Department of Curriculum & Instruction

College of Education
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The University of Texas
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EDUC 5395: Designing Classroom Research   **Fall 2013**

Instructor Information:

Instructor:	Dr. Mohan D. Pant	**Phone:**	(817) 272-9620
Office:	320B Science Hall	**Fax:**	(817) 272-2618
E-Mail:	mpant@uta.edu	**Mailbox:**	320B Science Hall

Office Hrs: By Appointment

Instructor Web Site: https://www.uta.edu/mentis/public/#profile/profile/view/id/10568/category/1

Course Web Site: https://elearn.uta.edu

Course Information:

Course Title: Designing Classroom Research

Course Number: EDUC 5395

Catalog Description:

In this course, students will have already collected their data and so will work with their instructor and coaches to interpret and make sense of the data that were collected. The students will develop a way to represent the data, such as in graphs, tables, or in text as they work to develop the final project. In addition to helping students with data analysis, this course will also revisit and extend some of the basic research topics introduced in EDUC 5394.

Course Prerequisites:

EDUC 5394: Understanding Classroom Research. This course (EDUC 5395) is to be taken immediately before EDUC 5397. Another requirement for this course is that you have already collected your data required for completing your research project. Without data you cannot complete this course.

Textbook(s) and Materials:

- Bartz, A. E. (1998). *Basic Statistical Concepts* (4th ed.). Upper Saddle River, NJ: Merrill-Pearson. ISBN: 0137371802

- Online Statistics Education: A Multimedia Course of Study (http://onlinestatbook.com/). Project Leader: David M. Lane, Rice University.

- IBM SPSS 22 Statistical Software (6-month rental) can be purchased and downloaded from the "On the Hub" (www.onthehub.com) website. The direct link for this version of software download is http://onthehub.com/download/curriculum-software/spss-statistics-22/

- Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational research: Competencies for analysis and application* (10th ed.). Upper Saddle River, NJ: Merrill-Pearson. ISBN-13:978-0-13-261317-0. (This is the same textbook that used for EDUC 5394, so you don't have to buy it again).

- *Publication manual of the American Psychological Association* (APA) (6th ed.). Washington, DC: Author. ISBN: 9781433805615. (This was a required book for EDUC 5394, so you don't have to buy it again).

- You will need to purchase an individual Tk20 account for a one-time only, non-refundable cost of $100. The account is good for seven years after the purchase date and may be renewed at your option. You may purchase your subscription online from a link provided on the system's web site or from the UT Arlington Bookstore as you would a textbook or other course materials. You have to upload your final assignment on Tk20 in order to receive credit. Read "Dean's Letter Announcing Tk20" on the website http://www.uta.edu/coehp/academics/tk20/ for further details.

Note: Textbook(s) and materials can be bought online (e.g., www.amazon.com or Barnes & Noble) or from the UTA Bookstore.

University Mission:

The mission of The University of Texas at Arlington is to pursue knowledge, truth and excellence in a student-centered academic community characterized by shared values, unity of purpose, diversity of opinion, mutual respect and social responsibility. The University is committed to lifelong learning through its academic and continuing education programs, to discovering new knowledge through research and to enhancing its position as a comprehensive educational institution with bachelor's, master's, doctoral and non-degree continuing education programs.

College Mission:

The mission of the College of Education and Health Professions is to promote a collaborative culture of excellence in research, teaching, and service. Furthermore, the College is committed to fostering critical, creative thinkers prepared to engage meaningfully in a dynamic society.

Conceptual Framework:

The work of the College of Education is grounded in constructivism as a theory of teaching and learning and is done in a spirit of expectation that all involved in the College of Education, whether candidate, faculty or administrator, will hold the following as important: **Excellence, Student-Centered Environments, Research, Collaboration, Diversity, Technology, Field Experiences and Life-Long Learning. Partners for the Future** serves as the theme of the College of Education and characterizes the understanding that it takes collaboration among many partners to ensure high-quality education for all.

Learning Outcomes:

Throughout this course students will:

1. Know how to use statistical software package SPSS in analyzing data related with their research.
2. Become familiar with various types of descriptive statistics (e.g., frequency, measures of central tendency, measures of dispersion, and measures of relationship) and know how to report these in their Results section.
3. Become familiar with the testing of hypotheses in the context of parametric statistical procedures such as one-sample, paired samples, and independent samples t-tests, one-way ANOVA, correlation, and regression (or, multiple regression) analyses.
4. Be knowledgeable of the concept of 95% confidence interval in the testing of hypotheses.
5. Become familiar with the testing of hypotheses in the context of nonparametric statistical procedures such as Chi-square test, Spearman's rank correlation, etc.
6. Be knowledgeable of the APA style for organizing and presenting the results of their data analyses for journal articles and research reports.
7. Be able to use a variety of styles and ways to present the results of qualitative research.
8. Be familiar with the characteristics of credible research findings.
9. Be familiar with using research based instructional techniques in their own classroom teaching.

Attendance and Drop Policy:

Attendance
As this is an online course, there is no attendance policy as that used in on-campus courses. However, it is expected that all students will access the learning platform as required and complete assignments and respond to the Discussion Board questions by the given due dates.

Drop Policy
If you decide to drop from the course for any reason, you have to follow the procedures set by the University of Texas at Arlington. It is your responsibility to follow these procedures correctly and within the given deadlines.

Other Important Policies:

- **APA Style:** The writing of Results section along with the formatting of Tables and Figures should strictly follow the style of the *Publication Manual of the American Psychological Association* (APA), (6th ed.).
- **Microsoft Word:** All work in this course, including the Results section to be uploaded to Tk20 must be typed using Microsoft Word. Assignments in other formats will not be accepted.
- **Blackboard:** Class communication will utilize the course website at the Blackboard, which can be accessed by logging at https://elearn.uta.edu
- **Late Work:** Late work will be graded with a 10% penalty for each day after the due date.
- **Resubmissions:** In this course it is important that your assignments are of high quality so that

you will be able to complete the capstone research project. Therefore, when your grade on an assignment falls below 70%, you will be allowed to resubmit your assignment under the following conditions:

- You have one week for the resubmission (i.e., if you are submitting the Week 2 Assignment, you have to submit it on or before the due date for Week 3 Assignment)
- You can resubmit an assignment only one time.
- Be sure to address all the comments/feedback written by the Instructor/AP coaches on your assignment before the resubmission. Assignments resubmitted without addressing these comments/feedback will not be graded the second time.
- The weighted average of the two grades will be computed as: 33% of the first grade + 67% of the second grade and will be recorded as the final grade on the resubmitted assignment.

Grade Assignment Thresholds:

Percent	Letter Grade
90 – 100	= A
80 – 89	= B
70 – 79	= C
60 – 69	= D
< 60	= F

Email Communication:

UTA e-mail will be considered the official means of communication between the university and students, effective August 22, 2005. Utilize your UTA e-mail for all communications. **You are responsible to regularly check your UTA email.**

American with Disabilities Act (ADA):

If you are a student who requires accommodations in compliance with the ADA, please consult with me at the beginning of the course. As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Your responsibility is to inform me of the disability at the beginning of the course and provide me with documentation authorizing the specific accommodation. Student services at UTA include the Office for Students with Disabilities (located in the lower level of the University Center), which is responsible for verifying and implementing accommodations to ensure equal opportunity in all programs and activities.

Student Support Services:

The University supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Academic Integrity:

All students enrolled in this course are expected to follow the UT Arlington's Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form at The University of Texas at Arlington. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. "Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2., Subdivision 3.22).

Assignments and Weightage:

Data Analysis Plan	10%
Data Entry/Coding	10%
Basic Statistical Procedures	10%
Tables and Figures	10%
Research Report Results Section	40%
Participation	20%
TOTAL	**100%**

Course Support

In the event that you don't understand something, I have created a Discussion Board forum entitled Question & Answer, which can be used for asking your questions to your fellow classmates. You can also email me or the AP Coach with questions. I have a request: Don't ask me a question that you haven't asked your fellow classmates online. This is not to create less work for me or the academic coach. The reason is that other students can often explain things in a better way than I can. Also, the best way to learn something is to explain it to someone else. I will be monitoring the Question & Answer forum to make sure you are not getting wrong information.

As you progress through this course, let your AP Coach know if you have any unanswered questions or concerns. I'll also be in contact with your AP Coach so that together we can ensure that you receive all the support you need to succeed in this course.

Due Date for Assignments

All assignments are due by 11:59 PM, Sunday of the assigned week except for your initial responses to Discussion Board questions.

Descriptions of Assignments

1. Data Analysis Plan (10%)

For this assignment, you will complete a Data Analysis Plan. For this assignment, you have to visit the Method section of your research project before writing this plan. This plan will help you determine which statistical analyses you should use to best answer your research questions. Your Data Analysis Plan will be unique and will depend on the data you have collected and the type of research study (quantitative or qualitative) you are conducting. Follow the directions and review the document Sample of Data Analysis Plan on the assignment page on the course website and complete your Data Analysis Plan according to your research type.

Due: by 11:59 PM of Sunday (Nov 10)

2. Data Entry/Coding (10%)

For this assignment, you will enter your data into SPSS for quantitative studies, or code data for qualitative studies; or do both for mixed-method studies.

For quantitative research:

- Data entry is one of the most important tasks for any researcher. Following guidelines of data entry is very important to make data free of errors. Retain the hard copies of your data so that you can go back to check for mistakes (if any).
- Follow guidelines in the "Guidelines of Data Entry/Coding" handout on the assignment page on the course website of the Blackboard to enter your data into SPSS. Save this data file as "Your First Name_Data.sav"
- On the Data Editor Window of SPSS, click on **File → Display Data File Information → Working File** and wait for the Output window to show File Information, which shows file information in tables. Copy these tables and paste them into a Microsoft Word file and save it as "Your First Name_File Info.docx". If the Working File from SPSS Output window is too wide, you can use Landscape orientation from Page Layout before saving the Word file. Attach your data file and this Word file in appropriate links given in the assignment page for Week 2.

For qualitative research:

- For guidelines on how to code data go to the following website: http://onlineqda.hud.ac.uk/Intro_QDA/how_what_to_code.php
- Submit copies of your coded data and memos.

Due: by 11:59 PM of Sunday (Nov 17)

3. Basic Statistical Procedures (10 %)

For this assignment you will execute a number of SPSS commands in order to perform statistical analyses for answering questions pertaining to a given data set. Examples will be provided in the assignment folder for Week 3.

Due: by 11:59 PM of Sunday (Nov 24)

4. Tables and Figures (10 %)

For this assignment you will run the statistics identified in your Data Analysis Plan, and submit your results in Tables and Figures. Tables are used for presenting a large quantity of information clearly and concisely. They typically display numerical data in columns and rows for easy classification and comparison. Tables do not duplicate text, but rather present new information. They should be interpretable without the text. A well-crafted table can assist readers immeasurably in understanding your results. The other major type of illustration you will want to consider is a figure. Anything that is not text or a table will fall into this category, including graphs, charts, photographs, and drawings. See the "APA Table Guidelines" handout and the "APA Figures Guidelines" handout in the assignment page of Week 4 and your APA Manual for more information and examples of how to display your data.

Due: by 11:59 PM of Sunday (Dec 1)

5. Research Report Results Section (40 %)

For this assignment you will present the results of your study by writing the Results section. The Results section is a detailed description of the results/findings of data analysis and an explanation of how these results/findings relate to the statement of purpose. The purpose of the Results section is to indicate what was observed and how measurements were made. The function of the Results section is to objectively present your key results, *without* interpretation, in an orderly and logical sequence using both illustrative materials (Tables and Figures) and text. Summaries of the statistical analyses may appear either in the text (usually parenthetically) or in the relevant Tables or Figures. The Results section should be organized around a series of Tables and/or Figures sequenced to present your key findings in a logical order. The text of the Results section follows this sequence and highlights the answers to the research questions you investigated. Important negative results should also be reported.

For more detailed instructions about how to construct your Results section see the assignment page on the course website.

This assignment must also be uploaded to TK20. Failure to upload to Tk20 will result into zero (0) grade in this assignment. Due: by 11:59 PM of Sunday (Dec 8)

6. Participation (20%)

Discussion Questions

Each week, several chapters from the textbook and from the OnlineStatBook will be assigned for you to read. The purpose of these chapters is to give you an overview of data analysis methods and to help you prepare your Results section. Reading related discussion prompts will be given each week for you to discuss with your online colleagues. Your response to the Discussion Questions will be due by **11:59 PM on Wednesday** of each week. You must respond to at least two classmates' responses by **11: 59 PM on Sunday** of the same week.

Drills

There will be a reading self-tests for each chapter under the heading of Drills. You will have the opportunity to take each quiz as often as you would like up to the due date until you have mastered the material. Your highest grade will be the grade that counts towards your grade. These reading self-tests will be due by **11:59 PM on Sunday** of each week.

Tentative Schedule for the Reading of Chapters and Assignments Due

Week	Reading of Chapters/Topics/Handouts	Assignments Due (All assignments are due by 11:59 PM on Sunday of the week unless otherwise stated)
Week 1	Course Welcome/Introduction Introduction to Statistics Some Thoughts on Measurement Frequency Distributions and Graphical Methods	**Assignment 1: Data Analysis Plan Due**
Week 2	Working with SPSS Measures of Central Tendency Measures of Variability The Normal Curve	**Assignment 2: Data Entry/Coding**
Week 3	Confidence Intervals Correlation Single Sample t-test Independent Samples t-test Paired Samples t-test	**Assignment 3: Basic Statistical Procedures**
Week 4	Power Effect Size One-Way ANOVA Computing Post Hoc Tests and Effects Two-Way ANOVA	**Assignment 4: Tables and Figures**
Week 5	Nonparametric Statistics Analysis of Qualitative Data Presenting the Results of Qualitative Data Analysis Chapters 14 and 18 from Gay et al. book Handout: Data Preparation, Analysis, and Reporting the Results	**Assignment 5: Research Report Results Section** **(This assignment must also be uploaded to TK20. Failure to do so will results into a zero grade on this assignment)**