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SOCIAL CONSTRUCTION OF POWER IN POLICYMAKING: A CASE OF  
CYBERSECURITY ARTICULATION AGREEMENTS IN VIRGINIA

by

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A Dissertation Submitted to the Faculty of  
Old Dominion University in Partial Fulfillment of the  
Requirements for the Degree of

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Approved by:

Chris Glass (Chair)

Kristine Sunday (Member)

Mitchell Williams (Member)

## **ABSTRACT**

### **SOCIAL CONSTRUCTION OF POWER IN POLICYMAKING: A CASE OF CYBERSECURITY ARTICULATION AGREEMENTS IN VIRGINIA**

Michael Paul Moore  
Old Dominion University, 2018  
Chair: Dr. Chris Glass

Existing research into the creation of articulation agreements focused solely on the functional aspects of these documents, such as maximizing transfer credit. However, little is known about the experiences of faculty and administrators at the community colleges and universities who create articulation agreements and how their experiences affect partnerships between institutions. This is especially important for high-stakes articulation agreements in industries that are under-employed, as institutions are expected to enroll large numbers of students to meet the demands of the market. Who takes charge in the creation of such articulation agreements is of interest for leaders of institutions seeking to create their own agreements.

The present study used a qualitative research methodology to perform a case study at five community colleges and universities in an east coast state in the U.S. Faculty and administrators at each institution were individually interviewed to capture their experiences as they worked beside and with one another to create an articulation agreement. Their use of social power across educational policy domains were then coded to describe how partnerships between and with one another are affected.

From an analysis of the data, four previously undescribed policy powers were identified. These policy powers work across four domains: personnel, beliefs, institutions, and practice. Individuals and groups used these powers singly and in compound to avoid, compromise, and partner with their colleagues. The ability of an individual or group to effectively influence others

was dependent upon the strength of their power relative to others. Who participants identified as in-charge was dependent upon who exerted the most influence over them. The findings claimed are strengthened by the inclusion of participants' own words used to describe their experiences

The findings of this research then help address in part the existing gap in the literature by describing how faculty and administrators at community colleges and universities partner with one another to create articulation agreements. The research also describes situations in which these groups avoid partnerships, which is valuable for institutions hoping to mitigate issues with their counterparts. By being aware of the policy powers used by group members in a high-stakes scenario, leaders at community colleges and universities can increase their odds of a successful partnership.

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To Jill, who always said, “Finish it up, rook.”

## ACKNOWLEDGMENTS

Many people are to thank for helping me complete the terminal degree in my educational career. Although I could spend multiple pages acknowledging them all, I will take this opportunity to thank a few that made a significant impact on my life as a student.

It begins with my mother, Margaret. Despite never attending college herself, she understood the importance of higher education. She worked hard and sacrificed to provide me a solid foundation in the form of a private school education. When it came time to start applying for college, she helped me evaluate different baccalaureate institutions and drove me to their campuses to help me find the right one. Four years later when she came to my graduation ceremony, the pride she felt was evident and continues to be now in the completion of the Ph.D.

My wife, Jill, has been a constant steadying force. She stood by my side throughout much of my undergraduate studies, helping me find the right major, and waiting for me after she graduated while I stayed behind to finish one additional semester. In my graduate studies, she encouraged me first to pursue my master's degree and continued to be supportive throughout my doctoral studies. She sacrificed evenings and weekends away from me while I attended classes, wrote papers, and conducted research. Once when I was struggling with my dissertation, she said, "I believe in you!" That simple affirmation gave me the strength I needed to finish.

When I began working at Old Dominion University, my boss and the University Registrar, Mary Swartz, first sparked the idea of earning a Ph.D. Mary recognized the value of a Ph.D. for a young administrator with aspirations of becoming a leader within the institution. Before Mary planted the seed, I never considered it and may have never reached out to the graduation program director, Dr. Chris Glass.

My first conversation with Dr. Glass, who would later become my advisor and dissertation chair, made me excited for the possibility of doctoral study. He encouraged me to “try it out” and take his course, Contemporary Issues in Higher Education. He taught in such an innovative way, mixing traditional text with burgeoning technology, combining his lectures with student led discussion, that I was persuaded and quickly applied for admission into the doctoral program. Dr. Glass continued to provide support, encouragement, and advice over the next three years to bring me to this point.

When I first envisioned my dissertation in the early days of my doctoral studies, I staunchly believed I would use a quantitative methodology. But one of the requirements of the doctoral program is to take a qualitative research course. To my great fortune, Dr. Kristine Sunday taught this course. Her excitement and passion for qualitative research rubbed off on me, and I continued to learn about qualitative research in her advanced course. Her service on my dissertation committee provided guidance on developing a solid qualitative research methodology.

In developing the first three chapters of the dissertation, we doctoral students must take proseminars. Dr. Mitch Williams led one of the proseminars I attended. His gentle guidance and quiet encouragement helped shape and tighten the structure of these first three chapters. My research is focused on the relationship between community colleges and universities. Even though I am quite familiar with the culture of the university, Dr. Williams’ place on my dissertation committee provides much-needed insight from the community college perspective.

There are dozens of others who should be acknowledged, from professors to colleagues, from friends to family. Although I cannot name them all, they know who they are and to them I say, “thank you.”



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## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background to the Study**

Cybersecurity is a fast-growing but underemployed field, with as many as 36,000 unfilled job openings in Virginia alone (Cawley, 2017; Wood, 2018), with a 2.0 supply/demand ratio of available workers to cybersecurity positions (Cyber Seek, 2018). States have a vested interest in promoting higher education in order to have an educated citizenry to fill such vacant positions, especially in high-paying fields (Grachan, 2013; Ignash & Townsend, 2000). Such a need for workers puts a demand on community colleges and universities to train the next generation of professionals. Community colleges and universities can partner with one another to meet the needs of industry, the state, and students by creating articulation agreements, which function as a path toward bachelor's degree attainment (Kisker, 2007).

Community colleges have long been the starting point for students interested in ultimately earning a bachelor's degree (American Association of State Colleges and Universities, 2005). The earning potential is certainly an attractive outcome, with bachelor's degree holders out-earning those with only a high school diploma by nearly two-thirds (American Association of Community Colleges, 2017). The increased tax base that is associated with higher salaries is of interest to states as well and thus they should encourage students to earn bachelor's degrees (Grachan, 2013).

But direct entry to the four-year institution is not always an option, either due to the higher price per credit when compared to the community college (College Board, 2016) or needing to be better prepared for baccalaureate level work (Townsend & Wilson, 2006). To provide a pathway to the university, community colleges and their four-year counterparts create

specialized articulation agreements (Southern Regional Education Board, 2013) that detail the course of study to be followed by the student at both institutions.

Creating articulation agreements requires the joint effort of both the community college and the university and each institution's associated faculty and administrators (Kisker, 2007; Southern Regional Education Board, 2013). Articulation agreements must address the unique needs of transfer students and therefore be specific while simultaneously being clear about the transition from community college to the university (Grachan, 2013).

### **Problem Statement**

The majority of undergraduate students in the United States enter higher education at the community college (Grachan, 2013). Since 80% of these students state their intention is to ultimately complete a bachelor's degree (Horn & Skomsvold, 2011), transfer from the community college to the four-year institution is an issue of national importance (Wellman, 2002). To this end, many states draft policies requiring community colleges and universities to work together to create articulation agreements to facilitate upward transfer (Roska & Keith, 2008). However, these articulation agreements are often focused on the efficiency of transfer (Roska, 2009). The efficiency aspects of articulation agreements, such as completion of an associate's degree (Crosta & Kopko, 2014), ensuring transfer of credit (Monaghan & Attewell, 2015), and specialized advising (Cuseo, 1998), and how they support student success have been thoroughly researched. However, little is known about how community colleges and universities form and maintain partnerships with one another through the creation of articulation agreements (Kisker, 2007). Researchers lament the lack of research into this important area (Mobelini, 2013) since strong partnerships have also been found to support student success at both institutions (Wilson & Lowry, 2017).

### Purpose of the Study

The purpose of this research is to examine experiences of faculty and administrators at public postsecondary institutions, both community colleges and universities, as they maintain existing partnerships from previously implemented articulation agreements and through the creation of new articulation agreements for the cybersecurity major. The research will address these partnerships through four different policy lenses as defined by Copper, Fusarelli, and Randall (2004): normative, structural, constituent, and technical. Cooper et al. posit these four policy lenses can be used to view and understand educational governance. The influence of social power (French & Raven, 1959; Raven, 1965) on policymaking will also be examined.

### Research Question

The research question was formulated by using the policy frame created by Cooper, Fusarelli, and Randall (2004) in which they define educational policy as existing across four dimensions: normative, structural, constituent, and technical. Applying these four lenses to educational governance allows researchers to view and understand policy. See Table 1.

Table 1

#### *Four Dimensions of Educational Policy*

Dimension	Dynamic	Governance Context
Normative	Beliefs, values, and ideologies that drive policymaking	Who has power to influence and make policy decisions
Structural	Institutional structure	Participation in the decision-making process
Constituent	Groups who influence and participate in policymaking	Who is involved in decision-making
Technical	Planning and putting policy into practice	What decision is best for problem being solved



The existence of different social power bases (reward, coercive, legitimate, referent, expert, and informational) as defined by French and Raven (1959) and Raven (1965) also influenced the research question as well as the analysis of the data. Social power bases are described in Table 2.

Table 2

*Six Bases of Social Power*

Base	Description
Reward	Use of tangible or intangible benefits
Coercive	Use of threat of negative consequences
Legitimate	Use of position
Referent	Use of relationship or admirable quality
Expert	Use of experience
Informational	Use of knowledge others need

Using the conceptual frame along with the bases of power, research was guided by the following research question.

What positions of power (i.e. who is in charge) existed among and between faculty and administrators when creating the cybersecurity articulation agreement, both intracollegiate and intercollegiate?

### **Significance of the Study**

If the goal of articulation agreements is to formalize a partnership between a community college and a four-year institution and these partnerships have been found to support student success, it is important to know how such partnerships are formed and maintained. This research

examined the experiences of those faculty and administrators directly involved with the creation and implementation of articulation agreements. Their experiences helped answer the research question, which in turn can assist faculty and administrators as they work together to create new partnerships and articulation agreements in the future. Since community colleges are one pathway to the university and bachelor's degree and more states are implementing policy requiring the creation of articulation agreements, the findings from this research are of interest to state higher education governing bodies and leaders of postsecondary institutions in the United States, especially where mandates for articulation agreements exist due to state law.

### **Overview of Methodology**

This research was concerned with the self-described positions of power of 13 faculty and administrators at public postsecondary institutions. Therefore, the qualitative research design of case study was employed for this study. Participants were faculty and administrators involved in the creation of a cybersecurity articulation agreement at five institutions in one state on the east coast of the U.S. Each participant was individually interviewed using a semi-structured interview protocol. Interviews were audio recorded and later transcribed. Transcribed interviews were then coded to identify common themes and concepts. These themes and concepts were mapped to relate back to the four dimensions of the conceptual frame and bases of social power to identify a new framework for leaders at community colleges and universities that mingled policy and power and assisted in answering the research question.

### **Delimitations**

Although upward transfer is of national interest in the United States, this research was delimited to public postsecondary institutions in one east coast state. Because there are nearly two dozen public community colleges and more than a dozen public four-year institutions in this

state, the research was further delimited to three community colleges and two universities.

Although there may be several faculty members and administrators at each institution involved in the creation of the articulation agreement, the research was again delimited to those faculty members and administrators from each of the selected institutions most directly involved in the creation of the articulation agreements for a total of 13 participants. Delimiting the research in this way will help narrow the focus of the study and ensure data is collected to answer the research question.

### **Key Terms**

- **Articulation Agreement:** a specific curriculum plan created by the community college and the university stipulating the requirements a student must meet to transfer.
- **Community College:** a two-year, associate degree-granting institution.
- **Guaranteed Admission Agreement (GAA):** a document signed by the community college student indicating their desire for upward transfer. Successful completion of the associate's degree within an agreed upon timeframe will guarantee their admission to the university.
- **Intercollegiate:** between two or more institutions.
- **Intracollegiate:** within one institution.
- **Policy Power:** the interaction of social bases of power and educational policy dimensions found in the course of this research and used by participants during the creation of the cybersecurity articulation agreement.
- **Positions of Power:** how individuals or groups use their policy power to take a particular stance on a policy issue.

- Transfer-Oriented Degree: a two-year associate's degree with a curriculum designed with the assumption students will be continuing their studies at a four-year college or university.
- Vertical Transfer: the upward transfer of a student from a community college to a baccalaureate-granting institution.

### **Organization of the Dissertation**

This dissertation is divided into five chapters. Chapter One covers the background information of the study, associated problem statement, purpose, and research questions, significance of the study, overview of the methodology, delimitations, as well as a definition of key terms. Chapter Two summarizes the related literature on research already performed on the subject of articulation agreements. Topics include the transition of community college students to the university, statewide initiatives to encourage transfer pathways, and the function and creation of agreements. A summary of social power and explanation of the conceptual frame is also included. Finally, the gap in the existing literature is identified as a lack of research into how partnerships are formed and maintained between leaders at both institutions in creation of an articulation agreement. In Chapter Three, an explanation of the methods chosen to perform the research is provided. The research perspective is explained as qualitative case study, with the design chosen as semi-structured individual interviews with faculty and administrations at institutions that had created a cybersecurity articulation agreement. Procedures for data collection and data analysis are detailed, with interviews transcribed and coded to identify new concepts. How credibility was ensured is shared, and limitations are presented as well. In Chapter Four, the findings of the research are reported. Power and policy interact with one another in these cases as policy powers which faculty and administrators use to influence one

another to achieve their goals. Examples of how participants used their policy powers are shared via direct quotes and provide context to the described policy powers. In Chapter Five, the findings are discussed and tied back to the existing literature. Contribution to existing theory is presented as it relates to the gap in research and how the findings of this study begin to address that gap. Recommendations for future research are provided, which suggestions for possible studies that involve focus groups and to repeat the study again in the future. Also, recommendations are shared for how the findings can inform leaders at community colleges, universities, and state governments interested in creating high-stakes articulation agreements of their own.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

This chapter explores various aspects of college transfer and articulation agreements as found in the existing academic literature. The literature will be reviewed broadly and continuously narrowed as it relates to the dissertation topic. The chapter will conclude with an explanation of the existing gap in the literature.

#### **Methodology of Literature Review**

The search for literature made use of the Monarch OneSearch tool on the Old Dominion University library webpage. The Monarch OneSearch tool searches multiple databases simultaneously and returns results from dissertations, peer-reviewed journal articles, books, and other text documents, such as research briefs. Keywords were used in the search for literature. Keyword terms included “articulation agreement” and “community college transfer” and “transfer policy” in various combinations. The search for literature was limited to books, peer-reviewed journal articles, policy documents from state, regional, and national organizations, and government sponsored research briefs. The majority of the literature discovered was published within the last decade, though a few core texts, such as French & Raven (1959), Ignash & Townsend (2000), Raven (1965), and Wellman (2002) are older but were included due to their influence on articulation agreement policy and social power.

After reviewing multiple sources, a picture of college transfer and articulation agreements began to emerge. Five aspects were identified and will be reviewed: (a) the community college as a pathway to the baccalaureate institution; (b) existing state policies on transfer and what issues they address; (c) how states should create transfer policy; (d) how articulation agreements

are meant to serve students in their transition between institutions; and (e) how institutions approach creating articulation agreements.

### **Community College as Pathway**

Today, community colleges in the United States enroll over 12 million students, with 59% of those students taking courses for credit. Of these 7.2 million students, 62% enroll part time. Over 800,000 associate's degrees were awarded in the 2014-2015 academic year (American Association of Community Colleges, 2017).

Community colleges are the entry point into postsecondary education for the majority of undergraduate students in the United States (Grachan, 2013) and are often the starting point for those students interested in earning a bachelor's degree (American Association of State Colleges and Universities, 2005). In fact, over 80 percent of community college students state their intention is to continue on to a university to earn a bachelor's degree (Horn & Skomsvold, 2011). With such a large number of students in community college desiring to transfer, providing a pathway to senior institutions is a critical issue in higher education (Roska & Keith, 2008). Providing access for community college transfer is an issue of national importance, including its effects on the nation's economy and breaking down economic stratification among underserved and underrepresented students (Grachan, 2013).

There are clear monetary benefits to students who earn a credential at the postsecondary level. High school graduates can expect a median outcome of \$36,000 per year. Earning an associate's degree increases the median earning potential by about 17% to \$42,600. However, the biggest gain in earning potential comes from the attainment of a bachelor's degree. These students can enjoy a salary of \$60,100 per year, an increase of almost 67% over a high school diploma and 40% more than the associate's degree (American Association of Community

Colleges, 2017). Thus, encouraging students to earn the bachelor's degree is of interest to a state in order to have an educated workforce (Grahan, 2013).

However, some students are not able to enter a baccalaureate institution directly out of high school. One potential reason is the cost of credit at the university. The average price of in-state tuition and fees at a public four-year college in 2016 was \$9,650 (College Board, 2016). Compare that with the more affordable price tag of \$3,520 at a community college, and it is easy to see why students may choose to begin their academic careers at such institutions (Grachan, 2013). Another barrier to entry into the university might be students needing to work while attending school. According to the National Center for Education Statistics (2010), 83.6% of community college students worked while enrolled, 61% of whom did so to meet expenses.

One of the missions of community colleges is to prepare students for transfer to a four-year college in pursuit of the bachelor's degree (Handel, 2011; Townsend & Wilson, 2006). One way in which community colleges function as a gateway to four-year institutions is through the completion of general education requirements and the completion of a transferrable associate's degree (Dowd, 2007), typically an associate of arts, associate of science, or associate of applied science.

However, transferring upward to the senior institution on the pathway to baccalaureate degree attainment is "rough and even blocked" (Mobelini, 2013, p. 634). When articulation agreements do not exist or are difficult to understand, students are further hindered from making the transition from the community college to the university (Roska & Calcagno, 2008). This is where state policies can come into play to smooth the transition from community college to the university.



### **State Transfer Policies**

Many states adopt transfer and articulation agreements to encourage and facilitate transfer from the community college to the university (Roska & Keith, 2008). Among states in which transfer policies exist, they break down into two types: specialized agreements between institutions or statewide articulation agreements. In the case of specialized agreements, individual institutions create agreements with one another, which can vary school-to-school, major-to-major. In the case of statewide articulation agreements, state governments may create a common core curriculum, number courses in a common system, and guarantee transfer from a two-year college to a state university (Southern Regional Education Board, 2013). States have an interest in creating the latter type of transfer policy to ensure transfer is efficient and citizens are effectively educated (Ignash & Townsend, 2000). The State Council of Higher Education for Virginia (SCHEV) adopted the State Policy on College Transfer in 1991, with revisions in 2004 and 2015.

For states like Virginia with statewide transfer policies, there are different ways in which SCHEV, the governing board of postsecondary education, regulate (or not) their state institutions. In the deregulated system, no guidelines exist and boards expect each institution to create articulation agreements with one another. In a regulated system, boards provide guidelines which must be met but leave it to individual institutions to establish articulation agreements. Highly regulated systems are those in which a regulatory body defines the specific rules that all institutions must abide by (Ignash & Townsend, 2000). Virginia falls somewhere in the middle of a regulated and highly regulated state. The State Policy on College Transfer states the articulation process should be worked out between each community college and senior institution. However, the policy also specifies that students who complete a transfer-oriented

degree at the community college should be considered to have met lower division general education requirements and be granted junior classification upon transfer to the baccalaureate institution (State Council of Higher Education for Virginia, 2004).

According to Ignash & Townsend (2000), the ideal state transfer policy would address transfer not only from the community college to the four-year institution, but also reverse (four-year to two-year) and horizontally (two-year to two-year and four-year to four-year). Virginia's State Policy on College Transfer speaks only to the upward transfer of students (State Council of Higher Education for Virginia, 2004). This is consistent with the view of other states where transfer policies exist (Ignash & Townsend, 2000).

The decision to focus exclusively on two-year to four-year transfer was likely influenced by Wellman's 2002 report, *State Policy and Community College-Baccalaureate Transfer*. In her report, Wellman included a section entitled "The Importance of 2/4 Transfer." Wellman acknowledged that students transfer upward, reverse, and horizontally. But she stated that the 2/4 transfer, that is transfer from the community college to the baccalaureate institution, was of utmost importance to state transfer policy. The reason state leaders should take 2/4 transfer so seriously is because states with weak policies see poor performance from community college students in their efforts to earn the baccalaureate credential. Wellman's report is often cited in research into state transfer policies and articulation agreements. Even the State Policy on College Transfer references her report as the reason why SCHEV undertook creating a statewide transfer policy (State Council of Higher Education for Virginia, 2004).

Still, there are states which do acknowledge that students transfer horizontally and reverse and include provisions within their policies for institutions to accommodate such students. However, this is exceedingly rare among states with transfer policies. Rhode Island is

the only state to include reverse transfer in its agreements. California and Florida are the only states to include horizontal transfer in their agreements. The remainder of the 12 states with articulation agreements (including Virginia) only included upward transfer in their agreements (Ignash & Townsend, 2000).

### **Creating Statewide Policy**

In creating a statewide transfer policy, there are three essential elements which must be present: statewide application, statewide core curriculum, and guaranteed credit transfer (Southern Regional Education Board, 2013).

#### **Statewide Application**

Statewide application refers to making the policy apply to all public institutions within that state. The State Policy on College Transfer makes it clear that all state schools must adhere to the tenants of the policy (State Council of Higher Education for Virginia, 2004). The majority of other states with articulation agreements also do the same. However, there are seven states (California, Connecticut, Florida, Illinois, North Dakota, and Washington) which include private, non-profit institutions in their transfer policies. Four states (California, Florida, Illinois, and North Dakota) also include private, for-profit institutions as well (Ignash & Townsend, 2000).

#### **Statewide Curriculum Core**

Creating a statewide curriculum core involves identifying 60 credits which not only satisfy the requirements of the associate's degree, but also meet the bachelor's degree lower division general education requirements, satisfy prerequisites, with any remaining courses transferring as electives (Southern Regional Education Board, 2013). Thirty states have created a statewide common core (American Association of State Colleges and Universities, 2005). But some states (Virginia among them) created transfer policies which kept the requirements for

creating a general education core rather broad, allowing institutions to develop individual agreements between one another (Ignash & Townsend, 2000). However, this can quickly become a complex process, as evidenced by the number of permutations of community colleges, universities, and majors.

### **Guaranteed Transfer of Credit**

The final element of a state transfer policy involves the guaranteed transfer of credit from the community college to the four-year institution (Southern Regional Education Board, 2013). This is a theme commonly seen in state transfer policies (including Virginia's), with language stating universities must accept all credits earned at the community college and grant junior classification upon admission (Roska & Keith, 2008).

### **Function of Articulation Agreements**

Articulation agreements provide several different features to community college students wishing to continue their academic career at the baccalaureate level. These features include the completion of an associate's degree, the transfer of credit from the community college to the university, specialized advising, and customized plans of study different from native university students.

### **Associate's Degree**

One requirement of articulation agreements is that students intending to transfer to a four-year institution must first complete an associate's degree. The type of associate's degree that must be completed varies dependent upon the bachelor's degree desired by the student. Completing the associate's degree prior to transfer increases the likelihood of the student transferring to the university (Eddy, Christie, & Rao, 2006; Roska & Calcagno, 2008). A benefit of earning the associate's degree—aside from the credential itself—is that community college

graduates transfer more credit to the university than non-graduates (Roska, 2009). Another benefit to completing the associate's degree first increases the likelihood the student will complete the bachelor's degree (Crosta & Kopko, 2014) and decreases the likelihood they will stop-out (Ehrenberg & Smith, 2004).

### **Transfer of Credit**

One of the greatest benefits of an articulation agreement is the mapping of community college course credit to baccalaureate transfer credit. Although not all transferred courses meet a specific bachelor's degree requirement, none of the credit completed while at the community college is lost when the student matriculates at the four-year institution. This is an important distinction from those community college transfer students who do not follow an articulation agreement, as only around half of this group had all community college courses accepted as transfer credit at the baccalaureate school (Doyle, 2006). Having all community college credits follow the student to the university results in an 82% bachelor's degree completion rate within six years (degree completion outcomes are measured at the four-, five-, and six-year mark by the U.S. Department of Education). This is significant when compared to those students who only have some credit transfer. This group's degree completion rate is only 46%. The number of credits lost in the transfer process is an important data point as well. Completion of the bachelor's degree is most dependent upon how many credits are transferred to the senior institution (Nutting, 2011). Monaghan and Attewell (2015) found that as the number of credits that did not transfer to the baccalaureate institution increased, the likelihood of the transfer student completing the bachelor's degree decreased. It can therefore be seen that the creation of articulation agreements must be done with the goal of accepting as many, if not all, community college courses as transferable to the senior institution (Cuseo, 1998).

Despite this careful creation of articulation agreements, the question of their effectiveness in encouraging transfer to the senior institution is up for debate. The State Policy on College Transfer was drafted with the thought it would provide an easier path for community college students to continue at the university. However, Anderson, Sun, and Alfonso (2006) examined the effectiveness of statewide articulation agreements on the probability of transfer in 12 states which such agreements (Virginia was not among them). They did not find a statistically significant effect. But it should be noted that the data was more than 20 years old.

Another study on the correlation of transfer from community college to the four-year institution was carried out in California, which has a state policy for special transfer programs. Researchers did not find a positive effect on the transfer rate (Budd & Stowers, 2015). In fact, there may be a negative effect on Associate of Arts and Associate of Science earners. The researchers do not advocate for the abandonment of such policies and suggest they are useful for planning purposes of both the student and the institution.

Even more surprising are the results from a study performed comparing transfer rates of students in states with articulation agreements and states without such policies. Researchers found states without articulation agreements actually saw higher rates of transfer and had more students whose stated goal is a bachelor's degree (Goldhaber, Gross, & DeBurgomaster, 2008).

### **Advising**

Transfer of credit and completion of an associate's degree are only two pieces of the articulation agreement puzzle. Thus far, only what the student does prior to transfer has been considered. Keeping that momentum going once at the four-year institution is important, as is helping the student adapt to the university setting. A strategy to do so is to designate and train specialized transfer advisors dedicated to these students (Cuseo, 1998). Once the transfer student

arrives at the university, they often need specialized advising in order to successfully make the transition to the university (Townsend & Wilson, 2006). This is due to the students finding themselves at an institution that differs in size, both in the physical sense and in the number of students enrolled, as well as differences in complexity, especially when it comes to academic rigor and faculty expectations (Allen, Smith, & Muehlecker, 2014; Chrystal, Gansemer-Topf, & Laanan, 2013). This often comes as a shock to these students because they think back to their experiences at the community college with the expectation their experience at the senior institution will be similar or better (Davies, 1999). Unfortunately, they often find the reality of the university environment to differ in almost every way. Transfer students often report feelings of disorientation and think of themselves like freshmen (Townsend & Wilson, 2006), despite being granted junior classification under the articulation agreement. Contributing to this feeling of being lost is that transfer students have the expectation that advising at the university will be better than at the community college (Allen et al., 2014). But in fact, students are less satisfied with the advising they receive at the baccalaureate level (Ellis, 2013). Students will then turn to family or friends at the institution for assistance (Chrystal et al., 2013).

In addition to training advisors, faculty also need to be aware of the challenges facing transfer students and should have more involvement in the transition (Cuseo, 1998). This is because transfer students often feel faculty at the senior institution are only there for research and are disinterested in teaching (Townsend & Wilson, 2006).

Transfer students are often less involved on campus, due to feeling too old, the inability to make friends, and the loss of their social network at the community college (Townsend & Wilson, 2006). These students should be encouraged and recruited for participation in activities (Garcia Falconetti, 2009) which may lead to better outcomes in earning the bachelor's degree.

Therefore, the university needs to create a welcoming atmosphere for the newly transferred students, as the quicker students are able to integrate, the more likely they are to succeed (“Improving student transfer”, 2011).

### **Creating Articulation Agreements**

In states that enact transfer policies, “community colleges and universities must work together to create and sustain effective transfer practices and to legitimize the community college as a viable and important path to the baccalaureate” (Kisker, 2007, p. 283). But, despite the need for community colleges to take the lead, those at the community college feel that it is university personnel who are in charge (Kisker, 2007). Participants in Kisker’s study felt this because often community colleges do not have the time nor personnel to be the leaders.

When creating policy for transfer, policymakers need to acknowledge that transfer students are not all the same (Grachan, 2013). In creating an articulation agreement, faculty from both the community college and the university should develop common courses to satisfy the associate’s degree requirements as well as the prerequisites for the baccalaureate major (Southern Regional Education Board, 2013). Therefore, articulation agreements need to be crafted with the specific major in mind. Furthermore, the policies themselves need to be transparent in how credit will transfer and what the community college student can expect once at the university (Grachan, 2013).

Both institutions need to make students aware of such agreements, as students must declare their intent to transfer prior to the completion of the associate’s degree. Students may not know about these agreements until too late and thus be discouraged from transferring since they will not get to use the provisions of the program (Goldhaber, Gross, & DeBurgomaster,



2008). Thus, both institutions need to heavily market the program to create a culture of transfer (Kisker, 2007).

### **Bases of Social Power**

French and Raven (1959) and later Raven (1965) identified six bases of social power that can be used to influence others to affect change, either positively or negatively: reward, coercive, legitimate, referent, expert, and informational. As implied by the name, reward power is ability of one to provide a reward to another that is being influenced (French & Raven, 1959). The likelihood of receiving the reward, affected by the ability of the giver to fulfill the promise as well as past experience receiving rewards promised, affects the strength of the reward power. The giver of the reward also needs to monitor the effectiveness of the reward on influencing the receiver (Raven, 1965).

Coercive power can be considered to be similar to reward power, though the power uses the potential of negative effects rather than positive effects of reward power (French & Raven, 1959). The one in power will use the threat of a negative consequence if the one trying to be influenced does not comply. The strength of this power is dependent upon how damaging the consequence will be should the person fail to comply with the influencer's demands. However, restraint needs to be used in exercising coercive power, as the effectiveness weakens over time (Raven, 1965).

Although legitimate power is the most complex, simply put, it is the acceptance of one to be influenced by another (French & Raven, 1959). Legitimate power is established upon one or more of three bases: cultural values, social structures, and designation. In the cultural values base, cultures identify characteristics that grant authority. In the social structures base, the

hierarchy of a social structure defines who has legitimacy. In the designation base, others have deemed who should have legitimate power.

Referent power describes how the influencer and the target have a “feeling of oneness...or a desire for such an identity” (French & Raven, 1959, p. 161). In other words, the one being influenced wishes to become associated with the one using referent power. Referent power is strengthened by the need of the target to be affiliated with the power user (Raven, 1965).

When one has knowledge gained from experience that others lack, they can use expert power to influence others (French & Raven, 1959). Those being influenced must trust the expert power user, and this trust can be damaged if the expertise being presented is false or not as strong as thought. Accepting the expertise of another does not result in knowledge transfer, however (Raven, 1965).

Informational power is similar to expert power, as it is related to knowledge another possesses. But informational power is different because the one being influenced desires knowledge transfer (Raven, 1965). Informational power was identified as being distinct from expert power, owing to the content of the message being more powerful than the messenger themselves.

For each of these powers, French and Raven hypothesized that power was greater when there was a stronger foundation for the power. French posited the multiple powers could be wielded simultaneously or could be chosen by the individual depending of which had a stronger basis.

### **Conceptual Frame**

In the normative dimension, Cooper et al. (2004) state that in order for a policy to be effective, the administrators tasked with its implementation must feel the policy's goals align with their own, both personally and institutionally. Because the educational missions of most—if not all—institutions of higher education are to promote learning in their students, the state policy should align closely. However, the way each institution approaches adopting the policy will likely differ. Each institution's solution to the problem will be based on their goals and mission. From a governance perspective, the interest is in the person or group which gets to make the decisions on policy. Examining if power is shared or hoarded is important to understanding governance from the normative lens.

In the structural dimension, the problem the policy seeks to address must have a possible solution. In other words, the issue cannot be unsolvable (Cooper et al., 2004). In creating an articulation agreement, the problem institutions want to solve is that of creating clear and easy pathways for students to progress through community colleges and then on to senior institutions, culminating in the earning of a baccalaureate degree. In order to successfully implement a policy in education, Cooper et al. state the institution “must have an organizational culture that fosters learning and communication” (p. 92). Since the creation of an articulation agreement requires community colleges and universities to work together to implement the policy, it is obvious that communication is a necessity. As for the learning aspect, institutions will need to create their own specific policies. This fact gets to what Cooper et al. refer to as “tractability.” Educational institutions are loosely coupled with their own self-interests which may be at odds with one another. Therefore “analysis of the role and effects of...state and local institutional structures is critical to adequately understanding the way institutions shape education policy” (p. 43).

Educational governance is concerned with these state and local structures and how they are designed to allow or not allow participation in the decision-making process. A decentralized approach allows those closest to the problem to determine the solution. Compare that to a centralized system that relies on those at the top to pass down the solution to ground-level constituents who then must enact the decisions.

As implied by its name, the constituent dimension does refer to those persons affected by the policy, from the policymakers themselves to the end user (Cooper et al., 2004). In this case, the end user might be thought of as the student. However, this research focused on the processes and experiences of faculty and administrators at community colleges and universities. The distinction between “community college” and “university” is important in this context because of the balance of power. One might assume the university holds the power, with its bachelor’s degree being the end goal of students. But consider that students first need to come through the community college. Therefore, the universities must rely on the community colleges as a source for new students. At the same time, community colleges have the burden of adequately preparing their students for the rigors of education at the baccalaureate level. This access to power is an issue to be addressed, including how each group makes their needs known and how they ensure they are met (Cooper et al., 2004). Beyond questions of the balance of power, there is also the aspect of how each institution—and even each faculty member and administrator within the institutions—interpret the policy. Because each institution is different with varying goals and interests, putting policy into practice will vary as well (Cooper et al., 2004). The research therefore compared the policy documents at each institution as well as the responses to interview questions from administrators.

The technical dimension is concerned with putting policy into practice (Cooper et al., 2004). This research examined how institutions interpreted policy, created articulation agreements with one another, and implemented them. As each institution has different goals, missions, and values, it is expected there will be a great deal of variability in this dimension. Governance in the technical dimension is a major source of discussion (Cooper et al., 2004). Questions of how decisions should be made in shared governance are explored in this dimension.

### **Existing Gap in the Literature**

There is little current research into how community college and university leaders create partnerships during the construction of an articulation agreement. As Kisker (2007) notes:

[Few] articles have examined these partnerships through a conceptual lens that helps to identify the factors that may be barriers or aids to achieving partnership goals. In sum, we have little understanding of the processes by which community college-university transfer partnerships can be created and sustained (p. 282).

The lack of research into this area is surprising, considering that community college and university partnerships have been found to be effective in supporting student success, especially among underprepared students (Wilson & Lowry, 2017). The dearth of research raises several questions about the partnerships between community colleges and universities when creating articulation agreements (Mobelini, 2013). Research in particular should focus on administrator perceptions of such partnerships (Wilson & Lowry, 2017). How institutions work with one another to create transfer policies may have significant effects on the outcomes for transfer students, so research is needed to ensure both the community college and the university understand one another's culture (Handel, 2011).

Much of the research to this point has been conducted regarding the elements necessary to create efficient college transfer policies and articulation agreements. Less research has been performed on the experiences of policymakers as they attempt to implement policy related to

college transfer and articulation agreements. Furthermore, a majority of the existing research has been of a quantitative nature, ignoring the qualitative aspects to policy creation and implementation.

## **CHAPTER THREE**

### **METHODOLOGY**

The purpose of the research study was to examine the experiences of faculty and administrators as they create and implement an articulation agreement at their institution (community college or university). This chapter outlines the research perspective, research design, and research questions. Also included in this chapter is information regarding the participants in the study, data collection, and analysis. This chapter concludes with a description of how validity and reliability was ensured.

#### **Research Perspective**

A qualitative research design was employed for this study. “Qualitative researchers are concerned with text and words...[and] build and analyze themes embedded within transcripts...or preexisting texts” (Hesse-Biber & Leavy, 2006, p. 8). As this research is concerned with the lived experiences of the faculty and administrators creating and implementing policy, a qualitative research design is most appropriate.

This research is a case of partnerships in the creation of cybersecurity articulation agreements. Therefore, case study was the approach employed for this research, as “case study has proven particularly useful for studying educational innovations, evaluating programs, and informing policy” (Merriam, 2009, p. 51). Case studies are concerned with “sensemaking or the social construction of reality” (Heck, 2011, p. 205). This research attempted to understand the reality constructed by the faculty and staff at selected institutions as they created the cybersecurity articulation agreement.

Case studies are limited to one particular situation, group of individuals, or phenomena, known as a “bounded system” (Merriam, 2009). In this research, the bounded system is the

cybersecurity articulation agreements created by the faculty and administrators at five public two-year and four-year postsecondary institutions in Virginia. Within this bounded system, researchers “aim to uncover the interaction of significant factors characteristic to the phenomenon” (Merriam, 2009, p. 43). The interaction of significant factors examined in this research is that of the positions of power of faculty and administrators. The findings from this case study can be used to make assertions about the research question, which then can be used by those involved with making policy (Toma, 2011).

### **Research Design**

A typical case study uses several methods for collecting data, such as gathering documents and performing interviews. Including different types of evidence in the study of a phenomenon is one strength of the case study methodology (Heck, 2011). To understand how the leaders at their institutions may define their position of power, associated documents related to the cybersecurity articulation agreement were gathered, such as curriculum sheets, catalog entries, web pages, and marketing materials.

Because the phenomenon occurred in the past and cannot be replicated, interviews are a necessary component of case study research (Merriam, 1998). Semi-structured interviews were conducted with the 13 faculty and administrators from each of the selected institutions. In semi-structured interviews, a schedule and questions are determined ahead of time, but the researcher may deviate when needed to discover additional information (Heck, 2011). Having a less structured format also allows interviewees to define their worldview using their own terms (Merriam, 1998). Interviews were initially set for 60 minutes and used the questions found in Appendix A. However, flexibility in the time limit was exercised when an interviewee wished to continue or when the researcher felt questions have not been adequately answered.



### **Research Question**

What positions of power (i.e. who is in charge) existed among and between faculty and administrators when creating the articulation agreement, both intracollegiate and intercollegiate?

### **Participants**

Purposive sampling was used to select the institutions and the faculty and administrators to participate in this research. Purposive sampling can be understood as selecting those participants who have specific attributes a researcher is interested in studying (Hesse-Biber & Leavy, 2006). In this case, the attributes of importance for participants to possess were being involved as a faculty or administrator at a public postsecondary institution that had partnered with another institution to create a cybersecurity articulation agreement.

Although articulation agreements are of national importance (Wellman, 2002), the research was delimited to public postsecondary institutions in one state on the east coast of the United States, Virginia. However, there are nearly two dozen community colleges and over a dozen universities in Virginia. Therefore, the research was further delimited to five institutions: three community colleges and two universities. Although these institutions are charged by their state agency with creating articulation agreements, institutions are granted autonomy in determining the details. Therefore, specific articulation agreements are unique to each community college and university pair, and thus hundreds if not thousands exist. Therefore, the research will be delimited to just the cybersecurity articulation agreement.

Because the study is focused on the experiences of faculty and administrators charged with creating and implementing the policy on articulation agreements, individuals who meet these criteria were selected. To achieve purposive sampling, faculty and administrators directly involved with the articulation agreement were recruited from each of the institutions for a total of

13 participants. Once participants were identified, they were contacted via email. The email introduced the researcher, the research project, and explained the participant's role. The fact that the interview would be recorded was made clear. The interviewee was assured they will not be referred to by name in the findings of this research. However, the researcher informed interviewees that due to the specific nature of the case being studied, a reader of the research may be able to identify them. Participants were asked to sign an informed consent form, with one copy being retained by the researcher and another provided to the participant. It was also made clear to the participants their right to withdraw at any time from the study.

### **Data Collection Procedures**

To best perform policy analysis, researchers must give equal merit to two relevant sources of data: documents and people (Bardach, 2009). In order to fully consider these two sources, two approaches to data collection were employed. The first was to gather the documents surrounding the articulation agreements. The second approach was to interview the faculty and administrators tasked with the creation and implementation of the articulation agreement.

### **Document Gathering**

Documents included not only the final articulation agreement itself, but web pages explaining or advertising the agreement, associated curriculum sheets, catalog entries, marketing materials, and more (Rubin & Rubin, 2012). Because the institutions that were examined are public postsecondary institutions, the documents of interest in were freely available and easily accessible via each institution's website. Documents were downloaded and saved as PDFs. Although these documents are publicly available, the PDFs were stored in a two-factor (password and Google Authenticator) protected cloud storage location (Microsoft One Drive),

which is where all other related research material was also saved. One storage location made it easier to keep track of these documents.

## **Interviewing**

Researchers who examine documents are best served when they combine document analysis with in-depth interviews to gain an understanding of how the authors created the documents (Rubin & Rubin, 2012). In-depth interviews are one of the most common data collection methods for qualitative researchers and are conducted with individuals assumed to have unique and important information about the research topic (Hesse-Biber & Leavy, 2006). Therefore, interviews were conducted with the 13 faculty and administrators. Interviews were semi-structured. In semi-structured interviews, a set list of questions was prepared ahead of time. As the interviewee answered questions, follow up questions were posed to probe deeper (Merriam, 2009; Rubin & Rubin, 2012). The reason for selecting semi-structured as the interview approach was to ensure that topics and themes related to the articulation agreement were answered. However, semi-structured interviews still allowed the flexibility to follow different tangents as they emerged.

Interviews were conducted in-person or via video conference in the interviewee's office. This setting was selected for several reasons. One was for the convenience of the interviewee. Community college and university faculty and administrators are busy individuals and have limited availability in their calendars. Conducting the interviews in their office negated the need for the interviewee to travel to another location. Another reason for choosing the interviewee's office was for privacy. Since the interview was guided by the research question, sensitive topics (such as questions of power struggles) arose. The final reason for setting the interview in the interviewee's office was to minimize background noise and distraction.

There were several ways in which to record the interviews, but audio recording was chosen as the method for this research. Specifically, a ZOOM digital recorder was the device which was employed. This device was chosen for several reasons. One is that the internal memory of the device allowed for uninterrupted recording of the interviews without running out of storage space required to capture the audio. Another was the device has a large, backlit screen which displays the current audio levels, battery level, time recorded, and time remaining. The researcher monitored this screen to ensure the interview was being captured. The device comes equipped with two unidirectional microphones, one which points at the interviewer and the other at the interviewee. Unidirectional microphones only record the audio spoken directly into them, which decreased background noise and provided a clear recording. Field notes were also taken during the interview to record non-verbal communication. Although a video recording could be used to do this more effectively, interviewees are often uncomfortable being filmed and are more likely to agree to an audio recording (Rapley, 2009).

Audio files were stored in a two-factor (password and Google Authenticator) protected cloud storage location (Microsoft One Drive). Once backed up the cloud storage location, the ZOOM digital recorder's internal memory was formatted.

### **Data Analysis**

There were several steps involved in the process of data analysis (Hesse-Biber & Leavy, 2006). The first step involved data preparation. In this phase, data was transcribed from the audio recordings into textual documents. In the second step, the researcher explored the data. Exploration of data involved reading through the gathered documents and thinking about how they relate to one another and might answer the research question. In this phase, the researcher consolidated the data through the use of coding in NVivo software. Coding involved assigning

meaningful words to text. Segments of text with the same or similar codes were then grouped, compared, and contrasted with the goal of finding analytical concepts (pp. 344-348)

### **Transcription**

After interviews had been completed, audio recordings were transcribed into a document which accurately reflected what the interviewee said (Rubin & Rubin, 2012). To provide more context to the written document, field notes from the interviews were added to the transcription to capture tone, speech pattern, and other non-verbal communication cues. Since in the process of coding, interviews need to be repeatedly reexamined, transcription better allowed for the analyzation of certain responses without the need to continually revisit the audio recording (Rubin & Rubin, 2012). Once transcription was completed, the researcher added these newly created documents to NVivo, a software tool that assists qualitative researchers. At this point, the researcher began to code the data.

### **Coding**

The transcribed interviews were coded to provide meaning to what was said and expressed by the interviewee. Coding is the process of performing a “word by word, line by line analysis questioning the data in order to identify concepts and categories” (Grbich, 2007, p. 74). Coding the data helped identify responses which provided information to better answer the research question (Rubin & Rubin, 2012). While coding the data, events which may have occurred (such as meetings between faculty and administrators) were important as indicators of partnership. Any topical markers, such as people, places, and policy were also noted. Examples were also an important item to code, as they provided an insight into the experience of the administrator and provide a grounded version of policy into practice. Concepts were coded as well, since they provided insight into relationships between administrators, institutions, and

policies. Such concepts were then linked to create overarching themes that emerged and evolved within the data (Rubin & Rubin, 2012). Rapley (2009) suggests a reading of the text for both what is being said and what is not. The silences were of particular importance for this research, especially the absence of specific language regarding the four dimensions of the conceptual framework as well as social power bases. The process of coding was repeated until no new information could be gleaned from the data.

When coding the data, the researcher was aware of the four dimensions (normative, structural, constituent, and technical) from the conceptual framework and each of their associated dynamics and how they relate to the governance context. Within the normative dimension, responses related to the beliefs, values, and ideologies of interviewees regarding who had the power to influence and make decisions were coded. Within the structural dimension, responses related to the arrangement and structure of the institutions and the level of participation in the decision-making process were coded. Within the constituent dimension, responses related to which individuals were involved in the decision-making process were coded. Within the technical dimension, planning and putting the policy the practice as well as if the decision was best for the problem trying to be solved were coded.

Data was also coded along the six bases of power as described by French and Raven (1959) and Raven (1965). Examples of legitimate power were coded when group members complied with another group member because they were actually the person in charge. In the reward power base, examples were coded when group members complied because they would receive a tangible or intangible benefit. Coercive power examples were coded when group members complied because of a threat of negative consequences was suggested by another group member. In the expert power base, examples were coded when group members deferred to

others due to their experience or expertise. Referent power examples were coded when group members agreed to the demands of other group members because of their relationship or because they admired them or their institution. When group members deferred to others because they had more knowledge of a particular area, examples were coded as informational power.

### **Conceptual Mapping**

Once the data was coded, the data was reduced into meaningful sets using conceptual mapping. Conceptual mapping provides summaries of data into the various themes as they emerge (Grbich, 2007). These themes were then mapped graphically to show the connections between them and how they related (or did not relate) to each dimension and the research question. From this mapping, the data was better interpreted in an effort to answer the research question. The mapping is included in Appendix C so readers can visually understand the themes present in the research.

### **Credibility**

As the researcher identified themes and concepts within the data through analysis, negative cases were sought within the data. Negative cases are those instances where the data does not hold up to an identified concept or theme. If any negative cases were found, the researcher would determine why it differed in the identified case and provide an explanation for the outlier. Using this process of checking validity ensured the “craftsmanship” of the researcher’s work (Hesse-Biber & Leavy, 2006). No negative cases were discovered in this research.

Communicative validity is another method of ensuring validity of any interpretation of data the researcher finds. Communicative validity was accomplished in two ways. The first involves sharing the researcher’s findings with other social scientists in the field who research

similar topics and use similar methods (Hesse-Biber & Leavy, 2006). In this research, the researcher regularly debriefed the dissertation chair on the progress of the study. The second approach, known as member checking, was to return to the interviewees and ask if they agree with the researcher's interpretation of their responses to the interview questions (Heck, 2011). Findings were shared with participants via email, along with their specific quotes that served as a foundation for the concept being posed.

Triangulation was also used to check validity. Triangulation involved using two different sources in an attempt to find agreement in the identified themes and concepts. This research project used two different data sources: preexisting policy documents and transcribed interviews. Triangulation was then used to ensure that what was written in the preexisting policy documents was reflected in the responses to interview questions (Hesse-Biber & Leavy, 2006).

Researchers are limited by their biases and judgements (Grbich, 2007). To maintain researcher subjectivity, the researcher maintained a reflective diary and participated in regular debriefings with the dissertation chair.

### **Limitations**

Because this qualitative case study examines only a particular phenomenon, the potential for generalizability is questionable (Merriam, 2009). However, findings from a case study can be used to make recommendations to apply to similar situations (Toma, 2011). In order for a case study's findings to have a level of transferability, the inclusion of rich, "thick" description is necessary (Merriam, 2009; Toma 2011).

Another limitation is the researcher. Since the researcher is the primary instrument of data collection and analysis (Toma, 2011), the results are limited by the ability of the researcher (Merriam, 2009) as well as their own biases and judgements (Grbich, 2007). How these biases



and judgements impacted the data collection, interaction with interviewees, and data analysis are included in Chapter 5.

One limitation in this study is that only institutions in one region of the east coast were included. With thousands of institutions across the United States, the approach to creating an articulation agreement will likely differ. Still, the institutions chosen for this study follow the suggestion of Wellman's (2002) influential report on transfer that stated institutions should focus on upward transfer. The institutions also ensured the preservation of as many credits as possible in the creation of the agreement. Doing so is consistent with existing research on the affect transferring credit has on student success, as seen in Chapter 2. Other institutions are likely to have the same prerogatives in facilitating an articulation agreement.

The study of only the cybersecurity articulation agreement could itself be considered a limitation, since articulation agreements exist for hundreds of programs. However, due to the interdisciplinary nature of the cybersecurity major, it is more complex than typical majors (as noted by participants). This necessarily required the involvement of more individuals than normal for an articulation agreement. Therefore, this study captured the experiences of a diverse group of individuals, which added strength to the findings.

## **CHAPTER FOUR**

### **FINDINGS**

This study examined the experiences of 13 faculty and administrators from community colleges and universities involved in the creation of an articulation agreement for an associate's degree in cybersecurity to a bachelor's degree in cybersecurity. The researcher interviewed each participant for 60 minutes using a series of open-ended questions designed to spark discussion about the topic. From a vice provost to an academic dean to the director of advising to a student success coordinator, participants represent a wide-swath of campus constituents, both at the community college and the university. Having such a diverse group at all levels of academics and administration provided deep insight into the process of creating an articulation agreement for the complex cybersecurity major.

In this chapter, the researcher contends that sources of policy power permeate all aspects of the creation of an articulation agreement since the creation of such a document, especially for a major as interdisciplinary as cybersecurity, requires the involvement of many different constituents with competing needs and wants. The contribution of this study is to expose how social power affects the process of creating an articulation agreement and how campus constituents can be aware of it to form better agreements as well as relationships with one another. Using the research framework outlined in earlier chapters that initially drove the research, the researcher shows how social power is inescapably intertwined across all dimensions of articulation agreement creation and propose a new framework for examining these partnerships. The researcher uses direct experiences as relayed by participants during interviews to bolster the argument.

Table 3 lays out the experiences of faculty and administrators across four dimensions. For each dimension, there are different types of collaboration in which faculty and administrators engage. Although not a continuous scale, it does highlight how faculty and administrators can exercise policy power to avoid, to make concessions, and to work together for the sake of the articulation agreement. For each combination of power dimension and type, a description of what faculty and administrators experienced is included. These experiences are explained in detail in subsequent sections of this chapter.

Table 3

*Four Dimensions of Policy Power in the Creation of Articulation Agreements*

Power	Avoiding	Compromising	Partnering
<i>of personnel</i>	I'm Not Coming, and You're Not Going	Late to the Party	The Right People in the Room
<i>of beliefs</i>	It's Not Worth It	It's a Negotiation	We're Going to Work Together
<i>of institutions</i>	We're a Center of Academic Excellence	A Broader Perspective	Beneficial for Everybody
<i>of practice</i>	I Know that History	Make a Very Good Case	They Have Great Experience

### **Power of Personnel**

The power of personnel refers to those who participate in policymaking and how they use the power available to them to influence decision-making. The power of personnel dimension explores how faculty and administrators used their power to include or exclude themselves or others from the process of creating the cybersecurity articulation agreements. Table 4 provides a description for each type of experience in the power of personnel dimension.

Table 4

*Experiences of Faculty and Administrators in the Power of Personnel Dimension*

Power of Personnel	Description
I'm Not Coming, and You're Not Going	Having the ability to remove oneself or others from the group
Late to the Party	Having the ability to initially exclude group members to be brought in at a later point
The Right People in the Room	Having the ability to ensure that all groups needed to create the policy were appropriately included when necessary

**I'm Not Coming, and You're Not Going**

This experience refers to faculty and administrators using their power to ignore others in the group, either by deliberately excluding themselves or by preventing others from being involved. Brad Carson, a dean and instructor at East Coast Community College (ECCC), embodies such an example of excluding oneself.

The day before an important meeting with his counterparts at Mid-Atlantic University (MAU), Brad received a draft version of the cybersecurity articulation agreement from the administrators at MAU. What he saw left him less than pleased. In fact, he felt ready to shut the whole thing down based on what MAU sent him. Brad took issue with the number of credits ECCC students would ultimately take over the period of their academic career at ECCC and MAU: 130, which was 10 credits beyond the 120 required of a native MAU student. Brad shared his frustration during the interview.

Did it have to be right at 120? No. But if it was 130, it was a deal breaker. I basically emailed them back saying, "I'm not coming to the meeting" 'cause it was unacceptable. So, they emailed it back to me with some changes, and it was closer. But I told them I'm still not coming to the meeting 'cause I still wasn't happy with it.

Brad's experience is an example of one using their power to exclude themselves from the conversation. Brad was able to exercise this power because "as much as I wanted this agreement done, [MAU] needed me maybe more than I needed them."

But Brad did not see exercising this power as necessarily a bad thing. In fact, faculty and administrators can use this power to get what they want and what is best for all parties in the end.

You gotta be direct, but just don't be rude or impolite. It's nothing personal, but both of us wanted what was best for our institutions. That's really what it came down to. Everybody's got territory. You've got something to protect, I've got something to protect. So that's kinda where the shell game is in this. Who's willing to bend a little more? It's like any negotiation: who wants it more?

Digging in as Brad did is a risky calculation, as the other members of the group may decide to move forward without this member. This scenario played out on the MAU side during internal discussions. At issue was the removal of a calculus requirement, which MAU did at the behest of ECCC. Laura Thompson, the advisor for cybersecurity at MAU, recalled how a computer science faculty member at MAU reacted to the removal of the calculus requirement.

There was a CS professor who was very, very upset that calculus was gone from the major and was very upset that now with the articulation agreement, students could be coming in with pre-calculus and graduating with the same degree of [native] students who are presently required to take upper-level mathematics. And he was very insistent that it had to be upper-level mathematics.

The computer science faculty member dug in as Brad did. However, the outcome for the faculty member was on the opposite end of the spectrum. In the meeting to further discuss the math requirement, he was not invited. Laura said the group made this decision "for the sake of getting things done."

Intentionally excluding oneself, as described by Brad, or excluding another group member, as described by Laura, indicates how power can be used to avoid others in the decision-making process. Group members judged each other on their importance to the articulation

agreements when one refused to move forward. Dependent on their power, the larger group either acquiesced to the demands of the individual or excluded the offending member.

### **Late to the Party**

Faculty and administrators who other group members did not include until later experienced being late to the party. Whether group members left others out by design or by oversight affected their experience. Dawn Cena, the director for Transfer Advising and Articulations at Mid-Atlantic University, recalled how the group did not include the faculty group initially during the initial draft of on the cybersecurity articulation agreement because they never had in previous agreements.

All the other agreements, we would work directly with Katherine [Sanders, the AVP for Academic Affairs at East Coast Community Colleges]. When we did the first draft of the [cybersecurity] agreement, it came to be over 160 credits total. The feedback from ECCC is like, “No.” The feedback from MAU was like, “No.” But that’s when, I think, Brandon Pointer [vice provost at MAU] realized we need to be bringing faculty together to really sit down together and get an in-depth review of all the courses, the competencies with that redefined vision of what we are trying to accomplish.

In other words, the administrators group concluded they needed the expert power of the faculty to achieve the goals of the articulation agreement. Brandon shared the experience from his perspective.

Usually, Tammy [Applewood, coordinator for Transfer Advising & Articulations at MAU] is able to knock these out by herself. But with all the different moving parts and just the parameters of and the framework of it, I think that changed it up some. We just had more [faculty] involved to navigate that interdisciplinary angle.

On ECCC’s side, Katherine came to the same conclusion about the need for faculty to be involved for this articulation agreement.

We had faculty members from ECCC very much involved with me, which is typically not the case. Typically, it’s just me and/or one of my colleagues working alongside MAU and then typically they’re then working with the department and we’re working with the departments here. But this time, there was a lot of faculty input.

Dr. Henry Winston, electrical and computer engineering professor at MAU, highlighted the expertise as being important to who was included in the group.

I thought it's pretty natural that the faculty owns this domain expertise so we can provide our inputs about the evaluation of the courses. The administrators and the staff from the transfer office, they know many other logistics. Everyone in the meeting has their own kind of expertise.

But in this case, being initially left out only to be brought in later cut both ways.

Although the faculty built the curriculum, they did not consult the advising administrators on how it might affect students' ability to succeed. Tammy recalled several instances where the faculty did not consider prerequisites until much later.

The more ECCC pushed and questioned, the more MAU faculty were like, "Oh, well, yeah, I guess we don't need that. Let's just do pre-calculus. Oh, yeah, we don't need physics." Again, red flag, prerequisites. [MAU has] all these higher-level IT, CS, and engineering courses that need those prerequisites. We can't just not have those.

Tammy clearly expressed some frustration and felt faculty should have included administrative advising staff in the conversation regarding curriculum from the beginning. Thus, issues surrounding registration logistics could have been prevented. Tammy acknowledged faculty know prerequisites, but "they're not in the trenches advising and actually helping register students a lot of times" and therefore do not understand the administrative processes that occur.

From these experiences, it is clear that involving the right people to consider all sides of an articulation agreement, from policy to curriculum, is key to being successful. In some cases, this involvement did not come until later, it still resulted in a positive outcome. However, faculty and administration might avoid some frustration by ensuring the correct representatives are included from the beginning.

## **The Right People in the Room**

As seen in the previous two experiences, the involvement of the correct mix of faculty and administrations resulted in forward progress. Although identifying the right people may be difficult, someone must take ownership of this task. For the ECCC/MAU cybersecurity articulation agreement, that person was Linda Stevens, the administrator for Interdisciplinary Initiatives. “Linda was really helpful, especially in connecting people. She’s really great at that,” Laura said. Of her abilities, Linda shared her experience.

I just do a lot of coordinating people. I get the people in the room. Who else should have been included? You know, I think we had the right people in the room. The core group was always there. And they were needed. Like Sara [Williams, executive director for Advising & Transfer Programs at MAU]’s staff. Brandon and Dr. Winston. They were always there.

Dr. Winston gave positive feedback on his impression of the group, describing it as “a perfect team.”

We have the staff members who handle the transfer students on a daily basis. They have really good experience. We also have faculty members who have the expertise who can really look into the courses, look into the curriculum and syllabus to understand whether some courses can be transferred to MAU or not. I think that’s a perfect team.

For ECCC, the person responsible for coordinating the involvement of the right people was Katherine. “My role here is to make sure that we have the right people in the conversation from the start,” she said. Although initially she did not believe the right mix existed on the MAU side, she did feel representation on the ECCC side was adequate. Travis Early, associate vice president at ECCC agreed.

We had Katherine hammering out the technical details, especially with the articulation side of the office at MAU, which was heavily involved. And then of course you have the actual boots on the ground faculty members who had to actually break down the classes, the skills and competencies in each class and the learning outcomes and all that jazz. From my perspective, I think the right people were in the room.



Having the informational power to know who needs to be involved in the conversation is key in this domain. Being able to identify who those group members as soon as possible is also a key to success. As seen in other types of the power of personnel, not having the right mix initially can cause problems with being able to move forward.

### **Power of Beliefs**

The power of beliefs domain refers to the beliefs, values, and ideologies that drive the creation of articulation agreements and how group members use their power to pursue what they believe to be the correct course of action. When beliefs between group members clash, a power struggle will occur, with one belief winning over another. However, there is room for compromise while still holding onto those beliefs that are most important to individual group members or institutions as a whole. Creating the articulation agreement worked best when all group members shared the same beliefs. Table 5 describes the types of experience in the power of beliefs dimension.

Table 5

#### *Experiences of Faculty and Administrators in the Power of Beliefs Dimension*

Power of Beliefs	Description
It's Not Worth It	Having strong beliefs that makes giving a concession untenable
It's a Negotiation	Having beliefs that can be negotiated while retaining those most important
We're Going to Work Together	Having the same beliefs as other group members that allows for full collaboration

## It's Not Worth It

Brad exemplified an aspect of this experience in the power of personnel dimension when he refused to attend a meeting until MAU brought the articulation agreement into alignment with what he believed to be best for his students at ECCC. His colleague Travis Early, associate vice president at ECCC, echoed this experience. The transferability of the associate's in cybersecurity concerned him. Not having a clear path from ECCC to MAU would result in a stumbling block for student success.

A big emphasis in community college is we're shaping the best transfer pathway for our students. If we're going to do an articulation, we're looking at something that closely resembles a 2+2. Otherwise, it's just not worth it. We don't want to mislead our students into thinking they have this great seamless path when they're actually losing a year's worth of academics. We don't want them to go off the ramp and not be able to get back on.

Travis believed ECCC's cybersecurity students would be most successful at MAU if the articulation agreement more closely resembled the 2+2 model. In the 2+2 model, students complete two years at the community college and then two years at the university. The initial draft from MAU did not resemble this and instead only accepted half of the credits from the ECCC associate's degree. Travis explained.

I very distinctly remember one of the early meetings, we had to dig in and say no. This is not an articulation we're interested in. So, if this where we're at, we're dead in the water, because we're not willing to sign a piece of paper that disadvantages our students, because at that point you can call it an articulation, but it's really not because our student would end up coming out with an MAU degree for about 160 credit hours.

So strong were Travis's beliefs in what was right for ECCC cybersecurity students that he was ready to scrap the entire articulation agreement. Again, like in Brad's power of personnel example, Travis used coercive power to accomplish his goals. "MAU ultimately showed a willingness to meet us and come work with us. But it did take a little assertiveness," Travis shared. What can be gleaned from this experience is that it can be advantageous to stand one's

ground and hold fast to one's beliefs as Travis did. But one needs to be confident in their power to do so.

### **It's a Negotiation**

The power of belief can stop negotiations, but forward progress can be made if group members are willing to work with one another. They can compromise on certain beliefs while still steadfastly holding their most important beliefs. Laura from MAU shared an experience where MAU initially pushed back against ECCC due to MAU's belief that ECCC courses were not relevant. When speaking with the faculty at ECCC, MAU was "not saying that your class is a bad class, it just doesn't match anything here and could you change this part of it?" A circular conversation began, with ECCC asking, "Well, couldn't you change this part of your class or meet our goals?" Laura recalled. Eventually, forward progress was made. "It's a give and take back and forth," Laura explained. She continued:

Actually, ECCC did a lot of work helping us to understand what was happening in terms of their courses. They even added lectures and content into some of their classes to better meet [our goals] for the articulation agreement. So, it all ended up awesome, but the steps to get there, it was a little tumultuous at times.

At issue in this experience is that the MAU administrators did not understand the beliefs ECCC held regarding the content of the courses they taught were up to par. By better explaining this belief, the MAU administrators came to an understanding and ultimately agreed with ECCC's belief. However, ECCC did have to add some coursework to their curriculum. Brad at ECCC shared Laura's sentiments that give and take occurred on both sides.

We have a class that's business communication, and [MAU] wanted public speaking. So, they were pretty firm, like, "Yeah, it's gotta be public speaking." It's a negotiation. The whole calculus [requirement], I was like, "No way." So [MAU] said, "We can do pre-calc." I'm like, "Okay, well, we could work that out. Yeah, we can make that public speaking instead. We can make that change."

In cases where beliefs between group members are at odds, the power of belief can be used to convince dissenting colleagues of their importance. At the same time, group members need to be receptive to allowing their beliefs to be changed for the benefit of the agreement.

### **We're Going to Work Together**

The power of beliefs is at its most strong when the same beliefs are held by all group members. This occurred for faculty and administrators at Metropolitan Community College (MCC) and John Hancock University (JHU). Shannon Rice, associate vice president for Academic Affairs at MCC recalls the directive came from the leadership of both institutions: "In our case, it was the two presidents saying, 'Okay, guys. I know you're upset. I know you've fought before or disagreed, but now is the time to come to the table again and work something out. You're going to work together.'" Madison Long, professor of cybersecurity at MCC, confirmed this account and shared how she worked with her counterpart at JHU.

Our presidents actually reached out and drove this. I was contacted by Iris Bell over at Hancock, and they were ready to develop a bachelor's degree [in cybersecurity]. We got together at several meetings, and just took a look and see where would this fit, and how would we do it. We ended up deciding the best place for this was in [JHU's] degree completion program. One of the things when we were crafting this degree is a degree that was designed for the occupational worker. One of the problems that industry has expressed is they are tired of getting students from four-year institutions that don't have any hard skills. They require too much training. And so, this type of approach that we did with Hancock allows students to have those technical skills.

Group members at both institutions believed the best outcome for their students was to be trained to fill the vacancies in the cybersecurity job market. Due to the power of their shared beliefs, the process to create the articulation agreement moved quickly. "We ironed that out between the two of us over probably about four weeks," Madison said.

When asked how to instill a culture of working together for a shared belief, Shannon said, "It can't just be the presidents or the chief academics officers or the faculty. It's got to be at all

those levels. By letting people see that it worked in one instance, they're willing to try to replicate it" and case of the cybersecurity articulation agreement between MCC and JHU is one she would point to as a working model.

### **Power of Institutions**

The power of institutions dimension refers to the arrangement and institutional structure and how power influences the constituents involved in the articulation agreement creation. Institutions might have a level of prestige that can be used to gain compliance from other group members and avoid making agreements. Some group members might have a wider understanding of how both institutions operate and use this as a way to find compromise between the two. The power of institutions works best when group members understand how their respective institutions fit into the bigger picture of the articulation agreement. Table 6 outlines and describes the different types of experience in the power of institutions dimension.

Table 6

#### *Experiences of Faculty and Administrators in the Power of Institutions Dimension*

Power of Institutions	Description
We're a Center of Academic Excellence	Having a level of prestige or a desirable designation that allows one institution to remain steadfast and resist change
A Broader Perspective	Having a greater understanding of the structure of peer institutions and how it may fit within one's own institution to garner compromise
Beneficial for Everybody	Having the will to collaborate in ways that benefit both institutions

## **We're a Center of Academic Excellence**

Both ECCC and MCC are Centers of Academic Excellence. The National Centers of Academic Excellence is a program jointly sponsored by the Department of Homeland Security (DHS) and the National Security Agency (NSA). Institutions earn the designation based on degree programs which closely align to the cybersecurity field.

Multiple participants brought up this fact during interviews. Sara at MAU recalled how ECCC “had gotten their program certified by the National Security Administration. That’s something we’re striving for, is to get ours nationally recognized.” From her response, a level of respect for ECCC is evident. She also exhibited a desire for MAU to earn the same recognition as ECCC and have MAU’s cybersecurity program brought up to the same standards. Brad at ECCC shared how his institution earned the designation.

We were instrumental in getting the center being created, a designation as a Center for Academic Excellence [sic]. So that’s a designation by the NSA and the Department of Homeland Security that we took our cyber program and vetted it against the Department of Homeland Security, National Security Agency, what their knowledge units were, are to this day, and other components from how we interact with industry, internships, dual enrollment, those types of things. So, that designation really was a prominent designation. There’s only about, right now in this area, only about five.

The power of the two community colleges resided in their institutions’ designation as Centers of Academic Excellence whereas the universities lacked this prestige. Therefore, the community colleges could point to their designation as proof their curriculum was up to the standards of the cybersecurity industry. Madison confirmed this when questioned about the need to convince JHU of the rigor of MCC’s cybersecurity program by simply stating, “We’re a Center of Academic Excellence.” She continued, “To be quite frank, I certainly wasn’t going to be changing our degree around so it would fit into Hancock’s structure. Our program was already fairly mature.” Brad, too, spoke about his institution’s ability to use the designation as a

tool. “I think [MAU] realized that I had the leverage because I had the Center for Academic Excellence [sic] on my side that they needed to be a partner with. I think that’s what it came down to,” he said.

Exercising the power of institutions in this way shuts down the conversation when defending one’s institution. Although in this case it was applied to the community college’s curriculum being vetted and certified by a desirable third-party, it could be applied in other areas, such as national ranking, graduation rates, and graduates’ employability.

### **A Broader Perspective**

Understanding the structure of the institution is informational power that can be used to gain compromise. Group members may have a narrow vision of what their role is, what the function of other group members is, or even what the goal of the articulation agreement is.

Laura felt this way. In her experience, there existed

[A] lack of understanding of different roles on campus, and we all get stuck in silos. We say that word all the time. But it’s really people get very stuck on their perspectives, and just don’t branch out or aren’t aware of all the nuances that it takes to really make a curriculum work function but also you can get accredited.

From this description, there appeared to be a lack of institutional awareness and the danger of group members getting stuck in their own power of beliefs. What is needed is a group member with a better understanding of all the group members, their roles and the role of the institution, and the goal of the articulation agreement. They can use their institutional power to bring group members on board.

Dawn at MAU shared how her institution’s vice provost, Brandon, shared the vision of the institution with faculty.

The vice provost’s involvement with this articulation agreement was to redefine the vision of articulation agreements to make sure that faculty understand that academic

affairs is supporting a vision of us really defining groups of courses as meeting some of our MAU competencies and particular classes.

Brandon echoed this sentiment in his recollection of his experience. In his role as vice provost, Brandon said he has “a broader perspective on how strong of an education the ECCC students are actually getting” which may not be a readily apparent to the MAU cybersecurity faculty. He continued with how he encouraged the faculty to understand this prospective.

I may have asked them to take another look at things and asked them to think about things differently than we had in the past. For example, with this one, we didn’t do a course-by-course [evaluation]. Some of the major requirements we did the, “This degree meets a certain number of hours,” and “this block of [courses].” It was encouraging faculty to think about whether or not that would work. Not telling them it would work but asking, “Would this work?”

In fact, it did work. Thanks to Brandon’s encouragement, MAU faculty like Henry did broaden their perspective. As Henry recalls,

In many cases, there is not a perfect match between two courses. When the courses were designed, they had different goals. So, we ended up with a very effective approach by mapping a set of courses from the community college to a set of our courses. So, maybe one-to-one mapping is not appropriate, but if you combine these, for example, five courses from ECCC, [they] can meet the requirement of our three or four courses at MAU. So, we did some research, we came up with some interesting strategies to do the course mapping.

Brandon’s institutional power is what enabled him to gain compromise with MAU faculty in accepting ECCC courses to meet program requirements where traditionally they would not. In turn, the faculty convinced the administrators this new approach made sense and students would be prepared once they transferred. Tammy recalled her experience.

The faculty here felt, okay, [the ECCC students] do have the competency, and they do have certifications to back up the cyber foundation requirements at MAU. Advisors, we were understanding. “Okay, good. They do have the knowledge.” That is very important in an agreement. We don’t just want to give credits to give. Okay, they are prepared basically. They are prepared. They do get the knowledge.

On the ECCC side, Katherine spoke well of this compromise.



Typically, MAU doesn't grant credit for a lot of the career technical courses, and this time MAU did. And so, it's such a great agreement that student can finish really both sets of requirements with very few credits overage.

Deep institutional knowledge came up as an example in multiple interviews as a source of institutional power. Sara at MAU pointed to her institutional knowledge as a reason why the group valued her input during the creation of the agreement.

Just managing it and having the history because I'm such a senior in this. Just knowing what can and can't be done. What you can waive, what you can ask for. Having the contacts, knowing the people at ECCC. Being able to pick up the phone and call Katherine [at ECCC].

Shannon at MCC also said her institutional knowledge helped in making decisions and gaining compromise from faculty.

I'm involved in every single articulation that has come through MCC in the past 20 years. But in addition, a big part of my job is curriculum. So, I have to think about things like, you know, "Is this the right curriculum in the first place?" So, asking questions like that, or saying, "Hey, you know, look. This would articulate even better to Hancock if, you know, you changed this course." Pointing things like that out to the faculty.

But it is not just the administrators who have this level of institutional power to bring about compromise. Faculty wield this power as well, especially those with familiarity in the field of cybersecurity. This was evidenced during my interview with Madison. "I've worked 35 years in the field," she said. When creating the articulation agreement, she wanted to make sure it would not "wash people out because of unrealistic math expectations." Madison continued.

Outside of needing an Excel spreadsheet to be able to track payments to vendors, you don't need calculus to be a cybersecurity analyst. And the programming. I've worked for 35 years here, my programming is minimal. We might be scripting but we're not writing programs. There is a huge disconnect between most two-year schools and four-year schools, and that's why I really found that going the route of the adult degree completion program, those departments offer the best avenue to address that at a senior institution that serves the workforce.

Madison referenced her 35 years of experience in the cybersecurity field three times during the interview, indicating its importance. Madison used this institutional power to ensure the course requirements of the articulation agreement would not cause students to drop out.

Using the power of institutions to bring about compromise works best when a group member has a broader perspective than other group members. Being able to effectively communicate this perspective helped group members broaden their focus. Having years of institutional and industry knowledge also served group members well in bringing about compromise.

### **Beneficial for Everybody**

When the community college and the university both exhibit the desire to undertake a task, they use their institutional powers in combination to achieve a positive outcome for both. It requires that both institutions share the will to take on tasks that will benefit the other, even if it requires additional effort.

Heather Baker, associate dean at Fairweather Community College (FCC), recalled how both her institution and MAU work together each year to keep the articulation agreement up-to-date. Because the agreements are reviewed on an annual basis,

It really is beneficial for everybody because course requirements on occasion do change. And it's good that students are getting from Mid-Atlantic things that are very current, so they're not gonna have to worry about, "Well, am I taking enough math? Am I taking enough science?" Everything should be seamless. We're working with other schools to get more of a process [like this one].

Sara spoke of the yearly review process as well. "We do an updated version every year based on the new catalog. So, this last time, we did the catalog so drastically differently, we did have to reach back out to them and match up those things." Both institutions exhibited the desire to keep the articulation agreement up to date with the latest changes. Heather hoped to establish a

similar process with other schools, but there appeared to be a lack of institutional will at those schools to do so.

For ECCC and MAU, a grant spurred both institutions to move forward with the articulation agreement. “That motivation of funding is what got the faculty on board. We may’ve still been able to do it. I don’t know that we would’ve done it quite as rapidly as we would’ve without that funding,” Brandon shared. Linda agreed with Brandon’s assessment. Without the grant, the agreement still would have happened, but “it might have taken a little bit longer,” she said. Tammy also cited the grant as a “driving force.”

There was money involved. Not money for somebody, but for student scholarships. There was this pot of gold, of money, that we could tap into if we had this agreement. Let’s work together so that we can, both ECCC and us, share on that money to grow our program, to be able to market this as a good thing for students and be able to say, “We have scholarships for you.”

Linda spoke positively of the grant’s effect on ECCC and MAU’s relationship.

I think it really improved it. I think it made a strong collaboration, and it opened the door for some other collaborations after the agreement was in place. This grant gave a little boost because I think it provided some funding to ECCC people to get them in the room. I think in this case, both institutions recognized that this was important because of the priority of training these particular students for these skills.

Travis at ECCC also felt the grant impacted the relationship and each institution’s desire to create the articulation agreement. “I do think the relationship is improving. I think we are coming closer together in a lot of ways,” he said. “The leverage provided by the grant monies hand an influence on this.” But Travis said institutional will was also a contributing factor.

It was part when the grant was written, the fact that two articulations would be established with the local community colleges. I think that had an influence on the success, because we agreed it was going to happen, and so we were both compelled to do so. Now, the grant has something to with that, but both institutions have the will to accomplish something. So, you have to agree on what the outcome is, [or] you won’t get there.

The power of institutions is at its most effective when both institutions are working in partnership to do the hard work of creating a successful articulation agreement. Of course, funding will have an effect on this as seen in the case of ECCC and MAU. But other factors, such as student success, can spur institutions to put in the effort needed to create and maintain effective articulation agreements.

### **Power of Practice**

The power of practice refers to how group members use their experience and expertise gained from their work in the industry or teaching in field. Faculty and administrators practice their respective roles in their institutions every day and thus gain more experience and expertise than their counterparts. As such, this experience and expertise lends them credibility when they use the power of practice to avoid, compromise, or partner on decisions related to the articulation agreement. Table 7 describes each type in the power of practice dimension.

Table 7

#### *Experiences of Faculty and Administrators in the Power of Practice Dimension*

Power of Practice	Description
I Know that History	Having the experience and expertise to successfully challenge a decision
Make a Very Good Case	Having the experience and expertise to garner a compromise
They Have Great Experience	Having experience and expertise recognized by other group members

### **I Know that History**

In the course of creating the articulation agreement, conversations about program requirements naturally occurred. Because the groups were comprised of a diverse range of

individuals, their experiences and knowledge were different. When group members wanted to do something, group members with better experience were able to step in and use their power of practice to avoid a potentially poor decision from being made.

Henry, a faculty member at MAU, spoke about how internal disagreements arose over how ECCC courses would map to MAU's requirements.

[Cybersecurity] is an interdisciplinary program, so some courses are coming from computer science and from IT, some from engineering. So, whenever we tried to kind of map a course from community college to one of our courses, we would get a corresponding faculty involved from the corresponding departments. In some cases, maybe one faculty would look at the courses and say, "Hey, this looks pretty close to a course at MAU." But when we get to the actual instructor, the instructor looks at [ECCC's] curriculum he may say, "No, it's not perfect mapping. I have taught this module, which is not included in their course."

In instances such as these, the dissenting faculty member used their expertise in the power of practice dimension to argue against an ECCC course transferring to MAU. Their direct experience with the course is what gave them the legitimacy to be heard and their opinion accepted by other group members.

Similar external disagreements occurred between ECCC and MAU, as well as between MCC and JHU. In ECCC's case, it circled back to the calculus requirement MAU initially desired. In addition to the other power that Brad used to argue against this requirement, he also used his power of practice to convince MAU to remove the calculus requirement.

The community college student is probably not the strongest math person. And some are, don't get me wrong, but even in computer science, most of our students have to take pre-calc first. I looked at 58 computer science students last year. Out of 58 of them, 54 had to take pre-calc. So, I know that history. To put calc in our [cybersecurity] program would've killed it. [MAU] was pretty agreeable to bring it down to pre-calc right away.

Brad used his experience with ECCC computer science students to convince MAU that requiring cybersecurity students to take calculus would be detrimental to the program. Because of his

power of practice, the group members at MAU accepted his challenge and made changes to their requirements.

Using the power of practice to avoid comes down to having the expertise and knowledge of the various factors affecting a decision. This expert power may arise from having taught the actual course that is being considered for transfer. It may also arise from knowing the history of a particular group of students and why a requirement would be detrimental.

### **Make a Very Good Case**

At times, group members experienced the initial impression that curriculum between the two institutions did not line up well. The reason for feeling this way is because group members did not understand the courses competencies in question. This occurred when MAU did not initially give transfer credit to a set of courses taken at ECCC. In MAU's estimation, they simply did not align with their curriculum and thus could not be transferred. Brad recalled his experience of first seeing those courses left out of the articulation agreement draft.

In the ECCC section, there's a number of ITN courses and they're all four credit courses. Since MAU didn't really teach those classes, there was actually no credit [in the articulation agreement] for those classes. And part of what that first meeting came out with was, we said, "Well, how can we figure out how to give credit for those classes?" Those are our basic IT courses. We just said, "We gotta have credit for those."

Brad used his power of practice to explain the competencies of these courses and garner compromise from MAU. Tammy worked on the initial draft but was convinced after Brad made his case.

When we first went to that first meeting at ECCC, and we took the draft. They looked it over, they were like, "No. This, there's too many credits. All of these courses, it's the same courses as 300 level. Why are students retaking it?" I think ECCC just made their very good case, as far as competency. Cybersecurity was the first agreement that [MAU] started looking at grouping competency based.

Being able to use the power of practice can result in compromise. As Travis from ECCC said, “Ultimately, the MAU cyber faculty said, ‘Okay, I’m willing to take a deeper dive into this. Let’s break it apart and start working together.’” Having the ability to make the case is reliant upon having the expert knowledge and being able to effectively communicate it to other group members.

### **They Have Great Experience**

In this final type of the power of practice, there are examples of when group members deferred to others on critical decisions during the planning of the articulation agreement. The reason for this deference was due to the other group members power of practice. Group members were willing to do so without the need for convincing or compromising, which shows how the power of practice can be used to form partnerships.

Henry, a faculty member at MAU, spoke about such deference when working with Sara, Dawn, and Tammy, the transfer administrators at MAU.

They helped a lot, because they have great experience. They have designed many articulations in the past. So, they provided some initial information. For instance, which courses in the community college can be applied to our gen ed, you know, those courses. Sometimes, the faculty do not really [know]. We teach major courses, but we do not know those general education courses very well. But they know them really well, so they have done the mapping for that part.

Here, we see an example of the faculty recognizing they lack the expertise that the administrators have. As such, they are willing to trust the administrators with the course mapping for general education requirements. Sara recalled the experience of sharing this expertise with the faculty.

At some point, they were starting to talk about certain gen eds, and we were like, you know, you gotta take those off the table. Don’t even look at the gen eds. We can help you figure out what courses will meet those. But it’s not like you can substitute anything for them or you can waive them.

In this example, Sara and her team provide the expertise to partner with the faculty to ensure the requirements would be met. Dawn echoed Sara's experience. "Our office was essential in determining what general education classes were made," she said. Faculty valued their input because they administrators "were viewed as the experts to provide feedback on the university general education requirements."

Both internally at ECCC and externally between ECCC and MAU, group members viewed Katherine as the expert to keep issues such as accreditation in mind when making decisions. "She's extremely familiar with accreditation needs," Dawn said. Also, Katherine exhibited strong power of practice due to her involvement with previous articulation agreements. Dawn recalls the case of the cybersecurity articulation agreement and Katherine's involvement this way:

[She knew] the requirements of their associate of applied science as we were trying to align the two programs together. Katherine's feedback was essential in that. Just her knowledge and experience with the other articulation agreements is very valuable because we work with her daily, so she understands the MAU side of requirements as well as ECCC's.

Sara summed it up when she said, "She's fabulous. She really helps us out a lot." Within ECCC, Katherine said, "The deans know I have to be there. I have to be at the table." She continued.

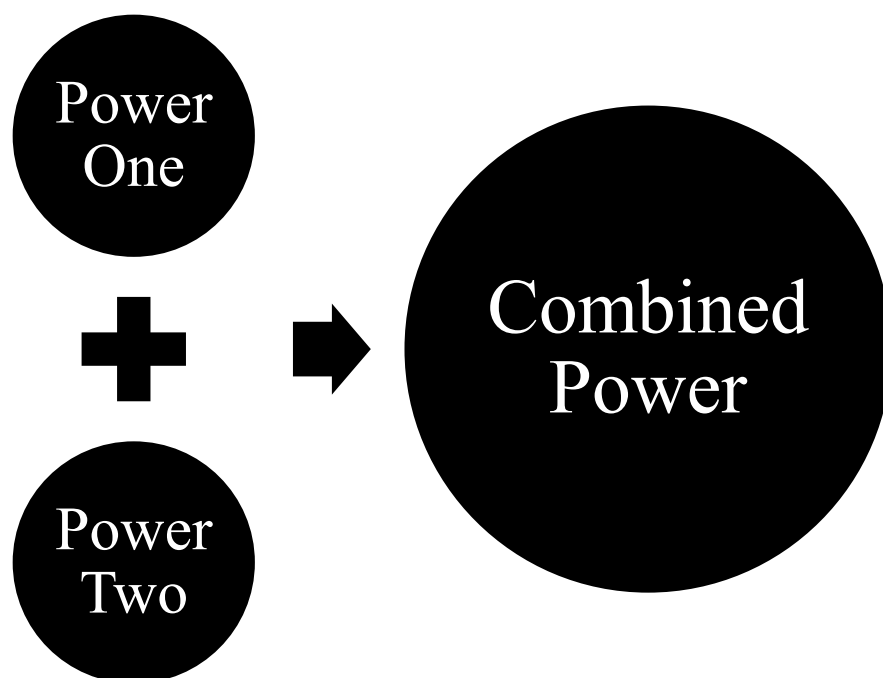
I have to be at the table just to make sure that they're not omitting courses. They're not trying to change the curriculum. And if they are, I'm also responsible for curriculum here at ECCC. So, if there's a curriculum modification, if there's a new curriculum or if we want to get rid of something, I work with the faculty and the deans on that as well. And I'm also responsible for ensuring our faculty have the correct credentials. And so, there's just so much involved in articulation agreements that some individuals might not know.



Because of Katherine's practice as an administrator, she could use her power to ensure issues with accreditation and curriculum were kept in mind as the agreement was created. In this case, the other group members recognized this power.

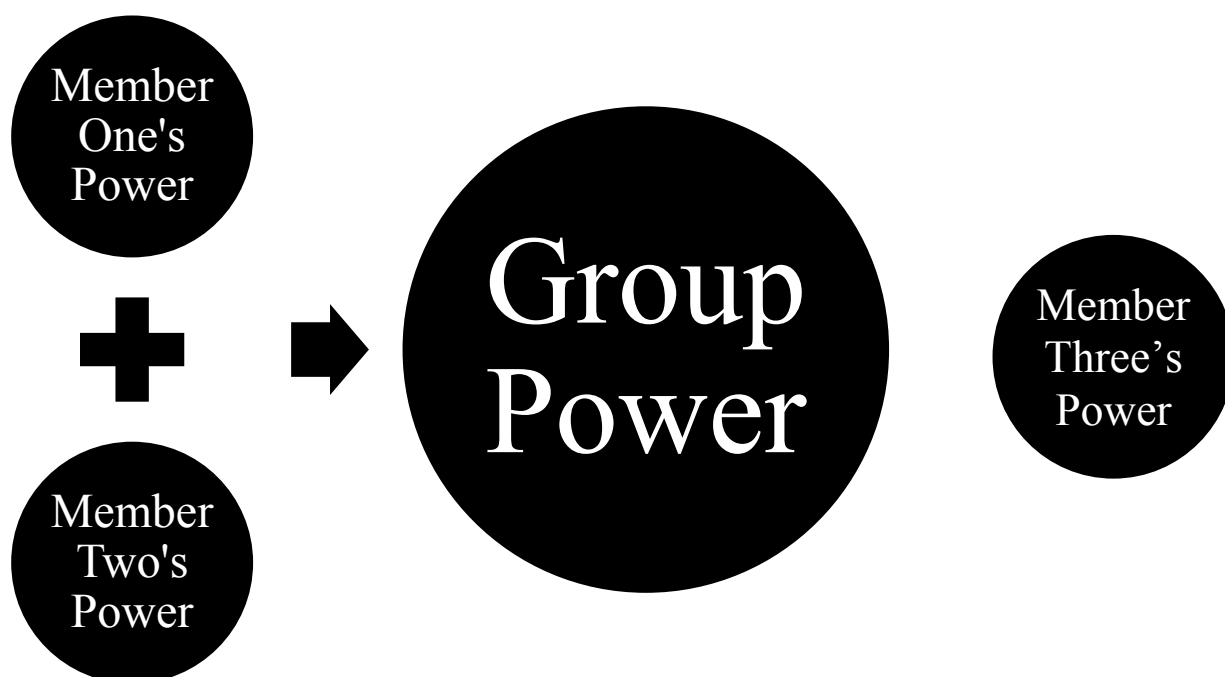
### **Exponential Power**

As seen in many of the experiences of the faculty and administrators involved in the creation of this articulation agreement, multiple powers were exercised by group members. Brad using his power of personnel to remove himself from a meeting where he was vital was also informed by his power of beliefs that the initial draft disadvantaged his students. Rather than thinking of the power overlapping, it can be thought of as compounding and growing exponentially. Essentially, the more power one has, the harder it is to ignore. This bore out in the multiple examples seen of MAU acquiescing to ECCC's demands. Figure 1 illustrates this idea.



*Figure 1.* Two policy powers used simultaneously to create larger, stronger combined power

The combined power of an individual is not the only way to achieve exponential power. In the example where the MAU computer science faculty member believed that the math requirement was not stringent enough, his power was put up against the combined power of other group members. Because the combined power was greater, the other group members excluded the faculty member from future meetings regarding the math requirement. Figure 2 illustrates this concept.



*Figure 2.* Two group members using their individual policy powers in combination against an individual's policy power

### **Summary**

The ways in which faculty and administrators use their policy power to accomplish their individual goals in creating articulation agreements is the major contribution of this study. In the framework proposed in this chapter, policy power exists across four dimensions: the power of personnel, the power of beliefs, the power of institutions, and the power of practice. As demonstrated in this work, power at each dimension can be used to avoid, compromise, or

partner. The success of the individual or group wielding that power is dependent upon their power relative to other group members, included the combined power of the group. Direct examples from the faculty and administrators who experienced the creation of the cybersecurity articulation agreement support the proposed framework. In Chapter 5, the results of this study are discussed, as are their contributions to theory. Recommendations for future research are outlined as well. Implications for practice are also shared as to how leaders within state governing boards, community colleges, and universities can be aware of policy power to create partnerships for the purposes of articulation agreement creation.

## **CHAPTER FIVE**

### **DISCUSSION**

This chapter summarizes the findings from research into the power dynamics at play between institutions and individuals in the creation of a cybersecurity articulation agreement. This chapter also delves into a deeper discussion of how the findings of power across the four dimensions interact and work together with and against one another. Implications for further research are suggested, as well as implications for practice. How these findings relate to existing theory is addressed. Limitations are discussed and how they affected the study.

#### **Summary of Findings**

This study was concerned with how institutions and individuals used their power when creating policy for an articulation agreement in the cybersecurity major. Social power exists across six dimensions: legitimate, coercive, reward, expert, referent, and informational (French & Raven, 1959; Raven, 1965). Faculty and administrators create educational policy across four dimensions: normative, structural, constituent, and technical (Cooper, Fusarelli, & Randall, 2004). These frameworks were used as a basis for analyzing the data. From these findings, it is suggested that social power and educational policy creation interact across four dimensions: the power of personnel, the power of beliefs, the power of institutions, and the power of practice. Use of these powers by institutions and individuals occurred as three types: avoiding, compromising, and partnering. These findings also suggest that an individual or a group can compound these four dimensions of power with one another to exert influence and gain compliance.

## **Discussion of Findings**

In reviewing the existing literature on articulation agreements, much of the past research focused on how articulation agreements support baccalaureate degree attainment due to the preservation of credit upwardly transferred from the community college (Monaghan & Attewell, 2015; Nutting, 2011). The recommendation thus became that policymakers should create articulation agreements with the transfer of credit as the most important driving factor (Cuseo, 1998; Doyle, 2006). From a reading of the literature, it appears that articulation agreements are created in a mechanical way, with little personal input from the individuals tasked with creating them.

In the cases studied for this research, the transfer of credit from the community college to the university was of great importance to those from the community college. From the outside looking in at the final articulation agreement, one would think ECCC and MAU simply did what the research suggests and maximized credit transfer for their students. But simply examining the document does not tell the whole story of how ECCC and MAU came to this agreement. It is in the discussions, the negotiations, the back-and-forth that one can begin to understand how articulation agreements are really put together. Brad Carson from East Coast Community College argued fervently for the number of credits accepted by Mid-Atlantic University to be increased from MAU's initial draft. Eventually, MAU did just that. To use the final articulation agreement document as evidence of a partnership between a community college and university ignores the rich experiences of the faculty and administrators. Knowing the discussions that occurred between ECCC and MAU provides a clearer picture of how their partnership came to be.

In addressing the existing gap in the literature as identified by Handel (2011), Kisker (2007), and Mobelini (2013), the present study helps to better understand the process by which community colleges and universities create and sustain transfer partnerships. The research went a step further to identify ways in which partnerships were avoided, though in the cases studied, all parties eventually partnered and successfully created and implemented their articulation agreements. The current research exposed the power dynamics inherent in the push-and-pull between individuals and institutions in the process of creating an articulation agreement. The various social power bases (French & Raven, 1959; Raven, 1965) were seen to exist and interact at every dimension of the policymaking process (Cooper, Fusarelli, & Randall, 2004). From this mixing of power and policy, new ways of describing the influence available to individuals and institutions were defined and described as four bases of power across policy. The ways in which these policy powers could be used singly and in combination to overcome the power of others was also observed and described.

The power wielded by individuals and institutions was evident at every step of the articulation agreement creation process. From the initial meetings to the final signing of the document, group members used their policy power to avoid, compromise, and partner with one another. The participants in this study did not hesitate to use their power when it came to who should be involved or what they believed or what their institution represented or who had the knowledge. Similarly, other group members recognized the power being used, even if they did not address it by name. However, this research used the participants own words to describe policy powers across different types of collaboration. It was important to do so to show that even though faculty and administrators did not identify the policy powers by name, they were clearly aware of their existence during the process of creating the articulation agreement.

Fortunately, in these cases, the outcomes were positive. In all the experiences shared, whether using power or being influenced by it, there was a level of respect exhibited by group members for one another. This respect was evident in faculty member Henry Winston's description of the "great experience" Sara Williams has with creating articulation agreements, her power of practice. At an institutional level, Mid-Atlantic University and John Hancock University showed their respect for the power of institutions used by East Coast Community College and Metropolitan Community College as Centers of Academic Excellence. There existed multiple examples of such respect. Although it cannot be definitively said that respect of the power being used resulted in positive outcomes, one can understand how the use of power and lack of compliance could lead to conflicts that are not so easily resolved.

From this research, one can begin to think about the creation of articulation agreements not as only functional, but also as deeply personal and highly influenced by the experience of those involved in the process. Thinking about the persons behind the articulation agreement documents and defining the power they use is important to better understand how community colleges and universities form and maintain partnerships with one another. Through the findings of this research, better partnerships can be fostered between community colleges and universities to ensure the best articulation agreements can be created and thus the best outcomes for the students they serve.

### **Contributions to Theory**

French and Raven's seminal research on social power can be applied broadly to various settings. Cooper, Fusarelli, and Randall's educational policy framework could address policymaking at all levels of education and focus more on the mechanics of policymaking. The present research uses the lens of social power to examine the process of policymaking through

the experiences of those involved. The findings from this study help describe social power as it exists when making educational policy, especially in the realm of a high-stakes articulation agreement.

In Kisker's study (2007), participants felt that the university was in charge in creation of articulation agreement because they had more people or more prestige. However, in the cases studied in this research, the community colleges exerted more influence. They held strong positions regarding what was best for their students and understood the field of cybersecurity better than their university counterparts. They also held more prestige than the universities as Centers of Academic Excellence. From this, it can be seen that policy power is not inherent to an individual or institution.

Much of the existing literature advised faculty and administrators to ensure specific functional aspects were in place when creating articulation agreements, such as preserving transfer credits. Participants interviewed for this research spoke of taking that advice into consideration when creating the cybersecurity articulation agreement. However, the existing literature does not address how faculty and administrators partner to create an articulation agreement. The finding from this research begins to address that gap in the literature.

### **Implications for Further Research**

Future research should use unobtrusive observation as a method of qualitative data collection. A researcher present at the meetings between faculty and administrators could provide valuable insight into the use of policy power as it happens. Focus group interviews should also be employed as a source of qualitative data. In a focus group, a researcher could see how the dynamics of policy power continue to play out, even after the articulation agreement has been created.



In the course of collecting and analyzing data, it was not clear if participants were aware of their use of power to accomplish their goals. Therefore, research should be conducted with individuals involved in the creation of an articulation agreement to examine their level of awareness their use of these four dimensions of power. Research into the conscious use of these dimensions of power can expose how individuals may purposefully manipulate situations to their benefit.

In the cases studied for this research, group members successfully created the cybersecurity articulation agreement between their institutions. Research should be conducted in cases where group members were unsuccessful in their efforts. By doing so, researchers can gain a better understanding of how use of the four dimensions of power can negatively affect a partnership and frustrate the creation of an articulation agreement.

The study should be repeated in five years to examine how the creation of an articulation agreement for high-stakes major has changed. Enrollments have been falling at postsecondary institutions nationwide, and community colleges and universities are competing for an ever-shrinking pool of students. At the same time, states have continued to defund postsecondary education, meaning these same institutions are becoming more tuition dependent. The policy power dynamics may differ under these circumstances and therefore should be reexamined.

### **Implications for Practice**

As noted in Chapter 2, there existed a lack of research on how partnerships between community colleges and universities are created and sustained for the purposes of establishing articulation agreements (Kisker, 2007). The current study addresses this gap in the existing literature by showing how power structures fostered partnership and resulted in the successful completion of an articulation agreement. Furthermore, the majority of research into the realm of

articulation agreements focused on their quantitative aspects, such as transfer efficiency and student outcomes. The current study is qualitative and addresses the gap in the literature of the experiences of individuals (Wilson & Lowry, 2017).

As the participants in this study were those faculty and administrators at the community college and university levels involved in the creation of an articulation agreement, they are the intended audience for these findings as well. The findings from this study can assist group members involved in the creation of an articulation agreement to achieve their individual goals as well as the goals of the institution. By defining the four types of power at play in the creation of an articulation agreement, faculty and administrators can be aware of who has power, how to avoid, compromise, or partner in decision making, and how to make use of multiple powers simultaneously.

As noted in the literature review, some state governing bodies have developed statewide common curriculum, course numbering, and guaranteed transfer from the community college to the university (Southern Regional Board, 2013). However, this does not consider the individuality of students at different institutions within a state. As noted by one participant in this study, students at his institution would stop out if calculus were to be required. A state leader may not take these unique situations into account when creating the statewide policy. Therefore, state leaders should trust that leaders at individual institutions understand the perspective of their student body. If state leaders do proceed in creating a statewide policy, leaders from the institutions must be included to provide their input.

### **Limitations**

One limitation that emerged in the course of this study and should be considered when interpreting the findings suggested. This study used a smaller than desired sample size due to the

lack of availability of potential participants. Some potential participants refused to be interviewed, feeling they had little to contribute, while other potential participants ignored repeated requests for an interview. However, those who did participate in the research represented a good mix of faculty and administrators at both the community college and university level. Individuals represented several different institutions and even though they had different experiences, consistency was found in the types of experiences they had. Participants also shared their experiences freely and candidly, resulting in saturation when they data was analyzed.

### **Conclusion**

As seen in this study, policy and power are intertwined. Faculty and administrators exercise their power to ensure their goals are achieved when policy is created, whether that is through avoiding other group members, making compromises to move forward, or forming a partnership with their colleagues. Power exists across several dimensions, at both the individual level and the institutional level, and can be compounded by a single group member or several group members together. Even though it is not clear if faculty and administrators are consciously aware of the existence of their power or their use of these powers, it is clear that their power influenced the outcome of the creation of the cybersecurity articulation agreement. Who's in charge when it comes to articulation agreements? Those with the most power and the ability to effectively use it.

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## APPENDICES

## APPENDIX A

### RESEARCH PROTOCOL

After identifying participants, email them to introduce the study.

Good morning:

I am a Higher Education doctoral student at Old Dominion University. For my dissertation, I am studying the cybersecurity articulation agreement between your institution and your partner institution. I am interested in speaking with the faculty and administrators who created the agreement. I would love to discuss it more with you in a one-on-one interview. Our conversation would be informal, guided by open-ended questions, and last around an hour.

If you are interested, please let me know your availability next week or the following. I will also send you an informed consent document that more thoroughly explains the research, what you can expect in the interview, and how your privacy and confidentiality will be protected.

Thank you for your consideration,  
Michael Moore  
Higher Education Doctoral Student  
Department of Educational Foundations & Leadership  
Old Dominion University

If participant is receptive to being interviewed, email them a copy of the informed consent document (see Appendix B) and request they review it prior to interview. On the day of the interview, first go over the informed consent document and ensure the participant understands it and has no concerns. Ask the participant to sign it and assure them they will receive a copy for their record. At this point, repeat the goal of this research and the research question. Tell the participant that interview questions will be asked and to answer them fully and candidly. Let the participant know the conversation can evolve, especially if there is information regarding the research that is important to know. Remind the participant the interview will take approximately 60 minutes but can go longer if necessary. Remind them that at any point, they can stop the interview, as their participation is voluntary. Ask if it is acceptable to record the audio of the interview. Upon receiving consent, turn on the recorder and begin asking the following research questions.

How were partnerships formed and maintained between members both at the internal institution and the external institution?

Which member would be described as primarily “in charge”?

Would the partnership be described as collaborative or one-sided?

What aspects of the articulation agreement were met with resistance?

How were disagreements resolved?

Describe the involvement of the faculty in creating the articulation agreement.

Describe the involvement of the administrators in creating the articulation agreement.

What structural or organizational barriers existed that prevented the involvement of different members?

What is the benefit to creating articulation agreements? Answer from the perspective of the community college, the university, the student, the faculty, and the administrator.

How can the creation of articulation agreements prepare student for employment in this industry?

How was trust established with the members of the group?

How much of your time was dedicated to the creation of the articulation agreement?

Which member would be described as most important to the articulation agreement partnership?

Describe the process of creating the articulation agreement.

Once the articulation agreement was created, what was your level of involvement in implementation, promotion, and/or evaluation?

What other aspects would be important for me to understand the partnership?

Once the interview questions have been asked and answered and the participant has nothing further to share, turn off the recorder. Thank them for their participation. Email them a thank you note, along with a PDF copy of the signed informed consent document.

## **APPENDIX B**

### **INFORMED CONSENT FORM**

Dear Participant:

The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research, and to record the consent of those who say YES. You are being asked to participate in a research project. Researchers are required to provide a consent form to inform you about the study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Study Title: Who's In Charge In High-Stakes Transfer Agreements?

Primary Investigator: Chris R. Glass, Ph.D., Assistant Professor, College of Education,  
Department of Educational Foundations and Leadership, Old Dominion University

Investigator: Michael P. Moore, Academic Services Manager, Office of the University Registrar,  
Old Dominion University

#### **1. PURPOSE OF RESEARCH:**

As a faculty member or administrator who was involved in the creation of the cybersecurity articulation agreement, you are being asked to participate in a research study exploring how faculty members and administrators form and maintain partnerships both within your institution and between external institutions. This study, entitled Who's In Charge In High-Stakes Transfer Agreements?, is conducted by Dr. Chris R. Glass.

#### **2. WHAT YOU WILL DO:**

Each interview will last approximately 60 minutes. The interview will be conducted in an informal, conversational manner with open-ended questions that allow you to talk about your experience candidly. You may agree to be digitally recorded, or you may choose not to be digitally recorded during our conversations. Your identity will be held in strict confidence, and during data collection, researchers will arrange for private or semi-private areas for consent and the interviews.

#### **3. RISKS AND BENEFITS:**

While participating in this study, you will encounter minimal risks, including the potential inconvenience of scheduling the interview and/or the possibility that anxiety or unpleasant experiences will surface during the interview. The researcher will minimize these risks.

The benefits of participating in the study include the opportunity to reflect upon, articulate, and discuss your experience creating the cybersecurity articulation agreement. The interview, as a

result, may lead to deeper understanding of forming and maintaining partnerships to create future articulation agreements.

#### **4. PRIVACY AND CONFIDENTIALITY:**

Your confidentiality will be protected to the maximum extent allowable by law. Any direct identification information, including your name, will be removed from data when responses are analyzed. All data will be secured in locked file cabinets and two-factor authenticated cloud storage space. The data will be accessible only to the researchers associated with this study and the Institutional Review Board. During analysis, numeric codes will be assigned to your information so that your name is not associated with the data files.

During dissemination, findings will be reported by theme (aggregating the data) or by pseudonym (assigning a fake name). The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain confidential. Special care will be taken to mask markers of identity (e.g. institution, title, and biographical data). Although every attempt will be made to keep your identification private, some distinguishing responses that you share and other comments may reflect your identity.

All data will be stored for at least five years after the project closes. Five years after the conclusion of the study, the data (digital audio files, transcripts, my notes, documents related to the articulation agreement) will be destroyed.

#### **5. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW:**

Your participation is completely voluntary. It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study – at any time. You may choose not to participate at all, or to answer some questions and not others. You may also change your mind at any time and withdraw as a participant from this study with no negative consequences. Your decision will not affect your relationship with the University, or otherwise cause a loss of benefits to which you might otherwise be entitled.

#### **6. COSTS AND COMPENSATION FOR BEING IN THE STUDY:**

You will receive no compensation for participating in this study.

#### **7. CONTACT INFORMATION FOR QUESTIONS AND CONCERNS:**

If you have any questions later on, then the researchers should be able to answer them; please contact the researchers Dr. Chris R. Glass, 2309 Education Building, Old Dominion University, Norfolk, VA, [crglass@odu.edu](mailto:crglass@odu.edu), 757 683-4118.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, Dr. Jill Stefaniak, Chair of the Darden College of

Education Human Subjects Review Committee, Old Dominion University, at [jstefani@odu.edu](mailto:jstefani@odu.edu).

By signing below, you are indicating your voluntary participation in this study and acknowledge that you may: 1) choose not to participate in the study; 2) refuse to answer certain questions; and 3) discontinue your participation at any time without any penalty or loss of benefits to which you are otherwise entitled. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. The researcher will give you a copy of this form for your records.

Your signature below indicates your voluntary agreement to participate in this study.

Signature \_\_\_\_\_ Date \_\_\_\_\_



**APPENDIX C**  
**CONCEPTUAL MAPS**

Policy Dimension	Coded Instances
Constituent	138
Normative	115
Structural	114
Technical	103

Policy Base	Coded Instances
Coercive	51
Expert	67
Informational	43
Legitimate	45
Referent	59
Reward	49

Policy/Power	Constituent	Normative	Structural	Technical
Coded Instances				
Coercive	20	21	9	13
Expert	36	14	18	18
Informational	18	11	12	18
Legitimate	21	3	12	4
Referent	35	14	9	8
Reward	14	19	12	11

## VITA

### MICHAEL PAUL MOORE Ph.D.

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Old Dominion University  
Darden College of Education & Professional Studies  
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## EDUCATION

**Old Dominion University**, Norfolk, Virginia

Ph.D. Higher Education, December 2018

Dissertation: *Social construction of power in policymaking: A case of cybersecurity articulation agreements in Virginia*

Chair: Dr. Chris Glass

**Strayer University**, Washington, DC

M.B.A., Accounting, September 2009

**Ohio University**, Athens, Ohio

B.A., English, August 2005

## PRESENTATIONS

**Moore, M.P.** (November, 2018). *Who's in-charge in high stakes transfer agreements?* Presented at the Graduate Research Colloquium, Norfolk, VA.

**Moore, M.P.** (April, 2018). *Chaotic yet intense: Enrollment patterns that lead to graduation.* Presented at AACRAO's 104th Annual Meeting, Orlando, FL.

**Moore, M.P.** (April, 2018). *BAN080 & SCR002: Just what are they?* Presented at the Degree Works Forum, San Diego, CA.

**Moore, M.P.** (April, 2018). *Making graduation clearance easier.* Presented at the Degree Works Forum, San Diego, CA.

**Moore, M.P.** (April, 2017). *Faculty grade entry powered by Ellucian XE.* Presented at Ellucian Live, Orlando, FL.

**Moore, M.P.** (November, 2016). *I wanna get digital: eTranscripts.* Presented at Mid-Atlantic Banner Users Group 2016 Conference, Lynchburg, VA.

**Moore, M.P.** (November, 2016). *Banner XE: Faculty grade entry.* Presented at Mid-Atlantic Banner Users Group 2016 Conference, Lynchburg, VA.

**Moore, M.P.** (April, 2016). *The best laid plans: Degree Works student educational planner (SEP).* Presented at the Degree Works Forum, Denver, CO.

**Moore, M.P.** (November, 2015). *The future is now with Banner XE: Registration.* Presented at Mid-Atlantic Banner Users Group 2015 Conference, Williamsburg, VA

## PUBLICATIONS

**Moore, M.P.** (2017). Rethinking the degree audit. *AACRAO Guide to Graduation Ceremonies* (pp. 7-15). Washington, DC: AACRAO.