

2022

THE EFFECT OF DISTRICT LEVEL STRATEGIC PLANNING ON COLLEGE READINESS AS MEASURED BY ACT ACHIEVEMENT

Carrie Ballinger

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THE EFFECT OF DISTRICT LEVEL STRATEGIC PLANNING ON COLLEGE READINESS
AS MEASURED BY ACT ACHIEVEMENT

By: Carrie Ballinger

A DISSERTATION

Presented to the Faculty of

The College of Education and Human Services

Department of Educational Studies, Leadership, and Counseling

at Murray State University

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

P-20 & Community Leadership

Specialization: pK-12

Under the supervision of Dr. Randal Wilson, Associate Professor

Murray, Kentucky

December 2022

Abstract

The purpose of this study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. A survey was given to determine which school districts had implemented a strategic plan during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020-time frame. For each district included in the study, the researcher retrieved data from Kentucky Department of Education on (a) mean composite ACT scores and (b) the percentage of students meeting ACT benchmarks in English, Mathematics, and Reading for the following school years: 2015-2016 and 2020-2021. Descriptive statistics were computed for ACT performance in each subset. To determine if ACT performance varied significantly among the six subgroups, the researcher used one-way analysis of variance (ANOVA). The research revealed a lack of evidence supporting the use of strategic planning as a means for improving student outcomes as measured by ACT performance. The research exposed a decline between the baseline (2015-2016) academic year and the post-strategic planning implementation year (2020-2021) for all subgroups of the study. Discussion connects this study to existing research and literature, but also notes the impact of the COVID 19 pandemic on the overall student achievement decline during the time frame of the study.

Keywords: Strategic planning, college and career readiness, ACT

Acknowledgement Page

I dedicate this work to my family who without their support, patience and encouragement I would not have succeeded in this educational journey. Thank you for always believing in me and pushing me to be my best. I pray that my work ethic and drive to learn more and to better myself has been a positive influence on your lives and has led you to always believe in your abilities.

In addition, I owe my love for education and learning to my paternal grandmother, Dr. Edith Williams, and to my maternal grandfather, Mr. Thomas Land. Though both grandparents encouraged, inspired, and instilled in me a passion for learning, their influences and backgrounds were quite different. My grandmother was a single mother of two sons who earned a Ph.D. in English Literature at the University of Cincinnati at a time when most women of her generation did not hold a high school diploma. She was brilliant. She taught me to push limits and to always believe in myself.

My grandfather, on the other hand, quit school in the third grade to help raise his siblings and to work with his father as a tenant farmer in Eastern Kentucky. He too was brilliant. He wanted more than anything in his life to be educated and valued education above all else. He taught me to never take my education for granted and often told me that no one could “take my studies” from me. I miss each of these important people daily and wish they could be here to see me attain this pinnacle of educational achievement.

Lastly, I must thank my mom and my dad for their constant love and support. Thank you for making me feel like I could be and do anything that I dreamed. As a young girl when my dream was to play first base for the Cincinnati Reds, I was never discouraged but told to keep

practicing. That support and unconditional encouragement has molded me into the person, mother, and educator that I am today.

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Chapter I: Introduction

Context

The historical goal of P-12 education has been to prepare students for high school graduation, but that closed trajectory is no longer enough. The current educational goal of American society as stated by the Achieve, Inc (2008) is that “all students should graduate from high school prepared for the demands of postsecondary education, meaningful careers and effective citizenship” (p.1). Due to a historical disconnect between high school graduation and enrollment in a postsecondary institution this goal has not easily been obtained. According to Kealey et al. (2015), the road from early learning to doctoral work is filled with speed bumps, turnarounds, construction zones, and dead ends. The transition from secondary school to post-secondary school is tumultuous for students as remedial coursework in English and/or mathematics is required of 40% to 60% of first-time student enrollees in a four-year higher education institution (Jacimovic 2022).

College freshmen are struggling to find success in the college environment. Achieve, Inc. (2008), states “students across the country meet state standards, pass state tests only to be placed into remedial courses once they enroll in college or find they are unqualified for training programs and skilled employment in the modern workplace” (p.1). This is a significant problem facing students across the nation and one that is being addressed through district level strategic planning. Strategic planning creates a seamless system of support for students in preschool through high school graduation with the goal of improving college readiness for all students.

Historically, educational entities have operated in silos with each division defining success within their own boundaries (Kirst 2005). Reese (as cited in St. John et al, 2018) states that public high schools and higher education entities evolved independently with little alignment

between the two educational systems. St. John et al. (2018) claims that a lack of cohesiveness between systems is not a new problem explaining that John Dewey in 1899 addressed creating a unified K-16 system of education. Throughout the 20th century multiple efforts to address the misalignment between P-12 and higher education have been made with little success. Kealey et al. (2015) maintains that “to ensure a smooth transition from secondary to postsecondary education, administrators from both groups must come together to build roads of transition for all” (p.9). The inclusion of P-20 partnerships as part of the strategic planning process is one method for addressing the gap between K-12 schools and postsecondary institutions (Kirst 2005). Kealey et al. (2015) contends that in order to improve college readiness high school coursework must be aligned to college entrance requirements, that diagnostic tests should be utilized at the high school level to identify academic deficiencies, and that college placement exam preparation materials should be readily available for high school students.

Key to the discussion of misalignment is the stark differences between the P-12 educational environment and the postsecondary educational environment. According to the Organization for Economic Cooperation and Development (2012), combining equity and quality within a P-12 education system that provides rigorous opportunities for all students defines a quality education system. The P-12 public education system has a responsibility to educate all students despite learning difficulties, success rate, societal barriers, truancy, or work ethic. The National Academies of Sciences, Engineering, and Medicine (NASEM) (2018) states that institutions that educate adults:

use prior academic performance and ability to select those they think will succeed and thrive in the academic environment they provide; they do not have responsibility for the

success of people whom they do not accept or who do not succeed in their environments (p.211).

The authors maintain that if a college student does not thrive in the college environment, the institution is under no obligation to continue to educate the student. This startling reality makes the role of strategic planning with a clear focus on college readiness increasingly essential and time sensitive. Sullivan and Richardson (2011) state that the urgent need for improving college readiness elevates strategic planning to high levels of importance. The ACT company (2021) recognizes the essential role of strategic planning, arguing that the key to improving college readiness is paving a path for students to follow while setting goals and benchmarks to measure their success.

The Organization for Economic Cooperation and Development (2012) upholds the importance of college readiness stating:

Educational failure also imposes high costs on society. Poorly educated people limit economies' capacity to produce, grow and innovate. School failure damages social cohesion and mobility and imposes additional costs on public budgets to deal with the consequences – higher spending on public health and social support and greater criminality, among others (p.3).

The overall success of American society largely depends upon students graduating from high school prepared for post-secondary education. According to Leithwood (2012), The Appalachian Region Commission has identified poor quality education with an increase in the high school dropout rate, an increase in poverty rate, low lifetime earnings, an increase in substance abuse, an increase in health conditions, and an increase in the rate of incarceration. Today's students find the navigation of the current educational terrain increasingly difficult with only one third of

students being deemed college ready upon graduation from high school (Finn et al., 2017). This navigation requires a clear map outlining student options for postsecondary education which can only be achieved through the strategic planning process (Kealey et al., 2015).

Knowing the importance of college readiness on student success, the Kentucky Council on Postsecondary Education (CPE) has established ACT Benchmarks scores as a means for establishing a student's readiness for college. With a strategic goal of increasing student readiness for postsecondary education, the Council on Postsecondary Readiness (2022) in collaboration with the Kentucky Department of Education (KDE) and Kentucky's postsecondary institutions has established college readiness indicators and benchmarks scores. According to the Kentucky School Report Card (2021), students scoring at or above the Benchmark score established by CPE for the ACT may enroll in college credit bearing coursework and are deemed academically prepared.

Statement of the Problem

Students are entering college ill prepared for the rigorous academic work required of a college level student. This lack of college readiness can result in remedial course enrollment, graduation delays, and an increase in the number of students dropping out of college. The high rate of students entering college requiring academic remediation points to the fact that there is a misalignment between the P-12 educational sector and higher education. Public school districts are faced with increasing levels of accountability for closing performance gaps and ensuring college readiness for all students. Districts across Kentucky are utilizing the strategic planning process to address the college readiness dilemma that is facing the current education system. P-12 school districts and higher education entities are at a crossroads in terms of collaboration and partnership initiatives. The need for a P-20 strategic plan that creates a seamless educational

system that begins with an early childhood initiative and ends upon a student's graduation from college and entrance into the workforce is clearly established.

Purpose of the Study

The purpose of this study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. A survey will be given to public school district superintendents in the state of Kentucky, who provide informed consent to participate in the study, to determine which school districts have gone through the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020-time frame. Additionally, the survey will determine if the school districts that did complete the strategic planning process during the 2016-2017, 2017-2018, 2018-2019, or the 2019-2020-time frame did so with a specific focus on College and Career Readiness.

For every district included in the study, the researcher will retrieve data from KDE on **(a)** mean composite ACT scores and **(b)** the percentage of students meeting ACT benchmarks in English, Mathematics, and Reading for the following school years: 2015-2016 and 2020-2021. The 2015-2016 data will serve as the baseline for both Group A, Group B, and Group C as no school district would have completed the strategic planning process at that point.

Research Questions

Questions that guided the research:

Question 1. Is there a statistically significant difference in composite ACT scores between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Question 2. Is there a statistically significant difference in percentage of students meeting the ACT Reading Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Question 3. Is there a statistically significant difference in percentage of students meeting the ACT English Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Question 4. Is there a statistically significant difference in percentage of students meeting the ACT Mathematics Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Mathematics Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Mathematics Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Significance of the Study

The review of the current literature found a lack of evidence and research demonstrating the impact that district level strategic planning has on college readiness. Specifically, there is a lack of literature relating strategic planning to student performance regarding ACT composite scores and ACT benchmark scores in Reading, English, and Mathematics. Thus, the study is significant and contributes to the research on the overall impact of district level strategic planning on student outcomes.

Students are entering into the post-secondary arena unprepared for the rigors of college coursework. It is vital to both P-12 educational entities and to post-secondary entities that a seamless system of education is developed, monitored, and adjusted to meet the ever-changing needs of today's students. Demonstrating the impact of a P-20 strategic plan in improving the rate of college readiness is significant for the future of all students. This study could be replicated utilizing the survey resources and available ACT data.

Definitions

Strategic Planning: A process used by leaders to prioritize initiatives, align resources, strengthen operations, establish and monitor goals, identify actions plans and success criteria, continuously assess the direction of the organization, and adjust planning measures in response to changes in the environment (Balanced Scorecard Institute, nd).

Strengths, Weakness, Opportunities, Threats Analysis (SWOT): A process by which an organization analyzes the strengths, weaknesses, opportunities, and threats within their organization to develop and implement a plan for meeting strategic goals.

ACT: A college entrance exam administered by the ACT, Inc. that measures the college readiness of high school students. The ACT provides common data points to determine college readiness of all students applying to college.

ACT Benchmark: The minimum ACT score that is required for a student to “have a high probability of success” in a college level weight bearing English Composition, Social Science, College Algebra, or Biology course (The ACT Research and Policy Department (2013, p.1).

College Readiness: The level of preparation needed for a student to be successful in a credit bearing course at the college level. Within this definition, success is defined as completing the course at a level that enables the student to be prepared for the subsequent required course (Southern Regional Education Board, 2015).

Summary

At a vital time in the evolution of educational practices within the United States of America, it is crucial to the future of the American workforce that strong collaboration and partnerships between the P-12 educational system and higher education system be forged. The current reality paints a picture of a disjointed system of educational entities operating in silos

while students struggle to transition between educational sectors. A readiness gap exists for students between high school graduation and college entry and the need for college and universities to provide remedial courses is at an all-time high. In an effort to combat this problem, school districts are creating strategic plans that bring stakeholders together to design an educational pathway that provides students with a seamless support system for navigating the instructional pathway beginning in preschool and concluding upon entering the workforce after college graduation.

The intentional planning that is required of school districts and key partners to ensure that students experience seamless transitions on their educational journey from preschool through their postsecondary experience and onto employment is difficult at best. Leadership is at the core of long-range strategic planning which opens avenues for communication, collaboration, and partnership between P-12 school leaders, business leaders, community leaders, and leaders within the higher education realm. Educational leadership is the foundation for the creation of seamless pathways for students to achieve educational success from preschool to adulthood and sets the stage for meaningful relationships and partnerships necessary for meeting the goal of creating a seamless P-20 learning environment for students.

This quantitative research study serves to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process and the ACT scores of students who were enrolled in Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. At the time of this study, there is an absence of research on the impact that strategic planning has on student achievement measures and specifically on college readiness measures.

Chapter II: Literature Review

Origins of Strategic Planning

The origins of strategic planning can be traced back to the 5th century BC with the strategy work of Chinese military strategist Sun Tzu. According to Zuzak (2011), *The Art of War* was written approximately 2500 years ago and is revered as the greatest war strategy book in print. The timeless book outlines the critical process of strategic decision-making and has had a great impact on leaders across the globe. Shih and Hwang (2018) argue that the greatness of the classic is a result of the inclusion of an all-inclusive method of strategy that maneuvers political and economic components while including competition aligned with team building skills. Hlavaty and Lizbetin (2021) state that *The Art of War* is a “strategic methodology for defending one's own survival in a highly competitive environment” (p.3). Hlavaty and Lizbetin (2021) continue by explaining that *The Art of War* provides direction on the analysis of the current state of forces, development of organizational modeling, simulations of expected procedures and cost calculations. With the inclusion of these aspects of long-range planning, the *Art of War* stands as a precursor to the current day strategic planning process adopted by both the business and educational community.

Definition of Strategic Planning

Researchers contend that there is not a precise definition of strategic planning (Beach and Lindahl 2014). According to Yapandi (2018) strategic planning in regard to education is the design of constructive change for the future of a school. Kaufman and Herman (1991) define strategic planning as identifying results based upon an ideal vision to be achieved at the individual, organizational, and societal levels. Mallon (2019) maintains that strategic planning is a process in which an organization outlines how it will differentiate itself from others in order to

achieve its mission. While Uganda Network of AIDS Service Organization (UNASO) (2003) defines strategic planning as the process of determining the achievement goals of a school and determining the processes and resources that will be utilized to achieve the identified goals.

An inclusive definition of strategic planning is provided by Balanced Scorecard Institute (n.d.) as a process used by leaders to prioritize initiatives, align resources, strengthen operations, establish and monitor goals, identify actions plans and success criteria, continuously assess the direction of the organization, and adjust planning measures in response to changes in the environment. Beach and Lindahl (2014) argue that strategic planning determines “what an organization is, who it serves, what it does, and why it does it, with a focus on the future” (p.11). In order for strategic planning to be deemed as effective the organization must not only set goals, establish action plans for meeting those goals, but must also determine criteria for measuring success.

Benefits of Strategic Planning

The strategic planning process as viewed by Kabeyi (2019) offers significant benefits to organizations including remaining relevant and being responsive in a rapidly changing world. According to Beach and Lindahl (2014) “strategic planning helps leaders understand the present and think about the future, recognizing the signals of pending change. It improves vertical and horizontal communication and encourages innovation and change” (p.11). A growing body of research both in the private and public sectors indicate that the strategic planning produces modest to outstanding benefits for participating organizations. Strategic planning is beneficial in that it allows organizations to determine the what, why, and how of their system (Bryson et al., 2017).

In regard to K-12 school systems, positive benefits from strategic planning are seen as a result of focusing stakeholders on systems thinking thereby creating an understanding of the overall organization and how it should operate across all areas (J. Evans, personal communication, March 2021). According to Frese (1996), The Aurora, CO Public School District study of change effectiveness highlights the strategic planning process along with shared decision making for sustainable change within their organization. Driscoll (2020) explains that a strategic plan is crucial to all school systems; guiding how a district will meet its goals while remaining focused on the established mission and vision. The positive effects of strategic planning as highlighted by Driscoll are as follows:

- Inspire and unite the school community
- Helps stakeholders focus on the big picture
- Helps school districts keep pace in an ever-changing environment

In addition to the research supporting strategic planning as a forward-thinking tool, other research supports strategic planning as a means to influence the culture of an organization. Weidman (2017) argues using the anthropological theories of culture theme theory and cultural schema theory that the repetition of the documented phrases and passages in a strategic plan can guide and shape future behavior. According to Wiedman (2017) “even though written plans with mission, goals, and objectives may not be read until they are updated again, the cultural themes, orally restated in committee meetings, informal conversations, job descriptions, etc., become a dynamic force of culturally accepted behavior” (p.2). Mallon (2019) contends that the repeating of the themes outlined in a strategic plan in both formal and informal settings can change behavior within an organization and impact the organizational culture. In a case study involving

the health care system, Bryne et al. (2019) found that the language used in strategy had a definitive impact on culture.

Hurdles of Strategic Planning

According to the cited research the benefits of strategic planning for organizations are numerous. Inversely, the literature documents negative elements attributed to the strategic planning process as well. Mallon (2019) states that strategic plans have been criticized for their “fluff” arguing that strategic plans are a “restatement of the obvious with a sprinkling of buzz words that masquerade as expertise.” According to Rumelt (2011) a related criticism is that a strategic plan is a document that collects dust on a shelf; simply a long list of things to do mislabeled as objectives and goals.

Mankins and Steele (2021) state that strategic planning is an inefficient process and deems the work as obsolete stating that despite all of the time and energy devoted to strategic planning the process actually negatively impacts sound decision making. The author cites the timing aspect of the annual approval of a strategic plan and the planning structure completed by department heads as barriers to the decision-making process. Jozef Hlavatý and Lizbetin (2021) claim that key managers within any organization must have the authority to make strategic decisions quickly and that situations require prompt and decisive decision making; citing the classic strategic planning process as a barrier to this requirement.

Price (2012) explains that the United States military has a vast history of strategic planning but argues despite the value found in strategic planning the time consuming and cumbersome nature of the process is contradictory to current leadership demands. Sanders (1998) states that the majority of strategic planning models are complicated, time consuming, confusing and rigid; being disjointed from the situations in which they are created to address.

Schlechty (nd) supports this argument stating that strategic planning results in a plan based on compliance and problems of the past. Zagotta and Robinson (2002) claim that value of the strategic planning process can only be recognized through execution, arguing that the process has no value if the plan is not put into action. The authors argue that the frantically changing pace of the workspace often results in a strategic plan being obsolete prior to the execution stage being implemented.

Strategic Planning Components and Steps

Strategic planning models are the roadmaps that keep organizations focused on meeting established goals, with the journey being the safest when the roadmap is the clearest (J. Grey personal communication, March 2022). A strategic plan is the creation of a clear roadmap that defines organizational success. As strategic planning is valued as a prime planning structure, it becomes necessary to study it in detail to better understand the process. Hinton (2012) explains that strategic plans have multiple layers, and each layer serves a specific purpose, however the development of each layer is a linear process serving to ensure that each component is aligned with each other.

Preplanning

Preplanning is a set of activities to be completed in preparation of beginning the strategic planning process. This includes setting the tone for a change initiative and inviting stakeholders to engage in the process. According to Cook (2001) establishing a culture that is receptive to the strategic planning process is the first step to ensuring the successful development and implementation of a transformational plan. Change is often resisted because it challenges the traditional way that work has been accomplished within an organization. Kotter (2012) explains that in order for members of an organization to engage in a change initiative, a sense of urgency

must be created as people will often resist cooperating in a process they do not deem worthy of their time or commitment.

Leading a school improvement initiative by being a change agent is the primary role of the school superintendent (Hayes 2001). However, for school improvement to occur through a strategic planning process all stakeholders must be involved. The inclusion of all members of an organization in the strategic planning process through stakeholder input is key to establishing a culture of change (Cook 2001). To be an effective change agent, the superintendent must value, listen, and include teachers, principals, and key stakeholders of the organization in the strategic process (Edwards 2007).

The superintendent plays the primary role in the strategic planning process, but all parties within the school district including students, teachers, administrators, parents, classified staff, and community leaders must play an active role (Norton et al.,1996). The pre planning process involves determining the key stakeholders of an organization or those members of the organization who without their involvement the organization would fail to exist and involving these key individuals in the change process (Tanner 2021). Kotter (2012) explains that a team focused on directing change must be made up of participants that embody four key characteristics. These noted characteristics are “position power, expertise, credibility, and leadership,” (p.59). Cook (2007) argues that a successful strategic planning team must be built strategically yet be operational, must be representative of the entire school community, must be feasible in size, and must include people who communicate well, who collaborate well, and are willing to make decisions for the good of the organization. Preplanning is a decisive opportunity to set the stage for establishing desired outcomes and selecting key participants of the strategic planning process.

Vision

According to Kuka et al. (2018), vision is an idealization of the organization in a future state or an outline of how an organization strives to look and operate. The vision of an organization is established through the strategic planning process involving multiple stakeholders working together to create a shared vision. Bryson and Alston (2005) share the ABCs of establishing vision through strategic planning stating that “A is figuring out where you are, B is figuring out where you want to go, and C is figuring out how to get there” (p.6). Posner and Kouzes (2017) argue that vision cannot be established by a leader alone but must be a shared vision of the organization serving to recruit followers and sustain motivation for making the shared vision a reality. The authors explain that establishing a vision for an organization “gives focus to human energy” (p. 115) and enables stakeholders to envision a clear picture of the future. A shared vision sets the work in motion, provides direction, and establishes purpose for the organization all while incorporating the hopes, aspirations, and dreams of stakeholders, states Posner and Kouzes (2017).

Strategic planning is not a worthwhile endeavor unless it is preceded by strategic vision, argues Naisbitt (nd). According to Kotter (2012) vision is a picture of the future that serves three distinct purposes: clarifies change to simplify decision making, motivates employees to take actionable steps in a planned direction, and coordinates individuals providing a shared direction leading to efficiency in practice. Maxwell (2014) states that “Hope is not a strategy. Hope fits with vision, but we must have a strategy and a process to make our vision become a reality.”

Mission

According to the American Society of Clinical Oncology (2009), the development of a mission statement or a statement outlining the basic purpose of any organization is an important

first step to establishing a solid foundation for the entire strategic planning process. Hinton (2012) maintains that the mission statement of the organization is the foundation of the entire strategic plan as all other components of the plan must be in support of the mission. The author defines an organizational mission as a succinct statement outlining why an organization exists and what it strives to achieve; further defined as “a basic statement of purpose” (p. 10) Bartkus et al. (2000) offer a narrow definition of the mission statement stating it is simply a tool for communication outlining an institution’s objective and setting a goal for the future.

The strategic planning process must begin with establishing a mission statement for the organization as this statement clarifies purpose, establishes direction, maintains focus, and is the foundation for the establishment of organizational goals and action plans (Lee 2021). Lee continues by explaining that the mission statement of an organization can serve to provide focus and to divert energy to an established purpose leading to consistency in decision making. Bryson (2004) states that the “development of the mission statement should grow out of lengthy dialogue about the organization’s identity, its abiding purpose, its desired responses to key stakeholders, its philosophy and core value, and its ethical standards” (p.38).

Core Beliefs

Core values or beliefs are organizational pillars of behavior that showcase an organization's guiding principles, foundational beliefs, and ethical code, claims Lampton and Halidou (2020). Core beliefs signify what an organization stands for and outlines their ethical code of conduct serving to drive decision making and guide behavior of both leaders and employees. Core values and beliefs should not be words on a page but should embody the beliefs of the stakeholders in an actionable format; actions that demonstrate ethical beliefs (Lampton 2020).

Silva (2021) warns that it is important that the creation of core beliefs is not an exercise in list making but that the generated beliefs are individualized, hold meaning to the stakeholders of the organization, and serve as a template for all decision making. Kouzes and Posner (2017) explain that the creation of shared values offers the opportunity to align organizational action to beliefs and provides stakeholders reasons for caring and improving work attitudes and productivity. The authors conclude that shared values or beliefs must be established through a process of discussion and debate resulting in clarity and commitment to guiding principles.

Strengths, Weakness, Opportunities, and Threats Analysis (SWOT)

Mohamed Abdel-Basset et al. (2018) state that through a strategic process, organizations must take into consideration all factors that impact their success or failure; arguing that the most popular decision-making tool for analyzing internal and external factors that impact an organization is the SWOT analysis. The swot analysis is a process by which an organization analyzes the strengths, weaknesses, opportunities, and threats to develop and implement a plan for meeting strategic goals. Mostafa Ali Benzaghta et al. (2021) explains that the four aspects of the SWOT analysis represent internal or external factors stating that an organization's strengths are internal factors that lead to an organization meeting its goals while weaknesses represent internal factors that prevent success within the organization. The author cites opportunities as external factors that not only help an organization meet its goals but also represent opportunities for expansion further stating that a threat is an external factor that prevents goal accomplishment. The goal of utilizing a SWOT analysis according to Mohammed Abdel- Bassett et al. (2018) is for organizations to capitalize on their strengths, eliminate weaknesses, seek opportunities, and to steer away from threats.

Mayada M. Basel and Osman (2020) links SWOT analysis completion back to the vision of the organization stating that the SWOT analysis allows for an evaluation between the current state of affairs in an organization and the future as established by the vision. The critical analysis of an organization that is completed through the SWOT analysis is necessary to complete prior to the creation of organizational objectives and strategies (Cook 2001). Espinosa (2009) warns of the importance of participant honesty during the SWOT analysis phase of the strategic plan as the data collected regarding both internal and external factors plays a key role in strategy development. In addition, Espinosa (2009) states that the findings of the SWOT analysis must be shared openly with all stakeholders to promote transparency and accountability in the strategy development phase of strategic planning. Key to this stage of the process is understanding that this analysis is not geared towards correcting any facet of the organization but an opportunity to identify what is going well and what needs to be improved or expanded (Cook 2001).

Objectives

A commitment to measurable goals that are linked specifically to the organization's mission defines an organization's statement of objectives (Cook 2001). The author explains that objectives are simply what the organization must accomplish in order to achieve the established mission noting that the objectives must be "measurable, demonstrable, and observable" (p.72). Strategic objectives and/or goals are the discoveries derived from the SWOT analysis that the organization wants to achieve, states Lerner (1999) noting the necessity of utilizing smart goals in this step of the process. SMART goals as defined by Lerner (1999) are organizational goals that are specific, measurable, agreed upon, realistic, and timely.

Addressing the issues identified in the SWOT analysis and identifying what an organization needs to accomplish to achieve its mission is the purpose of organizational goals or

objectives (Kriemadis and Theakou 2016). In order for performance improvements to occur, organizations can not just hope for changes (Kotter 2012). Organizations must use data to plan for wins, organize objectives and goals, and implement for success based on a logical view of vision implementation. The mission, vision, and SWOT analysis of an organization is the basis for all future planning phases including setting organizational objectives or goals. Zechlin (2008) states that strategic objectives consist of a condensed version of the SWOT analysis to be shared across the organization prior to being established as binding organizational goals.

Strategies

According to Cook (2001) the most important phase of the strategic planning process is establishing strategies, stating that established strategies are the part of the plan that actually makes it “strategic” (p.72). The creation of specific plans associated with a timeline for implementation outlining the rationale of vision achievement defines strategy (Kotter 2012). Cook (2001) maintains that objectives demonstrate an organization’s commitment to expend resources based on the strategies to achieve the organization’s objectives. The word strategy is commonly used in association with military operations meaning a “preplanned commitment of resources towards an objective” (p.72-73). The work of a leader revolves around change initiatives, states Kouzes and Posner (2017) but for change to be transformational it must be centered around shared goals and strategies based on an organization’s mission and vision.

The course of action for change demonstrated through strategy work is built upon an organization’s mission, vision, SWOT analysis and strategic objectives (Zechlin 2008). Clarifying the direction that an organization is going eliminates difficulty in decision making. Strategies that are aligned with the vision and mission of an organization paint a road map for change thereby establishing the urgency for change, the need for specific goals to implement

change, and the actions or plans necessary for accomplishing the set goals of the organization (Kotter 2012). Kotter continues by stating that clarifying the direction of an organization through clear vision and strategy work eliminates difficulty in decision making. Full engagement in strategic planning requires an organization to make decisions and demonstrate actions that establish “what the institution is, what it does and why it does it” (p.28) according to Bryson (2004). Does this align with our strategic plan? - becomes the simple question organizations must ask at all stages of the decision-making process.

Strategic Planning and the P-20 Initiative

As a result of a thriving global economy and shifts in the labor market the postsecondary landscape is changing, forcing a renewed focus on college readiness (Mishkind 2014). One response to this changing landscape is the development of a succinct pipeline of educational services that includes an aligned program from birth through the K-12 arena continuing through the post-secondary experience, an initiative commonly referred to as P-20 as explained by the Education Commission of the States (2008). Gigliotti (2012) explains that it is critical to postsecondary institutions to have students enter the college environment with the necessary prerequisite skills to compete on a global playing field. Creating a P-20 system with a focus on college readiness is a tremendous challenge as Foley et al. (2013) explain, stating that improving college readiness involves the development of standards and assessments, success criteria, a data analysis process, and the creation of data driven strategic plans, policies, and practices for school districts.

Pitre (2001) argues that P-20 education focuses on early childhood education, student transitions within the K-12 institution, vertical alignment of school curriculum, continuity of high school curriculum to college curriculum, teacher preparation and professional development,

as well as college attendance, attainment of a degree, and ultimately workplace success. In totality, P-20 is a vertically integrated and aligned system of educating students from preschool through adulthood with the terminal goal of creating well educated, successful employees who are contributing members of American society. Foley et al. (2013) claims that to improve college readiness all school systems must include students, families, community members, educational stakeholders, and higher education partners to develop a strategic plan that establishes a community vision for college readiness and aligns resources with practices and policies to support the initiative.

Strategic Planning and P-20 Innovation

The Professional Standards for Educational Leaders (2015) as developed by The National Policy Board for Educational Administration states that educational leaders encounter a range of educational challenges including being subjected to higher levels of accountability regarding student achievement while undergoing large cuts to school funding. The challenges that educational leaders face is extensive, but these challenges present great opportunities for innovation. The Oregon Education Investment Board (2014) calls on school districts to innovate by utilizing strategic planning at the local, regional, and state level to address gaps in achievement and college readiness. The following areas of innovation have been highlighted by the Oregon Education Investment Board (2014, p. 132) as keys to increasing college readiness within a P-20 framework:

- Communication Planning
- Student, family, and community awareness and engagement
- Cross-sector vertical and horizontal educational alignment
- High school reform and 12th grade redesign

- Grade 11-14 model
- Postsecondary placement and developmental education reform
- Assessment
- Data collection and analysis

The opportunity to inspire, create, and pursue new approaches for improving student learning, creating seamless vertical transitions, and preparing students for postsecondary and workforce success is at hand. The Annenberg Institute for School Reform at Brown University, as noted by McAlister and Mevs (2012), recognizes the need for innovation beginning at the policy level to align standards, curriculum and assessments at the high school level to college readiness standards and indicators at the postsecondary level.

Standard 4 of the Professional Standards for Educational Leaders (2015) calls on effective leaders to develop and support intellectually rigorous and coherent systems of curriculum, instruction, and assessment to promote each student's academic success and well-being. This standard embodies the important role that leadership plays in the educational process and the importance of embracing innovative practices to implement a coherent educational system to prepare students for college readiness and workforce success. Pitre (2011) maintains that strategic planning aimed at improving the student transition from high school to college is the core of P-20 education; requiring leadership commitment to achieve success. However, educators realize that "change in education is easy to propose, hard to implement, and extraordinarily difficult to sustain. Sustainable improvement depends on successful leadership" (Hargreaves and Fink 2006, p.1). Despite the difficulty of the task, education leaders are charged with creating and inspiring change to promote student achievement and success at all levels of educational attainment.

While developmental differences are present across the span of P-20, true innovation occurs when solutions to educational problems involve multiple stakeholders, allowing for long range strategic planning to occur. Alleman and Holly (2013) contend that the development of strategic career and college readiness plans that engage a wide range of community stakeholder support to prepare students for college is an effective step for improving college readiness. Through the utilization of the strategic planning process, districts can capitalize on innovation and creativity by creating forward thinking goals that are aligned with the mission, vision, and beliefs of the district's stakeholders and key post-secondary partners. According to Herman (1993), A SWOT analysis can be a critical step in the strategic planning process and allows districts the opportunity to deeply analyze each layer of the educational institution identifying strengths, weaknesses, opportunities, and threats thus allowing for innovation in creating seamless transitions for students and developing students who are prepared for career success.

Strategic Planning and P-20 Implementation

The implementation of an integrated system of education that begins in preschool and extends through the postsecondary experience and onto the workplace requires significant planning, coordination, and collaboration. Rippner (2015) claims the following:

greater percentages of American students are participating in all three sectors of education: early learning, K-12, and higher education. This requires the sectors—at national, state, and local levels—to coordinate policies to ensure students move efficiently and effectively through the entire educational system (p.170).

Berliner (1997) extends this argument citing the importance of educational partnerships arguing that successful partnerships must focus on establishing a shared sense of direction, adapting to fit

the needs of the partnership, encouraging interaction, supporting collaboration, communicating effectively, investing time, building relationships, and frequently assessing progress.

In order to plan strategically for student success, P-20 Councils have been established in many states to address shortfalls in college readiness and ultimately college completion through partnerships between P-12 stakeholders and higher education institutions. According to Rippner (2015), P-20 councils are a popular tool for merging and encouraging K-12 leaders and higher education leaders to collaborate on educational issues on a state level. Rippner (2015) goes on to argue that the effectiveness of P-20 councils varies with some being conducive to meaningful collaborations and the development of strategic plans while others serve as meaningless meetings with very little productivity. According to American Diploma Project (ADP) (2017), states are making great progress towards implementing policy to support college and career readiness but there are still barriers in place regarding accountability measures for assuring that policy is enacted and more students actually graduate college and career ready and that the need for remediation is diminished.

Luskin (2020) explains that the overarching goal of the P-20 educational approach is to create seamless pathways of opportunity for students by developing clear plans between school districts and postsecondary institutions through communication and collaboration that strengthen their skills in core academic areas while also preparing them for post-secondary academic success. According to the Hawaii P-20 Strategic Framework, the established mission is to “strengthen the education pipeline from early education through postsecondary education and training with data-informed decision making, advocacy, policy coordination, and stakeholder engagement all in support of student achievement” (p.1). This system requires intentional strategic planning and the development of key partnerships with postsecondary universities and

workforce representatives. In 2021, Kentucky Governor, Andy Beshear, initiated the Commonwealth Education Continuum as a means to address the transition process for Kentucky students with a clear focus on student success at all educational levels with an end goal of improving college readiness.

According to information shared by the Kentucky Council for Postsecondary Education (2021), The Commonwealth Education Continuum as designed by Kentucky's Governor is chaired by Kentucky's Education and Workforce Development Cabinet Secretary, the Council on Postsecondary Education President, and by Kentucky's Commissioner of Education. The group dedicated to state level strategic planning to ensure student success will focus on the following goals as stated in an article on the Council for Postsecondary Education website (2021):

The group will focus on providing equitable access to opportunities, more support for students and families at every level. The initiative will also seek to strengthen career readiness and success as students enter the workforce, as well as improve awareness of postsecondary opportunities. Lastly, the group will look at teacher quality, and how the state's education workforce supports student success at every level and for every demographic. (p.1).

Amanda Ellis, associate vice president for P-20 policy and programs for Kentucky's Council on Postsecondary Education, stated in an interview (January 7, 2021) that the first goal of the group will be to focus on a strategic plan addressing the transition between high school and higher education with teacher quality, successful transitions, and access and awareness being the top priorities for study.

Strategic Planning and P-20 Visionary Leadership

Andero (2000) claims that the school superintendent is the most powerful voice in the development of curriculum and as such serves as a liaison between state, federal, and local educational entities. Serving as a liaison in a collaborative fashion is vital to the role of the superintendent as Maxwell (2010) explains that connecting increases one's influence in all situations and is crucial for leaders. The Southern Region Education Board (SREB) (2010) explains that the superintendent and other district leaders must create and share a vision to the entire community regarding the district's work in preparing students for the postsecondary educational experience. Affirming the district's commitment to the vision through the creation of a district level strategic plan that includes actionable steps is of key importance (SREB 2010). This involves being deeply engaged in curriculum policy and requires the superintendent to lead the local school board, the faculty and staff, the students, and the community in building a strong educational system (Edwards 2007).

Credibility is the foundation of all leadership (Kouzes and Posner 2017). The SREB (2010) reports that the number one district strategy for authentically supporting principals in effective school improvement is to "establish a clear focus and a strategic framework of core beliefs, effective practice, and goals for improving student achievement" (p.11). The SREB report explains that setting high expectations does not suffice for strategic planning as success lies in the creation of a credible, clearly communicated strategic plan that guides school leaders in an improvement process with a focus on college readiness. Maxwell (2010) maintains that, "It's not enough to just work hard. It's not enough to do a great job. To be successful, you need to learn how to really communicate with others" (p.2).

At the heart of the P-20 educational initiative lies secondary and post-secondary educational leaders collaborating to strategically plan and develop a common vision to improve post-secondary success. According to Kouzes and Posner (2017, p.24) leaders that encourage and communicate effectively with followers in pursuit of a common vision must engage in the following Five Practices of Exemplary Leadership: “Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart.” (Table 1). Within these five practices, Kouzes and Posner (2017) recognize that change is the work of leaders and cite ten commitments of exemplary leadership that serve as a model for the long-term development and growth of an organization.

Table 1

Five Practices of Exemplary Leadership

Five Practices of Exemplary Leadership	Ten Commitments of Exemplary Leadership
Model the Way	<ol style="list-style-type: none"> 1. Clarify values by finding your voice and affirming shared values 2. Set the example by aligning actions with shared values
Inspire a Shared Vision	<ol style="list-style-type: none"> 3. Envision the future by imagining exciting and enabling possibilities 4. Enlist others in a common vision by appealing to shared aspirations
Challenge the Process	<ol style="list-style-type: none"> 5. Search for opportunities by seizing the initiative and looking outward for innovative ways to improve 6. Experiment and take risks by consistently generating small wins and learning from experience
Enable Others to Act	<ol style="list-style-type: none"> 7. Foster Collaboration by building trust and facilitating relationships. 8. Strengthen others by increasing self-

	determination and developing competence.
Encourage the Heart	9. Recognize contributions by showing appreciation for individual excellence 10. Celebrate the values and victories by creating a spirit of community.

James M. Kouzes and Barry Posner *The Leadership Challenge* (p.24)

Leadership according to Kotter (2012) is a three-pronged approach; establishing direction, aligning people, and motivating and inspiring people to act. Kotter's change guide creates a vision for the organization, secures followers of the vision, and ensures that the obstacles do not prevent the vision from being met. Creating a common vision is at the core of long-range strategic planning and opens avenues for communication, collaboration, and partnership between P-12 leaders and leaders within the higher education realm. The Hebrew prophet, Hosea recognized the importance of establishing a vision stating in Proverbs, "where there is no vision, the people perish." Kouzes and Posner (2011) claim that visionary leadership is a relationship between those that lead and those that follow, and that initiatives, strategies, and planning are all fruitless unless the underlying relationship between the shareholders is understood and appreciated.

Kentucky's College Readiness Definition

As evidenced by a large percentage of college freshmen required to take remedial classes upon entering college, students are beginning their college career with a lack of readiness skills to complete credit bearing coursework according to Allen and Radunzel (2017). Defining college readiness and formulating a plan to better prepare students for postsecondary education is at a critical point in the educational history of the United States. According to ACT College and Career Readiness data (2021) of the 1.3 million graduating students who took the ACT only 25%

of them met all four ACT College Readiness Benchmarks, 38% did not meet any of the established benchmarks, and the average ACT Composite score was the lowest average in decades at 20.3. These statistics point to a breakdown in the definition of what it means to be college ready, a breakdown in strategy for achieving college readiness, and a breakdown in the execution of the strategy. According to the SREB (2015), Kentucky defines College Readiness as the level of preparation needed for a student to be successful in credit bearing courses at the college level. Within this definition, success is defined as completing the course at a level that enables the student to be prepared for the subsequent required course.

According to the Kentucky Department of Education (KDE) (2022) the Postsecondary Readiness component of the Kentucky Assessment and Accountability System was developed in 2015 after the passage of the federal Every Student Succeeds Act (ESSA). Postsecondary readiness as defined by the KDE (2022) is the achievement of knowledge, skills, and dispositions needed for a student to find success at the next level of educational attainment. The Postsecondary Readiness Indicator (Table 2) is one of six components of the Kentucky Accountability System. The identified indicators signify a student's readiness to enter into the postsecondary arena and are defined by the KDE (2021) as follow

Table 2

Postsecondary Readiness Indicators

Academic Readiness Indicators

Meets benchmarks determined by Council on Postsecondary Education (CPE) on a college admissions exam or college placement examination; OR

Earns a score of 3+ on exams in 2 Advanced Placement courses; OR

Earns a score of 5+ on 2 exams for International Baccalaureate courses; OR

Earns a score of “e” or higher on 2 Cambridge Advanced International examinations; OR

Completes a combination of academic readiness indicators listed above.

ACT Holistic Framework

In recognition of the changes that are taking place in education and within the workplace, ACT (2015) has created a holistic framework to guide the perspective of college readiness in the United States. This framework is a navigational tool guiding educational pathways from kindergarten to career with a focus on transitional readiness. Based on 50 years of research demonstrating the value of nonacademic factors in predicting college success, the *Beyond Academics: A Holistic Framework for Enhancing Education and Workplace* (2015) is divided into four categories of focus: core academic skills, cross cutting capabilities, behavioral skills, and education and career navigation. The current assessment of college readiness is primarily focused on the academic aspect of education but according to the ACT (2020) evidence indicates that college achievement is dependent on more than academics alone. Conley (2007) agrees with this assessment stating that college readiness is a concept made up of many variables, some related and others not related to the school environment. This holistic framework provides a broader vision of defining college readiness for students transitioning to the postsecondary environment.

Core Academic Skills

The ACT, in the Holistic Framework: Core Academic Skills ebook, (2020) identifies core academic skills as the foundational cognitive skills needed for a student to successfully progress through rigors of the college level curriculum. Conley (2007) states that college readiness is built on knowledge of content and cognitive strategies. Citing the essential need for proficiency in three academic categories, the ACT (2020) lists english/language arts, math, and science as the key areas of focus. The core academic categories are further broken down within the ACT Holistic Framework: Core Academic Skills ebook (2020) to define skill sets to be developed and refined beginning in kindergarten and ending upon successful completion of a postsecondary degree. The development of cognitive skills within content areas is key to fostering thinking skills (Bransford et al. 2000).

The skills set as presented in the ACT Holistic Framework: Core Academic Skills ACT ebook (2020, p.6) are as follows:

English language arts: Reading complex text, writing effectively, and speaking and listening.

Mathematics: Reading and transforming numeric and symbolic quantities, including applications to data sets, patterns, space, and change.

Science: Using key scientific ideas and principles to understand and design investigations, to represent and interpret data, and to construct and evaluate models.”

Cross Cutting Capabilities

Cognitive skills that reach beyond the core academic standards are a key indicator of academic success at the postsecondary level ACT (2020) in the Holistic Framework Cross Cutting Capabilities ebook. As globalization increases and technological advances continue to

dominate the workplace, the ACT (2020) cites the need for social skills and higher order thinking skills to be a part of a student's repertoire as they enter college. Specifically, the ACT cites proficiency in the following skill sets combined with proficiency in the core academic areas as a solid predictor of educational success: Technology and Information Literacy, Collaborative Problem Solving, Learning Skills and Thinking Skills. The specific skills associated with each Cross-Cutting Capabilities are cited by the ACT Holistic Framework Cross Cutting Capabilities ebook (2020, p.5) as follows:

Technology and Information Literacy: Using technology knowledge and skills to effectively acquire and apply information.

Collaborative Problem Solving: Social and cognitive knowledge, skills, and strategies to collaborate with a group to solve a problem.

Learning Skills: Strategies and methods to effectively facilitate and manage learning

Thinking Skills: Employing modes of thinking that apply to a broad range of context

Behavioral Skills

While difficult to assess, behavioral skills or soft skills are social and emotional learning skills that according to the ACT Holistic Framework Behavior Skills ebook (2020) have an important impact on college readiness. The ACT (2020) has identified six non-cognitive skills that a student should possess in combination with the identified skills highlighted in the other three domains to ensure student readiness for college. The six non-cognitive skills needed for college success according to the ACT (2020, p.2) are "acting honestly, keeping an open mind, maintaining composure, social connection, getting along with others, and sustaining effort." According to ACT (2020) the behavioral skills identified in the Holistic Framework are an

important predictor of academic success particularly as it relates to grade point average and college retention.

Education and Career Navigation

The ACT Holistic Framework: Education and Career Navigation ebook (2020) defines this domain as the cognitive skills that students need in order to recognize knowledge about themselves and their environment and to be able to utilize this self-actualized knowledge for decision making purposes. The ACT (2020) recognizes the importance of these skills in conjunction with the skills identified in the other domains by arguing that students who understand their belief system and are self-aware are better able to process information for decision making purposes therefore experiencing greater educational success. The cognitive skills in this domain as identified by ACT (2020, p.2) are “self-knowledge, environmental factors, integration, and managing career and education actions.

ACT College Readiness Benchmarks

The ACT Research and Policy Department (2013, p.1) defines college readiness benchmarks as the minimum ACT score that is required for a student to “have a high probability of success” in a college level weight bearing English Composition, Social Science, College Algebra, or Biology course. According to the ACT User Handbook for Educators (2021) students who attain the Benchmark score on the ACT have a 50 percent chance of receiving a B or better in the matching course and a 75% chance of receiving a C or higher in the course. The Benchmarks scores for success are: English 18 Math 22 Reading 22 Science 23. These Benchmark scores according to Allen and Radunzel (2017) are established based on credit bearing courses that are taken by first year college students in core content areas of study.

The ACT College Readiness Benchmarks according to Allen and Radunzel (2017) are based on achievements of actual first year college students compiled from a database of grade data from a vast range of postsecondary institutions. These authors state, high school students who meet ACT Benchmarks are more likely to enroll in a postsecondary education immediately following high school graduation, are less likely to enroll in remedial courses at the university level, display favorable persistence and tenacity, maintain a college GPA of 3.0 or higher, and are more likely to complete a degree. ACT data according to Allen and Radunzel (2017) shows that 74% of students who enter college meeting all four of the ACT Benchmarks complete a bachelor's degree within six years as compared to a 44% rate for students entering college not meeting Benchmarks.

Chapter III: Methodology

Purpose of the Study

The purpose of this study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. This study used ACT performance as a measure of college readiness and as a proxy for student achievement.

If composite ACT scores and the percentage of students meeting ACT Benchmarks in English, Mathematics, and Reading in districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years differ significantly from those which did not it will demonstrate that superintendents and boards of education could leverage the strategic planning process to improve college readiness outcomes among their students. District level leaders would therefore have a strong rationale for developing a comprehensive strategic plan that supports learners from early childhood to adulthood. This will support students being academically prepared to transition from high school to post-secondary learning environment with minimal disruption or difficulty.

To determine which Kentucky public school districts completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years, the researcher administered a three-question survey to all district superintendents Kentucky that provided informed consent for study participation. Based on survey results, the researcher split the public-school districts into three groups for additional analysis:

Group A - Districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years

Group B - Districts that did not complete the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years

Group C – Districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and explicitly integrated considerations related to college and career readiness (CCR) into their planning

For every district included in the study, the researcher retrieved data from the Kentucky Department of Education (KDE) on **(a)** mean composite ACT scores and **(b)** the percentage of students meeting ACT benchmarks in English, Mathematics, and Reading for the following school years: 2015-16 and 2020-21. The 2015-2016 data served as the baseline for Group A, Group B, and Group C because no school district had completed the strategic planning process at that point. Establishing this baseline was critical for discerning the direction and magnitude of changes within and between Group A, Group B, and Group C. As Table 3 indicates, statistical analysis focused on four sets of ACT data:

Table 3

ACT Data Used in Statistical Analysis

Completed Strategic Planning Process		Did Not Complete Strategic Planning Process		Completed Strategic Planning Process with Focus on College and Career Readiness	
Group A.1	Group A.2	Group B.1	Group B.2	Group C.1	Group C.2
2015-16	2020-21	2015-16	2020-21	2015-2016	2020-2021

Research Questions and Hypotheses

Using data on ACT performance obtained from KDE, the researcher addressed the following questions:

Question 1. Is there a statistically significant difference in composite ACT scores between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

The purpose of this question was to determine whether districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019, or 2019-2020 school years (a) have seen improvements in their own ACT scores relative to the baseline year of 2015-2016 and (b) outperformed districts which did not complete the strategic planning process, in both the baseline year (2015-2016) and the most recent year (2020-2021).

Question 2. Is there a statistically significant difference in percentage of students meeting the ACT Reading Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

The purpose of this question was to determine whether districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019, or 2019-2020 school years (a) have seen improvements in the percentage of their students meeting the ACT Reading Benchmark relative to the baseline year of 2015-2016 and (b) outperformed districts which did not complete the strategic planning process, in both the baseline year (2015-2016) and the most recent year (2020-2021).

Question 3. Is there a statistically significant difference in percentage of students meeting the ACT English Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

The purpose of this question was to determine whether districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years (a) have seen improvements in the percentage of their students meeting the ACT English Benchmark relative to the baseline year of 2015-2016 and (b) outperformed districts which did not complete the strategic planning process, in both the baseline year (2015-2016) and the most recent year (2020-2021).

Question 4. Is there a statistically significant difference in percentage of students meeting the ACT Math Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Math Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Math Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

The purpose of this question was to determine whether districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years (a) have seen improvements in the percentage of their students meeting the ACT Mathematics Benchmark relative to the baseline year of 2015-2016 and (b) outperformed districts which did not complete the strategic planning process, in both the baseline year (2015-2016) and the most recent year (2020-2021).

Examining changes in district performance on the four ACT Benchmarks allowed the researcher to draw preliminary conclusions about how completing the strategic planning process influenced student learning outcomes in English, Mathematics, and Reading.

Description of Population

This quantitative study focused on public school districts in the state of Kentucky. Currently, there are 171 public school districts in Kentucky. Included in this number are both independent and county school districts. Each public-school district in the state employs a school superintendent as the Chief Executive Officer. To determine which districts completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years, the researcher distributed a three-question survey to all Kentucky public school superintendents who provided informed consent for study participation. The researcher used the Directory of Kentucky Public School Superintendents to identify points of contact in each district. Because the socioeconomic and demographic characteristics of student populations vary

across Kentucky, survey results are representative of the entire state. However, more detailed study of (a) how socioeconomic and demographic characteristics affect ACT outcomes, and (b) whether the impacts of completing the strategic planning process on student learning outcomes vary based on socioeconomic and demographic characteristics and other factors lie beyond the scope of this dissertation.

Sampling Procedures, Confidentiality, and Anonymity

Prior to distributing the survey, the researcher sent an initial email to each Kentucky public school superintendent, requesting their participation in this study. The email included the following information: explanation of the study, the practical application of the study, the assurance of confidentiality, the assurance of voluntary participation and withdrawal, and the assurance that there are no known risks to participating in the study. One week after the initial email was sent, the researcher sent a follow up email to participants who did not respond. Two weeks after sending the initial email a third and final email seeking participation was sent to superintendents who had not responded to the previous request.

Once a participant formally agreed to take part in the study, they received a detailed email that described the study's purpose, the process for participation, and an informed consent document clearly explaining their rights as a participant. Participants were informed that they could withdraw from the study at any point and that all data collected would remain confidential. Neither district names nor the names of the superintendents were publicly associated with their responses. Once a participant submitted an informed consent document, the researcher sent them a link to complete the survey. The survey was administered through a Google Form, using security protocols to protect the transmission of data, thereby ensuring all data remained confidential. The researcher kept the survey open for 2 weeks. One week before the survey

ended, a reminder email was sent to all participants who had not completed it. The survey included the following questions:

- (1) Did your school district implement a strategic plan during the 2016-2017, 2017-2018, 2018-2019, or 2019-2020 school years?
- (2) If yes, in what year did your school district implement the strategic plan?
- (3) If yes, was College and Career Readiness specifically addressed in the strategic plan?

All data retrieved from the Google Form was stored on a password protected computer housed at the Rockcastle County Board of Education.

Once the survey concluded, the researcher retrieved district data from the Kentucky Department of Education for each participating district on (a) mean composite ACT scores and (b) the percentage of students meeting the ACT Benchmarks in English, Mathematics, and Reading for the 2015-2016 and 2020-2021 school years.

Data Collection and Preparation

The researcher organized and prepared data for the statistical analysis using the following steps:

- Used survey responses to identify districts in Group A (completed the strategic planning process in the specified time period), Group B (did not complete the strategic planning process in the specified time period) and Group C (completed the strategic planning process in the specified time period and explicitly integrated considerations related to college and career readiness (CCR) into their planning
- Established and implemented a coding scheme to facilitate statistical analysis and comparisons of ACT data. As Table 4 indicates, ACT data will be obtained for two school years – 2015-2016 (baseline) and 2020-2021. This results in six subgroups: A.1,

A.2, B.1, B.2, C.1, and C.2. Table 4 represents a simplified layout of how the coding scheme worked in practice. Each district appeared in two subgroups. For example, if a district completed the strategic planning process it fell into Group A.1 (baseline condition) and Group A.2 (post-implementation). Similarly, if a district did not complete the strategic planning process it fell into Group B.1 (baseline condition) and Group B.2 (corresponds to A.2 post-implementation). All data in Table 4 is hypothetical and presented for illustration only.

Table 4

Data Organization

District	Subgroup	Mean ACT Score	Reading Benchmark	English Benchmark	Mathematics Benchmark
1	A.1	24	65	68	72
1	A.2	26	67	69	73

The researcher used Microsoft Excel to prepare and organize the data. Once completed, the data was imported into Jamovi (Version 2.3). Jamovi is an open-source statistical package built atop the R programming language. Jamovi's operation and functionality are similar to packages like SPSS and JMP and adopts a graphical user interface (GUI) to facilitate analysis.

Data Analysis

After the data was imported into Jamovi, the researcher performed exploratory data analysis to identify and understand patterns in the data. The first step in this process was computing descriptive statistics for the ACT performance (i.e., mean composite core, and Reading, English, and Mathematics Benchmarks) of each subgroup including the (a) mean, (b) median, (c) standard deviation, (d) confidence interval for the mean. Next, the researcher created

a series of boxplots to facilitate data visualization and spot – at a qualitative level – difference within and between each subgroup for all ACT performance metrics.

To determine if ACT performance varied significantly among the six subgroups (A.1, A.2, B.1, B.2, C.1, C.2) the researcher used one-way analysis of variance (ANOVA). ANOVA “is a statistical procedure used to compare the mean values on some variable between two or more independent groups...and involves attributing the variance observed in a data set to different causes or factors, including group membership” (Boslaugh 2013. p.206). This study examined the effect of subgroup membership (i.e., A.1, A.2, B.1, B.2, C.1, C.2) on four dependent variables: composite ACT score and the percentage of students meeting the ACT Reading, English, and Mathematics Benchmarks. For each iteration of ANOVA, the researcher will statistically verify the data meets the assumptions of ANOVA.

The null hypothesis of ANOVA was that the mean value (of a variable) for each subgroup was equal based on the normal distribution. For example, when studying the effects of subgroup membership on ACT composite score, the null hypothesis was that mean scores for Groups A.1, A.2, B.1, B.2, C.1, and C.2 were equal (or that the difference in mean scores equaled zero). If F-statistic’s p-value is $< .05$, the null hypothesis was rejected, which indicated a statistically significant difference in means. If ANOVA produced a statistically significant result, the researcher used Tukey’s Honestly Significant Difference (HSD) test to determine which subgroups differ from one another.

When interpreting statistical results, the researcher focused on direction and magnitude of effects (e.g., Cumming, 2014). Although a p-value $< .05$ has long been used to distinguish significant from non-significant results, a finding of statistical significance alone could not be used to justify a change in policy; in this case, the decision to complete the strategic planning process.

Critical to the study, is the evaluation of the the actual differences in ACT performance; not a reliance on a p-value alone. For example, if the composite ACT score for Subgroup A.2 was significantly different from Subgroups A.1, B.1, and B.2, but the actual difference in scores was small (e.g., 1 point), it would be difficult to argue that completing the strategic planning process had a consequential impact on student learning outcomes. The researcher relied on previous research when interpreting statistical results and drawing conclusions about education policy.

Chapter IV: Results

Introduction

This chapter presents the results of this research study by reporting survey data as it relates to the topic in focus. The research questions and hypothesis that are posed in this study will be presented with analyzed data to address each stated hypothesis. Survey data for this study was collected from Kentucky public school superintendents in 85 public school districts. The ACT data, as it pertains to the Kentucky school districts that participated in the study, was collected from the Kentucky Department of Education per the Kentucky School Report Card. This chapter is divided into four sections that include the chapter introduction, data collection, data analysis, and a summary of the overall results of the research study.

As stated in Chapter I, the purpose of this study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. The data analysis for the research study is presented in relation to the four research questions presented in Chapter I of this study:

Question 1. Is there a statistically significant difference in composite ACT scores between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

Question 2. Is there a statistically significant difference in percentage of students meeting the ACT Reading Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

Question 3. Is there a statistically significant difference in percentage of students meeting the ACT English Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

Question 4. Is there a statistically significant difference in percentage of students meeting the ACT Math Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

Data Collection

The researcher sent an initial email to each Kentucky public school superintendent, requesting their participation in this study. The email included the following information: explanation of the study, the practical application of the study, the assurance of confidentiality, the assurance of voluntary participation and withdrawal, and the assurance that there are no known risks to participating in the study. One week after the initial email was sent, the researcher sent a follow up email to participants who did not respond. Two weeks after sending the initial email a third and final email seeking participation was sent to superintendents who had not responded to the previous request.

Upon formal agreement to take part in the study, each participant received a detailed email that described the study's purpose, the process for participation, and an informed consent document clearly explaining their rights as a participant. To determine which Kentucky public school districts completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years, the researcher distributed a three-question survey to all Kentucky public school superintendents who provided informed consent for study participation. The survey included the following questions:

- (1) Did your school district implement a strategic plan during the 2016-2017, 2017-2018, 2018-2019, or 2019-2020 school years?
- (2) If yes, in what year did your school district implement the strategic plan?
- (3) If yes, was College and Career Readiness (CCR) specifically addressed in the strategic plan?

The survey elicited responses from superintendents in 85 Kentucky public school districts. The 85 Kentucky public school districts were divided into three groups based on the responses provided by the school superintendent: (A) those which completed the strategic planning process (n = 37), (B) those which did not complete the strategic planning process (n = 40), and (C) those which completed the strategic planning process and explicitly integrated considerations related to college and career readiness (CCR) into their planning (n = 8). Table 5 illustrates the data organization scheme.

Table 5

Data Organization

Group A Completed Strategic Planning Process		Group B Did Not Complete Strategic Planning Process		Group C Completed Strategic Planning Process (w/CCR)	
Subgroup A.1	Subgroup A.2	Subgroup B.1	Subgroup B.2	Subgroup C.1	Subgroup C.2
2015-2016	2020-2021	2015-2016	2020-2021	2015-2016	2020-2021

To measure the potential effects of completing the strategic planning process on ACT performance, the researcher collected data for a baseline academic year (2015-2016) and a post-implementation academic year (2020-2021). These data, collected from the Kentucky Department of Education for each participating district, included: (a) mean composite ACT

scores and (b) the percentage of students meeting the ACT Benchmarks in English, Mathematics, and Reading.

Subgroups A.1, B.1, and C.1 all represent ACT performance before any of the surveyed districts completed the strategic planning process, while Subgroups A.2, B.2, and C.2 all represent ACT performance following the implementation of strategic planning plans. Basing analysis on the same academic years across all districts ensures comparisons are commensurate.

Data Analysis

The researcher computed descriptive statistics for the ACT performance (i.e., mean composite core, and Reading, English, and Mathematics Benchmarks) of each including the (a) mean, (b) median, (c) standard deviation, and (d) confidence interval for the mean. Boxplots were created to facilitate data visualization and spot – at a qualitative level – difference within and between each subgroup for all ACT performance metrics.

Descriptive statistics (mean, standard deviation, 95% confidence interval, median) for each subgroup is provided in Table 6 for the following areas: Mean Composite ACT, ACT Reading Benchmark, ACT English Benchmark, and ACT Math Benchmark. Prior to any districts having completed the strategic planning process, mean composite ACT scores ranged between 19.1 and 20.6. Performance among districts in Subgroups A.1 and B.1 were nearly identical (19.1 and 19.2, respectively), while districts in Subgroup C.1 had a mean composite ACT score of 20.6. This is noteworthy as it indicates districts that completed a strategic planning process which explicitly addressed CCR issues began from a higher baseline. Examining the mean ACT composite scores for the post-implementation academic year reveals across-the-board declines of approximately 1.5 to 2.0 points, with scores of 17.4, 17.5, and 18.5 for Subgroups A.2, B.2, and C.2, respectively. Figure 1 visualizes changes in mean composite ACT scores using a boxplot

(outliers are denoted graphically). This reinforces the finding that scores dropped across all groups from the baseline academic year to the post-implementation academic year.

The percentage of students meeting Reading, English and Math Benchmarks exhibit similar trends as mean composite ACT scores, with steep drops from the baseline academic year to the post-implementation year. For the Reading Benchmark, the percentage of students meeting minimum college-readiness standards fell between 10 and 14 points. The percentage of students meeting the English and Math Benchmarks dropped 12-14 points and 9-13 points. Boxplots in Figures 2-4 visually capture the changes in performance on benchmarks and illustrate the relative consistency in performance declines.

While descriptive statistics help develop intuitions about performance trends, they do not answer whether changes are significant in a statistical sense. The next four sections analyze each research question put forward in Chapter III.

Table 6

Descriptive Statistics for ACT Performance

Subgroup		Mean Composite ACT	Reading Benchmark	English Benchmark	Math Benchmark	
A.1	Mean	19.1	45.8	51.0	34.9	
	Standard Deviation	1.20	9.39	9.50	11.4	
	95% CI	18.7–19.5	42.7–49.0	47.8–54.1	31.1–38.8	
	Median	19.0	47.2	50.0	34.4	
	Mean	19.2	47.1	52.4	37.3	
B.1	Standard Deviation	1.22	8.44	11.0	11.2	
	95% CI	18.9–19.6	44.4–49.8	48.9–55.9	33.7–40.8	
	Median	19.0	45.6	50.6	35.7	
	Mean	20.6	54.5	60.5	45.3	
	Standard Deviation	2.28	16.7	17.0	15.6	
C.1	95% CI	18.6–22.5	40.5–68.4	46.3–74.8	32.2–58.3	
	Median	20.1	53.8	59.2	44.0	
	A.2	Mean	17.4	35.5	37.4	25.2

Subgroup		Mean Composite ACT	Reading Benchmark	English Benchmark	Math Benchmark
	Standard Deviation	1.23	9.81	10.4	10.1
	95% CI	17.0–17.8	32.3–38.8	33.9–40.8	21.8–28.6
	Median	17.1	33.8	34.8	24.6
B.2	Mean	17.5	36.5	39.0	25.0
	Standard Deviation	1.21	9.24	11.4	10.6
	95% CI	17.1–17.9	33.6–39.5	35.4–42.7	21.6–28.4
	Median	17.3	38.3	38.3	24.7
C.2	Mean	18.5	41.9	46.6	32.1
	Standard Deviation	2.12	13.7	17.6	15.0
	95% CI	16.7–20.3	30.4–53.4	31.9–61.3	19.5–44.6
	Median	18.9	44.8	49.8	31.6

Figure 1

Boxplot for Mean ACT Scores

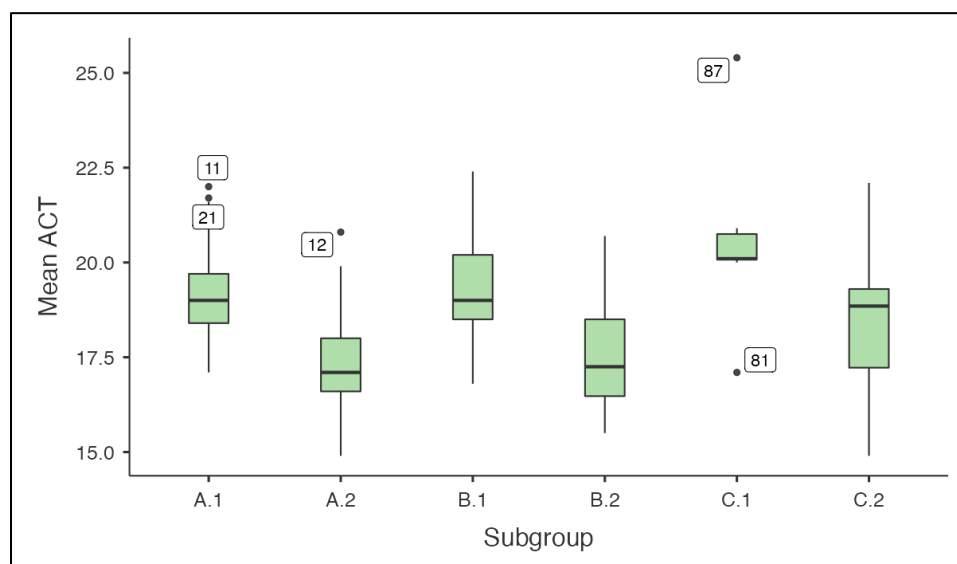


Figure 2

Boxplot for ACT Reading Benchmarks

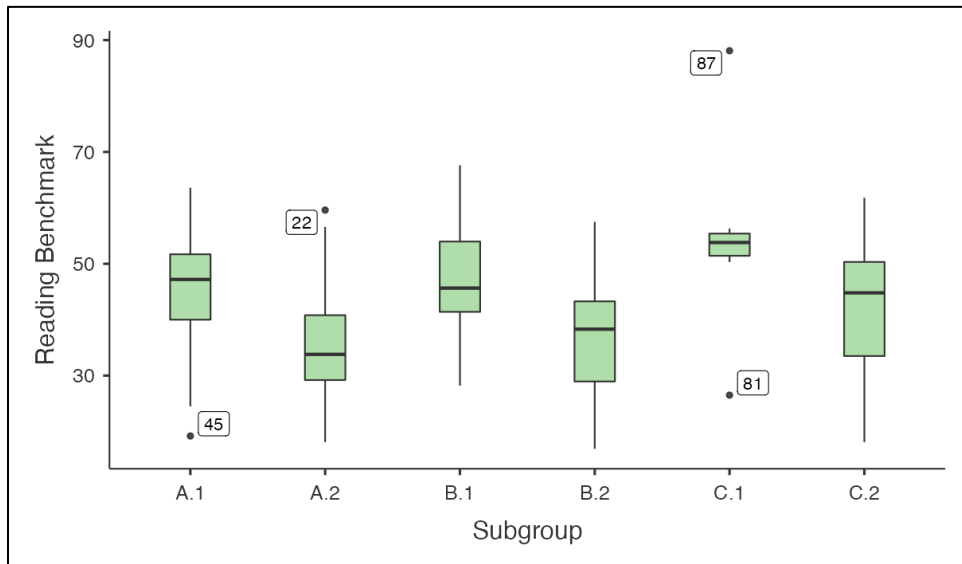


Figure 3

Boxplot for ACT English Benchmarks

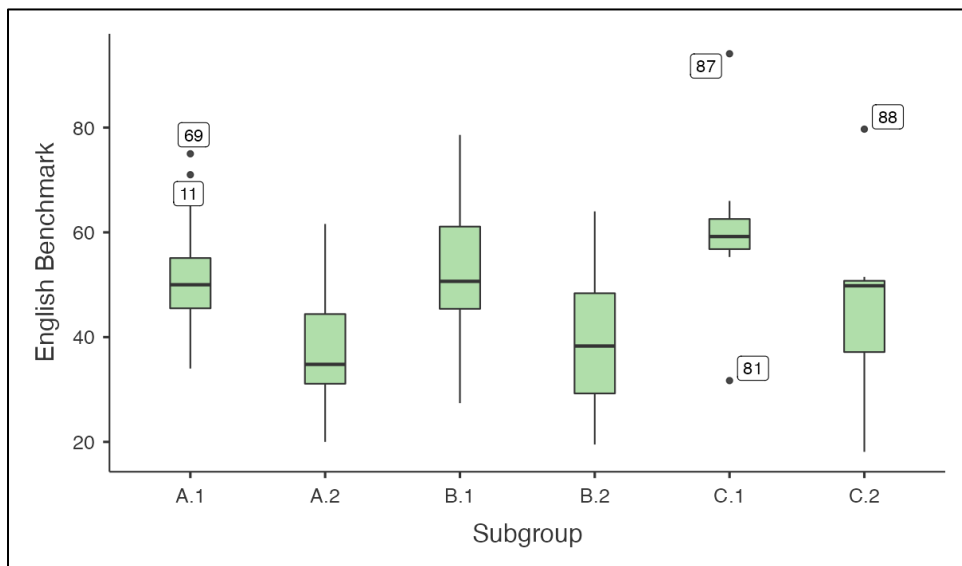
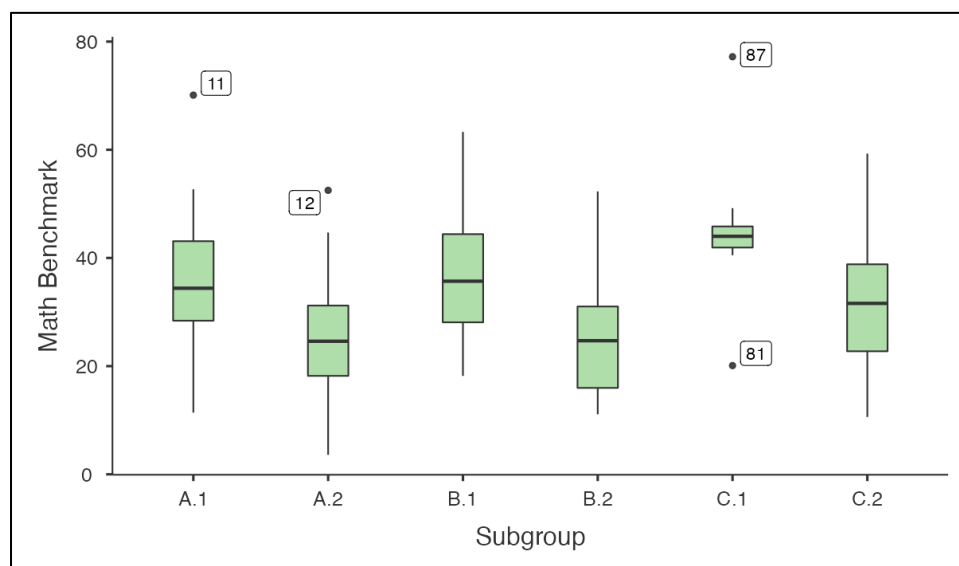


Figure 4*Boxplot for ACT Math Benchmark****Performance on Mean ACT Composite Score***

Question 1. Is there a statistically significant difference in composite ACT scores between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Findings. ANOVA indicates a statistically significant difference in mean composite ACT scores across subgroups ($p < 0.001$) (Table 7). Taken alone ANOVA does not reveal where those significant differences lie. To detect significant differences between subgroups, the researcher conducted a post-hoc comparison using Tukey's HSD. Table 8 summarizes the results of this

comparison. To interpret the table, begin by selecting a subgroup in the left-most column. Then, reading across the row indicates how that subgroup compares to others and whether the difference is significant. For instance, the mean difference in mean composite ACT score between Subgroup A.1 and A.2 is 1.74 (i.e., meaning the scores for Subgroup A1 were higher). This difference is statistically significant ($p < 0.001$). All statistically significant differences are denoted using bold, red text. Post-hoc analysis confirms patterns uncovered by descriptive analysis.

Table 7*ANOVA Table for Mean ACT Scores*

	Sum of Squares	Df	Mean Square	F	p-value
Subgroup	157	5	31.40	17.8	<0.001
Residuals	289	164	1.76		

Table 8*Tukey HSD Post-Hoc Comparison for Mean ACT Scores*

	A.1	A.2	B.1	B.2	C.1	C.2
A.1 Mean	—	1.74	-0.134	1.631	-1.44	0.633
A.1 Difference	—					
A.1 p-value		<0.001	0.998	<0.001	0.065	0.825
A.2 Mean		—	-1.870	-0.105	-3.18	-1.102
A.2 Difference		—				
A.2 p-value			<0.001	0.999	<0.001	0.278
B.1 Mean			—	1.765	-1.31	0.767
B.1 Difference			—			
B.1 p-value				<0.001	0.118	0.670
B.2 Mean				—	-3.07	-0.998
B.2 Difference				—		
B.2 p-value					<0.001	0.383
C.1 Mean					—	2.075
C.1 Difference					—	
C.1 p-value						0.025
C.2 Mean						—
C.2 Difference						—
C.2 p-value						—

If completing the strategic planning process had systematically improved student performance, mean differences for Subgroups A.2 and C.2 relative to Subgroups A.1, B.1, B.2, and C.1 would be significant and in a positive direction. The opposite trend is apparent. The mean differences for the scores of Subgroups A.2 and C.2 are significant but in the negative direction (i.e., scores went down after implementation). Integrating considerations related to CCR (Subgroup C) had little impact and did not insulate districts from the prevailing dynamic of broad-based declines in student performance. Indeed, the mean difference in scores between Subgroups C.1 and C.2 indicate a more pronounced drop in mean composite ACT scores. Although as noted previously, baseline scores for Subgroup C.1 were higher than Subgroups A.1 and B.1 by 1.3-1.4 points.

As the percentage of students meeting benchmarks in Reading, English, and Math is correlated with mean composite ACT scores, analyses of subsequent research questions and hypothesis reveal similar tendencies. Tables summarizing post-hoc comparisons exhibit nearly identical patterns of statistical significance. The only difference in these analyses is that Subgroups C.1 and C.2. — despite notable drops in the percentages of students meeting benchmark performance thresholds — are not significantly different (in a statistical sense), due in part to the smaller sample size ($n = 8$).

Performance on ACT Reading Benchmark

Question 2. Is there a statistically significant difference in percentage of students meeting the ACT Reading Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Findings: ANOVA finds a statistically significant difference in the percentage of students meeting the ACT Reading Benchmark across subgroups ($p < 0.001$) (Table 9). Similar to mean composite ACT scores, the percentages of students meeting this benchmark declined for all groups, regardless of whether districts completed the strategic planning process (Table 10). Interestingly, the magnitude of difference was similar across Groups A, B, and C. Relative to Subgroup A.1 (baseline), the mean difference in the percentage of students hitting the ACT Reading Benchmark in Subgroup A.2 (post-implementation) was 10.3 points lower. The differences for Groups B and C were 10.58 and 12.56 percentage points, respectively. Had completing the strategic planning process positively impacted student performance, the performance of Subgroups A.2 and C.2 would be higher than the four other subgroups. This, however, is not the case.

Table 9

ANOVA Table for ACT Reading Benchmark

	Sum of Squares	df	Mean Square	F	p-value
Subgroup	5564	5	1112.7	11.4	<0.001
Residuals	16019	164	97.7		

Table 10*Tukey HSD Post-Hoc Comparison for ACT Reading Benchmarks*

		A.1	A.2	B.1	B.2	C.1	C.2
A.1	Mean	—	10.3	-1.30	9.28	-8.64	3.93
	Difference	—					
	p-value		<0.001	0.992	<0.001	0.225	0.911
A.2	Mean		—	-11.58	-1.00	-18.92	-6.35
	Difference		—				
	p-value			<0.001	0.998	<0.001	0.567
B.1	Mean			—	10.58	-7.34	5.23
	Difference			—			
	p-value				<0.001	0.396	0.748
B.2	Mean				—	-17.91	-5.35
	Difference				—		
	p-value					<0.001	0.728
C.1	Mean					—	12.56
	Difference					—	
	p-value						0.118
C.2	Mean						—
	Difference						—
	p-value						—

Performance on ACT English Benchmark

Question 3. Is there a statistically significant difference in percentage of students meeting the ACT English Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Findings: ANOVA finds a statistically significant difference in the percentage of students meeting the ACT English Benchmark across subgroups ($p < 0.001$) (Table 11). Results

of post-hoc analysis (Table 12) mirror the findings of post-hoc analysis for other research questions. The percentage of students meeting the ACT English Benchmark fell across the board, regardless of engagement with strategic planning, between 13 and 14 points. Districts that completed the strategic planning process and factored CCR-related issues into their planning did better in the baseline academic year (Subgroup C.1) than the post-implementation academic year (Subgroup C.2) as well as all other subgroups. With Subgroups A.2 and C.2 not outpacing all other subgroups, there does not appear to be a positive correlation between completing the strategic planning process and student performance.

Table 11*ANOVA Table for ACT English Benchmark*

	Sum of Squares	df	Mean Square	F	p-value
Subgroup	8934	5	1787	13.9	<0.001
Residuals	21042	164	128		

Table 12*Tukey HSD Post-Hoc Comparison for ACT English Benchmarks*

		A.1	A.2	B.1	B.2	C.1	C.2
A.1	Mean	—	13.6	-1.44	11.93	-9.56	4.39
	Difference	—					
	p-value		<0.001	0.994	<0.001	0.260	0.920
A.2	Mean		—	-15.04	-1.68	-23.17	-9.22
	Difference		—				
	p-value			<0.001	0.987	<0.001	0.567
B.1	Mean			—	13.36	-8.13	5.82
	Difference			—			
	p-value				<0.001	0.436	0.769
B.2	Mean				—	-21.49	-7.54
	Difference				—		
	p-value					<0.001	0.521
C.1	Mean					—	13.95
	Difference					—	
	p-value						0.141

Performance on ACT Math Benchmark

Question 4. Is there a statistically significant difference in percentage of students meeting the ACT Math Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that have not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1)?

H_0 : The difference in the mean percentage of students meeting the ACT Math Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0.

H_A : The difference in the mean percentage of students meeting the ACT Math Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 \neq 0.

Findings: ANOVA finds a statistically significant difference in the percentage of students meeting the ACT Math Benchmark across subgroups ($p < 0.001$) (Table 13). Post-hoc analysis, as demonstrated in Table 14, shows that no significant positive difference results from completing the strategic planning process, with or without CCR considerations being factored into the process (Subgroups A.2 and C.2). The patterns of difference observed are the same as for other questions, with all Groups exhibiting better performance in the baseline year (Subgroups A.1, B.1, C.1) than the post-implementation year (Subgroups A.2, B.2, C.2).

Table 13

ANOVA Table for ACT Math Benchmark

	Sum of Squares	df	Mean Square	F	p-value
Subgroup	6450	5	1290	10.1	<0.001
Residuals	20909	164	127		

Table 14*Tukey HSD Post-Hoc Comparison for ACT Math Benchmarks*

	A.1	A.2	B.1	B.2	C.1	C.2
A.1 Mean	—	9.75	-2.31	9.964	-10.31	2.87
A.1 Difference	—					
A.1 p-value		0.004	0.947	0.002	0.183	0.987
A.2 Mean		—	-12.06	0.212	-20.07	-6.88
A.2 Difference		—				
A.2 p-value			<0.001	1.000	<0.001	0.625
B.1 Mean			—	12.275	-8.00	5.18
B.1 Difference			—			
B.1 p-value				<0.001	0.450	0.843
B.2 Mean				—	-20.28	-7.09
B.2 Difference				—		
B.2 p-value					<0.001	0.586
C.1 Mean					—	13.19
C.1 Difference					—	
C.1 p-value						0.186
C.2 Mean						—
C.2 Difference						—
C.2 p-value						—

Summary

This chapter examined the results of the collected and analyzed data in relation to the study of whether students who are enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years performed better on the ACT than students who are enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. Chapter V will examine the implications of this research, provide a more detailed discussion and analysis of the data, draw conclusions, establish recommendations for further research, and determine the practical significance of said research.

Chapter V: Discussion

Discussion

The purpose of this study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. A survey was given to public school district superintendents in the state of Kentucky to determine which school districts engaged in the strategic planning process during the prescribed time frame. Additionally, the survey determined if the school districts that did complete the strategic planning process during the prescribes frame did so with a specific focus on College and Career Readiness.

Summary

Research Question 1 posed if there was a statistically significant difference in composite ACT scores between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that had not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1). The null hypothesis predicted that the difference in mean composite ACT scores for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0. ANOVA indicated a statistically significant difference in mean composite ACT scores across subgroups ($p < 0.001$) thereby providing data for the researcher to reject the null hypothesis and accept the alternative hypothesis.

However, if completing the strategic planning process had systematically improved student performance in regard to composite ACT scores, mean differences for Subgroups A.2 and C.2 relative to Subgroups A.1, B.1, B.2, and C.1 would be significant in a positive direction.

The research demonstrated a trend in the opposite direction for all subgroups. The mean differences for the scores of Subgroups A.2 and C.2 are significant but in the negative direction. This research demonstrates that the ACT composite scores declined post implementation of a strategic plan. Integrating considerations related to CCR into the strategic plan (Subgroup C) had little impact and did not insulate districts from the prevailing dynamic of broad-based declines in student performance.

Examining the mean ACT composite scores for the post-implementation academic year reveals across-the-board declines of approximately 1.5 to 2.0 points, with scores of 17.4, 17.5, and 18.5 for Subgroups A.2, B.2, and C.2, respectively. This reinforces the finding that scores dropped across all groups from the baseline academic year to the post-implementation academic year.

Research Question 2 questioned if there was a statistically significant difference in percentage of students meeting the ACT Reading Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that had not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1). The null hypothesis predicted that the difference in the mean percentage of students meeting the ACT Reading Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0. ANOVA finds a statistically significant difference in the percentage of students meeting the ACT Reading Benchmark across subgroups ($p < 0.001$) thereby providing data for the researcher to reject the null hypothesis and accept the alternative hypothesis.

Similar to the mean composite ACT scores, the percentages of students meeting this benchmark declined for all groups, regardless of whether districts completed the strategic planning process. Had completing the strategic planning process positively impacted student performance, the performance of Subgroups A.2 and C.2 would be higher than the four other

subgroups. This, however, is not the case with the mean difference in the percentage of students meeting the ACT Reading Benchmark in Subgroup A.2 being 10.3 points lower than the baseline of Subgroup A.1. The differences for Groups B and C were 10.58 and 12.56 percentage points, respectively demonstrating the finding that the number of students meeting the ACT Benchmark in Reading dropped across all groups from the baseline academic year to the post-implementation academic year.

Research Question 3 examined if there was a statistically significant difference in percentage of students meeting the ACT English Benchmark between districts that implemented a strategic plan (Subgroups A.2, C.2) and those that had not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1). The null hypothesis predicted that the difference in the mean percentage of students meeting the ACT English Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0. ANOVA finds a statistically significant difference in the percentage of students meeting the ACT English Benchmark across subgroups ($p < 0.001$) thereby providing data for the researcher to reject the null hypothesis and accept the alternative hypothesis.

The percentage of students meeting the ACT English Benchmark fell across the board, regardless of engagement with strategic planning process, between 13 and 14 points. Districts that completed the strategic planning process and factored CCR-related issues into their planning did better in the baseline academic year (Subgroup C.1) than the post-implementation academic year (Subgroup C.2) as well as all other subgroups. With Subgroups A.2 and C.2 not outpacing all other subgroups, there does not appear to be a positive correlation between completing the strategic planning process and student performance.

The final research question, Question 4, inquired if there was a statistically significant difference in percentage of students meeting the ACT Math Benchmark between districts that

implemented a strategic plan (Subgroups A.2, C.2) and those that had not implemented a strategic plan (Subgroups A.1, B.1, B.2, C.1). The null hypothesis predicted that the difference in the mean percentage of students meeting the ACT Math Benchmark for Subgroups A.2, C.2, A.1, B.1, B.2, and C.1 = 0. ANOVA finds a statistically significant difference in the percentage of students meeting the ACT Math Benchmark across subgroups ($p < 0.001$) thereby providing data for the researcher to reject the null hypothesis and accept the alternative hypothesis.

In regard to the percentage of students meeting ACT Math Benchmarks, there were no significant positive difference results demonstrated from completing the strategic planning process, with or without CCR considerations being factored into the process. All subgroups performed better in the baseline year than the post strategic plan implementation year. There does not appear to be a positive correlation between completing the strategic planning process and student performance in terms of the percentage of students meeting ACT Math Benchmarks.

Conclusions

The purpose of this quantitative study was to investigate if there is a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. The research revealed a lack of evidence supporting the use of strategic planning as a means for improving student outcomes as measured by ACT performance. The research exposed a decline between the baseline (2015-2016) academic year and the post-strategic planning implementation year (2020-2021) for all subgroups as related to the percentage of students meeting Reading, English and Math Benchmarks. The same decline

was seen in the mean composite ACT score for all subgroups with the focus on CCR not having an impact on student performance.

Subgroups A.2 and C.2 completed the strategic planning process during the established time frame and student performance declined relative to the established baseline (A.2<A.1 and C.2<C.1) for all ACT metrics. Additionally, the mean composite ACT score for subgroup A.2 was close to subgroup B.2 demonstrating the lack of significance of the strategic planning process on student performance as measured by ACT performance. In conclusion, this quantitative research study demonstrated that students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years did not perform better on the ACT than students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period.

Discussion and Relationship to Conclusion

Due to the massive educational disruption that was created by the COVID 19 pandemic the researcher can not draw a firm conclusion regarding the relationship between strategic planning and student performance. Based on the dataset and the research conclusions, the researcher cannot establish lack of value in implementing the strategic planning process in the P-20 educational setting. Overall conclusions cannot be drawn at this point in time and perhaps not for several more years into the future, as the time frame regarding the lingering effects of COVID 19 on student achievement are unknown. The researcher ascertains that it is reasonable to predict that the impact of COVID 19 on student achievement is vast and that student achievement as measured by ACT scores will take years to recover.

While this research study utilized post implementation ACT data from the 2020-2021 school year, comparisons can be made to the recently released ACT data from the 2021-2022 school year as students in both cohorts are products of the COVID 19 learning disruptions. Both cohorts of students endured significant interruptions in their learning environment spanning across multiple years of their high school educational experience. The Associated Press (2022) reported that student performance on the ACT college admissions test by the class of 2022 produced the lowest scores in over 30 years, citing the learning disruption of the COVID 19 pandemic as the cause of decline. The national average ACT composite score for the class of 2022 was 19.8 signifying the first average score below 20 since 1991 (Associated Press 2022). According to the ACT Graduating Class Database (2022), 42% of the students that graduated in the class of 2022 did not meet benchmarks in English, Reading, Mathematics, or Science indicating an increase in the number of students that are not prepared for the post-secondary educational setting. This is an increase in the number of students not meeting ACT benchmarks on the national level, as 38% of students in the class of 2021 did not meet the established benchmark criteria.

For the state of Kentucky, this drop in ACT performance is even more alarming with the 2022 average ACT composite score being 18.6, a drop from the 2021 average ACT composite score of 19.2. ACT CEO, Janet Godwin, states, “The magnitude of the declines this year is particularly alarming, as we see rapidly growing numbers of seniors leaving high school without meeting the college-readiness benchmark in any of the subjects we measure (ACT 2022).

The significant impacts that COVID 19 brought to the educational landscape makes it difficult to draw firm conclusions about the relationship between strategic planning and student performance as student performance dropped significantly as a result of learning disruptions

caused by the COVID 19 pandemic. The COVID-19 pandemic resulted in unprecedented changes to the educational experience of the class of 2021 including extended school closures, remote learning, lack of opportunity to engage in in-person college visit, and limited access to school counseling services. (Anand & Bhatia, 2021).

The researcher proposes the possibility that the learning impacts of the COVID 19 pandemic on student achievement data are so significant that the effects of the strategic planning process on student achievement are overshadowed by the lack of in person learning opportunities experience by this subset of students. However, the strategic planning process is a long-term commitment used by leaders to prioritize initiatives, align resources, strengthen operations, establish and monitor goals, identify actions plans and success criteria, continuously assess the direction of the organization, and adjust planning measures in response to changes in the environment (Balanced Scorecard Institute n.d.). Even without the impacts of the COVID 19 pandemic, students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years may not have performed better on the ACT than students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period as it could take years for the effects of strategic planning to work its way through the organization and impact student achievement.

Practical Significance

Although this research study failed to demonstrate that district level strategic planning had an impact on student achievement as measured by ACT performance there is practical significance to be gained from the study. The research revealed a lack of evidence supporting the use of strategic planning as a means for improving student outcomes as measured by ACT

performance. The research exposed a decline between the baseline (2015-2016) academic year and the post-strategic planning implementation year (2020-2021) for all subgroups as related to the percentage of students meeting Reading, English and Math Benchmarks. The same decline was seen in the mean composite ACT score for all subgroups with the focus on CCR not having an impact on student performance. However, it is important to note that this study was focused on determining the impact of strategic planning on student achievement specifically related to ACT performance. As the literature review demonstrates, the benefits of strategic planning reach beyond strengthening student performance on standardized assessments.

The practical significance of strategic planning lies in the benefits noted in the literature related to future innovation and change along with establishing the what, why, and how of operational systems (Beach & Lindahl 2014; Bryson et al., 2017). On a practical level, strategic planning impacts school culture in a positive manner and inspires and unites a school community. This planning process allows educational stakeholders to focus on the big picture and helps school districts remain relevant in an ever-changing environment (Driscoll 2020). Strategic planning affords school districts the opportunity to set goals, establish action plans, and determine success criteria thereby positively impacting the organizational culture.

P-20 Implications

As revealed through the literature study, the P-20 initiative focuses on early childhood education, student transitions within the K-12 institution, vertical alignment of school curriculum, continuity of high school curriculum to college curriculum, teacher preparation and professional development, as well as college attendance, attainment of a degree, and ultimately workplace success (Pitre 2001). The P-20 initiative supports an aligned system of educating students from preschool through adulthood with the goal of creating well educated, successful

employees who are contributing members of American society. Key to the success of the P-20 initiative is the strategic planning process that occurs creating a seamless pipeline for students to progress through the stages of their education free of barriers and academically prepared to enter the post-secondary environment.

However, this quantitative research study does not support the implication that strategic planning impacts post-secondary readiness in regard to ACT achievement which is the most commonly accepted measure of post-secondary readiness and success. In fact, the results of this research study exposed a decline between the baseline (2015-2016) academic year and the post-strategic planning implementation year (2020-2021) for all subgroups as related to the percentage of students meeting Reading, English and Math Benchmarks. The data revealed through this quantitative study failed to demonstrate a positive correlation between completing the strategic planning process and student performance.

As shown through the literature review, creating a P-20 system with a focus on college readiness is a tremendous challenge as Foley et al. (2013) explain, stating that improving college readiness involves the development of standards and assessments, success criteria, a data analysis process, and the creation of data driven strategic plans, policies, and practices for school districts. The difficulty of the P-20 initiative in preparing students to enter the post-secondary environment with the necessary prerequisite skills for success in the Pre-Covid era must be noted. Considerations of the vast impact that the COVID 19 pandemic had on educational institutions including the impact on strategic planning implementation must be taken. As a result, firm conclusions about the relationship between strategic planning and student performance cannot be determined as overall student performance dropped significantly as a result of learning disruptions caused by the COVID 19 pandemic.

Limitations of the Study

There were multiple limitations of this study, beginning with time frame of the research partially occurring during the COVID 19 pandemic. The COVID 19 pandemic impacted societies across the world and prompted public school closures not only across Kentucky, but also the United States and the world as a whole. This research study sought to investigate if there was a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. During the timeframe in question, the largest public health crisis in recent history occurred resulting in mass shutdowns of businesses, universities, and schools all across the world.

In November of 2019 the Wuhan Province of China first identified the novel coronavirus with spread to the United States occurring rapidly (Centers for Disease Control and Prevention 2022). This spread resulted in mass closures and lock downs across all facets of society spanning the entirety of the world. Included in these lock downs were schools across Kentucky resulting in students experiencing significant learning loss, negative effects to both mental and physical health, an increase in food insecurity, and a lack of equal access to educational resources and technology needed for successful digital learning to occur. The impact of the Coronavirus public health crisis proved to be a significant limitation to this research study.

Another limitation of the study was the number of years that the research study encompassed. The study examined the impact of the strategic planning process on ACT achievement for the years 2016-2017, 2017-2018, 2018-2019 and 2019-2020 with baseline data

being collected for the 2015-2016 school year and post-strategic plan implementation data being collected for the 2020-2021 school year. The strategic planning process is a forward-thinking tool and as such the research study time frame of four years was a limitation for districts to demonstrate the impact of establishing a clear vision for long term goals and plan execution.

A final limitation of the study revolved around the definition of strategic planning itself. There is not a standardized strategic planning process thereby allowing variance in each district's interpretation of the process. By not including a standardized description of the intricate details of the researcher's definition of the strategic planning process, variance in participant responses occurred based on personal knowledge and interpretation of the strategic planning process. For example, one district representative could have answered yes to strategic planning implementation with only having established a plan that included a district level mission and vision statement. Another district could have answered yes to strategic planning implementation with the establishment of a plan that included mission, vision, core beliefs, SWOT analysis, objectives, and strategies.

Recommendations for Future Research

Based on the results of this quantitative research study to determine if there was a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period, there are a few recommendations for future research considerations. The current research project revealed a lack of evidence supporting the use of strategic planning as a means for improving student outcomes as measured by ACT performance. However, a future researcher could conduct a long-term

study monitoring the same districts in the current study for post-Covid academic recovery. The long-term study could determine if the districts that implemented a strategic plan experienced a quicker post COVID rebound in terms of student achievement as measured by ACT performance versus the districts that did not implement a strategic plan.

In addition, further research is needed to determine if the drop in mean ACT composite scores and the drop in the percentage of students meeting the established ACT benchmarks in English, reading, and mathematics is meaningful. The current research demonstrated a modest decline (1.5-2.0 points) in the mean ACT composite scores for the participants of the study. However, the research showed 10%-15% fewer students meeting the established benchmarks across all academic areas. While the research shows a statistically significant drop in ACT composite scores and a statistically significant drop in the percentage of students meeting benchmarks in English, reading, and mathematics future research could be conducted to determine if these drops are statistically significant enough to be consequential to the future success of students entering into a post-secondary educational experience.

Taken alone, the decline in the number of students meeting the ACT benchmarks is significant but the current statistical analysis does not reveal by how much the students are missing the benchmarks. Given the modest decline in the presented ACT composite scores it could be inferred that student performance in meeting ACT benchmarks is just shy of the established parameters. Further research is needed to determine the significance of the decline.

Conclusion

The purpose of this quantitative research study was to investigate if there was a statistically significant difference between the ACT scores of students who were enrolled in Kentucky public school districts that completed a district wide strategic planning process during

the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years and the ACT scores of students who were enrolled Kentucky public school districts that did not complete a district wide strategic planning process over the same time period. While the research revealed a lack of evidence supporting the use of strategic planning as a means for improving student outcomes as measured by ACT performance, the study highlights the complexity of the P-20 initiative, the utilization of the strategic planning process in preparing students for post-secondary readiness, and the limitations to the study caused by the COVID 19 pandemic.

The COVID 19 pandemic caused significant learning disruptions across the educational spectrum thereby further acerbating the difficulty in equipping students with the necessary prerequisite skills for post-secondary readiness. With student performance on the ACT college admissions test by the class of 2022 producing the lowest scores in over 30 years, a clear relationship between the learning disruption of the COVID 19 pandemic and a decrease in student achievement is established. As the literature reveals, the strategic planning process has significant value to educational institutions including supporting the educational alignment of students from preschool through adulthood. Extended research in a post-Covid educational environment that focuses on the relationship between P-20 focused strategic planning and student achievement will further investigate the impact of strategic planning on post-secondary readiness and college success.

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Appendix A

Institutional Review Board Approval

**Institutional Review Board**

328 Wells Hall
Murray, KY 42071-3318
270-809-2916 • msu.irb@murraystate.edu

TO: Randal Wilson, Educational Studies Leadership and Counseling
FROM: Jonathan Baskin, IRB Coordinator JB
DATE: September 29, 2022
RE: Human Subjects Protocol I.D. – IRB # 23-022

Project Title: *The Effect of District Level Strategic Planning on College Readiness as Measured by ACT Achievement.*

Principal Investigator(s): Carrie Ballinger

Determination: Individuals not Identifiable - Activity does not involve human subjects as defined in 45 CFR 46.102(e)(1)

The Murray State University IRB has reviewed the information you supplied for the project named above. Based on that information, it has been determined that this project does not involve activities and/or subjects that would require IRB review and oversight. The IRB will keep your determination form on file for a period of 3 years.

Please note that there may be other Federal, State, or local laws and/or regulations that may apply to your project and any changes to the subjects, intent, or methodology of your project could change this determination. You are responsible for informing the IRB of any such changes so that an updated determination can be made. If you have any questions or require guidance, please contact the IRB Coordinator for assistance.

Thank you for providing information concerning your project.

Opportunity
afforded

murraystate.edu

Appendix B

Informed Consent

Study Title: THE EFFECT OF DISTRICT LEVEL STRATEGIC PLANNING ON COLLEGE READINESS AS MEASURED BY ACT ACHIEVEMENT

Investigator: Carrie Ballinger

Faculty Mentor: Dr. Randal Wilson; Educational Studies, Leadership, and Counseling; (270) 809-3168

You are being invited to participate in an online survey research study conducted through Murray State University. As such, I am providing the following information so that you may make an informed decision on whether you would like to participate:

The purpose of this study is to investigate whether students who attend Kentucky public school districts that completed the strategic planning process during the 2016-2017, 2017-2018, 2018-2019 or 2019-2020 school years perform better on the ACT than students in Kentucky public school districts that did not complete the strategic planning process over the same time period.

This survey should take 3 minutes or less to complete. There are no anticipated personal benefits to you participating in this study, however, your participation will improve the understanding of the impact that district level strategic planning has on ACT performance.

Your participation is strictly voluntary and you are free to withdraw/stop participating at any time.

All responses will remain anonymous, meaning no one will know which answers are yours. All collected data will be secured on a password protected computer owned by the investigator. The researcher is unable to guarantee the security of the computer on which you choose to enter your responses.

Please note that, although your responses will remain anonymous, your data/answers may be combined with the data/answers of others and submitted for presentation at conventions or publications in scholarly journals.

Appendix C

Survey Questions

Study Title: THE EFFECT OF DISTRICT LEVEL STRATEGIC PLANNING ON COLLEGE READINESS AS MEASURED BY ACT ACHIEVEMENT

Investigator: Carrie Ballinger

Faculty Mentor: Dr. Randal Wilson; Educational Studies, Leadership, and Counseling; (270) 809-3168

Survey Questions:

- (1) Did your school district implement a strategic plan during the 2016-2017, 2017-2018, 2018-2019, or 2019-2020 school years?
- (2) If yes, what year did your school district implement the strategic plan?
- (3) If yes, was College and Career Readiness specifically addressed in the strategic plan?