PRE 715 Understanding Research Methods in Education
Line #: 76335
Class Time: 4:30-7:00PM, Wednesdays
Course Location: 150 J R Pearson Hall
Breakout Rooms: As Assigned
Instructor: Robert G. Harrington, Ph.D.
Office: 630 JR Pearson Hall; Office Hours: One Hour Before and After Class (Or By Appointment)
Phone: 785-864-9709 (O)
Email: rgharrin@ku.edu
FAX: 785-832-9532 (Emergency Only; By Permission of Instructor)
Graduate Teaching Assistants: Erik Fister (SP) and Hong Wook Suh (REMS)
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Qualifications of the Instructor: My name is Robert Harrington, Ph.D. I hold a Ph.D. from the University of Iowa. I have been on faculty at the University of Kansas since 1980. I am a full professor in the Department of Psychology and Research in Education. Prior to coming to KU in 1980 I have been a classroom teacher in the Boston area and have work as a psychologist in the schools in Iowa. My areas of research interest include preschool behavior and assessment, classroom management, and child and adolescent behavior problems. Interested in working on a Master’s research project or thesis or a doctoral dissertation with me, see me. Interested in some ideas for graduate research in education, see me.

Note: Please make sure that you are enrolled in this class and that you are enrolled in the correct section of the class. There are two sections. Check the line # 76335 for this section of the course with your enrollment information. It is your responsibility to enroll in the correct section of this course.

Student Accommodations: If you have a disability for which you have been formally identified and for which you have requested an accommodation through student assistance you are eligible for course modification as specified in your accommodation plan and as agreed upon with the instructor. You need to let me know immediately (today after class) if such an accommodation is requested.

Bb: Most of the course communication will be conducted via Blackboard. If you do not have a KU email address you may have difficulty accessing Bb. If you are not enrolled in the course or enrolled in the wrong section of the course you will not be able to access Bb. If you have difficulty accessing Bb you should contact the Instructional Development and Support Department located in Budig Hall, 785-864-2600. Any technical questions about Bb are best directed there as well.

Required Text: The required text is the following:
This text is available at the KU Bookstore (about 28 copies), at the Jayhawk Bookstore (4-5 copies), at the University Bookstore (about 30 copies) and may be available at beat the Bookstore downtown Lawrence. Some of you may get the book online at Amazon or otherwise, that is your choice but I think that you will find that the book is a necessity to pass this course.

**Cohort Groups:** There are over 60 students enrolled in this class. That is a very large number of students for this class. It is our goal to have some opportunity to have some meaningful in-class discussion about relevant topics but in order to achieve that goal we will need to break up into cohort groups (meaningful groupings) for discussion of chapter matter and discussions of journal critiques and research proposals. Each GTA will be responsible for approximately half of the class with regard to the management of and course activities with these cohorts.

**Graduate Teaching Assistants:** There are two graduate teaching assistants assigned to this course. They will be responsible for reviewing homework, discussion boards, and any questions that you may have about electronic quizzes. If you have a question about any of these, please contact the graduate student to whom you have been assigned. If the question cannot be answered by the GTA they will contact the instructor.

**Description of the Course:** PRE 715 is a graduate-level course in PRE that is open to all students in the SOE and is a part of the School of Education core course sequence. The course is designed to help masters, educational specialist, and doctoral program students to develop required research projects, theses, Kansas Performance Assessments, Action Research, and doctoral dissertations. The course is also designed to help students better read and interpret journal articles they read as a part of the graduate program. Finally, the course is useful in helping educators develop and interpret evaluation programs as part of their accountability requirements in conducting action research.
Purposes of PRE 715
1. To teach students how to conduct research themselves
   1a. Understand how to conceptualize everyday problems that you will face in your professional career and make decisions about how to best practice in your professional area using scientific inquiry.
   1b. Understand how to conceptualize a research question and match that question with the appropriate research design.
   1c. Understand the pros and cons of various forms of research in education.
   1d. Understand the legal and ethical issues involved in the responsible conduct of research.
2. To teach students how to be good consumers of research
   1a. Read published articles in your professional area of study with a critical eye.
   1b. Understand the components of a published research study and critique the design, results and conclusions.
   1c. Understand the basic statistical procedures and other analytical approaches used to report research results.
   1d. Understand the proper role of educational research in daily practice in your field

Goals and Objectives of PRE 715
Goal 1: Understanding the purpose of research
Objective 1: Students will be able to describe the purpose for educational research in an era of accountability
Objective 2: Students will be able to identify and develop research questions and hypotheses

Goal 2: Differentiating forms of research
Objective 1: Students will be able to differentiate various quantitative and qualitative forms of educational research
Objective 2: Students will understand the strengths and weaknesses of quantitative and qualitative research.

Goal 3: Identifying sources of research ideas
Objective 1: Students will be able to identify various sources of research ideas
Objective 2: Students will know the various forms of research including basic, applied, action, evaluative, and measurement.

Goal 4: Applying Forms of Quantitative Research
Objective 1: Students will know when to apply the various forms of descriptive research
Objective 2: Students will know when to apply the various form of correlation research
Objective 3: Students will know when to apply the various forms of quasi-experimental designs.
Objective 4: Students will know when to apply the various forms of experimental designs
Objective 5: Students will know when to apply the various forms of single subject design research
Goal 5: Applying forms of qualitative research
Objective 1: Student will know how to apply various forms of historical research
Objective 2: Students will know how to apply the various forms of case study research
Objective 3: Students will know how to apply the various forms of content research.

Goal 6: Understanding sampling methods
Objective 1: Students will be able to understand the various forms of quantitative research sampling methods.
Objective 2: Students will be able to understand the various forms of qualitative research sampling methods.

Goal 7: Selecting independent variables
Objective 1: Students will be able to operationally define independent variables
Objective 2: Students will understand what independent variables need control and how to do so.

Goal 8: Understanding the concepts of reliability
Objective 1: Students will understand the concept of reliability in all of its forms
Objective 2: Students will understand what forms of reliability are most important for a given piece of research.

Goal 9: Understanding the concept of validity
Objective 1: Students will understand the concept of validity in all of its forms.
Objective 2: Students will understand what forms of validity are most important for a given piece of research.

Goal 10: Selecting dependent variables
Objective 1: Students will be able to operationally define dependent variables
Objective 2: Students will understand factors affecting the reliability and validity of dependent variables.

Goal 11: Developing a relevant research literature review
Objective 1: Students will be able to identify relevant literatures for review for a given study.
Objective 2: Students will be able to utilize relevant hard copy and electronic literatures in Watson Library.

Goal 12: Analyzing research results
Objective 1: Students recognize what forms of descriptive statistics to use to best show research results.
Objective 2: Students will know what forms of basic inferential statistics to use to best show research results.
Goal 13: Describing limitations of a study.
Objective 1: Students will be able to describe the limitations of a given study.
Objective 2: Students will understand how the limitations of a given study affect the interpretation of research results.

Goal 14: Describing conclusions and future research
Objective 1: Students will be able to describe research results within the limits of the data derived.
Objective 2: Students will be able to describe the relevance of the research results to a given research area.
Objective 3: Students will be able to make suggestions for future research based upon research results.

Goal 15: Recognize resources in research
Objective 1: Students will recognize the utility of the APA Style Manual in research.
Objective 2: Students will recognize the relevance of Buros Mental Measurements Yearbook in the review of educational and psychological tests.
Objective 3: Students will recognize the relevance of the Standards for Educational and Psychological Tests in research.

Goal 16: Understanding human subjects’ rights in research
Objective 1: Students will be able to identify the rights of human subjects in research
Objective 2: Students will be able to understand important issues in confidentiality and client welfare.
Objective 3: Students will apply ethical and legal protections for human subjects to case studies in educational research.

Goal 17: Understanding Research in Published Journals
Objective 1: Students will know strategies for selecting journals for publication of research.
Objective 2: Students will know the major journals in their selected area of graduate study.
Objective 3: Students will know how to apply the concepts learned in PRE 715 to the critical review of research articles in their chosen area of study.

Goal 18: Measurement and threats to reliability and validity
Objective 1: Students will understand the concepts of reliability and various forms of measurement.
Objective 2: Students will understand the threats to internal and external validity of research.

Goal 19: Developing and critiquing a research proposal
Objective 1: Students will develop a proposal for a research study in their selected area of study and interest.
Objective 2: Students will be able to critically analyze their own proposed research study.
Class Policies
1. Show up to class on time.
2. Stay for the entire class.
3. Turn off all beeping devices including cell phones, pagers, beeping watches and beeping computers
4. Be polite
5. Cooperate in groups.
6. Please wait until one person has completed their thought before providing your thoughts on a topic
7. Please bring your text to each and every class. There is material in the book that we will be referring to in class regularly and some of the material in the book will be used for individual and group activities in class.
8. Please bring in your “nameplate’ to each class so that we can get to know each other’s names.
9. Please sign in for each class. It is your obligation to remember to sign in for attendance at each class. If you miss signing in, you get no credit for attendance at the class. No late signs-ins at next class.
10. Please sit in a different seat for each class period (i.e., not next to your neighbor every class).
11. Please sit toward the front of the room since I want all seats up front filled.

Class Procedures:
1. Turn in class assignments on time.
2. Type all work products.
3. Provide the instructor with a copy of all work products using one of the approved techniques: Bb or hard copy (with approval from the instructor)
4. Attend all classes
5. Participate in class discussions
6. Please come to class having completed the reading for that class period
7. Please place a cover page with your name on it on all homework assignments.
8. You have two opportunities to take a quiz but if you fail to take the quiz during the appointed time you miss the opportunity to take the quiz. You have the opportunity to drop one of your lowest quiz grades from all the quizzes that you will take.
9. Please do not ask for an excused absence. The rules on attendance are clear; no excused absences. You have one free absence and then you lose 5 points for each absence thereafter.
10. If you hand in homework late it is not accepted and will not count toward your grade for homework.
11. Discussion Board questions are posted after each class and are due completed by noon, Monday of the next week before class. GTAs will comment on your Discussion Boards weekly.
12 For purposes of in-class discussion students will be grouped into cohorts. When we have class discussion you will be asked to form your cohort groups in JRP classrooms that will be assigned to you.
13. Hand in your homework to the GTA who has been assigned to you in your cohort group.
14. If you should miss a class for any reason it is your responsibility to get any course notes, assignments and other materials you have missed. It is suggested that you contact a fellow student in the class.
15. Make sure that your name is on all assignments and that you place your journal critique and your research proposal in two pocket folders. These will be reviewed regularly and students will be expected to make corrections as prescribed.

16. Please Note Carefully: Just because you may do well on your class assignments and your class quizzes and attend all classes does not guarantee you an A in this course. These are formative assessments designed to help you learn the material. The summative assessments of the Journal Critique and the Research Proposal (worth a total of 50%) are the summative portions of the class and designed to help us understand about how well you understand educational research at the end of the course. No Re-dos on these two projects after the course is over so do your very best on these projects when you turn them in.

Instructional Strategies: The instructional methods used in this class will include instructor presentations, group and individual discussions, group activities, fun stuff in class, video, readings, and home assignments for practice of skills.

Evaluation of Student Performance:
Attendance: Students are expected to attend all classes. If you miss more than one class then there is a 5% penalty on your final grade for every class missed.

Individual and Group Participation in Class: 10%. Students are expected to participate in class discussion, ask appropriate questions about the material and contribute in a meaningful way to class discussions. (“Nice job” or “Great idea” does not count as meaningful participation).

Home Assignments: 15%. Students will be provided with a daily home assignment that corresponds to the readings for the next day. The assignment is due in signed hard copy the next week at class time. Some home assignments will include case studies about the ethical and legal conduct of research.

Nightly Quiz-15%: Each week there will be a quiz that you will take on-line on Bb that deals with topics that you have read about in Slavin. You must pass the quiz with at least an 80% to receive credit for the quiz. That means that you must answer 8 out of 10 questions correctly. You will have up to two chances to take each quiz with no penalty. All quizzes MUST be taken by you and you alone. No cheating. Cheating will punished with a grade of F in the course for all involved. There are no make-ups on quizzes. Your highest grade of the two chances to take the quiz will count. No credit for anything below a score of 8. No time limit when taking the quiz; quiz is open book. You will have until the next class meeting time to take the quiz. At that time, the quiz comes down from Bb and there is no make-up.
**Discussion Board-10%:** All discussion boards must be completed by Monday 12Noon prior to the next class meeting so that GTAs can review Dbs and provide commentary. Some class discussions will require you to comment on one or more Dbs of other students so please pay attention to the directions for each Db.

**Research Proposal 25%:** Write a research proposal in **YOUR** field according to the criteria provided.

**Journal Critique25%:** Write a journal critique from a journal in **YOUR** field according to the criteria provided.

**Conceptual Framework of the School of Education**
The primary mission of the School of Education is to prepare leaders in education, and human service fields.

As stated in the School Code:

Within the university the School of Education serves Kansas, the nation and the world by (1) preparing individuals to be leaders and practitioners in education and related human service fields, (2) expanding and deepening understanding of education as a fundamental human endeavor and (3) helping society define and respond to its educational responsibilities and challenges.

The components that frame this mission for our initial and advanced programs are Research and Best Practice, Content Knowledge and Professionalism. These interlocking themes build our Conceptual Framework.

**Kansas State Department of Education Requirements met by PRE 715, PROFESSIONAL REQUIREMENTS**

**Standard #8:** The educator understands and uses formal and informal assessment strategies to evaluate and ensure the continual intellectual, social and other aspects of personal development of all learners.

**Knowledge.**

1. The educator understands the characteristics, uses and advantage and limitations of different types of assessments (e.g., criterion-referenced and norm-referenced instruments, selected response and performance-based systems, observation systems, and assessments of student work) for evaluating how students learn, what they know and are able to do, and what kinds of experiences will support their further growth and development.

2. The educator knows how to select, construct, and use assessment strategies and instruments appropriate to the learning outcomes being evaluated and to other diagnostic purposes.
3. The educator knows the importance of aligning standards, goals, instruction, outcomes, and assessments.

Performance.
1. The educator appropriately uses a variety of formal and informal assessment techniques (e.g., observation, portfolios of student work, educator-made tests, performance tests, projects, students self-assessments, peer assessments, and standardized tests) to enhance her or his knowledge of all learners, evaluate all students’ progress and performances, and modify teaching and learning strategies.
2. The educator elicits and uses information about students’ experiences, learning behaviors, needs and progress from parents, other colleagues, and the students themselves.
3. The educator uses assessment strategies to involve learners in self-assessment activities, to help them become aware of their strengths and needs, and to encourage them to set personal goals for learning.
4. The educator evaluates the effect of class activities on both individuals and the class as a whole, collecting information through observation of classroom interaction, questioning, and analysis of student work.
5. The educator monitors his or her own teaching strategies and behavior in relation to student success, modifying plans, and instructional approaches.
6. The educator maintains useful records of student work and performance and communicates student progress knowledgeably and responsibly to students, parents, and other colleagues.
7. The educator knows how to align standards, goals, instruction, outcomes, and assessments.

Standard #9: The educator is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community), actively seeks out opportunities to grow professionally, and participates in the school improvement process (Kansas Quality Performance Accreditation, QPA).

Knowledge.
1. The educator uses a variety of self-assessment and problem-solving strategies for reflecting on his or her practice and the way that practice influences students’ growth and learning, and affects the complex interactions between students and educator.
2. The educator is aware of major areas of research on teaching and of sources available for professional learning.
3. The educator understands the school improvement process (QPA) in Kansas schools.

Performance.
1. The educator uses classroom observations, information about students, and research as sources for evaluating the outcomes of teaching and learning and as a basis for experimenting with, reflecting on and revising practice.
2. The educator draws upon professional colleagues within the school and other professional resources as supports for reflection, problem-solving and new ideas, actively sharing experiences and seeking and giving feedback.

3. The educator demonstrates the skills necessary to contribute to the school improvement process (QPA) in Kansas