



# The Impact of Using the Kuder<sup>®</sup> Career Planning System: School Performance, Career Decision Making, & Educational Transitions

January 15, 2008 / Catalina D'Achiardi-Ressler, Ph.D.

Most believe in the importance that issues such as students' school performance, their ability to make timely career decisions, and their transition into higher education have in today's society. Despite studies on these issues, there is little evidence to support the impact that career exploration products have on them. Therefore, in this study, we sought to examine the impact that the Kuder<sup>®</sup> Career Planning System (KCPS) has on each of these factors for students in two demographic areas in the state of South Carolina.

## Study Hypotheses

1. Students who use the KCPS will demonstrate increased school performance from the time they started using the system to the present (when compared to non-KCPS users during the same time period).
2. Students who use the KCPS demonstrate better career decision-making skills including fewer changes in their choice of college major as well as high congruence between their major choice and their assessment results.
3. Students who use the KCPS transition from high school to higher education at a high rate as indicated by the percentage of high school graduation and transition into the technical college after use of the KCPS.

## Participants

Data from 2,000 students was collected for this research study, but 11 cases were dropped; therefore, the final sample was 1,989 participants. All students were from two technical colleges in the state of South Carolina (half of the sample belonged to one of the largest technical colleges in the state and half of them to a mid-size technical college). Approximately half of them (993) were randomly selected from the Kuder database and were users of the KCPS. The other half (996) was randomly selected from the colleges' databases and comprised of non-KCPS users of the system. All information was retrieved without identifying information to keep participants' identities and all individual records confidential.

Because of random selection, it was difficult to keep the groups equivalent in terms of gender. The sample included 743 (37.4%) female and 1,246 (62.6%) male students. Participants' ages ranged from 15 to 67 with an average age of 26. The sample was also ethnically diverse, including:

- 912 (45.9%) African-American/Black.
- 706 (35.5%) White.
- 34 (1.7%) Hispanic/Latino(a).
- 21 (1.1%) Asian/Asian-American.
- 12 (0.6%) American Indian.
- 304 (15.3%) students who endorsed "N/A" in the system.

## Results

The results are summarized by each of the research hypotheses that follow.

**Hypothesis 1:** Students who use the KCPS will demonstrate increased school performance from the time they started using the system to the present (when compared to non-KCPS users during the same time period).

For the purpose of this research, school performance in high school was measured by GPA or achievement test scores (ACT® or SAT®). School performance in the technical college was measured by current cumulative GPA. Scores were standardized so they could be compared when performing the data analyses.

Comparisons of school performance were done in two ways:

- KCPS users' performance scores from before they started using the system were compared to their current GPA after using the KCPS.
- The above comparison was then examined against performance scores of non-KCPS users during the same time period.

Findings suggest that even though KCPS users had lower school performance scores before using the system than their non-KCPS user counterparts, after the use of the KCPS, students in the KCPS user group had significantly higher school performance scores than those in the non-KCPS user group. Results indicated that 15.7% of KCPS users demonstrated a statistically significant increase in school performance since they started using the system as opposed to 5.3% of non-KCPS users. Change in school performance was statistically significant for the KCPS user group and not significant for the non-KCPS user group.

**Hypothesis 2:** Students who use the KCPS demonstrate better career decisionmaking skills including fewer changes in their choice of college major as well as high congruence between their major choice and their assessment results.

The average change of majors for a KCPS user was zero. On the other hand, non-KCPS users' average change of majors was 2.12 times since they entered the technical college, indicating that KCPS users changed their major, on average, two times less than non-KCPS users. Moreover, the range in the frequency of major change for KCPS users was from two to seven times, whereas the range in the frequency of major change for non-KCPS users was two to 13 times. Findings showed 60.9% of KCPS users had never changed their major, compared to the 22.0% of non-KCPS users who had never changed their major.

For the second part of this hypothesis, we calculated the congruence<sup>1</sup> between major-choice and the Kuder® Career Search with Person Match (measure of career interests) as well as between major-choice and the Kuder® Skills Assessment (measure of self-efficacy for work-related skills). Brown & Gore's (1994) congruence index (C-Index) was used to calculate both of the congruencies under investigation. Higher C-Index scores indicate better congruencies between major choice and someone's interests as well as between major choice and skills. When using the C-Index, Brown & Gore (1994) reported a theoretical average of 9.0 and a standard deviation<sup>2</sup> of 3.69 for person-environment congruence.

In this study, congruence indices between college major choice and the Kuder Career Search with Person Match ranged from 0 to 18 with an average of 12.1 and a standard deviation of 3.34. Congruence indices

between college major choice and the Kuder Skills Assessment ranged from 0 to 17 with an average of 10.01 and a standard deviation of 3.71. These congruence indices suggest that KCPS users selected college majors that are highly congruent with their interest assessment and moderately congruent with their skills assessment.

**Hypothesis 3:** Students who use the KCPS transition from high school to higher education at a high rate as indicated by the percentage of high school graduation and transition into the technical college after use of the KCPS when compared to the national average high school graduation rate.

We did not have high school graduation dates for 21 of the students in the KCPS user group. Of the remaining 972 students in that group, 370 (37.3%) had started to use the system prior to coming to the technical college. From this group, however, 336 (90.8%) successfully transitioned from high school to a technical college and continue to be enrolled. In addition, from the 34 students who were taking college credits at the technical college but had not yet graduated from high school, 27 (7.3%) indicated an expected graduation date of 2008.

Although we can't draw strong conclusions from the latter group, the fact that 90.8% of KCPS users transitioned to the technical colleges far exceeds the national average transition rate of 67%. Even if we consider other measurable factors involved, we have some initial evidence that the KCPS is having an impact on students' transition rate.

### Summary

There is initial evidence to support the idea that KCPS benefits students in three ways:

- It helps them perform better in school.
- It helps them make faster and more congruent career choices with their interests and skills.
- It helps them transition at a higher rate from high school to higher education.

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<sup>1</sup>Congruence refers to the relationship of degree of fit between two factors.

<sup>2</sup>Standard deviation is a measure of the dispersion of scores around the mean (average score).