



The Impact of Using the *Kuder*[®] Career Planning System: School Performance, Career Decision Making, & Educational Transitions

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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*[®] 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 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.

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 congruence¹ 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 deviation² 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.

¹ **Congruence** refers to the relationship of degree of fit between two factors.

² **Standard deviation** is a measure of the dispersion of scores around the mean (average score).