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RELEVANCE OF THE GENERAL EDUCATION CORE CURRICULUM TO CAREER GOALS OF COLLEGE OF AGRICULTURE STUDENTS

Laurie O. King, Graduate Student
Joe W. Kotrlik, Professor
Louisiana State University

Abstract

This study determined the relevance of the general education core curriculum to student career goals, as perceived by upper level undergraduate students. The objectives were to determine: 1) the relevance of the general education requirements to student career goals; 2) if differences existed in students' perceptions of the requirement by curriculum grouping; 3) if a relationship existed between age and students' perceptions of the requirements; and, 4) if selected variables explained the variance in student perception of the requirements. The population included all upper level students in the College of Agriculture. The data were analyzed using descriptive statistics, Spearman rho correlation coefficients, analysis of variance, inferential t tests, and step-wise multiple regression. The students perceived the core curriculum was relevant to their career goals and they preferred a core curriculum that was broader in scope and allowed them greater flexibility. Students from various curriculum groupings differed in their perceptions of the relevance of the core curriculum and their career goals. No relationship existed between age and students' perceptions of the requirements. None of the variables studied explained a significant proportion of the variance in students' perceptions of the relevance of the requirements.

Since the fall of 1987, the Louisiana Sate University (LSU) has required that entering students complete a general education or core curriculum component of 39 semester hours in six major areas. The implementation of a required core curriculum has caused much concern among students and faculty on this campus, and across the country, as the issue of the core curriculum is again receiving national attention.

The issue is of special interest to agricultural teacher education because of changes such as the implementation of the Holmes Model for teacher education at many universities. Under the Holmes Model, students are entering master's level agricultural teacher education programs after completing their undergraduate work, often in another department in a the college of agriculture. As a result, agricultural teacher education departments have little or no control over the academic foundation of students who wish to enter their Holmes Model or other teacher education programs at the master's degree level. One potential way to exert some control over these academic foundations is to have some input into the general education requirements at the undergraduate level. Certainly, if the major aims of education are to release human potential and to create an environment that encourages critical thinking, then it becomes necessary to focus on curriculum content. For agricultural education students, as well as other students in the university, the curriculum must provide the means for transforming images and aspirations into programs that can help meet these aims (Eisner, 1985).

Landers (1990) raised the following questions with regard to the relevance of the core curriculum: "Is there a common body of knowledge that all educated persons should possess? Should all undergraduates, regardless of their major, be expected to take a core of required courses in essential areas? And, if so, what should be taught in those courses?" (p.2). These questions are not

new, but were at the center of this study as it sought to address the issue of the relevance of the core curriculum from an operational perspective.

Why study student perceptions of the core curriculum? Maslow (1951) said that things were real in their consequences if men perceived them to be real. Collins (1992) concluded that, "No doubt there is truth in this; man is fundamentally a regularity perceiving creature . . . Perception and stability of perception are the same thing" (p. 7). Clearly it matters what students think about their core curriculum because it is likely their perception of the core will affect the way in which they approach individual subjects, and in the long run, impact upon their performance.

The core curriculum is defined as a pattern of organization in which the curriculum is organized into a closely related whole (Faunce & Bossing, 1958). The terms, core curriculum and general education requirements, are used interchangeably in this study. Gaff (1989) defined general education as "the knowledge, skills, and attitudes that all of us live by during most of our lives" (p. 12). The core curriculum debate has attracted the attention of some of the leading educators and there has been a resurgence of literature on the subject in the latter half of the eighties and early nineties (Cheney, 1989; Heller, 1991; Lauer, 1990; Reed, 1990).

The debate surrounding the core curriculum is fueled mainly by a lack of agreement on what should constitute the core. Cheney (1989) proposed "50 Hours: A Core Curriculum For College Students." Cheney's article has been widely debated (Lauer, 1990; Heller, 1991; Reed, 1990). All educators seem to be defining illiteracy in terms of a lack of knowledge in specialized disciplines. Hazen and Trefil (1991) concluded that, "It is not a secret that the average college graduate is scientifically illiterate. Dozens of studies document the sorry story with examples of students who don't know the difference between an atom and a molecule . . . " (p. A42). The case for history and literature presented by Landers (1990) was based on the results of a test conducted by The National Endowment for the Humanities, which found that "Most of the seniors did not know that Alexis de Tocqueville wrote 'Democracy in America' or that Plato was the author of 'The Republic' (p. 2). Conversely, Cheney (1989) proposed self-knowledge, critical thinking, and community as the main objectives of general education. Several critics agreed with this proposal (Lauer, 1990; Heller, 1991). Others suggested that the main goal of general education was to encourage students to regard learning as a life long affair (Reed, 1990).

LSU appears to have followed Cheney's model (1989) and has adopted an Interdisciplinary Distribution Model which combines a required core of interdisciplinary courses with a distribution requirement. LSU's core curriculum requires a 39 hour core curriculum which is divided into six areas. Students must take six hours in English composition, six hours in analytical reasoning, three hours in the arts, nine hours in the humanities, nine hours in the natural sciences, and six hours in the social sciences.

Questions related to the effectiveness of this core curriculum remain unanswered. The debate fails to address the issue of whether college students think they really need general knowledge or whether they want to get on with the business of acquiring special skills that ready them for the world of work. This study was designed to provide answers to these questions.

Purposes and Objectives

The purpose was to determine perceptions of the general education core curriculum, as perceived by junior and senior level undergraduate students in the College of Agriculture. The objectives were to determine:

1. the relevance of the general education core curriculum to student career goals, as perceived by junior and senior level undergraduate students in the College of

Agriculture;

2. if differences existed in students' perceptions of the general education requirement by curriculum grouping;

3. if a relationship existed between age and students' perceptions of the general education requirements; and,

4. if selected variables explained the variance in student perception of the general education requirements. The variables were classification (juniors or seniors), gender, transfer status, high school attended, size of city in which respondent resided, age, students' perceptions of core curriculum, American College Testing (ACT) Score, university hours earned, overall hours earned, overall grade point average (GPA), and LSU grade point average (GPA).

Methodology

Population and Sample

The population included 655 juniors and seniors enrolled in the College of Agriculture on February 1, 1993, who had completed 60 hours or more as undergraduate students. Simple random sampling with replacement was used to ensure that the minimum sample size was attained. The sample size of 246 was calculated using Cochran's sample size formula (Snedecor & Cochran, 1980). The curricula in the college were grouped into eight groups to reflect similar curricular content to allow comparisons among students studying similar curricula. The eight frames were business related, plant related, animal related, environment related, food related, family related, merchandising related and education related.

Instrumentation

The questionnaire contained four sections. Section A solicited demographic information. Section B was comprised of two rating scales that sought to measure student perceptions of the relevance of the courses in the core curriculum. Section C sought to measure the impact the core has had on the respondent. Section D allowed the students to make suggestions with regard to the core curriculum. The research advisory committee determined that the instrument possessed both content and face validity. Since the items were not used as summative scales, calculations of internal consistency were inappropriate.

Data Collection

The initial mailing of the instrument, first cover letter and self addressed stamped envelope yielded 116 (47.1%) usable questionnaires. A second mailing yielded an additional 20 (8.1%) usable questionnaires. A telephone follow-up yielded 25 (10.1%) additional usable questionnaires. These procedures produced 161 responses for a usable return rate of 65.3%. Thirteen questionnaires were returned by the post office with incorrect addresses.

Data Analysis

The data were analyzed using descriptive statistics, Spearman rho correlation coefficients, analysis of variance, inferential t tests, and step-wise multiple regression. Analysis of variance of student's perceptions of the relevance of the core curriculum was used to determine if differences existed in student perceptions by response mode. The results confirmed that the phone respondents were not significantly different from the mail respondents.

Results

Of the 161 respondents, 54 (33.5%) were male and 107 (66.5%) were female. The mean age was almost 25 (M = 24.5), and the ages ranged

from 19 to 48. There were 60 (37.3%) juniors and 101 (62.7%) seniors. Although the ratio of juniors to seniors may make it seem as if seniors were more likely to respond than juniors, this is not true since 62.2% or 414 of the 655 students in the College of Agriculture were seniors. The sample was comprised of 148 (91.9%) white students, eight (5.0%) black students and five (3.1%) students of other ethnic origins. Sixty-nine (42.5%) had transferred from other colleges and universities. The average ACT score of the 107 cases for which scores were available was 22.1. The average overall credit hours earned was 103.01 and the average credit hours earned at the LSU 87.2. The average overall GPA was 2.7 and the average LSU GPA was 2.7. Over 85% came from a town or urban area. Only 14.3% came from a rural area. Over half (100 or 62.1%) had attended a public high school.

Objective 1: Relevance of General Education Core Curriculum

Objective one was to determine student perceptions of the relevance of the general education core curriculum. Responses were recorded on a six point Likert-type scale ranging from one (strongly agree) to six (strongly disagree). A scale of practical significance was developed to guide the interpretation of the Likert-scale responses: (e.g., a mean response between 2.51 and 3.5 was interpreted as slightly agreeing with the statement).

A summary of student's perceptions of the relevance of the general education core to their career goals is presented in Table 1. Students perceived the English requirement to be most relevant and the Arts requirements to be the least relevant to their career goals. The respondents agreed or slightly agreed that all of the core curriculum components were relevant.

Table 2 presents a summary of students' perceptions of potential changes in the core curriculum. The potential changes listed were selected after the review of literature and a feasibility analysis by the research advisory committee. The students slightly agreed or agreed that all the proposed changes should be made with one exception. They disagreed with the proposal to eliminate the core.

Students had mixed opinions about whether they were better prepared for their careers as a result of the core curriculum. The number who felt the core had resulted in their being better prepared (48.4%) was almost the same as those who felt the core had made no difference (45.4%). The rest (6.2%) indicated the core had weakened their preparation.

Table 1. Relevance of General Education Requirements to Students' Career Goals (n=161)

Core Curriculum Requirement	Mean	S.D.	Level of Agreement
English requirement	1.83	.96	Agree
Natural Science requirement	2.29	1.44	Agree
Analytical Reasoning requirement	2.42	1.39	Agree
Social Science requirement	2.46	1.25	Agree
Humanities requirement	2.98	1.52	Slightly Agree
Arts requirement	3.45	1.70	Slightly Agree

Table 2. Students' Agreement with Potential Changes in the Structure of the Core Curriculum Requirements (n= 161)

Proposed Change	Mean	S.D.	Level of Agreement

Allow more flexibility for students to select core courses	1.82	1.08	Agree
Allow more practical courses in the core curriculum	1.82	1.05	Agree
Add courses in career development	1.98	1.13	Agree
Merge similar core courses	2.16	1.27	Agree
Allow more elective courses in the core curriculum	2.45	1.21	Agree
Reduced emphasis on general education	3.07	1.55	Slightly agree
Add courses on family life and parenthood	3.08	1.48	Slightly agree
Add courses in food, fiber and technology	3.20	1.41	Slightly agree
Eliminate the general education core curriculum	4.35	1.53	Slightly disagree

Objective 2: Differences in Students' Perceptions

No differences existed by curriculum grouping for students' perceptions of the English and social science requirements. Differences did exist for the analytical reasoning, arts, humanities, and natural science requirements. Students in plant and animal related curricula perceived the analytical reasoning requirements to be more relevant to the career goals of the food and family related curricula students than the other groups. Students in plant related and merchandising related curricula perceived the natural science requirements to be more relevant than students in other curricula.

Objective 3: Relationship Between Age and General Education

Objective 3 was to determine if a relationship existed between the students' ages and their opinions of the general education requirements. The analyses using the Spearman rho correlation coefficient revealed that no significant relationship existed (r_s=.07).

Objective 4: Regression Analysis of Student Perception

Objective 4 was to determine the amount of variance in the impact the core curriculum had on their career preparation that could be explained by selected variables. The impact on career preparation variable was a simple question with three possible responses: students either perceived that the core curriculum had resulted in their being better prepared; made no difference to their preparation; or, had weakened their preparation for a career. A variable was included in the model if it contributed one percent or more to the explained. None of the variables studied explained a significant proportion of the variance in student perceptions (Table 3).

Table 3. Multiple Regression Analysis of Impact of Core Curriculum (n=161)

Source of variance	DF	SS	MS	F	Prob. F

Regression	1	1.19	1.19	3.26	.07
Residual	159	58.08	.36		
TOTAL	160	59.27	1.00		

Variable not in the equation

Variables	R^2	Cum R^2	F	Prob. F
Transfer status	.02	.02	3.26	.07

Variable not in the equation

Variables	t	Sig.t
Gender	.93	.35
Age	.83	.40
Classification	-.18	.85
Residence (city size)	-.52	.59
High School	-.00	.99
Overall hours	-.38	.69
University hours	.79	.42
Overall grade point average	-.59	.55
University grade point average	-.12	.90
American College Testing Program score	-.86	.38

Student's Comments about General Education Core Curriculum

Eighty-four of the students (34.1%) responded to Question 10. A qualitative analysis of the responses to this open-ended question was conducted and each response was grouped into one of five categories: 1) fifteen students felt that the core had broadened their scope of learning and made them better rounded individuals; 2) conversely, 12 students felt that the core curriculum was serving no useful purpose; 3) sixteen students felt that selected courses should be added to the core; 4) thirteen felt that more emphasis should be placed on career related courses in the core; 5) eleven felt that they should be allowed more flexibility in selecting courses for their core. The remaining comments could not be logically grouped.

Conclusions

1. Students in the College of Agriculture perceive that the core curriculum is relevant to their career goals.

2. Students prefer a core curriculum that is broader in scope and allows them greater flexibility.

3. Students from different curriculum groupings differ in their perceptions of the relevance of the core curriculum to their career goals.

4. Age and students' perceptions of the general education core curriculum requirements are not related.

5. Transfer status, classification (junior or senior), gender, high school attended, size of the city in which the respondent resided, age, ACT score, hours earned at this university, overall hours earned, overall grade point average (GPA) and, grade point average

(GPA) at this university, do not explain students' perceptions of the relevance of the core curriculum to their career goals.

Recommendations

1. Since students perceive the core curriculum to be relevant to their career goals, it is recommended that the core curriculum remain in place.

2. Based on the students' comments and the findings from objective one, it is recommended that a course on career development be added to the core curriculum.

3. It is recommended that the College of Agriculture administration initiate measures to ensure that content areas appropriate for the College of Agriculture students are represented in the core curriculum, and to allow students greater flexibility to select courses in core curriculum areas.

4. Further research should be conducted to identify specific reasons for the differences among student perceptions in the eight curriculum areas.

5. It is recommended that consideration be given to the restructuring of the homogenous approach to core curriculum development. This can be accomplished by: (a) allowing colleges more latitude to modify the core curriculum requirements in accordance with guidelines which can be developed by the university; and, (b) by subsequently allowing departments more latitude to modify their specific core curriculum requirements.

6. A university-wide study should be conducted to examine students' perceptions of the relevance of the general education core curriculum to their career goals.

7. A study of the feasibility of dividing the core curriculum into distinct academic and technical components should be conducted. The university is not a pure liberal arts university, yet an examination of the present core curriculum reveals that it has a strong liberal arts bias. There are very few technical courses in the core curriculum.

8. Agricultural teacher education faculty should monitor core curricula at their universities and pursue the inclusion of core curricula content that will strengthen the preparation of their graduates.

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