Inequality in American education has been a constant issue, most notably discussed in the 1983 report *A Nation at Risk*, Jonathan Kozol’s book *Savage Inequalities* published in 1991, and lately in the *No Child Left Behind Act* signed into law in 2001. Inequality can be found in intelligence, in the learning process, and in the motivation to learn, all three being intertwined in complex procedures that as of now have not been fully explored.

Inequities in intelligence were part of many educational debates, once brought to the public by the bestseller publication of *The Bell Curve* by Richard Herrnstein and Charles Murray in 1994. The book discusses variations in intelligence in American society. It became one of the most controversial books in education through its chapters relating IQ and race. Misinterpretations of the book as well as sincere professional critiques started a fascinating discussion. Traditional definitions of primarily mathematical and linguistic abilities were questioned by such educators as Howard Gardner and his theory of Multiple Intelligences and Robert Sternberg and his Triarchic Model. A different facet of cognitive ability, nowadays called emotional intelligence, was introduced by a Dutch science fiction writer Carl Lans and eventually discussed in the English literature by Wayne Payne in 1985, but not popularized for another 10 years until the publication of the book *Emotional Intelligence* by Daniel Goleman.

Theories of learning underwent similar drastic changes in the last few years. Besides controversy about what should be learned, leading to revisions of state and
national standards often driven by technological innovations, the process of learning itself was reconsidered. The traditional application of pedagogy and andragogy, such as the transmission of knowledge from active teachers to passive learners, is no longer sufficient. Constructivist models allowing for life-long and self-directed learning are in sharp contrast to standardized tests administrated to school children, therefore, opening up a seemingly endless discussion polarized by opinions rather than scientific evidence.

Intelligence and the ability to learn have not sufficiently explained learning outcomes and hence, motivation becomes a factor with growing recognition. Traditional assumptions and stereotypes about at-risk students could not be supported and are opening another educational challenge. The digital divide adds to the gap of qualified versus unqualified teachers, new and wired campuses versus decrepit schools, or schools with high graduation rates versus schools with low graduation rates.

Overall Objectives for This KAM

This Knowledge Area Module (KAM) is designed to give you a broad understanding of theories of intelligence, learning, and motivation, particularly as they apply to the educational setting. Because of the wide range of professional practice among Walden University students, including early childhood educators, adult educators, as instructors, trainers, researchers, teachers, and administrators, both pedagogical and andragogical viewpoints and theories are applicable.

When you have completed this KAM, you will be able to:

1. Analyze and explain an issue related to intelligence, learning, or motivation or the interrelatedness of these concepts. You may select an issue of
particular professional relevance to you, using concepts and information drawn from the exciting body of theory.

2. Analyze, synthesize, and evaluate how recent scholarly research on your selected issue might influence your understanding of the learning process and/or educational practices on a daily basis.

3. Propose and/or critically assess a practical program that would enhance learning for all students for an equitable education, including gifted and at-risk children, youth, and/or adults.

Plan to accomplish objective #1 in the Breadth component, objective #2 in the Depth component, and objective #3 in the Application component of your KAM.

Challenges and Opportunities in this KAM

Your first challenge in this KAM will be to identify an aspect or combination of aspects of intelligence, learning, and motivation that are relevant to your professional work and your own professional interests and then to pursue your examination through theory and research to its practical implications and applications.

Since you are pursuing a doctoral degree in education, it is likely that your dissertation will involve one of the issues of intelligence, learning, and motivation. This KAM may well provide you with a larger context in which you may eventually place your dissertation research project. Because all dissertations undertaken at Walden University are intended to have significance for positive social change, you may look at inequities in education due to interpretations and misinterpretations as well as misrepresentations of intelligence, learning, and motivation to begin building a foundation for satisfying that eventual outcome.
The next challenge is to identify the theories that will help you understand more about intelligence, learning, and motivation and especially the interrelatedness of these concepts. There are many factors that are responsible for intelligence, learning, and/or motivation and often it is difficult to tell what factor influences which concept or vice versa. For example, it is difficult to observe if motivated students are succeeding academically or if good students are highly motivated because of their academic success. Then, of course, motivation is based on much more than academic success, which makes this issue rather complicated, especially given the notion of the diverse forms of intelligence. As in your previous KAMs, it is of outmost importance that you use critical thinking skills without being carried away with popular educational discoveries and fads, such as multiple intelligences. Multiple intelligences, just like most educational concepts, has plenty of proponents but also critics that offer constructive critiques on a new model or theory.

In the Depth component, you have the opportunity to focus your understanding on the examination of a particular aspect of intelligence, learning, and/or motivation in your own profession. Build upon your knowledge of a particular theory broadly explored in the Breadth component by critically examining how they influence your professional context and are addressed by different researchers in the field. You will write about these in a way that shows that you not only know and understand what current researchers have discovered, re-discovered, or rejected but also you are able to identify where their research is helpful, perceptive, and well grounded or not in current educational practice. In addition, you should point out what gaps remain in our understanding of this
phenomenon within the profession that still need to be addressed. This, after all, is a prerequisite skill for finding a dissertation topic.

In the Application component, you have the opportunity to respond to the issue you have been focusing on throughout this KAM. You may design a project of your own or assess the strengths and weakness of others’ projects in terms of what you have gathered from the study of the underlying theories and research already examined in your Breadth and Depth component of this KAM. Bring your critical and creative eye to this component.

Breadth Component

EDUC 8510 Theories of Intelligence, Learning, and Motivation (5 cr.)

The purpose of the Breadth component of this KAM is for you to develop theoretical foundations that relate to the learning process and associated phenomena, such as intelligence, cognition, and motivation. Learning is a fascinating phenomenon that seems to happen naturally but is influenced by many factors beyond our control even although as educators, we attempt to facilitate learning so that we can provide all children, regardless of gender, race, religion, ethnicity, exceptionality, and socio-economic status with an equitable education. What this equitable learning should look like is a never-ending discussion about ever-changing goals, objectives, and standards. Therefore, topics to be explored in this KAM Breadth component could investigate (but are not limited to): critical thinking, learning styles, alternative teaching models including the infusion of technology into the learning process, brain-based learning, standardized testing, alternative assessment, mainstreaming, exceptional children including gifted
education, at-risk students, moral education, and intelligence, including psychometric measures of intelligence, multiple intelligences, and emotional intelligence).

Listed below are some questions of the kinds of issues you might want to explore in the Breadth component of this KAM. They are intended to be suggestive only, but will give you an idea of the kind of topics your paper should address.

1. How has the expanded definition of intelligence affected schooling and education for all children, youth, and/or adults?
2. In what way could a modern theory of intelligence ensure an equitable education?
3. How is the psychometric measure of intelligence, such as the concept of an “IQ” score, biased, racist, useful for teachers, or obsolete?
4. How does research on brain functions and brain-based learning transform how we teach in schools or train outside of schools?
5. How are artificial intelligence theories useful in the classroom or training situation?
6. What are the effects of multilingual education on the development of one’s intelligence?
7. In developing an eclectic approach to teaching or training, what components of the major learning theories, behavioral, cognitive-developmental, constructivist, and humanistic would you incorporate and in which way?
8. How will virtual gaming in education improve learning?
9. What, if any, advances in motivational theory in the business or sports sector are applicable to the educational setting?

10. What motivational effects does learning with technology have on children, youth, or adults in or outside of the classroom?

11. Are successful students learning because of their existing motivation or does their success in learning increase their motivation?

12. How are the concepts intelligence, learning, and motivation interrelated?

Demonstration of Competence

Using the learning resources chosen, write a scholarly paper that demonstrates an understanding of the theories of intelligence, cognition, and motivation as well as their interrelatedness. The emphasis of the paper is not on summarizing the content of various theories but on a critical assessment of them including comparisons, contrasts, evaluations, and syntheses of different theories, assumptions, concepts, predictions, ideas, and elements encountered during the theoretical literature review. The expected length of the paper for the Breadth component is approximately 30 double-spaced pages, plus references. The Breadth component paper is considered equivalent to 5-quarter credit hours of graduate work.

Learning Resources

At this point, we do not have a suggested reading list as we offered for your previous KAMs. But what you have learned so far holds true for this KAM as well. Keep your eyes open for culturally diverse contributions to the study of intelligence, learning, and motivation. Do not hesitate to select a controversial issue. Be sure to read original
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sources since interpretations are often purposeful misinterpretation. Intelligence, learning, and motivation are concepts that are discussed all around the world and hence, you are encouraged to explore diverse viewpoints far beyond the boundaries of the US education system.

Depth Component

EDUC 8520 Educators as Facilitators of Learning for Diverse Populations (5 cr.)

The purpose of the Depth component of this KAM is to help you analyze, synthesize, and evaluate the learning process and/or educational practices in diverse groups and situations as indicated in recent research. Your task in this component is to select a particular issue of intelligence, learning, and/or motivation that has salience in the current time period, is of interest to you, and intersects in intriguing and important ways with your professional context. In the Depth component you should consider the impact of the phenomena that you examined in the Breadth on some aspects of your profession. This Depth component should provide an opportunity for thorough understanding of issues that support optimal learning, while acknowledging the realities that challenge both educators and learners.

Depending on the focus of the Breadth component, topics that you might consider could include (but are not limited to):

1. Multiple intelligences applied in the classroom or in training.
2. Emotional intelligence as a topic and tool in adult education.
3. Alternative assessment as a learning tool for equal education.
4. The affect of intelligence tests (or NCLB mandated tests) on student motivation.
6. Testing job applicants’ intelligence and/or wisdom.
7. Increasing problem-solving skills in company training.
8. The impact of technology on intelligence, cognition, and learning.
9. Learning in the multicultural and/or multilingual classroom.
10. Lifelong learning.
12. Pedagogical strategies that help learners master both basic and critical thinking abilities.
13. The impact of bilingualism on cognitive development.
15. Applications of brain-based learning in the classroom.
17. Students’ motivation in inclusive classrooms.
18. Cooperative learning as a tool to increase motivation and learning.
20. The positive and negative effects of praise as motivational tool.

**Demonstration of Competence**

1. Compile an annotated bibliography that includes a minimum of 15 recent refereed or peer-reviewed research journal articles or dissertations (published within the past 5 years or older articles if they are a particularly good fit) related to the particular focus of intelligence, learning, and motivation you
identified for this assignment, including literature that places the issues within the historical development or contemporary context of your profession. For each source included on your list, prepare a critical analysis of 1 to 1½ pages in length. This annotated bibliography must be arranged in alphabetical order.

2. Write a 25-30 page double-spaced typed scholarly paper describing, analyzing and explaining the selected issue of theories of intelligence, learning, and motivation and relating it to developments in your profession. In this paper, be sure to include evidence of higher order thinking (comparison and contrast, analysis, and evaluation).

The total Depth component assignment is equivalent to 5-quarter credit hours of graduate work.

Learning Resources

Because the Depth component is individualized, it is difficult to be specific about reading recommendations. Edited books, dissertations, and journal articles can be used, although current research is more likely to be found in journal articles. You are encouraged to review a wide range of sources for this assignment but focus particularly on recent dissertations and journal articles.

Application Component

EDUC 8530 Professional Practice Using Learning Theories

In the Application component of this KAM, your focus should turn to your own professional context. Here you may examine and critique a particular role of the profession in engaging in or responding to the specific issue you have been examining throughout this KAM or propose and justify a response to that phenomenon.
In order for the Application component to be the most productive learning experience possible, it is useful to draw on learning from the Breadth and Depth components of this KAM. You are encouraged to review the annotated bibliography compiled as part of the Depth component. In addition to these, you are urged to reflect on your own professional practice and firsthand experiences with intelligence, learning, and motivation. Design a project that effectively applies theory explored in the Breadth and Depth component of your KAM in an authentic context.

Since you are moving closer to the writing of your dissertation and probably completed the research course sequence, you might practice your theoretical skills by conducting a small research project. Remember to secure Institutional Review Board approval before engaging in any research involving human subjects.

Some suggestions of Application projects you might consider:

1. Prepare a report that reflects your understanding of how your professional setting, or another of interest to you, has engaged in providing an equal education by advancing the development of intelligence and/or increasing learning and motivation for all students. You could engage in a number of personal interviews with key leaders as a means of developing a complete understanding of the selected topic.

2. Describe and evaluate a program that is intentionally dedicated to addressing an issue related to intelligence, learning, and/or motivation that is operated by a selected institution or organization. Your evaluation could address the following: (a) a description of the program, including details such as its goals, target audience, stakeholders, and delivery and implementation strategies; (b) a
detailed description of the evaluation goals, target population/sample, design (qualitative, quantitative, mixed), data collection methods, and data analysis procedures; or (c) a summary of the major results of the evaluation, including conclusions, implications, and recommendations, especially as you assess them in the light of the theories and research studied in the earlier components of this KAM.

3. Develop a project based on a theory or theories that you explored in the Breath and Depth component of this KAM. Consider including the following: (a) a needs assessment that explains the intelligence, learning, or motivation issue you are addressing and why your project would move students towards an equal education; (b) a detailed description of the program, including its goals, delivery, and implementation strategies; (c) a thorough description of how you will evaluate the degree of success in implementing the program, including the evaluation goals, data collection methods, and data analysis procedures; or (d) if the project is implemented, a summary of major results of the evaluation, including conclusions, implications, and recommendations.

4. Evaluate or conduct action research on an existing curriculum or program. Develop a set of criteria to evaluate the appropriateness and efficacy of a curriculum or program based on a theory or theories that you explored in the Breadth and Depth component of this KAM.

5. Prepare a staff development or training manual or design a workshop focusing on specific strategies for practice that you deduced from your Breadth and Depth component of this KAM.

7. Examine the impact of a bilingual classroom on intelligence and learning.

8. Develop a program for children to explore their own intelligences and strengths.

9. Observe and describe how the No Child Left Behind legislation attempts to close the gap in learning of children from different socio-economic groups.

10. Develop a resource booklet for parents of school-age children with suggestions on how to motivate their children without putting stress on them.

Demonstration of Competence

The Application component of this KAM gives you the opportunity to put the theories and research pertaining intelligence, learning, and motivation into practice. Think in terms of developing a project that addresses change in your setting. Your final demonstration should include both the project and reflective commentary on it, where you show how it is informed by the theories and research studied in the Breadth and Depth components of this KAM. The Application component is considered equivalent to 4-quarter credit hours of graduate work.

Learning Resources

The resources you will use in this component are very specific to your particular project. If a theory or research paper is the foundation of the project, be sure to reference it.