

# The Freshmen Student Advising Instrument College Student Inventory of Noel-Levitz is Predictive of Cumulative Grade Point Average through the Tenth Semester

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## What?

College Student Inventory is a self-reporting instrument with which individual student advisors and institutional service units can quickly identify student success strengths and needs of incoming students.

## Who? and When?

First-time freshmen and transfer matriculates with fewer than 25 transfer credits at North Dakota State University falls 2002 through 2006 (five years).

Fall 2002: Given to matriculates attending summer orientation (N = 1064)

Fall 2003: Given to matriculates attending the mandatory freshmen orientation one credit course (N=1366)

Fall 2004: Given to matriculates of selected academic colleges (N=640)

Fall 2005: Given to matriculates of selected academic colleges (N=497)

Fall 2006: Given to matriculate of selected academic colleges (N=163)

## Why?

To see if the College Student Inventory is predictive of North Dakota State University student performance.

## Answer?

Yes! Very much so!

1. Equally predictive of Cumulative Grade Point average for each semester of one through ten (10) and equally predictive within each of the five years.
2. Dropout Proneness score was very predictive of retention for each semester one through five and the combination of semesters six, seven, and eight.
3. College Student Inventory is as predictive of Cumulative Academic Capacity as it is of GPA.
4. CSI can distinguish between Cumulative Academic Capacity and Cumulative GPA.
5. Results suggest CSI can accurately separate affective characteristics from academic characteristics.

## How did we do this?

1. Carefully edited the data
2. Used SAS's Mallow's CP model selection method to select best model for each of the ten Cumulative Grade Point Averages for each year from the 20 College Student Inventory values, including the stanine and percentile values for Dropout Proneness, Predicted Academic Difficulty, Educational Stress, and Receptivity to Institutional Help.
3. Used Jonckheere-Terpstra to test for the power of the Dropout Proneness stanine to predict numbers of semester enrolled at NDSU and elsewhere (Using National Student Clearinghouse data)
4. Used SAS's Mallow's CP model selection method to select best model for each of the six Cumulative Academic Capacities for year 2002 from the 20 CSI values, including the stanine and percentile values for Dropout Proneness, Predicted Academic Difficulty, Educational Stress, and Receptivity to Institutional Help.

## Recommendations

1. When advising for successful Grade Point Average rely on Dropout Proneness and Predicted Academic Difficulty. It make no difference whether these are the percentile or stanine scores
2. After Dropout Proneness and Predicted Academic Difficulty weight on Receptivity to Academic Assistance, Intellectual Interests, and Verbal Confidence (for GPA).
3. Preliminary recommendation: When advising for Cumulative Academic Capacity<sup>1</sup>, weight much less on Dropout Proneness and Receptivity to Academic Assistance and more on Study Habits and Math/Science Confidence.

<sup>1</sup>Academic Capacity was defined by dividing grade points earned by number of courses for which a grade was given.

4. Long haul life skills, i.e., Study Habits, Verbal Confidence, and Opinion Tolerance start to become more predictive of GPA at the long haul semesters of the fifth and sixth.

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|  | Dropout Proneness Scores and subsequent persistence of enrollment at North Dakota State University for the 1425 students of the fall 2002 cohort |  |                             |   |   | Maximum Number of Students who Could be Enrolled the Very Subsequent 3rd Wk |
|--|--|--|-----------------------------|---|---|---|
|  |  |  |                             |   |   |   |
|  | Num. with a dropout stanine of 1 or 2 or 3 or 4, i.e., low dropout probability   | Num. with a dropout stanine of 1 or 2 or 3 or 4, i.e., low dropout probability, as a percentage of Row Total | With a dropout stanine of 5 | Num. with a dropout stanine of 6 or 7 or 8 or 9, i.e., high dropout probability, as a percentage of Row Total | Num. with a dropout stanine of 6 or 7 or 8 or 9' i.e., high dropout probability |   |
| # Students enrolled 3rd wk 1st semester but not the very subsequent 3rd wk | 13   | 0.91%  | 18                          | 3.30%   | 47  | 1425  |
| # Students enrolled 3rd wk 2nd semester but not the very subsequent 3rd wk | 54   | 4.01%  | 28                          | 5.72%   | 77  | 1347  |
| # Students enrolled 3rd wk 3rd semester but not the very subsequent 3rd wk | 26   | 2.19%  | 13                          | 3.20%   | 38  | 1188  |
| # Students enrolled 3rd wk 4th semester but not the very subsequent 3rd wk | 29   | 2.61%  | 31                          | 1.89%   | 21  | 1111  |
| # Students enrolled 3rd wk 5th semester but not the very subsequent 3rd wk | 26   | 2.52%  | 19                          | 2.52%   | 26  | 1030  |
| # Students enrolled 3rd wk of 6th or 7th or 8th semester                   | <u>132 = 3 X 45</u>  | 13.76%   | 43                          | 4.69%   | <u>45</u>   | 959   |

**Coordinator Report**

**Instructions**

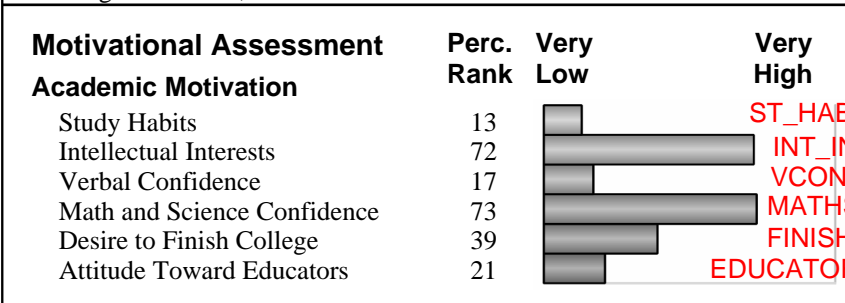
This is a report of Laurie's College Student Inventory results. Please give her a thorough explanation of her Student Report. If you agree with the recommendations, gently encourage her to follow them. When possible, try to make the arrangements yourself as a way of reducing motivational barriers. Avoid attempting any psychological counseling if not professionally trained for such work. Above all, be sure to protect the confidentiality of this report. Please see the RMS Advisor's Guide™ for more details.

**Summary of Academic Motivation\***  
Summary scores are expressed on a stanine scale:  
1 = very low, 5 = average, 9 = very high

|                                   |   |                   |
|-----------------------------------|---|-------------------|
| Dropout Proneness                 | 8 | <b>DROPOUT_S</b>  |
| Predicted Academic Difficulty     | 9 | <b>GPA_DIFF_S</b> |
| Educational Stress                | 9 | <b>EDSTRESS_S</b> |
| Receptivity to Institutional Help | 8 | <b>RECEPT_S</b>   |

For greater detail, see Motivational Assessment

**Notice**  
Students may request that their report be removed from your file at anytime.

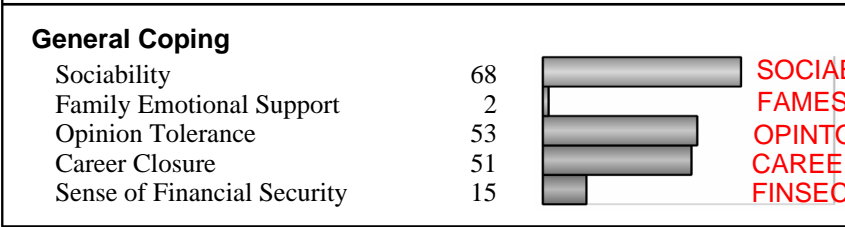


**Student Background Information**

**High School Academics**  
Senior Year GPA: C+ Average

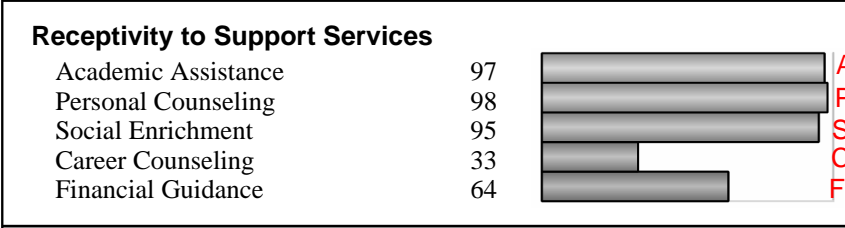
**Family Background**

|                      |                 |
|----------------------|-----------------|
| Racial/Ethnic Origin | White/Caucasian |
| Mother's Education   | H.S. Diploma    |
| Father's Education   | Some College    |



**College Experience**

|                    |                    |
|--------------------|--------------------|
| Decision to Enroll | Many months before |
| Degree Sought      | Bachelor's         |
| Plans to Work      | 11-20 hrs/wk       |



**Internal Validity**                      Excellent

**Specific Recommendations for Laurie**  
The strength of each recommendation is indicated by its priority score (0 = low, 10 = high):

|  |     |
|--|-----|
| Get help in meeting new friends                      | 9.1 |
| Get advice from experienced student                  | 9.1 |
| Get information about clubs and social organizations | 9.1 |
| Discuss any family problems with counselor           | 8.9 |
| Get help with writing skills                         | 8.9 |
| Get tutoring in selected areas                       | 8.9 |
| Discuss any unhappy feelings with counselor          | 8.8 |

\*This information is not shown on the student's copy.



| Percentages of Times College Student Inventory Variables were Included in Best Predictive Models for Cumulative Grade Point Average for Semester One Through Ten |   |  |           |       |        |           |       |         |               |       |       |       |
|--|---|--|-----------|-------|--------|-----------|-------|---------|---------------|-------|-------|-------|
|  |   | 80 to 100%   | 65 to 80% |       |        | 50 to 65% |       |         | Less than 50% |       |       |       |
|  |   | Semester of Cumulative Grade Point Average - Five, four, three, two year summaries |           |       |        |           |       |         |               |       |       | Total |
|  |   | First  | Second    | Third | Fourth | Fifth     | Sixth | Seventh | Eighth        | Ninth | Tenth |       |
| 17   | Recept. To Personal Counseling<br>50% or greater? | X  | X         | X     | X      | X         | X     | X       | X             | X     | X     | X     |
|  |   |  | y         |       |        |           |       |         |               |       |       |       |
| 18   | Recept. To Social Enrichment<br>50% or greater?   | 0%   | X         | X     | X      | X         | X     | X       | X             | X     | X     | X     |
|  |   |  | y         |       |        | y         |       |         |               | y     |       |       |
| 19   | Recept. To Career Counseling<br>50% or greater?   | X  | X         | X     | X      | X         | X     | X       | X             | 0%    | 0%    | X     |
|  |   |  |           |       |        | y         |       |         | y             |       |       |       |
| 20   | Recept. To Financial Guidance<br>50% or greater?  | X  | X         | X     | X      | 0%        | X     | X       | X             | X     | 0%    | X     |
|  |   |  |           |       |        |           |       |         |               |       |       |       |
|  |   | Semester of Cumulative Grade Point Average - Five, four, three, two year summaries |           |       |        |           |       |         |               |       |       | Total |
|  |   | First  | Second    | Third | Fourth | Fifth     | Sixth | Seventh | Eighth        | Ninth | Tenth |       |
| Total percentile   |   | 35   | 38        | 44    | 46     | 36        | 35    | 30      | 29            | 27    | 15    |       |
|  |   | 35%  | 38%       | 44%   | 46%    | 36%       | 44%   | 38%     | 48%           | 45%   | 38%   | 41%   |
| Total stanine  |   | 38   | 46        | 40    | 42     | 38        | 31    | 30      | 23            | 24    | 13    |       |
|  |   | 38%  | 46%       | 40%   | 42%    | 38%       | 39%   | 38%     | 38%           | 40%   | 33%   | 40%   |
| Percentile % minus Stanine %   |   | -3%  | -8%       | 4%    | 4%     | -2%       | 5%    | 0%      | 10%           | 5%    | 5%    | 1%    |
| Total Percentile and Stanine   |   | 37%  | 42%       | 42%   | 44%    | 37%       | 41%   | 38%     | 43%           | 43%   | 35%   | 40%   |
| Average of 20 Per % - Stan % s   |   | -2%  | -7%       | 3%    | 4%     | -2%       | 5%    | 1%      | 10%           | 5%    | 5%    | 1%    |

