CLUSTER • 1

THE BIG PICTURE: EDUCATIONAL PSYCHOLOGY AND RESEARCH IN HIGHER EDUCATION

CLUSTER OVERVIEW

One of the greatest abilities an undergraduate student can acquire through higher education is learning how to be an effective learner. Everyone learns, certainly, but not everyone is effective in the learning process. Effective learners are adaptive and critical thinkers, who know how to seek, retain, and synthesize information. They are engaged, self-regulated, creative, and organized in the learning process. They define priorities, establish practical goals, and structure their time in ways that align with their personal vision of education. They cultivate learning skills that can be transferred from one situation to the next, and this adaptiveness gives them a professional edge over less effective learners.

In short, an effective learner is the person every professor wants to teach and every employer wants to hire. This is the sort of person each and every student should aim to become. Where is the magic elixir? What does it take to become an effective learner? Hard work, self-control, open-mindedness, curiosity, and a desire to learn how to improve oneself are a good place to start. That is to say, there is no magic elixir. There is no well-defined path. However, there is an incredible amount of knowledge and research to achieve effective learning skills for those who choose to pursue it.

This may sound overwhelming to some learners. A more practical person will consider this: effective learners tend to earn higher grades, graduate more quickly, and possess skills that today's employers actively seek in recruits. The adaptiveness and efficiency of effective learners symbolizes an acquired skill that can lead to greater productivity, work satisfaction, and

K11736_Vaughan_Cluster_1.indd 1 8/17/16 1:17 PM

lifelong career earnings. In short, effective learning skills serve as the foundation for personal and professional prosperity.

Educational institutions have understood this principle for some time. The liberal arts and general education requirements maintained by most institutions of higher education today reflect this understanding. Educational psychologists who bridge the gap between psychology and education practices, recognize the value of lifelong learning skills. Grounded largely on the principles and research of educational psychology, this book illuminates the path for undergraduate students towards these effective learning skills. Each cluster provides an overview of theories, concepts, and practices that can be leveraged to enhance learning. The first cluster has two modules delivering an overview of higher education concepts and research practices that are relevant for undergraduate studies.

The first module provides a basic description of educational psychology, the history, and purpose of modern research universities and liberal arts traditions, the merits of transferrable learning skills, and a review of general educational requirements in higher education. The second module explores components of information literacy and scholarship for undergraduate students, including methods to identify and assess the credibility of scholarly works, how to develop a research question and thesis statement, methods for finding and evaluating information sources for research papers, as well as how to appropriately cite source materials and avoid plagiarism. In summary, the first cluster provides a foundation for understanding the role of higher education in effective learning, the scholarly climate in which learning occurs, and other technical skills students need to develop along the way.

CLUSTER OBJECTIVES:

- Describe the function of educational psychology in examining processes of learning for individual learners.
- Describe the history and guiding purposes of modern research universities, liberal arts traditions, and general education requirements.
- Outline the various benefits of acquiring transferrable learning skills, engaging in high-impact educational practices, and becoming a self-regulated learner.
- Explain the relationship between information literacy and scholarship.
- Outline the purpose and characteristics of scholarship in terms of scholarly works, original source materials, general scholarship types, and specific criteria for evaluating scholarly works.
- Describe how to prepare a research paper in terms of choosing topics, developing thesis statements, finding and evaluating sources, and using citations to avoid plagiarism.

K11736_Vaughan_Cluster_1.indd 2 8/17/16 1:17 PM

MODULE 1.1

EDUCATIONAL PSYCHOLOGY AND THE MODERN RESEARCH UNIVERSITY

CLUSTER 1 OBJECTIVES COVERED IN THIS MODULE

- ☐ **OBJECTIVE:** Describe the function of educational psychology in examining processes of learning for individual learners.
- ☐ **OBJECTIVE:** Describe the history and guiding purposes of modern research universities, liberal arts traditions, and general education requirements.
- ☐ **OBJECTIVE:** Outline the various benefits of acquiring transferrable learning skills, engaging in high-impact educational practices, and becoming a self-regulated learner.

WHAT IS EDUCATIONAL PSYCHOLOGY?

The field of educational psychology focuses on the scientific study of teaching and learning. Drawing ideas from the broader field of psychology and applying them in educational settings, educational psychologists seek new and innovative ways to improve teaching methods and student learning outcomes. This includes the exploration of individual differences in a wide range of areas like motivation, self-efficacy, information processing, self-regulation, memory, and cognitive development. It also involves the development of new instructional design approaches, assessment methods, and pedagogical principles that can be used to enhance learning in classroom environments.

Going beyond applied methods in school settings, educational psychology also explores learning across the lifespan. As people spend their entire lives learning new things and adapting to new situations, understanding how the learning process works at different stages and situations is extremely important. The basic process of learning is thus a central feature of educational psychology research and practices from early childhood to adolescence, and onward, throughout the entire lifespan. Illuminating the cognitive,

K11736_Vaughan_Cluster_1.indd 3 8/17/16 1:17 PM

emotional, and social processes of learning at various life stages also serves to inform the way in which a society designs its educational systems, public services, and policy initiatives (Myers, 2010).

Through scientific research and the development of theories and applied methods, educational psychologists seek to improve both teaching practices and learning methods in a systematic and empirically-supported way. There is tremendous scope in this endeavor, as the study of educational psychology consists of the individual learner, the process of learning, the learning environment, the ideal objectives to be learned, and the methods used to teach those learnings. However, these various considerations are constrained for the purposes of this book. Moving forward, the focus will be on the process of learning for individual learners.

OUR FOCUS IS ON LEARNERS, NOT TEACHERS

Most educational psychology textbooks are written for teachers-in-training. They are generally designed to guide college students towards becoming effective teachers themselves. This makes sense when considering the importance of learning theories and the powerful influence of educational psychology research on instructional practices today. If a society wishes to build optimal learning environments that serve the best interests of students, then it must equip its teachers with the knowledge and skills necessary to generate positive learning outcomes. Achieving this task obviously requires training new teachers in how to teach well in accordance with the most recent evidence-based methods.

However, evidence suggests that the very best teachers are those who not only understand theories, skills and techniques, but who embody characteristics of the so-called "self-regulated learner" (Paris & Winograd, 2003). In other words, self-regulated teachers have learned how to be effective learners themselves, often evidenced in terms of their own academic performances (Greenwald, Hedges, & Laine, 1996) as well as their general tendencies towards reflectiveness and adaptiveness (Zeichner & Liston, 2013). The importance of such abilities stretch beyond the realm of teaching, as research consistently shows that professional competence and career success are closely connected to traits such as self-awareness, adaptiveness, impulse control, concentration, and a readiness to learn (Goleman, 2006). The entirety of this book explains how effective, self-regulated learning improves the outcomes of students and professionals in a broad spectrum of majors and careers.

Learning does not end with graduation. Whatever the future career, the ability to learn and the adaptability to new challenges serve as the foundation for a successful career. Hence, the focus of this book is on learners rather than teachers. By gaining insight into significant theories, skills, and techniques, research has shown to improve academic outcomes; it becomes possible to improve one's lifelong learning practices. Becoming an effective learner is much more than the use of study plans and memorization techniques. It

K11736_Vaughan_Cluster_1.indd 4 8/17/16 1:17 PM

requires the investment of time and effort to discover new learning processes, to examine one's own standard approaches to learning, and to experiment with alternative learning methods.

FOUNDATIONS OF THE MODERN RESEARCH UNIVERSITY

The 21st century has ushered considerable changes to our collective understanding of scientific, economic, socio-political, and technological endeavors. We live in a globalized world. The transformation has occurred swiftly with immense impact and the complex web of factors involved is extremely difficult to untangle and decipher. Once rigid geopolitical borders and ideological boundaries have become more accessible, and as a result, ideas flow freely creating an interconnected global community that has transformed not only commerce, politics, and science, but the various arts and humanities as well.

Pioneering this global movement are the modern research universities. These institutions have long been founded on the principles of borderless knowledge, freedom of thought, and unbiased scientific inquiry. They also represent the provision of intellectual and scientific services for the public welfare. The pursuit of knowledge, insight, growth, and positive social change serve as the foundation for the vast majority of academic activities. Research universities contribute to scientific and technological development, socio-political and business analysis, and various educational, ethical, humanistic, and artistic endeavors. Globalization heavily relies upon the ideas and breakthroughs made within the walls of research universities on a daily basis.

Yet, a majority still have a limited understanding as to how university-based research and practice is contributing to the betterment of society. With so many technological advancements made by—and publicly promoted from within—the private business sector, the role of university-based research is often underreported and misunderstood. Furthermore, the purposeful evolution of modern colleges and universities is a mystery to most people and students, who attend these institutions.

To clarify the role of higher education in the world today, the following section will provide the major differences between basic and applied research conducted at modern universities, the historical purposes of higher education in relation to the changing needs of the workforce, and the invaluable role higher education currently plays in helping students develop transferrable learning skills.

CONDUCTING BASIC AND APPLIED RESEARCH

Modern universities stand at the epicenter of medical, technological, and socio-cultural knowledge advancements in the world today. Although private companies and industries once contributed to a large portion of research efforts, the broad shift of major industries away from core manufacturing efforts to refined technology and financial management systems

K11736_Vaughan_Cluster_1.indd 5 8/17/16 1:17 PM