

**Leisure Youth and Human Services Division
University of Northern Iowa
Cedar Falls, Iowa**

**LYHS 4070 Research and Evaluation in LYHS
Evidence of Student Learning
Indirect Student Learning Gains
Fall 11 thru Fall 2015**

Data collected and analyzed by Dr. Kathleen G. Scholl

This course provides an overview of the processes of research and evaluation as encountered in leisure services and has three major course prerequisites prior to enrollment. Major students typically take this required course when they have reached senior status with 25-30 enrolled each semester. The course learning outcome is for students to be able to successfully collect, analyze, synthesis, and interpret research data and report findings and conclusions regarding the process and outcomes of leisure, youth and human service programs. An independent t-test was used to assess pre- and post-test student learning gains on the following concepts:

- *Student conceptual understanding of course content.*
- *Student development of research and evaluation skills.*
- *Student attitude about the topic.*
- *Student integration of learning*
- *Student learning motivation towards Research and Evaluation Course*

Table 1. Student Conceptual Understanding of Pre-Post Semester Results

	F11 pretest	F11 posttest	Sp 12 pretest	Sp 12 posttest	Sp13 pretest	Sp13 posttest	F13 pretest	F13 posttest
<i>Presently, I understand the following concepts.....</i>								
How to develop a project that systematically evaluates leisure programs & services	3.39 (1.03)	5.04** (.55)	3.20 (.83)	4.88** (.81)	3.50 (1.10)	4.78** (.70)	2.88 (.99)	4.50** (.73)
How to systematically collect & analyze data that is appropriate for my research evaluation project	3.43 (1.08)	5.17** (.56)	3.10 (.97)	4.94** (.85)	3.42 (1.10)	4.96** (.65)	2.92 (.93)	4.60** (.89)
Understanding how to report my results and make appropriate recommendation based on the data results	3.22 (1.04)	5.08** (.72)	3.00 (.92)	4.81** (.75)	3.21 (.83)	4.67** (.73)	2.77 (.76)	4.23** (.73)
Research and evaluation ethics	3.04 (.98)	5.29** (.75)	2.90 (.97)	4.94** (.93)	3.38 (.97)	4.96** (.59)	2.92 (1.16)	4.60** (.89)
How the concepts we will explore in this class relate to my career in this subject area	4.26 (.81)	5.21** (.78)	3.75 (1.41)	4.81* (.98)	3.96 (.75)	5.00** (.68)	3.85 (.85)	4.53* (1.04)
How ideas we will explore in this class relate to my career outside of this subject area	3.96 (1.11)	4.88** (.99)	4.05 (1.15)	4.69 (.95)	4.04 (1.00)	4.81** (.68)	3.61 (.85)	4.43** (1.17)
How studying this subject helps me to address real world issues and develop the skills I need in the Leisure, Youth and Human Services profession	4.04 (1.15)	5.04** (1.08)	4.10 (.91)	4.63 (.89)	4.21 (.98)	4.85** (.72)	3.92 (.80)	4.43 (1.16)

Note: Likert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6=a great deal)

*p < .05. **p < .01. Standard Deviations appear in parentheses below the means.

Student Conceptual Understanding of Pre-Post Semester Results

	Sp14 pretest	Sp14 posttest	F14 pretest	F14 posttest	Sp15 pretest	Sp15 posttest	F15 pretest	F15 posttest
<i>Presently, I understand the following concepts.....</i>								
How to develop a project that systematically evaluates leisure programs & services	3.68 (1.00)	4.57** (.93)	3.71 (.94)	5.11** (.83)	3.75 (1.03)	4.88** (.71)	3.07 (.73)	4.78** (.85)
How to systematically collect & analyze data that is appropriate for my research evaluation project	3.91 (.81)	4.81** (.93)	3.64 (.78)	5.07** (.76)	3.58 (1.10)	4.81** (.78)	3.19 (.74)	4.63** (.93)
Understanding how to report my results and make appropriate recommendation based on the data results	3.77 (.87)	4.43** (.93)	3.54 (.88)	4.82** (.77)	3.46 (.98)	4.56** (.88)	3.11 (.75)	4.48** (.89)
Research and evaluation ethics	3.68 (1.00)	4.81** (1.12)	3.50 (.92)	5.04** (.88)	3.42 (1.25)	4.94** (.76)	3.30 (1.07)	4.67** (1.18)
How the concepts we will explore in this class relate to my career in this subject area	4.27 (.83)	4.48 (1.17)	3.75 (.75)	4.79** (1.03)	3.92 (1.12)	4.56** (.95)	3.85 (1.17)	4.67* (1.18)
How ideas we will explore in this class relate to my career outside of this subject area	3.86 (.99)	4.38 (1.25)	3.75 (.93)	4.64** (1.03)	3.92 (1.25)	4.31 (.97)	4.07 (1.14)	4.74* (.90)
How studying this subject helps me to address real world issues and develop the skills I need in the Leisure, Youth and Human Services profession	4.05 (.72)	4.52 (1.25)	4.00 (1.02)	4.71* (1.01)	4.08 (1.18)	4.50 (.95)	4.00 (1.07)	4.74** (.86)

Note: Likert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6=a great deal)

*p < .05. **p < .01. Standard Deviations appear in parentheses below the means.

Table 2. Student Research and Evaluation Skills Pre-Post Semester Results

	F11 pretest	F11 posttest	Sp 12 pretest	Sp 12 posttest	Sp13 pretest	Sp13 posttest	F13 pretest	F13 posttest
<i>Presently, I can.....</i>								
Find articles relevant to a particular problem in professional journals or elsewhere	4.43 (.95)	5.00* (.78)	4.00 (.73)	4.94** (.85)	4.25 (.99)	5.41** (.69)	4.23 (1.107)	5.00** (.87)
Critically identify and read articles that will support and guide my evaluation project	3.91 (1.00)	4.92** (.83)	3.55 (1.23)	4.81** (.83)	4.25 (.61)	5.11** (.75)	3.69 (1.16)	4.83** (.99)
Design valid survey or interview questions that align with my research and evaluation objectives	3.48 (1.04)	5.46** λ (.59)	3.25 (.91)	5.06** (.57)	3.75 (.74)	4.96** λ (.52)	3.15 (.88)	4.63** (.96)
Design an appropriate method of sampling for an evaluation project	3.08 (.90)	4.96** (.81)	2.95 (1.00)	4.81** (.75)	3.38 (.97)	4.81** (.68)	2.88 (.99)	4.45** (1.01)
Appropriately code and enter quantitative data	2.70 (.82)	5.17** (.64)	2.45 (.83)	4.75** (1.00)	3.08 (1.06)	4.85** (1.02)	2.65 (.94)	4.30** (1.09)
Conduct basic data analysis	2.96 (1.07)	4.88** (.74)	2.45 (.69)	4.69** (.95)	3.00 (1.02)	4.93** (.78)	3.00 (1.02)	4.30** (1.09)
Identify patterns in data	3.61 (.89)	4.83** (.76)	2.90 (1.02)	4.69** (.87)	3.58 (1.02)	4.89** (.64)	3.08 (.98)	4.23** (1.10)
Develop tables and graphs for reporting data	3.91 (1.12)	5.17** (.87)	3.65 (.81)	4.94** (.87)	3.54 (1.02)	4.74** (.71)	3.35 (.89)	4.43** (.90)
Write documents in discipline-appropriate style and format	3.17 (1.11)	4.85** (1.06)	2.60 (1.05)	4.31** (1.30)	2.96 (.75)	4.56** (.75)	2.65 (1.02)	3.83** (1.09)

Student Research and Evaluation Skills Pre-Post Semester Results

	Sp14 pretest	Sp14 posttest	F14 pretest	F14 posttest	Sp15 pretest	Sp15 posttest	F15 pretest	F15 posttest
<i>Presently, I can.....</i>								
Find articles relevant to a particular problem in professional journals or elsewhere	4.64 (.73)	5.05 (.74)	4.75 (.93)	5.21* (.69)	4.54 (.72)	5.28** (.68)	4.33 (1.04)	4.96* (.85)
Critically identify and read articles that will support and guide my evaluation project	4.50 (.67)	4.76 (.89)	4.57 (.88)	5.18** (.67)	4.17 (.87)	4.88** (.75)	4.07 (.96)	4.74* (.98)
Design valid survey or interview questions that align with my research and evaluation objectives	4.18 (.91)	4.90** (.77)	4.04 (.92)	4.96** (.58)	4.04 (.75)	5.16** (.63)	3.30 (.87)	5.19** (.62)
Design an appropriate method of sampling for an evaluation project	3.73 (.99)	4.81** (.81)	3.54 (1.00)	5.00** (.67)	3.25 (.85)	4.97** (.78)	3.11 (.85)	4.85** (.78)
Appropriately code and enter quantitative data	3.00 (1.02)	5.00** (.70)	2.93 (.81)	4.82** (1.02)	3.17 (1.37)	4.78** (1.10)	2.59 (1.05)	4.52** (.94)
Conduct basic data analysis	3.50 (1.14)	4.71** (.78)	3.54 (1.04)	4.71** (.94)	3.42 (1.21)	4.66** (1.15)	3.11 (1.15)	4.37** (.88)
Identify patterns in data	3.82 (.96)	4.71** (.64)	3.57 (.96)	4.57** (1.00)	3.88 (1.15)	4.72** (1.05)	3.70 (1.03)	4.44* (1.09)
Develop tables and graphs for reporting data	4.14 (.71)	4.67 (1.07)	3.82 (.82)	4.68** (1.02)	3.96 (1.10)	4.44** (1.01)	3.67 (1.04)	4.37* (1.07)
Write documents in discipline-appropriate style and format	3.64 (1.14)	4.24 (1.00)	3.25 (1.11)	4.64** (.95)	3.33 (1.13)	4.47** (1.05)	3.07 (1.07)	4.19** (1.00)

Note: Likert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6=a great deal)

*p < .05. **p < .01. Standard Deviations appear in parentheses below the means.

λ F(2,64) = 5.374, p < .007

Table 3. Pre-Post Semester Results of Students Attitude towards Conducting Research and Evaluation Projects

	F11 pretest	F11 posttest	Sp 12 pretest	Sp 12 posttest	Sp13 pretest	Sp13 posttest	F13 pretest	F13 posttest
<i>Presently, I am.....</i>								
Enthusiastic about the subject	3.57 λ (.84)	3.75 (1.07)	3.85 (.88)	3.88 (1.03)	4.38 λ (.88)	3.96 (.81)	3.58 (.90)	3.10 (1.06)
Confident that I understand the subject	3.35 (.98)	4.75** (.80)	3.35 (.93)	4.44** (1.15)	3.71 (1.00)	4.59** (.78)	3.42 (1.10)	3.80 (1.13)
Interested in taking or planning to take additional classes in this subject	2.79 (.95)	3.00 (1.35)	3.20 (.77)	3.44 (1.23)	3.25 (1.23)	3.30 (1.33)	2.92 (.93)	2.63 (1.25)
Confident that I can conduct an evaluation or research project from start to finish	3.52 (1.16)	4.59** (.97)	3.10 (1.02)	4.44** (1.15)	3.88 (.99)	4.37* (.74)	3.42 (1.17)	3.83 (.99)
Comfortable working with complex ideas	3.87 (1.06)	4.46 (1.10)	3.45 (.83)	4.31** (1.20)	4.00 (.78)	4.33 (.88)	3.73 (1.00)	3.87 (1.25)
Willing to seek help from others (teacher, peers, TA) when working on academic problems	4.70 (1.26)	5.17 (1.18)	5.00 (.91)	5.09 (.90)	5.13 (.90)	5.19 (.68)	5.08 (.89)	4.37 (1.20)

Note: Likert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6=a great deal)

**p < .01. Standard Deviations appear in parentheses below the means.

λ F(2,64) = 5.308, p. < .007

Pre-Post Semester Results of Students Attitude towards Conducting Research and Evaluation Projects

	Sp14 pretest	Sp14 posttest	F14 pretest	F14 posttest	Sp15 pretest	Sp15 posttest	F15 pretest	F15 posttest
<i>Presently, I am.....</i>								
Enthusiastic about the subject	3.77 (.92)	3.24 (1.22)	3.79 (.99)	3.32 (1.16)	4.04 (1.00)	3.56 (1.08)	3.78 (.97)	3.52 (.94)
Confident that I understand the subject	4.05 (1.09)	4.33 (1.11)	3.82 (.91)	4.36 (1.16)	3.54 (.98)	4.22** (.94)	3.41 (1.05)	4.19** (.96)
Interested in taking or planning to take additional classes in this subject	3.18 (1.26)	2.67 (1.07)	2.93 (1.02)	3.14 (1.33)	3.13 (1.19)	2.81 (1.09)	3.11 (1.19)	3.26 (1.13)
Confident that I can conduct an evaluation or research project from start to finish	3.82 (1.37)	4.29 (1.10)	3.96 (1.07)	4.43 (1.00)	3.88 (.95)	4.25 (1.02)	3.48 (1.22)	4.15* (.95)
Comfortable working with complex ideas	4.09 (.97)	4.33 (1.28)	4.07 (1.12)	4.46 (.84)	3.92 (.72)	4.13 (.91)	3.96 (1.16)	4.19 (1.04)
Willing to seek help from others (teacher, peers, TA) when working on academic problems	4.59 (.91)	4.86 (.79)	4.96 (1.00)	4.82 (1.06)	5.21 (.66)	5.19 (.74)	4.78 (.97)	4.78 (1.12)

Table 4. Pre-Post Semester Results for Students Integration of Learning

	F11 pretest	F11 posttest	Sp 12 pretest	Sp 12 posttest	Sp13 pretest	Sp13 posttest	F13 pretest	F13 posttest
<i>Presently, I am in the habit of.....</i>								
Connecting key ideas I learn in my classes with other knowledge	4.35 (.93)	4.63 (.82)	4.45 (.69)	4.69 (.79)	4.67 (.64)	4.78 (.85)	4.35 (.81)	4.23 (1.17)
Applying what I learn in classes to other situations	4.61 (.78)	4.96 (.75)	4.75 (.72)	4.69 (.79)	4.88 (.61)	4.93 (.83)	4.58 (.81)	4.37 (1.13)
Using systematic reasoning in my approach to problems	3.83 (.98)	4.46* (1.15)	3.95 (.89)	4.63 (.89)	4.25 (.94)	4.74* (.66)	3.96 (.87)	4.13 (1.17)
Using a critical approach to analyzing data in my daily life	3.96 (1.11)	4.29 (1.07)	3.90 (1.07)	4.56* (.81)	4.08 (1.06)	4.67* (.83)	3.65 (1.23)	3.87 (1.20)

Pre-Post Semester Results for Students Integration of Learning

	Sp14 pretest	Sp14 posttest	F14 pretest	F14 posttest	Sp15 pretest	Sp15 posttest	F15 pretest	F15 posttest
<i>Presently, I am in the habit of.....</i>								
Connecting key ideas I learn in my classes with other knowledge	4.73 (.88)	4.76 (.83)	4.79 (.92)	4.61 (1.13)	4.75 (.85)	4.50 (.88)	4.52 (.89)	4.78 (.89)
Applying what I learn in classes to other situations	4.68 (.72)	4.67 (.80)	4.89 (.99)	4.61 (1.10)	5.69 (.55)	4.69 (1.03)	4.52 (1.01)	4.81 (.83)
Using systematic reasoning in my approach to problems	4.27 (.88)	4.38* (.92)	4.29 (1.08)	4.54 (1.17)	4.21 (1.25)	4.56 (.91)	3.85 (.91)	4.41* (.97)
Using a critical approach to analyzing data in my daily life	3.91 (1.11)	4.14* (.91)	4.39 (1.10)	4.46 (1.17)	4.17 (1.13)	4.22 (1.16)	3.93 (.87)	4.37 (1.11)

Note: Likert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6=a great deal)

*p < .05. Standard Deviations appear in parentheses below the means.

Table 5. Pre-Post Semester Results of Student Learning Motivation towards Course

	F11 pretest	F11 posttest	Sp 12 pretest	Sp 12 posttest	Sp13 pretest	Sp13 posttest	F13 pretest	F13 posttest
^a Pre Test: How much effort are you planning to put into this course?	5.26 (.62)		5.25 (.55)		5.33 (.82)		5.08 (1.02)	
^b Post Test: How much effort did you put into this course?		4.71** (.55)		4.75** (.45)		4.48** (.58)		4.37** (.61)

Pre-Post Semester Results of Student Learning Motivation towards Course

	Sp14 pretest	Sp14 posttest	F14 pretest	F14 posttest	Sp15 pretest	Sp15 posttest	F15 pretest	F15 posttest
^a Pre Test: How much effort are you planning to put into this course?	5.09 (.61)		5.36 (.56)		5.58 (.58)		5.07 (.62)	
^b Post Test: How much effort did you put into this course?		4.38** (.59)		4.50** (.92)		4.69** (.54)		4.56** (.51)

^aLikert Scale - 1=not applicable; 2=not at all; 3=just a little; 4=somewhat; 5=a lot; 6= a great deal

^bLikert Scale - 1=none; 2=a little; 3=some; 4=a fair amount; 5=a great deal; 9= not applicable

**p < .01. Standard Deviations appear in parentheses below the means.