a University College Advisor (outside of class time)?**

	N	Percent
About once a week	12	3%
Two to three times a month	18	4%
Once a month	25	5%
Two or three times	181	38%
One time (only once a semester)	223	46%
Never	24	5%
Total	483	100%

**Table 16. In the Last Year, Please Describe Which Situation Best Describes Your Advising Experiences**

	N	Percent
I almost always meet with the same advisor.	247	52%
I do not have an "assigned" advisor and meet with different advisors.	82	17%
Other (please specify)	51	11%
I don't know.	97	20%
Total	477	100%

### Understanding What Students Are Learning from First-Year Seminar Advising Interventions

A series of paired samples t-tests were employed in order to investigate what gains students made after a semester of receiving various academic advising interventions in first-year seminar courses. Results of t-tests performed on single items suggested that students made significant improvements in the following areas as a result of the advising interventions: increased knowledge about campus resources and ways to become engaged in co-curricular activities; enhanced understanding of how to decide on a major or future career, which courses fulfill major requirements, the process of getting into a degree granting school (e.g. Business, Nursing, Education, etc.), and links between their chosen majors and possible careers; and



increased efficacy in terms of academic goal setting, planning, and dealing with school-related problems. In an effort to obtain more valid and reliable results, t-tests were employed to determine differences between the factors at pre-test compared to post-test. Results imply that students made significant gains in the following areas: confidence to persist and achieve goals despite obstacles, academic planning and goal setting self-efficacy, career decision making self-efficacy, and level of campus engagement. It appears that students are achieving the intended learning outcomes specified in the advising assessment plan for first-year seminars. However, results suggest that advisors may have to exert more effort to make students feel more confident about their ability levels with regard to obtaining a degree and engaging in academic success strategies such as effectively managing their time. Please see Tables 17 and 18 for a visual representation of the results.

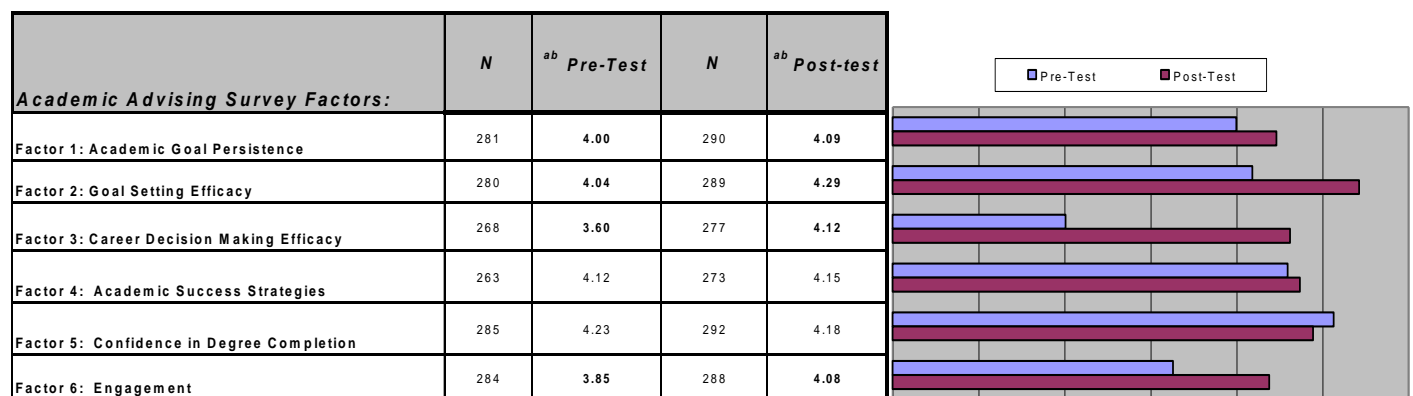
**Table 17. Advising Learning Gains: Pre-Post Test Results by Item\***

<b><i>Academic Advising Survey Items*:</i></b>	<b><i>N</i></b>	<b><i><sup>ab</sup> Pre-Test</i></b>	<b><i>N</i></b>	<b><i><sup>ab</sup> Post-test</i></b>
1. I understand the amount of time I need to devote to studying.	292	4.29	294	4.37
2. I know about campus resources to help me succeed academically.	291	<b>3.69</b>	294	<b>4.25</b>
3. I have a good understanding of ways to become engaged at IUPUI (co-curricular and campus life activities).	293	<b>3.68</b>	293	<b>4.04</b>
4. I have a good understanding of my academic goals.	289	4.25	294	4.29
5. I have a good understanding of how to decide on a major or future career.	289	<b>3.88</b>	291	<b>4.22</b>
6. I know which courses fulfill requirements for my major.	282	<b>3.44</b>	285	<b>4.15</b>
7. I know the process of getting into a degree granting school (e.g. Business, Nursing, Education, etc.).	284	<b>3.29</b>	289	<b>3.94</b>
8. I am able to identify links between my chosen major and possible careers.	282	<b>3.77</b>	292	<b>4.16</b>
9. I know what is required of me to succeed academically.	290	4.33	293	4.39

10. I have learned to accept responsibility for achieving my academic goals.	289	4.46	294	4.45
11. I have an academic plan for the next year.	290	<b>3.20</b>	291	<b>4.05</b>
12. I feel that I can make good decisions about my academic plan.	291	<b>3.95</b>	293	<b>4.21</b>
13. I can maintain a balance between school and my personal life.	293	4.06	293	4.02
14. I can maintain a balance between school and work demands.	263	4.04	274	4.06
15. At the present time, I am energetically pursuing my academic goals.	292	4.12	293	4.04
16. There are lots of ways around any school-related problems that I may face.	289	<b>3.75</b>	292	<b>4.03</b>
17. I can think of many ways to reach my current academic goals.	290	<b>3.90</b>	294	<b>4.11</b>
18. At this time, I think I can achieve the goals I have set for myself.	292	4.16	293	4.24
19. I feel confident that I will be able to complete my degree.	286	4.31	292	4.30
20. I feel confident that I will complete my degree in a timely manner.	289	4.14	293	4.05
21. I am able to meet the demands and requirements of college.	292	4.15	294	4.19
22. I can successfully manage and cope with stress.	292	3.77	294	3.85
23. I can adjust to college life.	289	4.19	294	4.20
24. I feel a sense of belonging at IUPUI.	290	3.78	291	3.77
25. The advisor/advisee relationship is important to a student's overall academic experience.	290	4.28	291	4.21

\*Bolded items are significantly different based on a paired samples t-test ( $p < .001$ ).

**Table 18. Advising Learning Gains: Pre-Post Test Results by Factor\***



\*Bolded items are significantly different based on a paired samples t-test ( $p < .001$ ).

Understanding What Advising Factors Significantly Contribute to First Semester Academic Performance

A series of simple block linear regressions were conducted to explore what advising factors significantly predicted academic performance while controlling for academic preparation (High School Percentile Ranks and SAT scores), gender, ethnicity, and credit load. The higher the students' levels of goal persistence, the higher their first semester grade point averages even while controlling for academic preparation, gender, ethnicity, and course load (adjusted  $R^2 = .277$ ,  $F(7, 288) = 16.770$ ,  $R^2$  change = .026;  $p < .0001$ ). Level of goal persistence (e.g., students report that they are energetically pursuing their academic goals) accounted for approximately 3% of the variance in academic performance after academic preparation, gender, ethnicity, and course load were entered into the model. The better the students' time management strategies, the higher their academic performance levels (adjusted  $R^2 = .245$ ,  $F(7, 271) = 13.582$ ,  $R^2$  change = .024;  $p < .004$ ). Level of ability to successfully manage time (e.g., students report that they can maintain a balance between school and work demands) accounted for approximately 2% of the variance in academic performance after academic preparation, gender, ethnicity, and course load were entered into the model. The higher the students' degree completion confidence (e.g., students report that they can complete their degree in a timely manner), the higher their first semester grade point averages even while controlling for academic preparation, gender, ethnicity, and course load (adjusted  $R^2 = .292$ ,  $F(7, 290) = 16.696$ ,  $R^2$  change = .021;  $p < .004$ ). Level of degree completion confidence accounted for approximately 3% of the variance in academic performance after academic preparation, gender, ethnicity, and course load were entered into the model. Results imply that advising practices that help students feel confident in their abilities to pursue their goals, manage their time, and complete their degrees may help boost their academic performance levels. However, this type of research design does not allow for causal inferences. We can't infer that confidence levels in these areas caused students to perform better academically. The one issue that lends credence to this hypothesis is that students self-reported prior to receiving their end-of-the-semester grades.

## **Limitations**

When interpreting the results of all reported investigations, one must be aware of several limitations. It is critical to note that causal relationships can't be inferred given the methodology employed in this research (e.g., survey research and correlational designs). Thus, caution should be taken when interpreting the results of the linear regression procedures reported throughout this paper. One of the most serious problems with this research stems from the fact that the relationships between students' perceptions, attitudes, and emotions were examined using self-report data collected at one point in time in some cases. Thus, true causality cannot be determined. Further, common method variance may have contributed to the results. The use of both objective (e.g., actual academic performance) and perceptual measures of advising processes were employed to reduce any potential percept-percept bias. Additionally, the pre-post designs were used in an effort to validly assess student learning gains.

## **Conclusion**

One of the most important aspects of conducting studies on academic advising within universities is developing mechanisms for using results to improve advising services. Ideally, information derived from these investigations will assist administrators in making data-driven decisions about allocating scarce resources to advising interventions that have a demonstrable positive impact on student learning and achievement. We hope that results of our investigations helped to shed light on understanding of advising outcomes and processes, what have students are learning from their advising experiences, what students consider the most important aspects of their advising experiences, what aspects of the advising experience contribute to academic

success variables and intended advising outcomes, how students' perceptions of advising differ by background and advising experiences.

A number of considerations emerged as we designed these studies: 1) How can we effectively assess the processes and outcomes of advising, 2) What are we learning from the assessment results? 3) How can the assessment results help to improve advising? 4) How can we share results with key stakeholders to facilitate use of results? and 5) How can we sustain the momentum for quality research on advising? Although many universities have explicated some answers to these questions, we suspect that these questions will continue to resurface as quality research on advising is conducted.

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## APPENDIX A

### IUPUI 2005 University College Academic Advising Web-Based Survey

1. In the last year, how frequently did you meet with a University College advisor?
  - About once a week
  - Two to three times a month
  - Once a month
  - Two or three times a semester
  - About once a semester
  - About once a year
  - Never
  
2. In the last year, please describe which situation best describes your advising experiences?
  - I almost always meet with the same advisor
  - I do not have an “assigned” advisor and meet with different advisors
  - Other (please specify) \_\_\_\_\_
  - I Don't Know
  
3. Please indicate how often you have used the following advising services.

**About once a week= 7; Two to three times a month= 6; Once a month= 5; Two or three times a semester= 4; About once a semester= 3; About once a year= 2; Never= 1**

- |  | <u>Frequency</u> |
|--|------------------|
| a. Appointment with an/my advisor                      | _____            |
| b. Walk-in meeting with an/my advisor                  | _____            |
| c. Telephone call to an/my advisor                     | _____            |
| d. E-mail to an/my advisor                             | _____            |
| e. University College Advising Center web pages        | _____            |
| f. The advisor in my First-Year Seminar/Success Course | _____            |
| g. Staff members at the advising center front desk     | _____            |

## Advisor Assessment

For the next items, please respond in two distinct ways. First, indicate your level of agreement (satisfaction) with the statement by using the following scale:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Strongly Agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Not Applicable</b>

Then, indicate how important this issue or topic is to you by using the following scale:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Very Important</b>	<b>Important</b>	<b>Undecided</b>	<b>Unimportant</b>	<b>Very Unimportant</b>

My current advisor(s)...

	<u>Satisfaction</u>	<u>Importance</u>
1. understands University rules and policies.	_____	_____
2. understands my school's academic rules and policies.	_____	_____
3. is knowledgeable about the general requirements needed for a degree in my school.	_____	_____
4. is knowledgeable about the degree requirements needed for a degree in my school.	_____	_____
5. is knowledgeable about the content of courses outside my major.	_____	_____
6. is knowledgeable about the content of courses in my major.	_____	_____
7. is knowledgeable about when and how often courses in my major are offered.	_____	_____
8. is able to answer my questions about the graduation process.	_____	_____
9. is flexible in arranging meeting times with me.	_____	_____
10. is readily available.	_____	_____
11. treats me with respect.	_____	_____
12. is trustworthy.	_____	_____
13. treats me fairly.	_____	_____
14. is a good listener.	_____	_____
15. is open-minded when making decisions.	_____	_____
16. motivates me to do my best work.	_____	_____



- |  |       |       |
|--|-------|-------|
| 17. is friendly.   | _____ | _____ |
| 18. is approachable.   | _____ | _____ |
| 19. shows genuine concern for me.  | _____ | _____ |
| 20. promptly returns my phone calls.   | _____ | _____ |
| 21. provides information in a timely manner.   | _____ | _____ |
| 22. provides accurate information.   | _____ | _____ |
| 23. provides adequate information.   | _____ | _____ |
| 24. makes <u>his</u> or <u>her</u> duties, responsibilities and obligations clear to me. | _____ | _____ |
| 25. makes my duties, responsibilities and obligations clear to me.                       | _____ | _____ |
| 26. is well-prepared for our meetings.   | _____ | _____ |
| 27. knows my name.   | _____ | _____ |
| 28. is able to help me set goals.  | _____ | _____ |
| 29. is familiar with my academic goals.  | _____ | _____ |
| 30. is familiar with my career goals.  | _____ | _____ |
| 31. is willing to work with me to achieve my goals.                                      | _____ | _____ |
| 32. treats me as an individual, not a number.  | _____ | _____ |
| 33. understands how my personal life affects my academic progress.                       | _____ | _____ |
| 34. is familiar with my academic progress.   | _____ | _____ |
| 35. is knowledgeable about career opportunities in my major.                             | _____ | _____ |
| 36. is knowledgeable about how to conduct a job search.                                  | _____ | _____ |
| 37. is knowledgeable about whom to contact if he or she can't answer a question.         | _____ | _____ |
| 38. is knowledgeable about student organizations in my major.                            | _____ | _____ |
| 39. helps me set concrete academic goals.  | _____ | _____ |
| 40. encourages me to continue to pursue my goals even when I encounter difficulties.     | _____ | _____ |



## Academic Goals Scale

Please read each item carefully and select the response that best describes how you feel about what is going on in your academic life at this time using the following scale:

**1=Definitely false; 2=Mostly false; 3=Somewhat false, 4=Slightly false, 5=Slightly true, 6=Somewhat true; 7=Mostly true; 8=Definitely true**

	<i><u>Response</u></i>
1. If I should find myself in a jam, I could think of many ways to get out of it.	_____
2. At the present time, I am energetically pursuing my academic goals.	_____
3. There are lots of ways around any school-related problems that I am facing now.	_____
4. Right now I see myself as being pretty successful.	_____
5. I can think of many ways to reach my current academic goals.	_____
6. At this time, I am meeting the goals I have set for myself.	_____

(above scale adapted from Snyder, Sympson, Ybasco, Borders, Babyak, and Higgins, 1996).

## Student Background Information

1. Have you ever participated in (or are you currently enrolled in) a First-Year Seminar/Success course (1-2 credit course) at IUPUI?

- Yes
- No
- Not sure

2. Has either your mother or your father completed a four-year college (bachelor's) degree?

- Yes
- No
- Not sure

3. How far do you intend to pursue your college studies?

- Classes only; no certificate or degree
- One or two-year certificate or degree program
- Two-year college degree (Associate's)

- Four-year college degree (Bachelor's)
- Graduate or professional study beyond four-year degree

4. How many hours per week do you typically work for pay?

- 0
- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- more than 30

5. Would you be interested in participating in a focus group as an opportunity to express more of your opinions about academic advising at IUPUI?

- Yes
- No
- Not sure

**Open - Ended Items:**

1. Please describe what have you liked most about your academic advising experience at IUPUI?

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2. What specific suggestions to you have for improving the academic advising services at IUPUI?

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