

**Development and Validation
of Instruments Designed
To Identify Reasons and Factors
Influencing Decisions
To Attend Summer Session
and Attend at a Particular
Higher Education Institution**

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Introduction

Each year institutions of higher education throughout North America invest tens of thousands of dollars developing and conducting surveys to determine the reasons why students attend summer session. Some institutions employ outside firms, some employ research faculty, others expect Summer Session staff to devote many hours of their time to develop an instrument able to gather this data. Each institution develops its own survey instrument. Instruments from different institutions sometimes contain similar items but more frequently do not. Few, if any, of these instruments are tested for their validity and reliability.

Utilizing a valid and reliable instrument to gather information

helping institutions gain insight into the reasons and motives for attending summer session is important for several reasons. First, institutions can use this information to guide summer session program development and course selection to ensure student learning needs are met. Second, institutions gain greater insight into the types and levels of student support services expected and needed by summer students. Third, institutions increasingly rely upon summer session to generate revenue, and possessing knowledge of student motivations greatly enhances an institution's ability to present a clear, meaningful marketing message that will result in larger numbers of summer session enrollment.

Summer Session directors and higher educational institutions benefit greatly if a single survey instrument were available that they could utilize to gather data about student motives to attend summer session. Access to an instrument of this type negates the need for Summer Session directors and higher education institutions to create and/or recreate survey instruments each year. Significant survey development costs can be saved and, with a valid and reliable instrument, Summer Session directors can be confident of their findings. Public, private, small and large institutions can use the instruments described below to gather valid and reliable data about student reasons for attending summer session and attending a particular institution for their summer studies.

Purpose of Study

This study was an effort to develop and validate instruments to learn reasons and motivational factors influencing student decisions to participate in summer session and to attend a particular higher education institution.

Review of Literature

No evidence can be found of an empirical study to develop a comprehensive instrument to measure student motives to attend summer session. Although many Summer Session directors and other administrators regularly attempt to gather this data, practitioners have little time to publish their work. Year after year, Summer Session directors share anecdotal information about the reasons students participate in summer session based upon their findings from local and isolated survey efforts.

In an effort to build upon previous research efforts, a number of Summer Session surveys were reviewed (Brannon et. al. 2001, Carmody 2002, Fish 2001, Weber-Paxton 2000). Instruments used in these studies appeared to yield very useful information for each of the institutions

undertaking the project. In all of these instances, however, little evidence was available that suggested instruments utilized to collect data were valid and reliable. No effort was made to create a comprehensive and universal instrument that could be widely used by any given institution of higher education.

Instrument Design

To fulfill the purpose of this study, two instruments were developed. The first was to determine motivational factors to attend summer session. The second instrument determined the key factors that influence student decisions to attend particular institutions. Both instruments were developed through a process involving literature reviews, structured e-mail and listserv correspondence among an international pool of Summer Session directors throughout North America, structured interviews with past summer session students, students actively participating in summer session, students contemplating attending summer session, and students deciding not to participate in summer session.

Information about reasons for participating in summer session, obtained in this fashion, generated 155 reasons explaining why students attend summer session. After eliminating idiosyncratic and semantically equivalent statements, a prototype instrument consisting of 41 items structured in a 5-point Likert-type format was developed. This instrument, intended to determine reasons and motives for attending summer session, was titled, the *Kowalik-Fish Summer Session Motivation Inventory* (KFSSMI).

In similar fashion, ninety responses were generated to explain why students choose to attend a particular institution for summer studies. Eliminating idiosyncratic and semantically equivalent statements resulted in a prototype instrument consisting of 29 items, also structured in a 5-point Likert-type format. As this instrument was intended to determine reasons and motives for choosing a particular institution for summer session studies, it was titled, the *Kowalik-Fish Summer Session Institutional Choice Inventory* (KFSSICI).

A panel of Summer Session administrators reviewed both instruments to determine appropriateness for this study. Suggestions and recommendations were made and incorporated into working versions of these instruments to enhance face validity, appeal, understanding, and ease of self-administration.

A pilot test was administered to determine item clarity, reliability, response styles, and response bias. A random sample of 20 undergraduate students previously attending summer session at a medium-sized public

university in the Northeastern United States was surveyed to assess administration procedures and overall instrument design. This sampling was selected to provide an accurate prediction of summer session reactions to the instrument and also to assess the subject's response time. Item clarity was determined by soliciting comments from respondents, calculating inter-item and corrected-item to scale correlations, and calculating overall measure of internal consistency. Based upon the pilot, the *KFSSMI* alpha reliability (Chronbach's alpha) proved to be .92 and the *KFSSICI* alpha reliability was .93. Feedback from the respondents suggested the prototype *KFSSMI* could be improved by revising the clarifying several items. Improving the prototype *KFSSMI* by deleting one item and adding two items increased the length of the final instrument to 42 items. Comments from the respondents indicated that the prototype *KFSSICI* was easy to understand and simple to complete. One only item from the prototype *KFSSICI* needed to be reworded for clarity; all items were retained.

Instrument Validation

To validate the *Kowalik-Fish Summer Session Motivational Inventory* and the *Kowalik-Fish Summer Session Institutional Choice Inventory*, the instruments were administered as part of a larger study and were part of a comprehensive survey that included three additional components, i.e., to measure summer session student demographic profiles, the effectiveness of marketing methods, and when students decide to attend summer session. In 2003, the comprehensive survey was administered to a total random sample of 373 students enrolled in summer session undergraduate liberal arts courses; 263 students from a midsized state institution and 110 students from a small private liberal arts university in the Northeastern United States.

For the *KFSSMI*, students were asked to rate how important each reason was in their decision to attend summer session. Directions were as follows:

The purpose of this study is to understand the factors that influence students' decisions to attend summer session, here at this institution as well as at other college campuses. Below are some reasons that might have influenced your decision to attend *Summer Session in general*. How important was each reason in your decision to participate? (If an item is not applicable, please mark response 1.)

The 5-point Likert-type options were worded as follows: (1) Not Important/NA; (2) Slightly Important; (3) Somewhat Important; (4) Quite

Important; and (5) Very Important. The actual instrument consisted of the following items representing reasons to attend summer session:

1. I was required to do so.
2. I wanted to take a specific or unique course offered only in the summer.
3. I wanted to take a course that I couldn't fit into the regular academic year.
4. I wanted to take a course to fulfill degree requirements.
5. I wanted to take a course to complete a prerequisite.
6. I wanted to take a course to make up a failed course.
7. I wanted to take a course to catch up on credits.
8. I wanted to finish my academic program in four years.
9. I wanted to take extra courses to get a second major or minor and still graduate in four years.
10. I wanted to lighten my course load during the academic year.
11. I wanted to get prerequisite courses out of the way to meet graduate or professional school application deadlines.
12. I wanted to graduate early.
13. I wanted to improve a grade in a course.
14. I wanted to improve my GPA.
15. I wanted to get a head start on college before my freshman year.
16. I wanted to take a course for college admission.
17. I wanted to learn in a relaxed, informal atmosphere and the environment on campus is less stressful in the summer.
18. Courses are easier in summer.
19. Homework loads are less in the summer.
20. Grading is easier in the summer.
21. It is easier to learn when I only have to focus on one class.
22. Class size is smaller and more intimate in the summer allowing more interaction between the students and professors.
23. I prefer the condensed timeframe of summer classes.
24. I retain more in summer with classes every day.
25. There are numerous evening courses available during summer session.
26. There are fewer people and distractions on campus and I am able to concentrate on class work better in the summer.
27. The summer schedule allows me to have a job while attending classes.
28. I could pick up a job because summer session classes are held the same time every day.
29. I decided on a new career and attending summer session was the fastest way to make the move.
30. I am able to take a course and work with a specific professor.
31. Faculty are more flexible and relaxed in the summer.
32. I can do research with professors in the summer.
33. I wanted to take a course to improve job-related skills.
34. I couldn't get a job and I wanted to use my time wisely.
35. I was seeking personal enrichment not connected to a specific academic program.

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36. I was seeking professional development not connected to a specific academic program.
37. My parents told me to take a course this summer.
38. I wanted to see what it is like to take courses in the summer.
39. I needed to earn summer credits/improve my GPA to maintain my eligibility for athletics or study abroad.
40. There was nothing better to do during the summer.
41. Summer session courses are offered at reasonable tuition prices.
42. It's less expensive to take courses in the summer.

For the *KFSSICI*, students were asked to rate how important each reason was in their decision to attend summer session at a particular institution. Directions were as follows:

The purpose of this study is to understand the factors that influence students' decisions to attend summer session, here at this institution as well as at other college campuses. Below are some reasons that might have influenced your decision for attending *this particular institution*. How important was each reason in your decision to come here? (If an item is not applicable, please mark response 1.)

The 5-point Likert-type options were worded as follows: (1) Not Important/NA; (2) Slightly Important; (3) Somewhat Important; (4) Quite Important; and (5) Very Important. The actual instrument generated the following for attending a particular institution:

1. It is close to my home/my parents live in this area.
2. I have a housing contract that runs through the summer, so I might as well attend here.
3. This institution is near my summer employment.
4. There are job possibilities in the area.
5. I could get a job on campus and earn money over the summer.
6. This campus is a nice environment.
7. I am trying to make connections to a graduate program.
8. I like the variety of daytime, evening, weekend, and distance offerings.
9. This is the institution from which I will obtain my degree.
10. I am a student here and can't transfer courses to meet the distribution requirements, so I have to take them here.
11. I am a student here and there is no paperwork to transfer credits if I take the class (es) here.
12. I know the campus.
13. I know the faculty and their expectations.
14. The credits I earn here will be transferable to my university.
15. I want my summer class grades to count toward my GPA.
16. I registered for courses being offered here that I cannot obtain elsewhere.
17. This institution offers a wide array of summer courses from which to choose.

18. This institution offers a variety of different sessions from which to choose.
19. This institution has developed a summer schedule that is convenient for me.
20. The classes are smaller at this institution.
21. This institution has an equal number of lab openings and class openings.
22. This institution has a good reputation for offering a quality education.
23. Instructors at this institution have an excellent reputation.
24. One or both of my parents graduated from this institution.
25. Tuition and fees were less expensive at this institution than others.
26. Registering for summer classes at this institution is a relatively easy process.
27. The courses and grading at this institution are easier than at others.
28. My friends attend summer classes here.
29. My friends are not here and therefore I can focus on studies.

As in the pilot study, individual items were tested for internal consistency and alpha reliability.

Findings

Using SPSS, simple descriptive statistics were performed to show respondent demographics. An analysis of the responses to the *KFSSMI* showed that 315 usable returns were received. For the *KFSSICI*, 369 usable responses were obtained.

Respondents ranged in age from 18 to 55 years; 57.4% were female; 39.9% enrolled in one summer course, 56.1 enrolled in two courses, and 4% enrolled in three courses; 51.2% were Caucasian, 7.8% Black, 7.5% Hispanic, 18.8% Asian or Pacific Islander, and 1.1% were American Indian or Alaskan Native. Employment data was: 34.2% not employed, 9.9% worked less than 10 hour per week, 17.4% worked between 11 and 20 hours per week, 11.3% worked between 21 and 30 hours per week, 11.3% worked between 31 and 40 hours per week, and 7.5 worked over 40 hours per week.

When asked about employment status during the year, responses were a follows: 29.5% were neither employed and not seeking employment, 22.1% were not employed but seeking employment, 40.5% were employed part-time, 7.6% were employed full-time, and .3% were retired. When asked about financial status, 76.7% indicated they were dependent and 23.3% indicated they were independent. Data about parent's income suggested: 31.3% under \$30,000, 10.3% between \$30,000 and \$39,999, 14.1% between \$40,000 and \$49,999, 9.7% between \$50,000 and \$59,999, 12.2% between \$60,000 and \$69,999, 9.1% between \$70,000 and \$79,999,

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6.3% between \$100,000 and \$149,999, and 7.2% were between \$150,000 and \$199,999. Thirty-five percent of respondents received financial aid for summer session. Data concerning student status during the regular school year indicated that 93.2% of respondents attended full-time.

Students who matriculated at the institution where they attended summer session totaled 86.1%, with 4.7% matriculated elsewhere, and 8.6% not matriculated. Current cumulative GPA data related that: were 6.6% less than 2.0, 40.5% between 2.0 and 2.9, 48.8% had between 3.0 and 3.9, and 1.9% carried a 4.0. Student status for fall 2003 was distributed as follows: .5% high school student; 1.1% freshman; 10.6% sophomore; 27.5% junior; 42.8% seniors, and 12.0% were not returning because they met requirements to graduate by attending summer session. Residence data were: 80.4% of respondents lived in the same state in which the college was located; 16% lived in a state different than that in which the college was located; and 3.6% lived outside the United States.

Student feedback indicated that the instruments were clear, easy to understand, and took relatively little time to complete. The high percentage of completed and usable responses indicated student willingness to complete instruments in this format and of this length.

The content validity of items within both instruments was implicit in the elaborate procedures for item selection. Internal consistency and alpha reliability for the *KFSSMI*, the instrument to determine reasons students participate in summer session was .92. Chronbach's alpha for the *KFSSICI*, the instrument to determine reasons for attending a particular institution for summer studies, was .95. Both instruments proved to be valid and reliable.

Discussion

The *KFSSMI* is a valuable tool that can be used by public, private, small and large institutions to determine reasons students attend summer session. Using this inventory, Summer Session directors can identify those reasons that play a significant role in student decision-making to attend summer session. By ranking item means, directors can quickly see the relative importance of each reason, given by students, in attending summer session. More sophisticated data analysis, e.g., exploratory factor analysis, may yield potentially more powerful information. Using factor analysis, directors might see relationships and patterns in student motives for attendance. Determining motivational factors would reduce the number of individual variables directors need to assess each year to determine the reasons why each year's students attend summer session. Directors can also use data gathered with this instrument when

approaching academic units to develop courses that meet student needs. Faculty, department chairs, and deans who have a better understanding of student motives may work more closely with Summer Session directors to offer an attractive mix of courses and programs.

The *KFSSICI* is also a valuable tool in that the data gathered by its use informs Summer Session directors of the reasons why students decide to attend a particular institution. By ranking responses, directors can determine the most influential reasons students choose to attend their institution. This knowledge may provide convincing data that can be used in efforts to change and enhance services provided by various offices on the campus. Data from this instrument can also provide extremely valuable insight into potential marketing themes and strengths of the institution. By highlighting those attributes of the institution deemed most influential in student decisions, Summer Session directors may make their summer program and institution appear more appealing to a wider audience and thus increase enrollments.

In addition to its usefulness to Summer Session directors at individual institutions, the *KFSSMI* might be tremendously helpful in completing a definitive mega-study throughout North America to determine reasons and motivational factors influencing student decisions to attend summer session. Utilizing this instrument to collect data at institutions throughout North America ensures a consistency that makes it possible to analyze data that might lead to determining regional differences in student motives or similarities in motives throughout the continent. Systematically using the *KFSSMI* may perhaps lead to clear, useful information that can be used by any and all institutions when seeking greater understanding of this aspect of summer session participation.

Conclusion

The *Kowalik-Fish Summer Session Motivation Inventory* and the *Kowalik-Fish Summer Session Institutional Choice Inventory* are reliable and valid instruments for assessing the reasons and factors influencing student decisions to participate in Summer Session and to determining why students attend a particular higher education institution for summer studies. Summer Session directors from institutions throughout North America can use these instruments to save time and money. They can be confident data gathered through these instruments are valid, practical, and useful.

Note

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