

AN EXPLORATION OF VIRGINIA LAW ON RECOGNITION, UNIVERSITY
OFFICIALS, AND PERCEPTIONS OF THE INTERNATIONAL BACCALAUREATE
DIPLOMA PROGRAMME

by

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An Exploration of Virginia Law on Recognition, University Officials, and Perceptions of
the International Baccalaureate Diploma Programme

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DEDICATION

This work is dedicated to Jeremiah - for without his love, support, and patience, I could not have followed my heart, found strength, and pushed ahead in spite of exhaustion, piles of research and policy, and occasional writing blocks.

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Although one writes a dissertation on their own, it is not possible to *complete* a dissertation without the help of many others. In my own journey to plan and conduct my study, analyze my data, document my results, and finish writing, I have received assistance every time I have asked for it and I would be remiss if I did not take the time now to offer my gratitude to those individuals who have pushed me to become a better writer, critical thinker, and scholar.

The process of writing a dissertation is truly transformative and I don't think anyone realizes this until one is nearly finished, until all the sweat and blood is on the page. Without hesitation, my two co-chairs, Dr. Beverly Shaklee and Dr. Penelope Earley, have been wonderful mentors. Both believed in my work and encouraged me to trust my instincts. They have both made me a better scholar and writer and I can only hope to take the lessons I have learned from them and pay them forward someday.

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A qualitative study would not be a study without interviewees. I am grateful for the university officials who spoke to me and gave their time to contribute to this research study. These officials provided me with documents, answered my questions, and explained their university governance structures to an outsider. For that, I am appreciative as their words will perhaps form the basis for future IB recognition research.

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Virginia, numbers of transcripts for universities, whatever I needed, Justin got it. This dissertation has clear statistics to illustrate my points thanks to him.

In the same way that Justin Sanders provided statistics for International Baccalaureate, I need to say thank you to Michael Sherman at The College Board. He provided numbers of examinations and numbers of AP students for two Virginia universities that were not public and created balance in my dissertation with statistics that I had for IB. Having these statistics makes this study clearer for a reader and the dissertation a better piece of research overall.

When I met Professor Jeff Thompson back in 2009, little did I know that a conversation about the British university system and the 2003 UK International Baccalaureate perception study would later become crucial to my dissertation. When I was writing Chapter 2 and explaining the study, I pulled out a red notebook where I had taken notes during my conversation with Professor Thompson and used the information to construct some of the chapter. I later did have to contact Professor Thompson to fill in some blanks which he did gladly. There are no words to adequately show my appreciation but his ability to recall detail about the 2003 UK study was amazing.

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Although I have been studying the IBDP and the IB in general for nearly four years, I still sometimes need to check things. For that, I call or email Bob Poole. I worked with Bob at IB's Vancouver office (now closed) and he has become an invaluable resource when I need to check information or find out more information about something related to IB recognition. Throughout this dissertation, there were several times I called or emailed Bob with a question or just to verify something. I am grateful to him for always responding to my telephone call or my emails.

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LIST OF ABBREVIATIONS

Advanced Placement.....	AP
College of William and Mary	W&M
Commission on Colleges of the Southern Association of Colleges and Schools	SACS
Grade Point Average.....	GPA
International Baccalaureate.....	IB
International Baccalaureate Diploma Programme	IBDP
State Council of Higher Education for Virginia	SCHEV
Theory of Knowledge	TOK
University of Mary Washington	UMW
Virginia Commonwealth University	VCU
Virginia State University	VSU
Virginia Polytechnic Institute and State University.....	VT

ABSTRACT

AN EXPLORATION OF VIRGINIA LAW ON RECOGNITION, UNIVERSITY OFFICIALS, AND PERCEPTIONS OF THE INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

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This study investigated how university officials at five public universities in the Commonwealth of Virginia responded in the aftermath of a law concerning credit policies for International Baccalaureate (IB) and Advanced Placement (AP) examinations. Mandated by the Code of Virginia § 23-9.2:3.8, this policy is unique in the area of AP and IB recognition in the United States and required public colleges and universities to complete four steps by May 31, 2011. These included setting comparable credit recognition policies for both AP and IB examinations, providing credit for both IB standard and higher level examinations, identifying the requirements students met by successfully completing the IB Diploma, and reporting policies to the State Council for Higher Education for Virginia (SCHEV) and publishing those policies on university websites. Interviews, artifact analysis, and website reviews were used to produce policy case studies of five Virginia universities' compliance with the law. In addition to

documenting policy compliance, additional goals of the study included understanding university officials' attitudes concerning the law, IB student readiness for college-level course work, and general perceptions of the IBDP and IB students.

CHAPTER ONE

Research Problem

American secondary students have various options to earn college credit before they step onto a college campus. In American high schools today, there are many opportunities for students to take Advanced Placement (AP) classes and examinations, International Baccalaureate (IB) Diploma coursework, and even university dual enrollment options (Hoffman, 2003). The problem is when students arrive on college campuses, each program is not always treated the same (regardless of student achievement) and each university has the power to decide its own policy in regard to credit by examination. For some programs, particularly those that are less understood or have fewer numbers, students lose out when it comes to credit awards (Matthews & Hill, 2005). This leaves students and parents with the perception that a particular program is not as valued even though secondary school systems have put time, resources, energy, and money into faculty and curriculum to implement advanced academic programs.

Some American states have sought to remedy this situation through legislative action, crafting various laws to encourage students to pursue advanced academic coursework and then rewarding them once they arrive on university campuses, either through credit or sophomore status. Additionally, some states have passed laws to provide funding for secondary schools to offer advanced courses and train teachers

(Kyburg, Hertberg-Davis & Callahan, 2007). In the Commonwealth of Virginia, legislators chose to address student and parent complaints concerning credit for work done in secondary school by passing a law that requires public colleges and universities to treat two particular programs, the International Baccalaureate Diploma Programme (IBDP) and the Advanced Placement (AP) Program equally in the way credit policies are determined. This law is the first of its kind in the United States where two credit by examination programs are addressed side by side and the way that the policies are created is the focus of the law rather than a specific number of credits awarded or the rewarding of a specific status. In addition, the Virginia law required that the colleges create policy for the IB Diploma, a complete curricular program that a student might choose to pursue consisting of six separate examinations as well as other requirements which is different from taking single courses and examinations and currently the procedure of the AP Program.

Advanced Academics in the Commonwealth of Virginia

Virginia's boundaries include 42,767 square miles and the Commonwealth is the 36th largest state in the United States (U.S. Geological Survey, n.d., Virginia Tourism Corporation, 2011). The Commonwealth has 132 public school divisions containing 1,873 schools (Virginia Department of Education, 2011). In Virginia, the term division is used instead of the word system, a more commonly understood term for local education agencies. The student population during the 2010-2011 school years was over 1.2 million students (Virginia Department of Education, 2011) and the Commonwealth requires public schools to report advanced program participation making the information available

on the State Department of Education website. During the 2008-2009 academic years, 293 public schools in 116 school divisions offered one or more Advanced Placement (AP) courses whereas 272 schools in 112 school divisions had students that took one or more AP examinations during that same year (Virginia Department of Education, n.d.). Technically, students in any grade may sit for an AP examination, although it is most typical for students to do so in their final two years of high school as most AP courses are offered during the junior and senior high school years. During the May 2009 AP examination session, 413 Virginia schools administered 115,066 AP examinations to 63,563 students (College Board, 2011c). This number includes private schools and homeschooled students not accountable to the state.

As of June 3, 2012, there were 36 International Baccalaureate (IB) Diploma Programme schools (three private, 33 public). There were also seven Primary Years Programme (one private, six public) and 36 (three private, 33 public) Middle Years Programme schools (International Baccalaureate, 2011c). Because of the nature of the IB Program and the ages and the years covered, it is possible for a school to have more than one program. IB Diploma Programme examinations are taken during the final two years of secondary school only. In 2009, 5,106 Virginia students took IB examinations (J. Sanders, personal communication, June 10, 2011).

Some secondary schools that are IB schools also offer AP courses; however, this is not always the case across the Commonwealth. Fairfax County, for example, requires their secondary schools to choose either the AP Program or the IB Program. Also, schools that offer AP courses do not always require their students to take the AP

examination. This explains discrepancies in the number of school divisions with AP courses and students taking AP examinations as noted above. It also includes IB Diploma Programme schools which may or may not have AP courses but have students taking AP examinations. Further, 12 school divisions in the state did not offer AP or IB coursework for their students in either 2009 or 2010.

Background of International Baccalaureate Programs

The International Baccalaureate Diploma Programme (IBDP) grew out of the International Schools Association (ISA) based in Geneva, Switzerland, and is slightly different today from its beginnings in the 1960s, especially in the United States. The advanced academic program grew from the development of a course in contemporary history, sponsored by social studies teachers in international schools. This first curriculum sparked the creation of a culminating examination and later, uniform standards for grading (Hill, 2002). The common standards and examinations led to the development of the IBDP because teachers wanted to address the problem of national bias in classes while developing student appreciation of the range of cultural perceptions of events (Hill, 2008; Peterson, 2003). This concept, called international-mindedness, later became one of the core values of all IB Programmes as well as the entire IB organization.

In addition to developing curriculum and assessments, an internationally recognized diploma was a guiding force for international school parents and teachers as it would enable students to go anywhere for higher education. Further, as the IBDP was developed:

Learning about other cultures and world issues, and being able to speak other languages, were important pragmatic elements. It was clear to the teachers that a new pedagogical approach was needed to promote international understanding,...critical inquiry coupled with an open mind willing to question established beliefs, willing to withdraw from conventional positions in light of new evidence and experiences, (Hill, 2002, p. 19).

This focus on international-mindedness and critical inquiry is woven throughout every IB Diploma course. In addition to critical inquiry, teacher and student reflection is an important part of IB programs.

The IB maintains three separate curricular programs - the Diploma Programme (DP) for students in the final two years of secondary school, a Middle Years Programme (MYP), established in 1994 for students 11 to 16 years old and finally, a Primary Years Programme (PYP), started in 1997 for students three to 11 or 12 years of age. A fourth program, the IB Career Certificate (IBCC) will be offered to students in Diploma schools starting in academic years 2012-2013 (International Baccalaureate Organization, 2011c). School districts do not have to offer all three programs and often do not have the facilities or resources to offer the entire continuum (all three programs) to students. Each program (PYP, MYP, and DP) is authorized by IB separately for a school or district and teachers are trained in the methodology of each IB program according to specific program guidelines and uniform world requirements, including inquiry-based instruction and reflection (Hill, 2008). The idea of the complete Diploma is where the IB Program is

different from the AP Program; where AP only offers single courses and examinations, IB gives students the option to pursue the whole Diploma or to pursue individual courses.

Currently, the IBDP is a global two-year course of study that requires students to study material in six course areas (called the Diploma hexagon) culminating in a series of international assessments. Schools that offer the IBDP are permitted to allow students to pursue individual subjects (called IB Diploma Programme courses) or to require students to complete the entire Diploma sequence – an undertaking during which a student completes study and examination in six subject areas including an additional language and the arts. In addition to this requirement, students are also required to complete three additional obligations that are unique to IB – a critical thinking and philosophy course called Theory of Knowledge (TOK), the development and writing of a 4,000-word piece of original research known as the extended essay and the completion of 150 hours of Community, Action, and Service, also known as CAS (Sjogren and Campbell, 2003). There are approximately 100 languages available for students to study as well as over 20 other subjects. Schools choose which subjects to offer depending on resources but must cover all six general subject areas including world language, mathematics, experimental sciences, and the arts.

Students are awarded an IB Diploma if they achieve a total score of 24 or more on their exams, do not fail more than one exam, and do not receive an “E” (elementary) grade on either their extended Essay or their TOK essay. These particular two papers are graded by external examiners and are sent away for grading prior to the exam period. Exceptional TOK or extended essays can also help a student’s total score by awarding up

to an additional three points for particularly insightful work. Students in the United States take their exams in May each year with results being posted in early July.

Each IB course has a combination of internal and external assessments and most subjects also have a formal examination. All assessments are required and students who do not complete an assessment do not receive a final IB grade. Internal assessments are graded by faculty inside the student's IB school and then selected works from that subject are chosen to be sent away to IB examiners for moderation, a process of checking if teachers are grading appropriately and according to set course standards. External assessments are completed by students and then sent out of school buildings to outside and trained IB examiners. All work is graded on a scale of one to seven. Before schools can offer the IBDP, all IB instructors are required to be trained in IB teaching methodologies. Additionally, schools must complete "a rigorous self-study and other accreditation-type measures" (Byrd, 2007, p. 10). The organization maintains instructional consistency through oversight of instructors and a regular five-year review of school programs.

Linking every IBDP course together are two things - Theory of Knowledge and the IB Learner Profile. Theory of Knowledge or TOK, as it is commonly called, is at the heart of every other IBDP course, as students in IB courses are continually asked to consider how they know what they know. IB Diploma students actually take a TOK course as one of their requirements but the theory is actually embedded into every IB subject as every IB subject is built around the ideas studied in TOK. The TOK course examines different ways of knowing, the role of knowledge in culture, and the role of the

knower or the learner, to the outside world (Schachter, 2008). That is one of the cornerstones of IB theory, that the knower is in the center of all instruction and it is he or she that often guides the learning in an IB classroom. As teachers are trained in their individual subjects, they are also trained in how TOK fits into their given subject area.

The IB Learner Profile is the other document that links all IB programs. The IB Learner Profile is: “the IB mission statement translated into a set of learning outcomes for the 21st century. The attributes of the profile express the values inherent to the IB continuum of international education.” (International Baccalaureate, 2009, p. 1) The Profile is made up of characteristics and traits that IB students should strive towards. It provides a common language for students, parents, and teachers to discuss student progress in various subjects, in co-curricular and extra-curricular activities, and provides a basis for which decisions can be made (International Baccalaureate, 2009). The IB Learner Profile is included with every other IB curriculum document and includes the following 10 attributes: Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-minded, Caring, Risk-takers, Balanced, and Reflective.

Coursework for IB examinations officially begins in the junior year but many schools typically have a preparatory program of some kind to get students ready for IB work and build skills that are needed in IB classes. The IB organization provides online and face-to-face professional development programs for teachers, both those teaching the IBDP courses and those teaching in preparatory programs. The IB organization also offers an advanced credential for teachers called the IB Educator Certificate. Teachers gain this credential by completing professional development courses offered by IB

partner universities and the award recognizes teachers' understanding of IB principles and practices as well as their commitment to lifelong learning (International Baccalaureate Organization, 2011f).

International Baccalaureate Programs in the United States

In the United States, over 90 percent of IB World Schools are public compared with the rest of the IB world which for the most part administers IB programs in private international schools. As of June 3, 2012, the IBDP was offered in 2,358 schools across the world with 782 schools (International Baccalaureate, 2011f) located in the United States and this number is always growing as new schools choose to become IB World Schools. American IBDP schools are approximately one third of all IBDP schools (International Baccalaureate, 2011f). Although the IB organization and the IBDP began in Europe, in the 1980s, IB programs began to grow quickly in the United States and Canada, surprising many of the European founders (Peterson, 2003). For the May 2010 examination session, there were 55,779 American candidates registered for various assessments; this number was the largest number of students anywhere in the world (International Baccalaureate, 2010a). Of the American students registered for IB assessments, 45,100 achieved a score of four or higher on one or more examinations (J. Sanders, personal communication, June 10, 2011). In Virginia in 2010, 5,601 students were registered and 4,353 achieved a score of four or higher on one or more examinations respectively (J. Sanders, personal communication, June 10, 2011). Additionally, Robinson Secondary School, located in Fairfax County, Virginia, gives more IB exams

each year than any other IBDP school in the United States (P. Campbell, personal communication, August 3, 2011).

Another thing that sets IB programs in the United States apart from IB programs abroad are the large numbers of students enrolled in IB Diploma Programme courses rather than the entire Diploma sequence. These courses result in students receiving individual certificates as long as they pass the corresponding IB examination. In the United States, where each state has autonomy over their own educational system, IB is seen by some policy makers as a way to offer rigorous curriculum options while also meeting the requirements of federal initiatives such as No Child Left Behind and reducing achievement gaps (Kyburg et al., 2007). The U.S. federal government has also provided financial support for advanced academic courses including IB coursework. In 2002, Secretary of Education Rod Paige established the AP Incentives Program as a component of No Child Left Behind to make competitive grant awards to promising programs that increase the numbers of students who take and succeed in advanced coursework (Kyburg et al., 2007). The Obama administration has continued support for AP and IB programs. Some states including Florida, Minnesota, Oregon, Texas, and others also provide financial incentives to implement IB and still others provide financial assistance for IB teacher training although in recent years financial support for both AP and IB has been subject to state budgetary cutbacks.

University Recognition of IB Programs in the United States

In many secondary school environments outside of the United States, the International Baccalaureate Diploma Programme (IBDP) is offered as a curricular program in international schools rather than in a public school setting. For this reason, the IBDP is usually the secondary school leaving certificate although some international schools also offer the national credential of the country in which they are located. Furthermore, the manner and the timeframe during which students apply to university, particularly in Europe, is quite different than in the United States, requiring adjustments in the way that IB Diplomas are dealt with by both secondary schools and universities in terms of recognition. Finally, many international school students will not attend university in the same country as their international school either leaving for a new place altogether or going back to the country of their passport (Heyward, 2002).

But for a student graduating from a high school in the United States, an IB Diploma is typically not accepted as secondary school exit credential as each state has control over their education department and oversees standards, curriculum, and even graduation assessments. Because of the timing of the American school year (IB results are published in early July and most states end the school year in June) and individual state graduation requirements, an IB Diploma is a supplemental credential for most students attending American schools. Additionally, there is no other country in the world quite like the United States in both the variety of options for, and structure of admissions to, institutions of higher education. The United States offers community colleges and trade schools as well as traditional university options. Higher education is for-profit,

independent, public, state-run, two-year, four-year, online, and every other variation in between so that a student can find an educational option that is right for him or her. These things create a unique climate in which the IBDP in the United States is somewhat different from the IBDP in the rest of the world. For this reason, university recognition of IB programs is very different in the United States than most of the rest of the world.

Because the original intent of the IB organization was to allow for easier mobility of students between schools and the IB Diploma was designed to provide an internationally recognized credential for entry to higher education (Hill, 2008), recognition of the IB Diploma was and still is, crucial for students. In addition to allowing students to move from school to school and then transfer to university, recognition provides the IB organization with legitimacy for both the IBDP and IB Diploma Programme courses. In the United States, universities and states have great autonomy and have been able to decide what kind of recognition to give the IBDP and IB Diploma Programme courses. As of this research, 18 states have laws in place that govern recognition of IB programs (International Baccalaureate Organization, 2011d). Recognition, however, is not only focused on recognizing the legitimacy of the IB Diploma in the United States. For students going to American colleges and universities, recognition means another layer – receiving college credit for the IB Diploma and IB examinations.

Two major factors contribute to IB's issues with credit and recognition in the United States. The first is the structure of the American university system itself. In Europe, where the IB program originated, a student's education towards a baccalaureate

degree is usually three years and specialized, whereas in the United States it can traditionally take at least four years and possibly longer as students take general education requirements and then work on a major and perhaps a minor. Students with an IB Diploma in the United States can often enter university with approximately one full year of coursework completed possibly fulfilling general education requirements. This presents problems for the American university system where in Europe the IBDP was already in tune with (and originally designed for) a three-year university system. Problems exist for both students and universities with students pushing for credit for their examination results and universities attempting to make sense out of a holistic curriculum that often does not mesh with baccalaureate university education in the United States.

How AP Complicates IB Credit and Recognition in the United States

Another complication for IB concerning credit and recognition is the prevalence of the College Board's Advanced Placement (AP) Program. This program, a series of courses and tests currently offered in 34 subjects (College Board, 2011b) was originally designed as a college placement incentive but has now become a significant factor in the American college admissions process and a major force in American university credit and placement. Marketed to advanced academic students, the AP Program gave 2,929,929 examinations to 1,691,905 students around the world in 2009 (College Board, 2010a). In addition, the AP Program has been active in the United States since the 1950s where the IBDP has been gaining ground in the United States significantly only in the last 25 years (Peterson, 2003). Comparatively, in Virginia, 115,066 students took one or more AP examinations while 5,106 students took one or more IB Diploma Programme course

examinations during the 2008-2009 school years (College Board, 2011c; J. Sanders, personal communication, May, 3, 2011). Of those students, 69,742 AP students achieved a three or better on their examinations whereas 4,012 IB students attained a score of four or better on the IB examinations (College Board, 2011c; J. Sanders, personal communication, June 10, 2011). It should be noted that AP examinations are graded on a scale of one to five with three generally considered a minimum passing score and where colleges and universities might consider potential college credit.

Why IB and AP Recognition Is Different in the United States

This issue of university recognition is where the United States is much different from the rest of the world and where IB has had a unique battle in the United States. Although IB and AP differ in the philosophical intent of their programs (one was set up specifically for college credit and the other was designed as an entire curricular program), in the minds of students and parents they are often seen as parallel curricular options. Also, because of the autonomy of the states and then individual universities within the United States, IB recognition is not uniform and course policies and required scores vary depending on university. “For individual courses, colleges will often give credit for the AP version [of the course] but not for the very similar IB version, with no other reason than that is their policy” (Matthews, 2004, p. VA20). For example, in the 2011-2012 academic year Virginia Commonwealth University (VCU) gave credit for the higher level IB examinations with scores of three through seven and standard level IB examinations with scores of four to seven depending on the test. The only IB examination to be awarded credit for a non-passing score of a three is the higher level Latin

examination which had a 5.04 mean grade in the May 2010 examination session and a 5.56 mean grade in the May 2011 examination session (International Baccalaureate Organization, 2010a; International Baccalaureate, 2011h). Virginia Commonwealth gave those students who achieved an IB Diploma three elective credits for the Theory of Knowledge course (Virginia Commonwealth University, 2010b). Regarding the AP Program, VCU awarded credit for AP tests passed with scores of three, four, or five (Virginia Commonwealth, 2010a). There is no AP Diploma in the United States.

To illustrate the discrepancy in awarding IB credit, the University of Virginia offered “possible credit for scores of five, six, or seven on most higher level IB examinations” (University of Virginia, n.d.-b). The university awarded no credit or exemption for IB standard level tests. For AP tests, the University of Virginia awarded course exemptions and academic credit. Most AP tests required scores of a four or five (University of Virginia, n.d.-a). The University of Virginia does not currently specifically recognize the IB Diploma. In addition, although 18 states have laws regulating university recognition of IB programs, these statutes vary widely, from giving 24 credits to students who successfully complete the IB Diploma in Texas, to matching specific courses with IB standard and higher level examinations in Oregon to requiring AP and IB examination credit policy development parity and an IB Diploma policy in Virginia.

How the Virginia Law Was Developed

In the United States (and other areas of the world), there are regional associations that provide an outlet for IB World Schools to conduct professional development activities, network, and advocate for government and university recognition of IB

programs together. Draft legislation in Virginia was reviewed and analyzed by the Mid-Atlantic Association of IB World Schools (the regional association that Virginia IB World Schools belong to) for some time prior to 2010 but it was formally initiated following a presentation by Isis Castro at Mount Vernon High School in Alexandria, Fairfax County, in November 2009. Castro, a former Fairfax County School Board Member, had been asked to speak to the Mid-Atlantic Association of IB World Schools by Mary Fee, a social studies teacher at Whitman Middle School (an IB Middle Years School) who had been widely involved in IB programs in Fairfax County. In her presentation, Castro addressed concerns about the lack of credit that IB Diploma students were receiving at Virginia colleges and universities, (I. Castro, personal communication, April 14, 2011). Afterwards, Castro and members of the Mid-Atlantic Association of IB World Schools contacted Castro's local State Senator, Toddy Puller (36th District) to pursue legislation. Senator Puller later spoke to Senator George Barker (39th District), a parent of an IB student, and a member of the Virginia Senate Education and Health Committee. It was decided that because of Senator Barker's position on the Senate Education and Health Committee, he should sponsor any proposed legislation and Senator Puller would be a co-patron (G. Barker, personal communication, May 10, 2011). As a basis for Virginia's law, Senator Barker was provided with models of current IB state policies by Asheesh Misra, a representative from the Mid-Atlantic Association of IB World Schools and the IB Coordinator at George Mason High School in Falls Church, Virginia, the oldest IBDP school in the Commonwealth. The policies provided to Senator

Barker included Texas, Florida, and Colorado as these were seen by the Mid-Atlantic Association of IB World Schools as good representative policies at the time.

The statute passed in Virginia concerning IB was unique. It was the first in the nation to require that university recognition policies regarding the College Board's Advanced Placement (AP) Program and IB higher and standard level examinations be comparable. By way of explanation, the AP Program is another advanced academic program that often draws similar students as the IBDP and is widely recognized by universities in the United States. In addition, AP which was developed in the United States to meet the needs of students in their final years of high school is seen as an American program (DiYanni, 2008) whereas IB is often seen as European or international. Because of this, university officials and even policy makers themselves do not always understand the IBDP, leaving students and parents confused and sometimes with the message that the IBDP is not as valued. The Virginia law was seen by those who advocated for it (those at IB, Virginia IB coordinators, parents, and students) as an attempt to force the Virginia colleges to recognize the work that IB students across the Commonwealth had been doing for a number of years without much recognition while their peers who took AP examinations often received up to a semester of credit for similar work (I. Castro, personal communication, April 17, 2011). As of June 3, 2012, Virginia had 36 Diploma Programme schools and during the 2008-2009 academic years, 1,270 students were IB Diploma candidates compared with 57,346 students who took AP exams (Virginia Department of Education, n.d.). The Commonwealth of Virginia does not require schools to report the number of students who took IB tests or IB Diploma

Programme course students, only students enrolled as IB Diploma candidates and those who successfully completed the Diploma. Current law pertaining to IB in Virginia was the result of two bills – Senate Bill 209 (2010) and Senate Bill 1077 (2011). Senate Bill 209 is the main bill and was signed by Governor Robert F. McDonnell on April 11, 2010. It created Code of Virginia § 23-9.2:3.8 while Senate Bill 1077 slightly modified language but not the intent of the statute (*Virginia Acts of Assembly*, 2011). Senate Bill 1077 was signed by Governor McDonnell on March 15, 2011. Also in 2011, a provision adding the Cambridge Examinations to Code of Virginia § 23-9.2:3.8 was passed by the Virginia Senate and signed by Governor McDonnell. This provision required the state colleges and universities to develop policies for these examinations as in the same manner as the IB and AP examinations but is not included in this research. As of October 1, 2011, only three secondary schools in the Commonwealth offered the Cambridge examinations to students.

Senate Bill 209 was introduced by Senator George Barker (D). The bill created Code of Virginia § 23-9.2:3.8 and required four specific actions from all public colleges and universities in the Commonwealth of Virginia including:

- Colleges had to outline the conditions necessary to grant AP and IB credit including the minimum required scores on examinations;
- Each college had to identify specific course credit or other academic requirements that are satisfied by completing the IB Diploma Programme;

- All policies for granting credit for standard and higher level IB courses had to be comparable to policies for granting credit for AP courses; and
- Governing boards of institutions had to report their policies to the State Council of Higher Education for Virginia (SCHEV) as well as publicize them on college websites (*Virginia Acts of Assembly*, 2010).

When the original bill (SB 209) was introduced and passed in 2010, it used the word “courses” instead of the word “examinations” (*Virginia Acts of Assembly*, 2011) and it was felt by those who were advocating for university recognition around the state, including some at IB that some colleges might have issues complying with the statute if the wording were not corrected. Because of this issue, SB 1077 was introduced by Senator Barker in January 2011 clarifying some of the language of Code of Virginia § 23-9.2:3.8.

International Baccalaureate and College Readiness

With more than 25 percent of first-year college students needing remedial courses (Clemmit, 2006; Merisotis and Phipps, 2000), there is debate about what it means to be college ready. Often, the debate about college readiness involves secondary schools creating climates in which students are offered opportunities to take advanced academic programs and classes that will prepare them for college-level coursework and hopefully, ensure that they do not have to take remedial education courses in reading, writing, or mathematics. The most common programs in this regard are the IBDP and the AP Programs. Student success in college is often defined as “completing entry level courses

at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence” (Conley, 2007, p. 5). Besides being ready for college, Matthews and Hill (2006) suggest that advanced curriculum options like the IBDP can increase the rate of college degree acquisition.

In terms of the IB curriculum, there are several things which make this program a distinct option for increasing college readiness and perhaps narrowing the achievement gap. A study by Conley and Ward compared the alignment of the IB Diploma program and IB subjects to the Knowledge and Skills for University Success (KSUS) college-ready standards (2009). The study found the IB standards to be highly aligned with KSUS, a comprehensive set of standards describing what undergraduate college faculty members expect in entering students developed over two years and completed in 2003. Four hundred faculty and staff from 20 research universities who worked directly with freshman students participated in the study to develop the standards (T. Ward, personal communication, July 11, 2011). The study focused on identifying the skills students must have to succeed in entry-level courses at the participants’ institutions (Standards for Success, 2003). The 2003 final report, titled *Understanding University Success*, detailed the standards in English, mathematics, languages, the arts, natural sciences, and social sciences. While developing the standards, the university faculty and staff also considered habits of mind students develop in high school that are important to bring to university level coursework, including critical thinking, analytical thinking, and problem solving as well as inquisitiveness and the ability to accept critical feedback (Standards for Success, 2003).

In 2009, when the IB Diploma subjects were compared to the KSUS standards, complete alignment was found between the IB Diploma's mathematical studies and the KSUS algebra, trigonometry, and statistics standards. In science, the 47 IB chemistry standards, 19 biology standards, and the concepts of environmental science embedded in all three IB science courses aligned completely with the KSUS standards (Conley & Ward, 2009). In addition, the key cognitive strategies emphasized in the Diploma—critical thinking skills, intellectual inquisitiveness, and interpretation—were found to be fully aligned with the expectations of university faculty (Conley & Ward, 2009). The question then arises that if IB programs are aligned with what professors are teaching in introductory college courses, then shouldn't university recognition for IB students be a simple matter?

Goals of the Study

Despite some appreciation by university officials that IB programs prepare students for university-level coursework and the acknowledgment that IB students are valuable on college campuses (Coates, Rosicka & MacMahon-Ball, 2007; Daly, 2010; International Baccalaureate, 2003; Tarver 2010) many colleges do not award comparable credit for the work completed by IB students but do award credit for comparable AP examinations. As demonstrated earlier by the two Virginia examples presented, universities do not often recognize either the IB Diploma or some IB examinations as equitably as AP examinations. The contradiction between the university preparation that IB students possess when they enter their post-secondary institutions and the lack of recognition in comparison to the AP Program creates the conditions ripe for study and

research. In addition to the reasons noted above, work relating specifically to credit for standard level examinations as compared to the AP Program has not been completed and work especially in the United States surrounding the perceptions of the IBDP especially concerning recognition statutes, is nonexistent.

The study aimed to understand how university officials at five public universities in the Commonwealth of Virginia have provided a policy response in accordance with Code of Virginia § 23-9.2:3.8. Because this law concerns credit policies for International Baccalaureate (IB) and Advancement Placement (AP) examinations, a hypothesis was that officials had to familiarize themselves with not only the requirements of the statute but also the particulars of individual AP and IB coursework to make informed policy decisions. In addition, this study aspired to understand university officials' attitudes concerning both the statute itself (and all its individual provisions) and IB student readiness for college-level course work. The study achieved this through qualitative policy case studies, artifacts, and website reviews. Narratives were created to document the process of changing policy and the implementation of required directives.

Importance of the Study

This study has the potential to provide knowledge regarding how university officials develop policy regarding credit by examination, specifically the IB Diploma Programme (IBDP) and secondarily, the AP Program. Although the main focus of the study is the IBDP, because of the nature of the Virginia law and the research method employed (the development of cases), there will be knowledge obtained about the AP Program as well as the IB Program because one of the requirements is that the colleges

develop policy in a comparable manner. In addition, because qualitative research helps one understand a phenomenon (Merriam, 1998), this study helps provide knowledge concerning university policies in regard to recognition of the IB Diploma, an area of research which has yet to be developed. The use of five cases in the study also forces attention to complexity (Stake, 1995) and potentially allows for some cross-case analysis concerning policy development of higher education institutions. Also, whereas most of the research concerning university officials' perceptions of the IB Diploma Programme has been conducted outside of the United States (Coates, Rosicka & MacMahon-Ball, 2007; International Baccalaureate, 2003), the study also contributes to that body of knowledge.

Research Questions

The following research questions have been addressed:

1. What are senior university officials' perceptions of the International Baccalaureate Diploma Programme (IBDP)?
 - a. In what ways do senior university officials believe IB students are prepared/unprepared for undergraduate coursework?
2. What policies do universities in Virginia have in place for granting credit for IB higher and standard level coursework and for recognizing the IB Diploma?
 - a. What is the officials' rationale for these policies?
 - b. How were these policies developed?

3. Has implementation of the Virginia law influenced university recognition of IB and AP in Virginia? If so, how?
 - a. Are senior university officials familiar with the requirements of the law?
 - b. What impact has the law had on the attitude of senior university officials toward the two programs (AP and IB)?
 - c. How has the law influenced universities' policies regarding credit for IB courses and the IB Diploma?

Conceptual Framework

As stated previously in this chapter, a literature search did not find any existing studies concerning university recognition statutes and the IB Diploma Programme. Although a literature review guided the development of the conceptual framework for this study, there are other, non-empirical studies and sources which also informed the development of the conceptual framework and are explained further in Chapter 2. These include the following:

- A comparison of how the IB Diploma Programme is treated differently in terms of university recognition in different areas of the world. For the purposes of explaining differences in American IB recognition and global IB recognition, the United Kingdom, Australia, and India are presented as examples;
- The structures that the IB organization uses to work with universities, open dialogue, and advocate for recognition in the North America;

- Information about the various states that informed the current Virginia statute and;
- Kingdon's model of multiple streams (1995) and how this theory fits into the completed study.

The choice of setting for the policy case studies completed was purposeful based on preliminary research completed before the research study and emerging research relationships. Because it was the intent to complete five case studies of the Virginia law and the policy development that ensued in the aftermath of the law, it was necessary to track all 15 public universities to determine which institutions might make suitable settings for the cases. Because of this, all pre-compliance policies were already known so that universities could be selected. Optimally, it was the intent of the researcher to use The College of William and Mary, Virginia Polytechnic Institute and State University, the University of Mary Washington, Virginia State University, and Virginia Commonwealth University for the study. Two backups were also selected should scheduling with one of the five become impossible or a participant withdraw. Although the rationale for the choice of these settings is further fleshed out in Chapter 3, each setting was chosen based on the complexity of the policy development before and after the compliance date of the Virginia law (May 31, 2011) as well as the size and type of institution in the scope of the larger setting of the Commonwealth.

The conceptual framework is based upon the following premises:

- International Baccalaureate university recognition in the United States is significantly different than IB recognition outside of the United States, as conditions in the United States are different for the IBDP in the nature of Diploma students, performance, and school environment;
- Although the philosophical underpinnings of the AP Program and the IBDP are different (the AP Program is a curriculum originally designed in conjunction with universities for university credit while the IBDP is a curriculum designed by practitioners) many students and parent consider the programs parallel options for advanced students;
- American colleges and universities have autonomy in deciding their own policies (Daly, 2010);
- Several studies note the value of IB students on college campuses (Coates et al., 2007; Daly, 2010; International Baccalaureate, 2003; Tarver 2010) but there are still differences when it comes to credit awards for advanced academic students in comparison with the AP Program (Daly, 2010; Matthews, 2004; Tarver, 2010);
- Qualitative research is used to better understand a phenomenon (Merriam, 1998) and in qualitative case study the goal is to appreciate the uniqueness and complexity of the case (Stake, 1995) and;
- Institutional case studies of how policy has been revised in the aftermath of a state statute dealing with credit by examination, specifically IB and AP credit is not evident in the literature.

Definitions of Key Terms

The following definitions are provided to establish consistent collective understanding of the study.

Advanced Placement (AP) Program – an advanced academic program created by the College Board in 1955. The program is designed for high school students that allow them to earn college credit by scoring a three or higher on the academic subject tests. Students traditionally are enrolled in AP classes in schools but do not have to be to take AP examinations.

AP Examinations – tests administered by the College Board in various subjects. Unlike IB examinations, students may take AP examinations in any year of secondary school. AP examinations are scored on a scale of one to five.

Credit by Examination – an umbrella term given to testing programs that are independent of specific college and university departments. The IBDP and the AP Program would fall under this larger term.

Extended Essay (EE) - the 4,000-word research, analysis and evaluation paper generally written by IB Diploma students during their junior and senior years. Students choose their own topic and are supervised during the process by a faculty mentor. As of the 2012-

2013 academic years, IB Diploma Programme Course students may complete extended essays.

External Assessment - required IB Programme assessment for both Diploma and IB Diploma Programme course students. In each course area, assessments are graded by international IB examiners on a scale of one to seven.

Higher-Level (HL) Examination - an exam taken at the end of the senior year following a minimum of 240 hours of IB classroom instruction during the final two years of high school.

Institution of Higher Education – a college or university that grants bachelor’s degrees. Although every public college and university in Virginia must comply with the statute being discussed, for the purpose of this study, the focus is on the four-year, BA granting institutions. There are 15 in the Commonwealth.

International Baccalaureate (IB) Diploma Programme – comprehensive and rigorous curriculum for students in the last two years of secondary school culminating with external examinations. The general objectives of the IB are to provide students with a balanced education, to promote cultural and geographic mobility, and to promote international understanding through a shared academic experience. Students may pursue an IB Diploma or individual IB Diploma Programme courses.

IB Diploma Programme Student - a student taking one or more IB subjects on an individual basis; not required to take the TOK course, perform Creativity, Action, Service (CAS) or write the extended essay. Students who pass examinations for these subjects earn certificates.

IB Diploma Student - a student taking six IB subjects, one from each point on the IB hexagon, plus the Theory of Knowledge course, Community, Action, Service program and extended essay and thus working towards the full IB Diploma.

IB Graduates- those who graduated from high school and earned an IB Diploma.

Internal Assessment – required IB Programme assessment for both Diploma and IB Diploma Programme course students. In each course area, assessments are graded by internal faculty and then sent to external graders for moderation on a scale of one to seven.

Predicted Grade – likely grade a student would achieve on an IB examination. Outside of the United States, predicted grades are often used by universities to make admissions decisions for a student and would be required for all IB Diploma subjects or any IB Diploma Programme course subjects.

Standard-Level (SL) Examination - an exam taken at the end of either the junior or senior year following a minimum of 150 hours of IB classroom study.

Theory of Knowledge (TOK) - is an IB course designed to encourage each student to reflect on the nature of knowledge by critically examining different ways of knowing (perception, emotion, language and reason) and different kinds of knowledge (scientific, artistic, mathematical and historical). Previously required for IB Diploma students only, as of the 2012-2013 academic years, IB Diploma Programme Course students may also take TOK.

University Officials – individuals that participated in the research study. For the purpose of this study, this term includes those in administrative roles, admissions roles, faculty roles, and those with roles that overlap into multiple categories at the five institutions of higher education in the Commonwealth of Virginia.

Summary

This study provided a case analysis of how five universities implemented policy regarding IB and AP credit in the Commonwealth. The benefit of a recently enacted law is that the researcher has the opportunity to see firsthand how the various colleges and universities in the Commonwealth have reacted to the charge that they have been given by the State Council for Higher Education for Virginia (SCHEV). It was believed that the perspectives of those who have to change policy could perhaps also offer insight

regarding beliefs and attitudes towards the IBDP and IB students especially regarding college readiness. This study provides a base for future research can be done to compare the IB and AP programs in regard to policy development as this is currently an untapped research area. Chapter two examines both the empirical and non-empirical literature pertinent to the study.

CHAPTER TWO

Literature Review

Chapter 2 is divided into two main sections. Because the study was informed by several non-empirical studies and sources, the first section goes through those. In that section, differences in university recognition of IB programs in the United States and abroad are detailed by providing specific examples of how university recognition of the IBDP is understood in the United Kingdom, Australia, and India. This provides a comparison between global IB recognition and American IB recognition. Next, the following section discusses how the IB organization reaches out to colleges and universities through the College and University Task Force (CURT). The following section discusses methods universities use to award credit to incoming students. Afterwards, the states that contributed to the Virginia statute are discussed and then a policy theory is offered to explain how the Commonwealth's university recognition law came to be. Finally, the literature review synthesizes and analyzes research about the Diploma Programme including three specific sub categories: university perceptions of the IBDP, other perception studies involving the IBDP, and IB as it relates to college performance.

Differences in University Recognition of IB Programs

Because college admission is different in the United States and abroad, recognition of IB programs is treated differently in different places in the world. As introduced in Chapter 1, there are several issues surrounding the treatment of the IBDP in the United States, from the concept of the IBDP as a school leaving certificate, to the structure of the college admissions system, to how IB is perceived by university officials. Recognition of IB programs is not just a student issue - for the IB organization, it is also a political one as it requires the establishment of relationships with governments and education policy makers and requires officials to not only learn various educational systems but the policy structures in every country in which the IB organization desires recognition for IB students. As the IB organization's intent was an internationally-recognized credential (Hill, 2002; Peterson, 2003), the IB organization has invested much time and manpower into the recognition of the IB Diploma.

In order to explain this phenomenon, three cases of how the IBDP is treated in nations outside of the United States are presented. These countries were chosen because they show the diversity of the world's environment in relation to the IBDP at the time of this research. As it is not possible to provide a snapshot of every nation, the United Kingdom and Australia were selected because they were where two of the empirical university perception studies (Coates et al., 2007; International Baccalaureate, 2003) that were completed. These studies are explained in greater detail later in this chapter. India was chosen to provide an additional case of recognition for comparison. In the case of the

United Kingdom, it also provides a glimpse of how the AP Program is perceived in regard to college admissions.

International Baccalaureate Recognition in the United Kingdom

As of this research, by law, until age 16, students in the United Kingdom study a national curriculum (British Council, n.d.). After age 16, students are permitted to pursue various curricular options which can include A-levels, the IBDP, the Welsh Baccalaureate, and Scottish Highers, among others. In terms of educational structure in the UK, students have many choices including free schools, trust schools, academies, specialist schools, independent schools, technical schools, and faith-based schools (Department for Education, 2011). More than 90 percent of students in the UK attend publicly-funded schools. Of this group, “approximately 8.5 million children attend one of the 30,000 schools in England and Wales; in Scotland, 830,000 children attend about 5,000 schools, including pre-schools and other special education schools and Northern Ireland sends 350,000 children to 1,300 state schools” (British Council, n.d., para. 1). These numbers include both primary and secondary students. The United Kingdom comprises approximately 94,525 miles and has a land mass approximately the size the state of Oregon (Lansford, 2011).

As secondary students study for the various credentials and plan for their university careers (called tertiary studies in Europe), they must also plan university applications. In the United Kingdom, students apply to university through a centralized service called the University and College Admissions Service (UCAS). UCAS is not only a clearinghouse for all admissions documents but also maintains a list of various

credentials called the UCAS Tariff (UCAS, n.d.-a). The Tariff assigns the various credentials, including the IB Diploma and now IB Diploma Programme courses, a certain number of points for designated scores that universities can use to measure and compare the quality of candidates. The inclusion of the IB Diploma and the IB Diploma Programme courses on the UCAS Tariff (not all credentials are included) showed that UCAS determined that not only was the Diploma Programme a legitimate school leaving credential but one enough students in the United Kingdom were attempting and universities needed to see a measure (a number) to equate the IBDP with other credentials. As of June 3, 2012, there were 198 Diploma Programme schools in the United Kingdom and those schools registered 5,114 students for the May 2011 examinations (International Baccalaureate, 2011f; International Baccalaureate Organization, 2011h). The IB Diploma receives a UCAS Tariff score of between 260 and 720 for a score of 24 (lowest passing Diploma score) to 45 (highest). IB Diploma Programme courses receive between 20 to 130 points for higher level examinations with scores between a three and seven and between 11 and 70 points for the same scores (UCAS, n.d.-b). As a comparison, some AP exams get a maximum number of 120 Tariff points for a score of five (the highest AP score). Both Scottish Highers and the Welsh Baccalaureate receive lower UCAS Tariff points than the IBDP (UCAS, n.d.-b.). A student taking A-levels could receive more points on the Tariff because of the individual nature of taking multiple exams versus a singular Tariff point value given to the total Diploma score.

Keep in mind that each university in the United Kingdom ultimately makes its own admission decisions based on a student's application as well as the course of study (major). This is another example of how university admission is different abroad. Students in the UK apply to universities for specific courses, such as medicine or education, rather than just applying to a university undeclared and then deciding a major as is often done in the United States. In addition, students wishing to go to universities in the UK from European Union nations and the United States must also apply to UK universities and programs through UCAS. Applications have been completed electronically since 2006. Just like in the United States, the more prestigious universities, Oxford and Cambridge, have more stringent admission requirements.

The Case of Australia

IB examinations are given twice yearly – in May and in November. Students in the Northern hemisphere typically take exams in May while students in the Southern hemisphere typically take exams in November. Some schools in Australia take exams at both times as there has been a movement over the last several years for students to want to travel to Europe and North America for university study. Australia comprises approximately 4,779,587 miles and has a land mass almost as big as the United States. Further, Australia is 32 times larger than the United Kingdom (Australian Government, 2010).

As of this research, Australia has 62 Diploma schools (International Baccalaureate, 2011f) and registered over 1,480 candidates for the November 2010 IB examinations and over 680 additional candidates for the May 2011 IB examinations

(International Baccalaureate 2011i; International Baccalaureate, 2011h). The global average pass rate for the IB Diploma is approximately 30 out of possible 45 points each year and has remained constant from 1990 through 2009. In the Asia Pacific region, which includes most notably China, Singapore, India, Thailand, Australia and other countries in that area, the average Diploma score is a 34 (Valentine, 2010). In addition, 16.4 percent of Diploma students in the Asia Pacific region earned more than 40 points. There are approximately 7,200 students in the entire Asia Pacific region and Australia is the number one destination for university study for students who sit for November IB examinations.

In terms of educational structure, Australia is comprised of six states and two territories each with its own bureaucracy, curriculum, and assessment requirements. The Australian government classifies its schools into three categories – state supported or government schools, independent schools, and Catholic schools. In 2010, there were 6,743 government schools, 1,708 Catholic schools, and 1,017 independent schools serving 3,510,875 students (Australia Bureau of Statistics, 2011). Of those schools, 1,409 were secondary schools including IBDP schools.

In addition to the Diploma schools noted above, Australia also has more than 100 Middle Years Programme (MYP) and Primary Years Programme (PYP) schools combined (International Baccalaureate, 2011b). Successful completion of the Diploma Programme is recognized by all universities in Australia but each state has a slightly different way of dealing with the IB Diploma and each state has a different relationship compared with the secondary school credential offered in that state (Valentine, 2010).

The university year in Australia starts in February and March. Like in the UK, students applying to university need to work with a central clearing house, called a Tertiary Admission Centre that deals with the processing of applications and the notification of offers (International Baccalaureate Organization, 2011e). Of all the Australian states, Victoria has the strongest relationship with the IB. The Victorian Registration and Qualifications Authority formally recognized the IBDP in Victoria and maintains a strong relationship with the Diploma Programme schools there (Valentine, 2010). Moreover, The University of Melbourne is one of 11 universities in the world recognized by IB to participate in their teacher professional development scheme (IB Educator Certificate) where teachers can pursue higher education in advanced IB studies for the PYP, MYP, or the DP (International Baccalaureate, 2011a).

In Queensland, students earn four points for a grade of four in every Diploma subject and two points for Theory of Knowledge and the extended essay towards that Queensland Certificate of Education (QCE). If an IB Diploma student earns more than 20 points on this system, they are granted a QCE. The student's total Diploma score does not matter towards the QCE (Valentine, 2010). Other regions of Australia follow similar guidelines although the way that they calculate the points differ.

In terms of university admission and recognition, Australian universities look at the IBDP as a senior secondary exit credential but often convert the number of Diploma points achieved "to a common national measure of year 12 student achievement, called a 'Combined' rank" (Valentine, 2010, slide 31). This allows universities to look at both the IBDP and the various Australian school leaving certificates equally. The process is

similar to what American university admissions officers do when converting grade point averages of students to a common system instead of relying on each school system's individual system of grades which may be weighted for some courses and not weighted for others. The result is that students in Australia will get into university based on merit and not because one credential is favored over another (Valentine, 2010).

Recognition of the IBDP in India

India is the seventh largest country in the world and comprises approximately 2,042,610 miles (Government of India, 2010) with a school age population (up to age 15) of 352,866,393 students (Central Intelligence Agency, 2011). The country lies entirely in the northern hemisphere. Although 95 percent of children attend primary school because of recent efforts to increase primary education, only about 40 percent of Indian adolescents attend secondary school (The World Bank, 2011). This has to do with access to secondary education. In a report completed by the Ministry of Education for the years 2005-2006, India listed 770,000 primary schools, 290,000 upper primary schools and 160,000 secondary/senior secondary schools (Government of India, Ministry of Human Resource Development, 2008). In India, primary schools are for generally for students aged six to 11, upper primary is for students aged 11 to 14 and secondary/senior secondary is generally for students aged 14 to 18. India classifies schools as "government, local body, private-aided, and private unaided" in terms of management (Government of India, Ministry of Human Resource Development, 2008, p. 6). Local body schools are government-funded but are maintained by the local authorities instead of the central government while government schools are maintained centrally. Private

aided schools are supported by partnerships with the governments and private groups while private unaided schools have no support (S. Baily, personal communication, September 22, 2011).

As of this research, India has 85 Diploma schools (International Baccalaureate, 2011f) and registered 2,450 candidates for the May 2011 IB examinations (International Baccalaureate Organization, 2011h). All IB schools in India are international, private schools and would most likely fall under the category of private unaided for reporting purposes. Further, 90 percent of IB students in India attempt the full Diploma (Bernard, Dohadwalla & Switzer, 2010). In the last 20 years, over 12,000 students have completed the IB Diploma and the program has grown tremendously in the last five years as the number of Indian IB students has grown over 20 percent each year, doubling the IBDP in India since 2005 (Taneja & Switzer, 2011). Since 1983, the IB Diploma has been recognized by the Association of Indian Universities (AIU) as an entry qualification to all universities in India and as of 2003, the AIU converted the IB grades and put them in line with those grades traditionally given in Indian secondary schools (Bernard et al., 2010).

If a Diploma student wishes to apply to an Indian university, he or she must notify their Diploma coordinator who will then submit a special mark sheet before the examination session to facilitate admission to Indian universities. Each school must also issue a grade 12 school leaving certificate, called a Higher School Leaving Certificate, as well as predicted IB Diploma grades. These are necessary in India because admissions decisions start in early June and IB results are not released until early July. The Indian government also recognizes multiple credentials as equivalents to a Higher School

Leaving Certificate including an American high school diploma from any accredited secondary school, (Government of India, 1995). In May 2010, 1,288 Indian IBDP students requested IB transcripts for the purpose of university admissions (Taneja & Switzer, 2011).

Admission to most university courses in India is based on academic achievement or a separate entrance test. Entry requirements vary from university to university and course to course. Because of this, the IB organization is very proactive in India and has published a guide to university recognition in India. This text details higher education in India and provides 41 individual Indian university policies in addition to the list of documents that Indian students need to apply to higher education in India (Taneja & Switzer, 2011). For IB Diploma students, it is extremely important that before starting the IBDP, students and parents be familiar with the required subject combinations that might be required for entrance into university. For instance, IB Diploma students who wish to study engineering in India should take IB Physics HL, IB Chemistry HL and IB Math HL (Bernard et al., 2010). Similar restrictions exist for students wishing to study medicine. In terms of the timing issue with admissions, there are ongoing discussions between IB and the universities regarding the use of predicted grades to extend offers of admission. Predicted grades are when universities might ask schools or individual teachers to report in advance what they think an IB student's examination grade will be for a given subject. This can be done for the entire IB Diploma or for single IB Diploma Programme courses. These grades are used to make admissions decisions in Europe and Canada, among other

places. They are not typically used during the college admissions process in the United States. Moreover, a gap year, popular in the United Kingdom, is not common in India.

The College and University Recognition Task Force (CURT)

In terms of oversight and curriculum development, IB operates a group of regional offices around the world. IB divides all operations into three regions: Americas, Asia Pacific, and Africa/Europe/Middle East. In the Americas region, there are offices in Bethesda, Maryland, and Buenos Aires, Argentina. One of the tasks of the regional offices is to assist college admissions personnel responsible for evaluating the IBDP. In North America, IB has created the College and University Recognition Task Force (CURT). Membership is voluntary and current CURT members are from Brown University, DePaul University, St. Mary's University, Skidmore College, Swarthmore College, Université de Sherbrooke, University of British Columbia, University of Texas at Austin, University of the West Indies, and the University of Wisconsin – Madison. The group works with school leaders and IB coordinators “to examine ways to better facilitate the movement of IB students into higher education” (Sjogren & Campbell, 2003, p. 56). As part of their activities, members of CURT developed and endorsed a chart that provides university admissions staffs with a guide regarding how an IB Diploma recipient might compare with other applicants in a comparative admission environment.

The chart developed by CURT details 13 admissions assumptions that can be used by university officials to compare IB Diploma candidates to other students vying for college admission. Students are considered Diploma candidates until they actually earn the IB Diploma, when scores are published in early July. Most American college

admissions decisions are made by April 1 or earlier each year. The admission assumptions range from academic strength of curriculum to student engagement to research and writing skills, critical thinking, oral communication, extracurricular involvement, maturity, responsibility, and diversity, among others (International Baccalaureate College and University Task Force, 2008).

Regarding academic strength of curriculum, colleges and universities are assured that the IBDP is a rigorous program of study (International Baccalaureate College and University Task Force, 2008). Students study a broad range of subjects and often exceed state and national requirements for content as several states have allowed IB subject examinations to be substituted for state achievement and graduation tests including Maryland, Pennsylvania Texas, New York, Tennessee, and Virginia (B. Poole, personal communication, June 13, 2011). Included in a student's knowledge base would be a first language and literature, an additional language, social science, math, and natural/physical sciences as well as some knowledge of one of the arts. IB teaching methodology requires inquiry-based instruction where students are engaged in their learning.

Several courses have extended writing requirements as part of their assessments and the extended essay, the 4,000 word independent research paper, allows students to prepare for the rigor and length of college-level writing (International Baccalaureate College and University Task Force, 2008). By requiring Diploma candidates to take the TOK course, secondary teachers force them to consider their ways of knowing, a skill that can be applied to any discipline. By thinking about how they come to knowledge, students become more inquiring and engaged in the university classroom. The TOK

course also “requires students to shape their opinions into logical discourse” (International Baccalaureate College and University Task Force, 2008, para. 8). In the area of oral communication, several courses have this task as part of their examination requirements including English and foreign language.

Besides the traits mentioned above according to IB, there are three other things that admissions officers should keep in mind about IB applicants. A school must be continually invested in being an IB World School because becoming an IB school is both difficult and costly and then schools pay ongoing fees to IB for program materials, examinations, and training. In addition to a preliminary self-examination and application, a school must complete a site visit from a three-person team and a review of their programs every five years. Through August 2012, the cost of offering the IBDP is \$10,200 USD (International Baccalaureate Organization, 2011b) plus a number of per candidate examination fees. The average IBDP school has 46 Diploma candidates and \$896 in examination fees per student (International Baccalaureate, 2010). Some examination fees are offset by local, state and federal money. Although the fees do not necessarily guarantee high standards, in the current economic environment, it would be wasteful for American public schools to support programs that are not successful or prepare students well for their next level of education. As stated earlier in this dissertation, over 90 percent of American IB schools are public and thus supported by state money.

Besides requirements for IB schools, the contention from IB is that IB teachers are also held to high standards. In order for schools to offer IB courses, it is required that

schools offer a teacher training requirement as students are required to fulfill the requirements of several college-level courses (Sjogren & Campbell, 2003, p. 56). Students who take higher level (HL) courses have 240 hours of instruction while students who take standard level (SL) courses receive 150 hours of instruction over the final two years of high school. International Baccalaureate curriculum guides are optimally rewritten every five years, and IB expects that schools are also committed to ongoing professional development of their faculties in order to keep up with the curricular changes.

The final thing that admissions officers should consider about IB applicants is the fact that the IB grading system is

...criterion referenced where each student's performance is measured against well-defined and articulated levels of achievement. These are consistent from one examination session to the next and are applied equally to all schools throughout the world (Sjogren & Campbell, 2003, p. 56-7).

Although the first IB exams were offered in 1971, the distribution of scores across the various IB subjects has remained virtually the same from year to year. In addition to the college admissions assumptions, CURT members argue that an applicant striving for an IB Diploma has many of the qualities necessary to be successful once they get to college: strong academic skills, positive contributions to their community, an ability to think critically, and a willingness to accept challenges.

University Recognition and Credit Award Policies

Dounay (2006) summarized legislative policies aimed at requiring credit awards for achievement in AP coursework. The IB organization maintains a database of legislative action kits for all American IB state legislative policies (International Baccalaureate, 2011g). There are also policy summary charts that list colleges and universities as well as explain what kind of credit is offered for the IB Diploma, standard and higher level examinations, potential scholarship opportunities for IB students, and admission options for IB students (International Baccalaureate, 2011d).

Credit by examination is the umbrella term used for the credit awarded for AP and IB programs. The term is also used for the various other testing programs outside of specific college and university departments. In regard to the AP Program, students can receive credit depending on their test performance and each university determines their own policy unless there is state law in place specifying something else. Students do not have to take an AP course in order to take the corresponding AP examination and unfortunately, no study of AP policy development could be found. Without comparative studies of credit awards or standardized schedules of credit recognition, students could lose motivation for completing challenging coursework even though college admission officials, especially at selective institutions, demand these courses on application transcripts. According to Atkinson and Geiser:

...AP has come to play an increasingly important role in admissions at selective institutions, and its role in admissions is now arguably more important than its placement function (2009, p. 669).

Despite the above issues, Frisbie (1982) stressed a need to periodically evaluate any placement system or credit policy as changes in examination content and/or student characteristics may warrant changes in policy.

Just like the AP Program, the IBDP is another option under the umbrella term of credit by examination. As with the AP Program, credit recognition policy about the IBDP is determined by individual universities unless there is a law in place mandating otherwise. Unfortunately, as with AP, there is a lack of comparative research concerning credit policies about the IBDP. As an IB law regarding credit recognition is germane to this study, there are several states that have statutes in place that did have an impact on the Virginia statute. Texas, Florida, and Colorado all have statutes that require IB Diploma students to receive a specific number of credits upon entering university studies and these states provided the research background for the Virginia law despite the Commonwealth's final IB recognition mandate being significantly different from these states.

In the United States, each university, as well as each state, has autonomy concerning university admission and credit issues. Students can use the Common Application, an online application used by more than 450 colleges (The Common Application, 2011) to apply to college for some universities or a university might have their own application. In terms of credit recognition, each university can set their own recognition guidelines unless there is a state credit recognition law. This means that credit for IB examinations and possibly, the IB Diploma, may be determined by the university or college on an individual basis. Although 18 states in the United States have IB

university recognition laws in place, these laws vary widely and there is no national IB or AP policy. Furthermore, the ways that policies are developed at individual institutions can be extremely varied, from organized central structures that review syllabi for IB courses to individual departments setting their own policies to determine what college courses might match individual examinations, (Daly, 2010). Of the states, at the time of this research study, only Oregon has attempted to develop a course articulation policy that matches IB examinations to specific college course subjects and requirements in all state colleges and universities (Oregon University System, 2009). This policy, developed in 2009, is being implemented over three years and also includes a temporary IB Diploma policy across the state. The reason that the policy is considered temporary is because the Oregon working group wanted a provision to reward students who achieved a Diploma score of more than 30 points (passing is 24). Currently, students who achieve this score and higher can be awarded up to 45 hours of quarter credit. The Oregon working group is allowing additional time so that institutions can track the IB Diploma Programme course students so that a more consistent policy can be developed. Statistics are being collected during the 2010-2013 academic years and then the Diploma policy will be reevaluated during the 2013-2014 academic years (Oregon University System, 2009).

International Baccalaureate Policy in Texas

Of the states, Texas has one of the most extensive IB policies in the United States, which began with the addition of the IBDP to the Texas AP Incentive Program in 1995. This program provided for, among other things, six types of awards including: subsidies for IB teacher training, school bonuses for students obtaining passing scores on IB

exams, one-time equipment grants for implementing new IB courses, a one-time bonus for first-time IB teachers, a share of a teacher bonus pool for IB courses taught and student partial fee reimbursements for passing IB scores (International Baccalaureate Organization, 2008c). Unfortunately, these provisions are funded according to annual legislative appropriations and the last three award types have never received funding by the Texas legislature. Of the possibilities above, one-time equipment grants have been provided and teacher training subsidizes IB programs across the Texas. Test fees for low-income students in Texas are currently covered by both state and federal grant monies. In terms of university recognition, Texas was one of the first states to have a statewide IB Diploma policy, as the law in Texas required public institutions of higher education to:

grant at least 24 semester credit hours or equivalent course credit in appropriate subject areas to an entering freshman student for successful completion of the International Baccalaureate Diploma Program (Shapleigh, n.d.).

Some Texas universities, including the University of Dallas, Texas Tech, Southern Methodist University, and the University of Texas-Pan American offer scholarships specifically for IB students.

Advanced Academic Program Support in Florida

The State of Florida also provided a great deal of support for IB programs and in addition to supporting IB, provided funding for AP, CLEP, and dual enrollment programs. As of this research, the state pays the full cost of students' IB examinations, regardless of income level and provides bonuses to teachers for each student who

successfully passes an IB examination (International Baccalaureate Organization, 2008b).

As Florida supports a large number of IB students and has nearly 10 percent of the total IB schools in the United States, the state has also redesigned their graduation requirements to include the IBDP as an option for graduation. All current graduation options in Florida include passing the Florida Comprehensive Assessment Test and achieving minimum grade point averages but students may choose to complete a traditional 24-credit, four-year program or complete an accelerated, 18-credit, three-year program. Florida allows students to complete a technical/career curriculum or the entire IBDP as accelerated options (International Baccalaureate Organization, 2008b).

Regarding higher education and IB, Florida State Board of Education policy ensures that colleges and universities recognize AP and IB as well as dual enrollment program credits by mandating that “at least 25 percent of each BA degree’s requirements may be completed through these credits” (International Baccalaureate Organization, 2008b, p. 2). Florida also requires that colleges and universities in the state award IB credit for subjects in which a student has passed the corresponding IB examination, up to 30 credits.

International Baccalaureate Support in Colorado

Finally, Colorado recognized the IBDP by providing university recognition for IB Diploma students. IB Diploma holders entering Colorado colleges and universities receive a minimum of 24 semester credits (International Baccalaureate Organization, 2008a). Students who have completed IB Diploma Programme courses receive credit according to individual university policies. In addition to university recognition in Colorado, the state also did cover IB exam fees for low-income students through the

Eliminating Student Cost for Advanced Placement Exams (ESCAPE) Program. However, after the 2006-2007 academic years, the funding for the program was discontinued.

How These States Were Models for Virginia

These three states provided the basis for the Virginia statute as all three were seen to be model policies in the United States at the time (A. Misra, personal communication, June 21, 2011). Even though Virginia's statute is different from the models presented in Texas, Florida, Colorado and other states (it is the only one directly comparing policy to AP), this was where Senator Barker's knowledge of Virginia's policy climate and experience on the Senate Education and Health Committee proved valuable. In the early stages of negotiating Virginia's statute, Barker worked with several of Virginia's state colleges and universities as well as the State Council of Higher Education for Virginia (SCHEV) to determine what would work in the Commonwealth in terms of passing a recognition law. There was considerable opposition to the ideas presented in the models from the states mentioned earlier. The universities felt that as long as they could determine their own policies regarding comparable credit for IB and AP they could agree not to oppose the bill (G. Barker, personal communication, May 10, 2011). Barker's bill, with Puller as the co-patron, passed the Virginia Senate with no opposition (40-0 vote tally) and then passed the House of Delegates with an overwhelming majority of 96 votes for the bill, zero against, and three members not voting (Virginia Interfaith Center for Public Policy, 2011).

In addition to and separate from the provisions covered in the current law, Virginia students can also earn verified units of credit towards the Virginia state

assessments, called the Standards of Learning (SOL) examinations by taking AP or IB examinations and the IBDP is recognized as an option for all state high schools' core requirements (International Baccalaureate Organization, 2008d). For eligible students in Virginia:

the Virginia Department of Education will pay \$54 per AP and/or IB exam for each exam taken by public and private school students qualifying for the College Board's fee reduction or the International Baccalaureate fee reduction (International Baccalaureate, 2008, p.3).

This provision has been subject to funding availability.

A policy theory to explain Virginia's statute development. Despite the differences in the various IB statutes in the United States, Kingdon (1995) is particularly useful to explain the reason that a final law in Virginia was passed in 2010 and again in 2011. In Kingdon's multiple streams model, policymaking occurs when three different streams (the problem stream, solution stream, and political stream) converge during a window of opportunity. Under this model, Virginia's situation presented with the problem stream being the situation of students in the Commonwealth not receiving credit for various IB examinations at state colleges and universities. This situation competed for several years for attention and priority by policy makers until the cause was placed on the agendas of Castro, members of the Mid-Atlantic Association of IB World Schools, and Senator Barker. According to Kingdon, an agenda is the:

list of subjects or problems to which governmental officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time (Kingdon, 1995, p. 3).

Castro's presentation at Mount Vernon High School as described in Chapter 1 opened a policy window for Senators Puller and Barker. The solution stream occurred when Senators Puller and Barker and members of the Mid-Atlantic Association of IB World Schools began to consider what kind of a law would work best in Virginia. This was where state policies including Texas, Florida, and Colorado were introduced, researched, and discussed as possibilities for Virginia. The political stream occurred when SB 209 and then later SB 1077 were introduced, debated, and later passed. Fortunately, in both cases, the bills did not meet with much resistance but in the case of SB 209, some errors were made and SB 1077 was introduced in 2011 to correct wording explained earlier. Because a window of opportunity opened in 2010 to get a bill in front of the Virginia legislature, those working on the policy rushed to take advantage of it.

Research Concerning the IBDP

The research in this section is divided into three specific subsections as each fits the issues concerning university recognition and credit. The first section discusses university perceptions of the IBDP because a component of the research is to understand perceptions of university officials. The second addresses the other perception studies related to the IBDP and the final section offers and analyzes research concerning the IBDP and university performance.

University Officials' Perceptions of the IBDP

To date, there have been four studies concerning the perceptions of the IBDP. Of these, two have been completed outside of the United States, one was completed by IB led by Jenkins in the United Kingdom in 2003 and then another was conducted by the Australian Council for Educational Research (ACER) and led by Coates in 2007. A third was this researcher's own unpublished study in 2010. The fourth was a dissertation completed by Tarver also in 2010. Each of these studies is important in that they provide the basis for future research and impart a glimpse of what universities think of the IBDP. For the studies outside of the United States, they also provide a context for understanding the IBDP in the nation of the study but should not be discounted because they ask about comparisons with additional credentials and in the Virginia case, the issue is with IB and AP credit parity as well as recognition of the IB Diploma. With that issue, the perceptions of the university officials in relation to the IBDP are extremely important but to get to the heart of the reason why a particular university might not be awarding comparable credit, it may be important to understand how universities view one credential in light of another, especially in terms of different variables such as college readiness. Because the research study also investigated perceptions of senior university officials in relation to their attitudes concerning the IBDP in general and as a result of the statute, it is important to understand the aims and results of the perception studies that were completed previously because the research completed aimed to explore the perceptions of not only the rigor of the IBDP but the level that senior university officials believed the various components of the IBDP sufficiently prepared students for university-level coursework.

Further, because previous studies also investigated credit awards and comparisons between other credentials, these studies can be valuable in constructing a future research endeavor. To easily differentiate between the preceding university perception studies, in this section, they are discussed using the location of the study, last name of the primary researcher, and the date.

The UK Study – Jenkins (2003)

The first attempt at understanding how university officials felt about the IBDP was initiated by George Walker, then Director General of IB in conjunction with Jeff Thompson, then Academic Director for IB in 2002. In the United Kingdom, students had been accepted to universities on the basis of having an IB Diploma since 1970. Prior to that time, those who were advocating for IB (and this still goes on in some places in the world) negotiated with individual university authorities to accept the credential.

There were three main goals for the UK study: an evaluation of the IBDP in relation to preparation for university study in the UK, an investigation of the strengths and weaknesses of the Programme, and a comparison of the IBDP with other national credentials (International Baccalaureate Organisation, 2003). The primary researcher, Colin Jenkins, worked with Thompson to develop a questionnaire to elicit responses from university officials from which the researchers could then go back and interview a number of respondents to get additional information. The two-part questionnaire was pre-tested by Dr. M.P. Lewis at the University of Wales in Swansea and then based on his comments, Thompson and Jenkins finalized the questionnaire (J. Thompson, personal

communication, August 6, 2011). The final version of the questionnaire allowed respondents to provide statistical information first and then expand on answers.

The chosen sample was 225 institutions in the UK, called Selecting institutions at the time of the study (J. Thompson, personal communication, August 6, 2011). Selecting institutions in the UK were those institutions which had high competition for places and could choose from applicants. In the UK at that time there were also Recruiting universities which were less competitive. Because students in the UK apply to specific programs when they apply to a university, some previously Recruiting universities are now Selecting universities since the 2003 study has been completed and vice versa. There has also been growth in polytechnic schools in the UK since 2003 which were not included in this study as they were not Selecting universities. The theory of those creating the study was that an IB student would more likely apply to a Selecting university which was the reason why all of these institutions were included in the study (J. Thompson, personal communication, August 6, 2011). All existing institutions of this type in the UK at the time of the study were included in the sample.

Despite the changes to the structure of the UK university system, each of the 225 institutions included in the original sample received five questionnaires sent to the pro-vice chancellors at each institution (International Baccalaureate Organisation, 2003). According to Thompson, a pro-vice chancellor position would be higher than a dean and probably closer to a vice president position on an American campus (J. Thompson, personal communication, August 6, 2011). The vice-chancellors were given some guidance from Thompson concerning who should receive the questionnaires but

ultimately it was up to each institution to select the respondents (J. Thompson, personal communication, August 6, 2011). Of the 225 institutions, 71 responded (a 31.5 percent response rate) with 121 questionnaires returned (10.7 percent response rate). From those who responded positively, Jenkins and Thompson chose a sample of 36 from 19 institutions based on the responses to the survey questions (J. Thompson, personal communication, August 6, 2011). Some of the interview sample had volunteered to be interviewed and some interviews were solicited from the positive responses (J. Thompson, personal communication, August 6, 2011). In the UK study, the interview participants included not only admissions and recruitment officials as was originally proposed for this dissertation but also faculty from various departments including chemistry, arts, medicine, and administration. Interviews were conducted on each university campus by Jenkins in late January and February 2003 and they lasted a minimum of one hour and up to approximately 90 minutes (J. Thompson, personal communication, August 6, 2011). The data obtained were analyzed under four categories: depth and rigor of the IBDP, breadth of the IBDP, core elements of the IBDP, and the “whole package” (International Baccalaureate Organisation, 2003, p. 8).

In the area of depth and rigor, comments regarding preparation of students for university studies were overwhelmingly favorable with 96 percent of respondents satisfied with the preparation of IB students. For most respondents, the differences between the GCE A-levels and the IBDP were not significant. At the time of the study, most UK universities admitted IBDP students on the condition of their predicted grades in certain higher level courses or sometimes on the condition of a Diploma total score.

The UK study was completed before the IB Diploma and IB Diploma Programme courses were added to the UCAS Tariff in 2006 and 2010 respectively. As explained in Chapter 1, the UCAS Tariff is used help universities compare various credentials a student might attempt as each credential and achievement level is awarded a certain number of points by UCAS expert working groups (UCAS, n.d.-a). UCAS, after careful study of the IB Diploma and IB Diploma Programme courses have now added the these programs to the Tariff and the credentials can now be compared by with the A-levels as well as other credentials obtained in the UK. For the May 2002 examination, those students who attempted the IB Diploma in the UK had a pass rate of 82.4 percent (International Baccalaureate Organisation, 2003). The AP examinations, given in some schools in the UK, were not a credential investigated in the UK study.

Regarding breadth of the IBDP, 96 percent of the respondents were “particularly enthusiastic about this aspect of the Diploma Programme” (International Baccalaureate Organisation, 2003, p. 7). Most participants noted the confidence, broad base of knowledge, and skill base that the IBDP conveyed. The IBDP also was rated higher than other national qualifications, including the A-levels and Curriculum 2000, in this area. One reservation about the breadth of the IBDP that the researchers found in the UK was that the program might be too difficult for less-able students; however, these concerns were rare (International Baccalaureate Organisation, 2003).

The third area of the UK study’s findings were connected to the core elements of the IBDP – Theory of Knowledge (TOK), the extended essay, and creativity, action, and service (CAS). Ninety-one percent of respondents were favorable towards TOK, saying

that it prepared students well for the tutorial style of university education in the UK. The extended essay was rated even higher with a 96 percent rating by participants as it was seen to assist in the preparation of dissertations (International Baccalaureate Organisation, 2003). Of the three core elements of the IBDP, CAS was rated the least favorable with a 70 percent rating. Respondents noted that CAS was valuable in “helping to produce well rounded personalities” (International Baccalaureate Organisation, 2003, p. 8).

In the area of analysis designated “the whole package” (International Baccalaureate, 2003, p. 8) the respondents were generally positive about the core elements of the IBDP and the program overall although many were unclear about what parts were required and were optional. In this area, IB may perhaps need to do some more work explaining their programs and working with universities. Fifty-seven percent of the respondents believed that the IBDP accorded an advantage to students who completed the program but 40 percent were neutral saying “it neither conferred advantage nor disadvantage” (International Baccalaureate Organisation, 2003, p.8). In addition to asking about entire IBDP, the researchers also asked respondents to rate the IBDP against three other qualifications offered in the UK on a scale of one to 10 in order to provide a comparison of how the university officials perceived the IBDP against prevailing UK methods of university matriculation. The IBDP was rated against the GCE A-levels (two to four subject tests), the GCE A-levels plus general studies, and the Curriculum 2000 A-levels plus AS examinations. Curriculum 2000 was started as an attempt to increase the range of subjects that secondary school students studied (Press Association, 2003). The

researchers chose two to four A-level tests because that was the common spread of subject tests taken by students who took the A-level examinations while the combination of the A-levels with general studies helps to discriminate between students who get similar A-level results and have also have studied a broader range of subjects (J. Thompson, personal communication, May 15, 2011). Respondents were asked to rate each qualification for depth and breadth but also for specific skills commonly presented by applicants applying for undergraduate university coursework including critical thinking, communication skills, self-management, and motivation. With the exception of the category of depth, the IBDP beat every other qualification. In the area of depth, the UK qualification of two to four GCE A-levels and A-levels together with general studies had higher average ratings than the IBDP. This might be explained by the number of university officials who have experience with students presenting that qualification over the IBDP as 39 questionnaires were also returned without a response to this question at all (International Baccalaureate Organisation, 2003). Perhaps this lack of response on this question had something to do with who received the questionnaires from the vice-chancellors. Despite the fact that the UK study showed clear positive results for the breath of the IBDP and the fitness of the program as a matriculating credential in the UK, it also uncovered some ignorance of the IBDP, especially in faculty of universities who might confine their knowledge to their own subject areas. One recommendation of the researchers was that perhaps the “IBO could consider improving the presentation of the skills and assessment aspects of the programme” (International Baccalaureate Organisation, 2003, p. 25). This would provide university officials with a clear

understanding of how students achieve the skills necessary to be successful in a university environment and how each component of the IBDP is interconnected with one another. Although an interesting study, this first attempt to obtain information about the IBDP and the perceptions of IB students was an attempt by those with a clear interest and stake in IB programs. It would be interesting if an independent group could take up this investigation, especially because developments since the original study – the addition of the IB Diploma and the Diploma Programme Course subjects to the UCAS Tariff, the changing landscape of the UK universities, and the changes to the GCE A-Levels could not be addressed in the previous effort.

The Australia/New Zealand Study – Coates (2007)

After the study completed by Jenkins and the IB, the next study focused on understanding what university officials thought about the IBDP was completed by the Australian Council for Educational Research (ACER) in 2007. Independent from IB, but repeating some of the same methodology, this study involved a survey of 159 senior academic and administrative university officials at 40 Australian and seven New Zealand universities with follow-up interviews conducted with 11 of the survey respondents to obtain more detailed information. At the time, this was every traditional bachelor's degree granting university in Australia and New Zealand. The primary investigator was Hamish Coates.

Like the UK study, a key goal of this investigation was to understand university administrators' perceptions of the IB Diploma and whether university officials believed it was suitable preparation for university coursework. Another desire was to investigate

strengths and weaknesses of the IBDP, again on its own merits and against other qualifications this time including the AP Program (Coates et al., 2007). Because of the existence of the UK study, the study done in Australia and New Zealand was designed in many ways “to replicate and extend the UK study” (Coates et al., 2007, p. 7). The questionnaire was designed with the intent of providing comparison data and providing information on the same areas as in the UK study as well as local issues affecting Australian and New Zealand tertiary institutions and state credentials. Similar to the UK questionnaire, the study instrument for the Australia/New Zealand investigation was put through a process of “background research, expert review, respondent feedback, technical review and then graphical design” (H. Coates, personal communication, August 15, 2011). Of the total number of questionnaires sent to the Australian and New Zealand institutions, 573 (89 percent) went to staff at Australian institutions while 71 (11 percent) went to staff at New Zealand institutions. This discrepancy in questionnaire distribution was likely due to the different numbers of institutions in each country and the “numbers and types of senior relevant roles” (H. Coates, personal communication, August 15, 2011). Data from the questionnaires were collected from November 9 – December 22, 2006 and two reminder emails were sent during the six week collection period (Coates et al., 2007). From the returned questionnaires, Coates and the research team selected 11 respondents to complete follow-up, semi-structured interviews with and those interviews were completed in January 2007. Unfortunately, the staff at ACER do not remember how many of these 11 interviews were from Australia and New Zealand but they were chosen because of their willingness to participate as well as well as their range of “roles, types

of institutions, and states” (Coates, et al., 2007, p. 11; H. Coates, personal communication, August 15, 2011). All 11 interviews were from different institutions.

Upon analyzing the results, the data were placed into three different categories – experience with IB students, views on the IB Diploma, and comparing the IB Diploma. Separate from these results and because a significant number of the original number of questionnaires were not returned (644 were originally sent and only 159 were usable), there is a section of the final report which also details potential limitations of the research. It should be noted that this study and the UK study both attempted to collect data from every available institution in the countries that they were studying within a certain category (Selective institutions in the UK and traditional bachelor’s granting institutions in Australia and New Zealand) and had the resources to do so, while this research proposed to complete five case studies within Virginia and not complete work that would blanket the Commonwealth.

It is important to note that the Australia/New Zealand study, like the UK study, sought to obtain university representatives’ perceptions of the IBDP and expressly stated that:

The systematic collection of perceptions using surveys and interviews represents an important move beyond anecdote, but the study by no means represents a fully validated empirical exploration or validation of the IB Diploma program (Coates et al., 2007, p. 8).

Other limitations noted in the final report were that a reader should be careful to remember that the study was about perceptions only and did not ask about the actual

academic performance of IB students at the universities in Australia and New Zealand. Further, the investigation “did not explicitly sample teaching staff, students, or operational staff in state of institutional admissions centres” (Coates et al., 2007, p. 8). Views of the people interviewed were those of senior admissions officials who had decision-making abilities within universities and may not have been the same as those who had day-to-day involvement with an IB Diploma or similar credentials. Finally, regarding the statistics:

The statistics presented in this report are based on a relatively small non-random sample of responses and must be interpreted with appropriate care. A number of approaches may be taken. A difference of around 0.2 on the five point scale reflects a difference of around one-third of a standard deviation and hence a meaningful ‘effect size’. A difference of just 0.05 is likely to be statistically significant when the whole sample is considered, although the difference would need to be around 0.1 for many of the smaller subgroup comparisons (Coates et al., 2007, p. 8).

In the area of experience with IB students, respondents were asked about contact with IB students in the previous five years. Forty-six percent of the respondents (73 of 159) had no contact or thought they had no contact with IB students, compared with approximately 10 percent in the UK study. In this particular case, the researchers felt that this pattern might be attributed to the fact that the UK has a longer history with the IBDP than either Australia or New Zealand (Coates et al., 2007). By way of comparison, the first IBDP school in the UK was authorized in 1971, while the first IBDP schools were

authorized in Australia and New Zealand in 1978 and 1986 respectively (J. Sanders, personal communication, August 18, 2011).

Probing further into the contact issue, those in head, vice chancellor, deputy vice chancellor, and dean roles either did not have contact with IB students or were unsure about contact while those working in the roles of registrar, director, and faculty had more contact with IB students. At some institutions in Australia and New Zealand, the researchers found that information about IB students was “very much the domain of the admissions office and once a student was admitted there was no attempt to follow their progress at university” (Coates, et al., 2007, p. 19). In addition, there was no quantitative information available from any Australian or New Zealand university provided in the study about IB student performance. Tracking these students once they entered the university, took courses, and achieved grades would allow researchers to gain an understanding of how IB students perform in introductory university coursework. An additional finding from both the survey and the follow-up interviews was what most of what university representatives knew about the IBDP and IB students was developed from personal experience. Respondents noted that:

Their perceptions had been formed by having children, or friends’ children, pass through the IB, or from knowledge of a student, or group of students, at their institution. A repeated point raised in the interviews and survey was that universities had little or no systematic information on which to base their perceptions of the IB (Coates et al., 2007, p. 19).

This point cannot be overlooked if universities do not have a systematic approach for developing their own perceptions of a program of study and university officials' own views are based on personal experience, then Virginia's situation of policy development in Senator Barker getting involved and ultimately proposing Virginia's IB university recognition statute does make some sense as Barker is the parent of an IB student. Based on the information obtained in the Australia/New Zealand study, two suggestions were made including an IB graduate survey and the IB organization reaching out to the Australasian universities to help them understand more about the IB Diploma and IB graduates in a more comprehensive way, rather than just simply from their own personal experiences (Coates et al., 2007). University officials were receptive to the idea of university faculty and staff being involved in future development of IB curriculum and this was particularly so where officials had a strong understanding of the IBDP. Researchers noted that "academics could play a valuable role in the development of IB curriculum, IB assessment activities, and by finding ways to support and extend the capabilities of IB students once they enter university" (Coates et al., 2007, p. 20). Since the 2007 study, the IB organization has restructured the Asia Pacific region and has expanded their office in Singapore. The Asia Pacific office oversees over more than 460 schools in 27 countries with over 630 programs across the IB continuum (International Baccalaureate Organization, 2011a). As Australia is a key destination for university study of IB students as explained previously in this chapter and the IB organization has authorized four Australian universities to offer the IB Educator Certificates partnerships

such as the ones suggested by Coates et al. (2007) could be developed through the Asia Pacific office.

For the area of research concerning views about the IB Diploma, Coates found that the Australasian respondents were less positive towards the Theory of Knowledge (TOK) course and the extended essay than the respondents in the UK study but were more positive about the requirements of CAS (Coates et al., 2007). With the Australia/New Zealand study, the researchers did note that:

Given that these are perceptions, it is uncertain whether these results reflect feedback about the demonstrated importance of the three compulsory elements or about respondents' feelings as to their normative relevance. It is possible too that the inclusion of specific details in these items made it more difficult for respondents to offer their principled support to these elements (Coates et al., 2007, p. 22).

Here again, a suggestion was made to increase Australasian university officials' knowledge of TOK and the extended essay components of the IBDP. Despite reservations about these two components, 77 percent of respondents (122 of 159) said the IBDP prepares students for university level coursework, responding with comments including:

Students enter with enquiring, critical minds. (They) are self-motivated...and globally are aware of the field they are entering. Students know how to freely move through the intellectual, cultural field and do so with ease (Coates et al., 2007, p. 25).

Additionally, 80 percent of respondents (127 of 159) “suggested that the IB enhanced students’ academic competence and capability, and hence their potential for success” (Coates et al., 2007, p. 24). Despite comments like the one above, 23 percent of respondents (37 of 159) were not sure about the IBDP preparing students for university-level coursework. No respondents thought it did not. However, negative comments about the IBDP were found when coding was completed on the open-ended section of the questionnaire as one question did ask about weaknesses in how the IBDP prepares students for undergraduate study. Twenty-six responses (35 percent of those who answered the question at all) provided feedback on weaknesses, including suggesting the IB is too exclusive, some IB students experience adjustment problems when they go to university and there are sometimes program delivery problems with IBDP schools. One comment noted differences in students who might pursue the IBDP, saying “The features which make the IB work for good students may make it less suitable for those who are not showing the same academic potential” (Coates et al., 2007, p. 28).

When interviews were completed, participants felt that IB students came to university with a greater sense of academic independence and maturity and that “many characteristics of the IB align with those expressed in university graduate attribute or employability skills statements” (Coates et al., 2007, p. 26). As a result, the researchers felt the link between the IBDP and employability skills might be a potential research area for the IB organization to investigate in the future. To date, this work has not been completed.

When comparing the IB Diploma to other credentials, respondents were asked to rate the IB Diploma against the A-levels, the various Australian state certificates, the New Zealand national certificate, and the AP Program. For each credential, respondents were asked to consider skills including depth, breadth, critical thinking, communication, research, and self-management. When all five skills were put together, the IB Diploma was rated as the most successful in developing those skills in students, followed by the A-levels, the AP Program and Australian state certificates (tied) and finally, the New Zealand national certificate (Coates et al., 2007). Interviews revealed some university officials feeling a sense of competition between the state certificates and the IB as well as feelings of loyalty towards individual Australian state certificates. The reason for competition between the Australian state certificates was not fully explored in interviews nor was the cause behind the New Zealand credential being at the bottom of the list (H. Coates, personal communication, August 16, 2011). Again, it should be stressed that the results were based on perceptions and not test scores (Coates et al., 2007). Some interviews stressed that the A-levels are also a good path to university. Regarding the preparation in comparison with other credentials, respondents felt the IB Diploma was good preparation for first-year university study as well as academic learning but the IB should take some time to align the program with skills connected to workplace readiness embedded in some university courses. As a result, a recommendation was made that IB might investigate alignment between the IB Diploma and “graduate attributes, generic skills, and employability skills which are characterised as part of university courses”

(Coates et al., 2007, p. 35). This same issue also came up when the IBDP was considered in terms of preparation for university study on its' own in the previous section.

The AP Program, which fell in the middle of the study when compared to the IB Diploma, is in a slightly different situation in Australia and New Zealand than it is in the United States. Students taking AP examinations in an Australian or a New Zealand school and intending to go to a university outside of the United States can earn an AP International Diploma (APID). The APID requires students to take five AP examinations in four specific content areas including two chosen from English and world language, one from mathematics or science, one test in history, social sciences or arts, and finally, one exam designated by the College Board with a global perspective, either AP World History, AP Human Geography, or AP Comparative Government and Politics (DiYanni, 2008). Students must obtain no lower than scores of three on all five examinations to qualify for this diploma and additionally, the College Board has a provision for students who have language proficiency in a language not offered as an AP subject to submit a letter from a school administrator substituting that language for the world language requirement (College Board, 2011a). Students still have to take another AP examination so that they are still taking five tests but in other countries the AP Program does have a diploma that students can work toward. Where it is different from the IBDP is in the holistic nature of program and the unifying nature of philosophy throughout each course.

Coates' study builds upon work completed in the UK study and takes a look at university perception in another part of the world. In addition, by asking about the AP Program, it provided a first glimpse of how university officials perceived the IBDP in

comparison to the AP Program and provides a model, albeit a very small one, for future perception research. At the time of the Australia/New Zealand study however, there seemed to be some lack of understanding about some elements of the IBDP and some of the officials that answered the questionnaires did not have enough contact with IB students to be knowledgeable about the program and its components. Perhaps the roles of the various university officials at different universities should have been more streamlined and effort should have been made to target questionnaires to specific departments. If those working in head, vice chancellor, deputy vice chancellor and dean roles had less or no contact with IB students and more people in registrar, admissions, and academic roles had contact with IB students a researcher should refocus inquiries to those individuals and certainly target interviews that way in order to get the most information possible. The intent seemed to be to provide a heterogeneous mix of roles to see who had contact with IB students and unfortunately, in Australia and New Zealand, no further data has been obtained.

The Northeastern United States - Daly (2010)

The first attempt at understanding how American university officials felt about the IBDP was an unpublished study completed by Daly in 2010. Following the models presented in the UK and the Australia/New Zealand studies, the researcher wanted to investigate how senior university officials felt about the IBDP and IB students. Further, because the proposed study involves university recognition, the researcher sought to understand the connections these perceptions might have on credit policies that colleges and universities develop or currently had in place regarding the IB Program (Daly, 2010).

Because this was the first attempt at getting any American information concerning university officials' perceptions of the IBDP, Daly focused efforts on a small sample of five universities in the northeastern United States using document review of existing IB credit policies and qualitative interviews only rather than a survey and follow-up interviews as was done in the UK and Australia/New Zealand studies. This was done because of a limited timeframe to collect information and the intended sample size. Despite the small sample, however, and in the interest of obtaining as much data as possible, the researcher purposely sought data from a variety of institutions, public and independent, urban and suburban, large and small. This was critical as an emerging question became if policy development had any variation in different settings or contexts and Daly wanted a potential answer available before heading into this research study.

As the unpublished study was completed, the researcher was aware that it would eventually lead to another study concerning a state with a university recognition law. The original intent of the Daly study was to complete an investigation that addressed the research questions but was not in a state with an IB university recognition law. An additional requirement, because of the time that the study was being completed, was that the researcher would be able to get to the all interviews within one day's drive of Virginia, causing the northeastern United States to be a suitable study site.

To further choose the sample for the research study, Daly (2010) reviewed the IB website and printed a list of IB Diploma schools in the chosen research area. The researcher, though previous experience, was already familiar with the universities in the study area. After reviewing several of the IBDP school websites and looking at the lists

of where graduates go for postsecondary education, the researcher developed a list of seven possible institutions to target (Daly, 2010). In addition to using this criterion, the researcher also considered the distance between the IB schools and the colleges, using the logic that if a university is particularly close to an IBDP school, then perhaps that university might be more aware of the IB program or may even recruit students from that IB school. In addition, there was a concerted attempt to try to get various types of institutions (public, independent, urban and rural) in the sample (Daly, 2010). The final sample included five institutions, with the smallest having approximately 1,700 undergraduates and the largest having over 25,000 undergraduates. All offered undergraduate and graduate programs and there were suburban and urban institutions. In addition, two of the institutions were public while three were independent.

Because some of the goals for study of the northeastern United States were the same as the UK and the Australia/New Zealand studies, Daly developed the interview guide by adapting some the items used in the previous studies for the American university officials (2010). The interview guide was not pre-tested at another university but did go through review and revision and was later adjusted in the field as two of the universities involved in the study did not have standing IB credit policies. The guide included questions about perceptions of the IBDP and IB students but also preparation for university work, policy development, and IB credit policies that were in place at universities at the time of the study. In addition to that and because the UK and Australia/New Zealand studies had compared the IBDP to other credentials, there were also questions about how the IBDP was compared at least in policy terms to the AP

Program if not also in terms of preparation for university study even if in a small way because the sample size was much smaller than either the two previous studies. Policy was something that neither the UK nor the Australia/New Zealand studies had addressed and the current study involves policy. At the time, Daly thought it was both relevant because it is an American issue (each university in the United States has autonomy in deciding how they wish to deal with IB and AP credit unless there is a state statute) and prudent because the dissertation focus is in Virginia which has a statute governing policy. This was partially because of the context of American higher education but also because of the prevalence of the AP Program in the United States.

Because Daly was already familiar with the institutions and the setting for the study would be outside of Virginia, initial contact was made with the potential interview subjects through email. After email contact was established, follow-up telephone calls were made to make and confirm appointment times and further establish rapport with the interview subjects (Daly, 2010). All interviews took place between June 30 and July 5, 2010 and lasted between 30 minutes and up to one hour (Daly, 2010). Interviews were transcribed and then coded for emerging themes. Matrices were also employed to keep track of themes and help develop comparisons between institutions and interviews. All available AP and IB policy documents were requested from each institution for review and institution websites were also checked to provide another source for policy information as AP and IB credit policies are often online with admissions staff making them available for incoming students and parents to review during the college selection process.

When reviewing the data, it was learned that comparing the IBDP to the AP Program in the United States presents some difficulties because of two issues. First, two colleges in the sample did not have an IB policy. Although the IBDP is currently in 2,358 schools across the world and 782 are in the United States (International Baccalaureate, 2011e; 2011f) Daly did not anticipate that an institution would not even have an IB policy despite having IB schools located in the region where the institutions were located. This assumption, made prior to the start of the study, forced Daly to modify two interview questions in the field. Although some original interview questions were modified, it also gave the researcher (and at least one interview participant) the opportunity to speculate what might be if an IB policy were in place at that institution as one interview was accepted because the university had been trying to get an IB policy instituted. As of this research, that university's IB policy is still stalled and the institution does not accept IB credits. The second thing that made comparisons between the two programs difficult was that some university officials could not differentiate between AP and IB students, putting both IB and AP students into the broader group of advanced academic students, desirable to the universities but harder to break down in terms of comparisons by program. Despite these limitations, the data obtained from Daly's research was valuable in that it did reveal the first information about the perceptions of American university officials in terms of student preparation for university level work, policy development, and differences in the AP and IB policies in the United States.

Regarding how university officials perceived the IBDP and IB students, the results were overwhelmingly positive. Four of the five respondents generally understood

the core elements of the IBDP, including TOK, CAS, and the extended essay, and specifically noted the rigor of the program (Daly, 2010). All five of the respondents thought the IBDP prepared students well for university level work. One participant said:

If a student's taking the full diploma program then they are being exposed to an educational experience that I would liken much more to the first year or two of a traditional liberal arts college. They are getting a great variety in terms of the courses that they are taking. They are being exposed to writing and research I think at a consistently deep level across that curriculum (Daly, 2010, p. 22).

In terms of how university officials compared IB and AP students in terms of preparation for university coursework, interviews showed that officials were very positive about both programs but two respondents had trouble differentiating between IB and AP students and placed them in the broader category of advanced academic students.

During interviews, participants were asked about qualities that make IB students attractive to universities. Senior university officials noted the maturity of IB students and the fact that these students were already able to both manage their time well and be proactive in their education (Daly, 2010). One participant noted that IB students are "willing to push the envelope in challenging themselves" (Daly, 2010, p. 21).

Regarding recognition and credit, Daly found that three universities granted credit for IB higher level examinations only and no university had a policy for the IB Diploma. Participants justified this decision by saying it was made by faculty or institutional bodies. Daly learned while completing the study that policy development at higher

education institutions varies greatly; two institutions had a very organized structure for developing and implementing policies such as those for IB and AP examination recognition, two others were less centralized requiring looser faculty committees to recommend policy and still another was highly decentralized allowing single academic departments to decide their own AP policy (there was no IB policy at that institution). Basically, what was learned was that each institution had its own structure for review of curriculum, policy development, and approval and involved faculty to different levels depending on institutional structures and governance. No institution in the sample was exactly the same in the way IB or AP policies were reviewed, developed, or approved and this could even vary according to academic department.

When it came to comparing AP policies and IB policies at universities in the study more closely, the universities sampled all recognized the AP Program, although with varying standards for credit recognition. Some schools in the sample awarded credit for AP examinations with the minimum score of a three while others had a mix of threes and fours. This is important because those schools with an IB policy required a minimum score of five, one score above the minimum passing score while the schools awarding AP credit awarded credit at the minimum and one above the minimum. In addition, all of the universities that awarded IB credit only awarded credit for IB higher level examinations. In the research study, the Virginia statute requires that universities award comparable credit for AP and IB examinations (*Virginia Acts of Assembly*, 2011) and the researcher asked questions how university officials arrived at decisions if AP and IB credit were not

being awarded at equal levels such as the situation noted above. Of the institutions that did award IB credit, one summed up the recognition issue by saying:

We kind of put it (IB) into the AP box which is not unlike what we do with other internationally-based programs. We would do the same thing with the actual French system, the baccalauréat, or the Abitur, or the A level. Basically, everything gets put, all those round pegs, gets stuck in the AP style, square hole. We look at the course, give it a certain grade, and then you get the transfer credit (Daly, 2007, p. 24).

The information Daly obtained from completing this study was beneficial in that it provided a test run for some of the questions that were presented for the research study. Because some of the questions Daly used were modified from the UK and the Australia/New Zealand studies, their successful use in an American context was promising for future work. Another benefit of the Daly study was in learning the structures that universities use for developing and implementing policy regarding university credit recognition as it was a topic for the research study and had not been fleshed out in any previous research to date. Some of the themes developed during the Daly study have been used for the current study, initially coming back in the form of a code start list (Miles & Huberman, 1994) and then added to with other codes generated from interview transcripts.

The Daly study was also the first attempt at allowing American university officials to offer their views of the IBDP to a researcher as a study had not been completed in the United States up to this point. Unfortunately, the resources have not

been allocated by the IB organization to complete a full scale effort like was completed in the UK and Australia and New Zealand of institutions. Although the Daly study provides a small glimpse of the perceptions of university officials and their views of the IBDP and IB students, there are several limitations of the work. The fact that university officials cannot always tell the difference between IBDP students, AP students, and other advanced academic students (i.e. honors) is problematic and makes research on one specific program's student performance difficult. A study should be undertaken on a much larger scale with more institutions involved. In addition, within each institution, a researcher should probably endeavor to speak to more officials on each campus, perhaps engaging faculty in the discussion, because in the United States, credit at some institutions is determined by faculty committees and not only admissions' officers.

The United States – Tarver (2010)

The most recent study completed concerning university perception of the IBDP was a dissertation by Emily Trabona Tarver at Louisiana State University in 2010. Tarver's qualitative study had three goals: to investigate the nature of credit awards that students receive for work done in high school, to investigate policies, processes, and perceptions connected to credit for the IBDP and finally, to track the history of the perceptions of officials in university admissions offices in the United States regarding the IBDP (Tarver, 2010). For several reasons, including that IB students often choose to attend selective colleges and "students enrolling in the DP are often academically advanced and/or classified as gifted students" (2010, p. 45), Tarver chose as a starting point for her sample *U.S. News and World Report's* 2009 list of America's Best Colleges.

From this list, Tarver originally randomly selected 15 national and 15 liberal arts universities to investigate and following a similar procedure to the one used in the UK and Australia/New Zealand studies, sent a questionnaire to each institution. Ten of the institutions were selected for email or telephone interviews to investigate emerging understandings and expand on items from the questionnaire. Although 15 of each type of institution were selected for inclusion in the study, participation was voluntary and Tarver had to continually put in new institutions of each type as others either declined to participate or a response was not received after a certain period of time. In addition, Tarver cross-checked information from interviews and her questionnaire with document review of information found on websites and in college catalogs as was done in the Daly study.

Tarver's questionnaire was field tested with four admission officials from a Division 1A university, a small public university, a technical university, and a small liberal arts college "as these types of institutions appear in *U.S. News and World Report's America's Top 50 Colleges*," (Tarver, 2010. p. 43). All field testing was done face-to-face; admissions officers gave feedback regarding question construction, clarity, and intention with each meeting lasting approximately 30 minutes. Once the questionnaires were sent out, institutions were given a three week timeframe to return the questionnaire. If the questionnaire was not received, Tarver made telephone calls to follow up. When institutions declined over the phone, another institution was randomly selected from the *U.S. News and World Report* list and another questionnaire was sent out. "After randomly selecting 38 national institutions and having seven national university responses, the

possibility of not achieving the original quota of responses for national universities became apparent” (Tarver, 2010, p. 51). At that point, Tarver obtained permission for the sample to be reduced from 15 national and 15 liberal arts universities to 10 in each group. The same process continued until 10 institutions in each group returned her questionnaire. Tarver’s final sample of national universities included: Carnegie Mellon University, Case Western Reserve University, Emory University, Lehigh University, Massachusetts Institute of Technology, New York University, Rice University, Tufts University, Tulane University, and Washington University of St. Louis. Her final sample of liberal arts colleges included: Claremont McKenna College, Colby University, Davidson College, Grinnell College, College of the Holy Cross, Macalester College, Occidental College, Sewanee College, Skidmore College, and Swarthmore College (Tarver, 2010). Her dissertation does not specify how long the entire process took to receive the required number of questionnaires. It also does not specify when exactly the interviews were completed although it does note that eight took place over the telephone and two opted to complete the follow-up questions via email. Tarver’s follow-up interview questions lasted two to three minutes and consisted of three open-ended questions one of which no university had the ability to answer accurately and then 10 questions where participants would rate the level of importance statements about qualities of incoming students (Tarver, 2010).

In addition to obtaining information from the questionnaires and interviews, Tarver accessed demographic information for each university from the 2008-2009 Common Data Set Initiative and the National Center for Educational Statistics (NCES).

Participation in the Common Data Set Initiative is voluntary for colleges but collects demographic data about admissions, financial aid, degrees awarded, graduation rates, and other information. The National Center for Educational Statistics (NCES) is a federal repository dedicated to the analysis of educational data (Tarver, 2010). This system collects data yearly through the Integrated Postsecondary Educational Data System, a mandated reporting system for institutions receiving or applying for federal monies. These two sources were used in conjunction with information received from the colleges themselves in Tarver's study to provide demographic data concerning freshman enrollment, selectivity, number of degrees awarded, four-year cohort graduation rate, six-year cohort graduation rate, and retention.

Another issue that occurred during Tarver's data collection was that she dropped three questions from her questionnaire. This was because universities in her sample provided vague or no information (Tarver, 2010). These questions concerned the numbers of students that received university recognition in the form of credit because of either their performance in the IBDP or the AP Program. Of all Tarver's responses, two universities could only give approximated responses and one specifically stated that the information was not readily available. No other institution responded to these questions. Tarver's finding that institutions in her sample do not track credit awards for the IBDP and AP Program coupled with the finding of Coates et al. (2007) that many universities do not track students once they have entered university is another reason that additional research regarding the IBDP and the AP Program especially connected to university recognition should be pursued. Because the dissertation endeavored to investigate the

policy structures that might be in place in the Virginia universities and the Commonwealth's law mandated comparable treatment in regard to the IBDP and the AP Program, it might be beneficial for university officials to know how many students come to their institutions with each type of credential as well as receive each type of credit award from year to year. Further, universities might benefit from knowing how students do in coursework afterwards. In the researcher's own work as a consultant for the Mid-Atlantic Association of IB World Schools, she found some Virginia institutions also did not track credit awards or student performance once they entered college.

Although Tarver divides her findings by the national universities and the liberal arts colleges, she did have some results that stretched across the two classes of institutions. First, Tarver found that the College Board Examination Program (CLEP) was the least favored when put in a group with the AP Program, IBDP, and exam by university departments in the institutions in her sample (2010). In addition, the AP Program was strongly favored over the IBDP.

Breaking down the various types of institutions, all 10 of the liberal arts colleges awarded credit for academic performance in the IBDP, on AP examinations, and on departmentally-developed examinations. No liberal arts college in Tarver's sample awarded credit for CLEP examinations and usually "the institutions awarded credit for scores of five, six, and seven for a DP final assessment and for scores of four and five for AP" (Tarver, 2010, p. 56). Although Tarver differentiates in her study between AP, CLEP, and exam by university departments, she does not differentiate between credit awards for standard and higher level IB examinations. Learning from the limitations of

Tarver's study underscores the importance of differentiating between the standard and higher level IB examinations and the AP examinations as that is the requirement of the Virginia statute.

Regarding the process that colleges used for making credit awards, six of the 10 liberal arts colleges said that the process was decided by individual departments while one other said the process was "conducted by departmental review by faculty most familiar with curriculum and level of preparation from students that have enrolled from these programs" (Tarver, 2010, p. 57). Tarver's dissertation did not specify whether faculty had ever taught on the secondary level or worked with the College Board to create AP assessments as some university professors have nor is there clear information as to if every department at the various colleges go through the same process to issue credit. Daly (2010) found that this could also vary within a single institution.

Of the findings for the liberal arts colleges, there were wide variations in the types of credit awards offered to students. Two of the institutions offered a maximum of 32 credit hours of credit overall. Another institution offered the "possibility of a full year of credit for a full DP student" while also offering credit for four courses based on student achievement in the AP Program (Tarver, 2010, p. 57). Five more colleges gave credit by examination that could be used for general coursework only and could not be used towards requirements towards a student's major with one institution allowing up to 16 credit hours and another allowing students to take departmental tests to place out of material they believe they have mastered. Tarver concluded: "The institution's *U.S. News*

and World Report's ranking did not seem to have relevance to a minimum or maximum amount of credit awarded" (2010, p. 58).

Tarver's study noted that all respondents from the liberal arts colleges in her sample thought credit by examination was worthwhile for students; however the officials at the colleges did note differences between the programs that they were awarding credit for, saying that "the two programs are not related. One is a comprehensive diploma and the other is a series of comprehensive achievement tests" (Tarver, 2010, p. 60).

Additionally, Tarver looked at the perceived prestige of the DP student. Five of the respondents in the liberal arts college sample reported that a Diploma student is viewed as more prestigious as a student who takes single Diploma Programme Course subjects and does not complete the entire Diploma. One college official reported, "If a student comes from a school that offers the DP, we want them to take it as that would make them more competitive" (Tarver, 2010, p. 60) but four other university officials said that DP students were no more prestigious than non-DP students. In fact, with the exception of some preference for the IB Diploma over single Diploma Programme Course subjects from university officials in the liberal arts colleges in Tarver's sample, no particular advanced program was more prestigious than the other (Tarver, 2010).

Finally, Tarver investigated institutional perceptions of the IBDP over the last 10 years. For the liberal arts colleges in the sample, a respondent at only one institution could identify the year credit for the IBDP began to be awarded. University officials at the remaining nine colleges could not specify an exact year; however, four gave answers "between 10 – 15 years" (Tarver, 2010, p. 61). University officials at all 10 of the liberal

arts colleges have recruited IB students over the last 10 years and all have seen an increase in both IBDP and students with AP credentials over the last 10 years (Tarver, 2010). This increase in applicants for the IBDP and the liberal arts colleges' subsequent recruitment of these students may be indicative of both the growth of the IBDP in the United States and respect that college officials have for the program. Tarver's study, along with International Baccalaureate (2003), Coates et al., (2007) and Daly (2010), also have demonstrated incidences of university officials noting the challenging nature of the IBDP as "seven liberal arts colleges in the survey sample perceived the DP to be a nine or 10 with 10 being the most rigorous when rating the rigor of the program" (2010, p. 60).

Officials at all of the national universities in Tarver's dissertation reported awarding credit for the IBDP and AP examinations. For these universities, credit was usually awarded for IBDP scores of a five, six, or seven but the more selective institutions (and this was a measure obtained from both NCES and the Common Data Set Initiative) only awarded credit for scores of six or seven (Tarver, 2010). As with the liberal arts institutions in Tarver's sample, no national university gave credit for CLEP examinations at the time of the study. University officials said criteria for credit awards at the national universities were reviewed over different time periods at various institutions with officials at five universities reviewing policies on a yearly basis, two university officials reporting reviews varying according to individual departments, and still two respondents from other institutions reporting bi-annual reviews (Tarver, 2010).

Like the university officials from the liberal arts colleges, the university officials from the national universities considered advanced credit a benefit to students but pushed

this further, tying credit for performance in rigorous coursework to preparation for college level work (Tarver, 2010). This finding supports the position that university officials respect the rigor of the IBDP as they are rewarding achievement in the IBDP and other advanced programs because they believe that students are prepared for the work they will encounter in first-year university courses. The current study aimed to confirm this belief and previous findings of International Baccalaureate (2003), Coates et al., (2007), and Daly (2010).

Giving more credence to an argument for continued study of university recognition and credit policies concerning the IBDP and the AP Program and the rationale for the dissertation, Tarver found that some university officials at national universities in her sample reported a difference in the amount of credit a student could be awarded for achievement in the IBDP versus the AP Program. According to Tarver's data:

Six institutions reported having no difference in the amount of credit a student could earn through DP or AP final assessment performance.

However, when looking at these institutions' admissions information, the credit a student could earn for achievement on DP final assessments was less when the structure and requirements of the DP were considered. Only two of the universities had detailed information concerning credit awards for DP and AP final assessment scores. With these two universities, DP students would earn less credit than AP students if the AP students would

take the maximum number of courses allowed by their high schools

(Tarver, 2010, p. 63).

Further, officials at the national universities viewed the IBDP as slightly more challenging with university officials at four of the 10 universities giving the program 10 out of 10 on a scaled question concerning rigor. Officials at the remaining six universities rated the IBDP a nine (Tarver, 2010). Where respondents at the national universities did differ from respondents at the liberal arts colleges was on the question of perceived prestige and the Diploma student. Here, officials at only two universities thought a student who completed a full IB Diploma was more prestigious than a student who completed single Diploma Programme Course subjects. In addition, officials at the eight universities that did not place IB Diploma students above other IB students also did not perceive any difference between student achievement for students in the IBDP and students in the AP Program, saying “both programs were college preparation programs...seen as rigorous and prestigious in terms of challenging and preparing students for higher education. One is not necessarily better than the other” (Tarver, 2010, p. 64).

Over the last 10 years, respondents at all of the national universities have been awarding credit for the AP Program longer than for the IBDP although no university in Tarver’s sample could provide a specific date when they started awarding credit for either program. In addition, like the liberal arts colleges, all of the national universities in the study have seen an increase in applicants taking advanced coursework, perhaps due to

states requiring high schools to offer advanced or college-preparatory curriculum and competition for selective colleges (Tarver, 2010).

Although there are concerns about Tarver's methodology, this study was valuable in that it is a first effort in attempting to understand how American colleges and universities treat credit awards for the IBDP and the AP Program. She attempts to obtain information from two types of institutions – liberal arts colleges and national universities but the diversity that was represented in the American higher education system and the fact that each institution governs their own policy making structures makes it difficult for uniform cases to occur unless a state has in effect a statute that governs credit and recognition. Tarver's study did not address this issue or investigate the specific policy mechanisms that institutions develop to decide credit for the various programs and although two of the institutions in her study were in states that have recognition statutes (Rice University in Texas and Macalester College in Minnesota) these institutions are independent and do not have to comply with the laws in those states. Further, Tarver's study shows that many institutions do not keep clear records about either IBDP credit awards or AP credit and the reasons for this are not clear. Perhaps this is due to different departments deciding credit for each program, changes in admission staff, decentralization in developing policy, or other factors but additional inquiry is certainly warranted. Positively, Tarver's study provides another view of university perception research from an American point of view. It also notes the prevalence of the AP Program in the United States and does accept that this program has been in existence for a longer time period in the American higher education arena than the IBDP. Unfortunately,

Tarver's sample did not include one university from the research study state although there are universities in her sample that would match universities in Virginia in prestige.

Other Perception Studies Related to the IBDP

In the literature, there are two other perception studies related to the IBDP, one related to graduates' perspectives on the IBDP (Taylor & Porath, 2006) and one related to teacher and students perceptions during the first year of implementation of the IBDP (Culross & Tarver, 2007). These studies are important in that they represent other attempts at obtaining perception research related to the IBDP. The studies were completed in Canada and the United States.

Perceptions of IB Graduates – Taylor and Porath (2005)

Taylor and Porath's study was completed in 2005 and involved IB graduates from two public high schools in a large city in British Columbia, Canada. The purpose of the study was to "solicit retrospective views of the DP experience" (Taylor & Porath, 2006, p. 151) because up to that point little substantial research had been gathered from IB graduates. As of 2003, the IB organization surveys IB graduates approximately every three years about their postsecondary plans; this survey is optional and relies on IB coordinators to get questionnaires to IB graduates (B. Poole, personal communication, September 13, 2011). Further, getting complete information can be problematic because of some school ending dates. The IB also relies on transcript request data for additional information but students who makeup missed examinations or take a gap year may not be counted during a given year so this effort to collect information is also a work in progress. Taylor and Porath's (2006) study surveyed two IBDP schools in British

Columbia – one with “an inner city population; the other a middle-class population” (p. 151). Each school was the only school in the city with the IBDP and each had had the program for more than 15 years.

For the study, Taylor and Porath chose graduates from the years 1996 and 2000. At the time of the study, members of the class of 1996 would have been in graduate school or in the early stages of their careers and members of the class of 2000 would have been just about to complete their undergraduate education (Taylor & Porath, 2006). Each group should have been in a good position to reflect on their IB experiences and answer whether the IBDP had prepared them well for university coursework. Taylor and Porath used a survey instrument divided into two parts for the study. In the first part, respondents were asked to respond to 20 statements using a four-point scale. These questions dealt with the overall program, psychological impact, and preparation for university level work. The second part consisted of seven open-ended questions and these concerned how the students felt about the program (Taylor & Porath, 2006). The survey was developed by Taylor and Porath but efforts to find out if it was field tested were not successful. The survey was sent out via regular mail and email (Taylor & Porath, 2006).

One problem with Taylor and Porath’s study was up to date contact information for the IB graduates that they wanted to use for the study. Of the possible 76 IBDP graduates for the class of 1996 and the possible 79 IBDP graduates for the class of 2000, current contact information could only be located for 26 of those individuals and of those, only seven graduates from 1996 and nine from 2000 responded to the survey (Taylor & Porath, 2006). No information was provided in the study regarding why this was the case;

perhaps secondary school offices do not have the mechanisms in place for keeping track of graduates after students leave high school.

Seven of the 20 scaled questions in the study were intended to address the DP graduates' perceptions of the IBDP and its' suitability for secondary students. In addition to answering the scaled questions, students could also provide additional comments (Taylor & Porath, 2006). Although 87.5 percent of the sample (14 of 16) felt the pace of instruction in the IBDP was appropriate, a "smaller majority, 68.75 percent (11 of 16) indicted there was adequate time for thoughtful and reflective study of the disciplines" (Taylor & Porath, 2006, p. 152). Because of the survey's small sample, this topic might benefit from further work. In addition, 93.75 percent (15 of 16) of the IB graduates felt that their IB courses taught them to "think critically and flexibly, and that they were introduced to a wider range of topics that were covered in greater detail compared to students in the regular high school program" (Taylor & Porath, 2006, pp. 152-153).

Taylor and Porath included six questions addressing emotional and psychological impact in their study. These questions were also used to elicit graduates' opinions about the stress they experienced while in the IBDP. Thirty-seven and a half percent (6 of 16) of the respondents considered the workload to be detrimental to their well-being while they were in the IBDP. This statistic is contradictory to the statistic noted above concerning pace of instruction and may also be indicative of students' lack of time management skills at the time they were in the program. In addition, 68.75 percent of IB graduates (11 of 16) also reported that they "had worried that they were not going to meet all of the requirements of the IB Program and 43.75 percent (7 of 16) recalled fearing that

they would not be accepted into the postsecondary institution of their choice” (Taylor and Porath, 2006, p. 153). It should be noted that some universities in Canada ask for predicted grades as early as December of grade 12 to determine admission for IB Diploma candidates and American IB Diploma students who apply to Canadian universities also are required to submit anticipated scores (B. Poole, personal communication, August 31, 2011). This concern of the IB graduates was actually unfounded because the questions that Taylor and Porath included to address whether or not the IB graduates felt they were prepared for university level coursework showed that 68.75 percent of the respondents (11 of 16) felt better prepared for advanced level college coursework because of the IBDP and 87.5 percent (14 of 16) credited the IBDP with helping them to pursue their career goals. On the other side of this, however, only 43.75 percent of the IB graduates (7 of 16) were permitted to take advanced courses during their first year of university studies. Unfortunately, Taylor and Porath do not specify whether this is due to students’ having to fulfill university requirements or lack of university credit recognition for the IBDP. An additional question in the open-ended section or follow-up interviews would have helped to clarify some of the results, especially with such a small sample.

Overall, the majority of respondents valued the curriculum of the IBDP although they found the workload to be stressful at times. While in the program, the IB graduates did worry about not being able to complete the IBDP (perhaps human nature about success and failure) and about gaining entrance to university (Taylor and Porath, 2006). Taylor and Porath’s issues with finding IB graduates in the classes they chose to research

highlights a problem in secondary schools of not tracking graduates once they leave the institution. This makes completing research difficult and now in the age of social media where alumni groups plan reunions by tracking down classmates through Facebook and other internet-driven sources, researchers will have better means to find graduates from a particular class. Perhaps Taylor and Porath's study would have had more success in finding IB graduates just a few years later. The results of this study indicate that in spite of the stress the IB graduates valued the lessons learned through the IBDP. It would have also been beneficial to see some additional descriptive information on Taylor & Porath's sample; aside from saying that there were 10 females and six males who responded and that the IB graduates who responded were "predominantly Caucasian and Asian" (Taylor & Porath, 2006, p. 151) which was reflective of the racial makeup of the area, there is no additional information. Providing a space for the respondents to provide which university they attended or getting the transcript requests from IB for those particular classes and including them for the area might have provided some additional information for readers as IB students typically apply to selective institutions (Tarver, 2010; Taylor & Porath, 2006).

Perceptions during Implementation - Culross and Tarver (2007)

The second study related to perceptions of the IBDP was done by Culross and Tarver during 2001 and 2002. This study investigated the perceptions of teachers and students during the first year of implementation of the IBDP at a laboratory school on a university campus in the United States. The goals of the study were the following: to

understand the motivations behind the students and teachers to take/teach IB and to grasp how the IBDP differed from teaching/taking other courses.

Although over 90 percent of American IB schools are public, the site for this study was a quasi-public school which receives both tuition from students and state support on a per student basis. Students at the laboratory school apply for admission and are admitted via lottery if the number of applicants exceeds the number of available slots for a given year (Culross & Tarver, 2007). Students also must apply to be in the IBDP and participate in an interview, secure teacher recommendations, and have their test scores reviewed by the IB coordinator before being accepted. This procedure is not typical for all IBDP schools in the United States; the IB organization does not specify minimum requirements for students to be in the IBDP, just that they are in the final two years of secondary schooling. Schools may set prerequisites for students to enter the program and many schools have preparatory coursework in grades nine and 10 so that students have the foundational work to ensure success in the IBDP later (Panich, 2001).

The sample for this study was 14 faculty (11 female, three male) teaching IBDP courses and 24 students at the school who were in 11th grade during the 2001-2002 academic years. The qualitative interview study used different interview protocols for each group in the same way but some questions did overlap as they were designed to answer the same research questions (R. Culross, personal communication, August 30, 2011). The interview guides were not field tested because the original intent of the study was to provide feedback about the implementation of the IBDP at the request of the school's executive director (R. Culross, personal communication, August 30, 2011).

The IB faculty that participated in the study had between three and 36 years of experience with the majority having more than 20 years of experience (Culross & Tarver, 2007). The first round of interviews was with the junior students in May 2001 and each interview was conducted individually during study halls during the school day. Interviews lasted between 20 minutes and one hour, depending on the length of student responses and each interview was tape-recorded and transcribed (Culross & Tarver, 2007). Culross and Tarver used a team of three interviewers to conduct the inquiry and then the interviews were transcribed by a fourth team member for later analysis. Two team members who had not participated in the original interview would then code or score each interview for themes during data analysis (R. Culross, personal communication, August 30, 2011). This process was the same for the faculty interviews but was completed during faculty members' free periods' during October and November 2002 (Culross & Tarver, 2007).

When the results of the study were analyzed, Culross and Tarver found that students who chose to participate in the IBDP did so to gain an advantage in the college admissions process and better prepare themselves for college course work. They saw the IB program as increasing "their breath and depth of knowledge and improv[ing] their writing skills and study habits" (Culross & Tarver, 2007, p. 57). Faculty viewed the IBDP as "focusing more on global issues, requiring higher level thinking skills, applying learning, developing links between concepts, and covering a broader spectrum of topics" (Culross & Tarver, 2007, p. 58). Students and faculty had similar perceptions of the

IBDP, although students did have different motivations for pursuing the program.

Instead, IB faculty reported that the IBDP rallied them to be better teachers.

Culross and Tarver also asked the students and faculty questions about parent perceptions of the IBDP. Although there had been some discussion about including parents as interview subjects in the study at one time, this was not completed due to a change in administration at the school, (R. Culross, personal communication, August 30, 2011). Students interviewed were mixed about parent perceptions, with half being supportive of the IBDP and half having reservations. Students believed parents who were supportive were so because they were seeking an advanced learning opportunity for their children that would give them an advantage in the college admissions' process later while those who expressed concerns cited increased workload and negative impact on family time (Culross & Tarver, 2007). When the same questions were posed to faculty, the feeling was that parents were generally supportive of the IBDP "but some did share IB parents' views that the program is too much work that interferes with their children's social lives" (Culross & Tarver, 2007, p 58). This view concerning parents, although interesting, was not supported with direct evidence from parents because parents were not interviewed for the study and it is not clear how teachers obtained this information. The college admission issue, again, was not expressed by faculty perhaps because they have less of a personal stake in this process.

When asked about the IB Program components, the students saw the requirements of the extended essay and Community, Action, and Service (CAS) as "beneficial although initially overwhelming" (Culross & Tarver, 2007, p. 57). Faculty agreed with

the benefit of CAS but saw teaching the program as “very stressful, even though they are highly educated, highly experienced teachers” (Culross & Tarver, 2007, p. 58). Although this study did elicit some interesting responses from both the students and faculty involved, it was not originally intended to be published. As Culross stated, the effort was originally intended to provide feedback to the laboratory school concerning the implementation of the IBDP and for that purpose, it was probably successful. The IBDP has been seen by policy makers as one way to introduce rigorous curriculum opportunities to American secondary school students (Kyburg et al., 2007) and perhaps the policy implications of a study concerning perceptions of students and faculty during the first year of IB implementation should include stepping up communication with all stakeholders and making sure procedures are in place to minimize and deal with increased teacher stress. If the study were to be replicated elsewhere, parental and administrative perspectives in a school going through IB implementation should be added to a research study as these are all stakeholders that have to accept and learn the structures, curriculum, and procedures required for any new IB program to be successful.

Research on the IBDP and University Performance

Curriculum programs such as the IBDP and AP are beneficial to college persistence and degree attainment. As referenced earlier in this dissertation, Atkinson and Geiser (2009), Dounay (2006), and Matthews & Hill (2006), suggest that AP and the IBDP can increase the rate of college degree attainment. Further from Chapter 1, Byrd (2007) notes that in addition to the potential financial benefits from not enrolling in introductory university coursework, students who obtain IB or AP credit potentially have

the opportunity to pursue double majors, minor programs, study abroad options, and other university programs.

Tracking Grade Point Averages at UVA – Grexa (1988)

Despite these claims, there has been little research to date to track university performance of IB students and much of that research has been initiated by the IB. The first study to be undertaken in this direction was by Thomas Grexa in 1988. Grexa served as an assistant dean of admission and international student specialist at the University of Virginia. Grexa's study looked at 102 students at the University of Virginia in three groups – those who had been enrolled in IB coursework (18), those who had been enrolled in AP coursework (55), and those who had never been enrolled in any advanced academic program (31). By comparing the grade point averages of the students in his sample he determined that, "it is reasonable to state that IB students do at least as well as their counterparts from the same or other schools that do not offer the IB" (Grex, 1988, p. 5). This was because the number of students with the IB experience (18) had higher mean grade point averages (3.141) than the 55 students with AP experience (2.924 mean grade point average). The 31 students in the study who had neither IB nor AP experience had a mean grade point average of 2.839. Grexa did not provide p-values for his study so there is no indication whether or not he conducted statistical significance testing.

One serious problem with the study is that it is unclear when it actually occurred. Grexa published his study in 1988 and in the study he provides the 1986 grade distribution for selected IB higher level subjects by percentages as he explains the IBDP in his background but when he gets to his data he never actually clarifies when he

collected his grade point average data. It is possible that these students were at UVA in 1986 or in 1987 but it is not specified whether these grade point averages are for a full year of coursework or for a semester only.

Another problem with the Grexa study is that there is no distinction made between IB Diploma students and those who took IB Diploma Programme Course subjects only in mean grade point averages. Similarly, there is no notation made concerning numbers of AP examinations taken. The combination of students within those 18 IB students and 55 AP students at the University of Virginia at that time would have made for a more informative study. Because of the age of the study and the fact that Grexa is no longer at the University of Virginia, it was not possible to get further information. The study does suggest, however, that the work that Grexa started is an area that could be continued to be tracked by colleges and universities and perhaps can be broadened in the ways suggested by the researcher. Campus research bodies might be employed to set up queries to provide the information on a routine basis and start tracking IB Diploma students, IB Diploma Programme Course students, and AP student progress in university coursework.

University Performance in Florida – Panich (2001)

The second study done in this realm was a quantitative dissertation by Sister Camille Panich that investigated the university performance of students with IBDP experience. In this study, Panich matched students who entered the University of Florida in 1998, 1999, and 2000 who earned credit as a result of their IB exam performance with students who had the same SAT verbal and mathematics scores with students who did not

have IB experience for the same years (Panich, 2001). The total sample of 1,816 students was divided into three distinct categories: students who had earned an IB Diploma, students who had not earned an IB Diploma but had taken IB Diploma Programme Course subjects, and students who had no IB experience (Panich 2001). Panich studied the first year grade point averages for each group as well as for the total sample. Her initial hypothesis was that the students who completed the entire IB Diploma Programme would have higher mean grade point averages.

At the time of the study, schools in Florida received about 35 percent of the transcript requests in North America for IB schools and the University of Florida received one-half of those transcripts (Panich, 2001). As Panich combined students with and without IB experience and matching SAT verbal and mathematics scores she eventually had a sample that included 979 females and 837 males. The sample was broken down as follows:

1998: **290 students** (57 IB Diploma, 88 IB Diploma Programme Course Students, 145 students with no IB experience)

1999: **740 students** (147 IB Diploma, 223 IB Diploma Programme Course Students, 370 students with no IB experience)

2000: **786 students** (170 IB Diploma, 223 IB Diploma Programme Course Students, 393 students with no IB experience)

Panich obtained the students' SAT scores from the University of Florida Admissions Office as these scores were used by the university to select students for admission to the university and were in every student file (2001). The grade point

average used to measure the university performance of the students in the study was the “cumulative grade point average (GPA) for the first complete year of study at the University of Florida” (Panich, 2001, p. 34). This grade point average was reported on a 4.0 scale and was for two semesters because the university operated (and still does) on a semester schedule. Panich obtained computer disks from the University of Florida Admissions Department with all the student information for the study. Disks contained “cumulative high school GPA, SAT verbal and nonverbal score, ACT scores, credit awarded for IB experience, gender, and GPA for the first year of study” (Panich, 2001, p. 34). After reviewing the disks and realizing that only about half the students with IB experience had ACT scores, Panich dropped ACT scores from consideration in the study (Panich, 2001). In addition, because the focus of the study was on college performance, high school grade point average was also dropped from consideration of use. After moving the rest of the data to a spreadsheet, Panich ran ANOVAS for gender and mean GPA for the total sample as well as for each year and subdivision (students with IB Diplomas, students with IB Diploma Programme Course experience and students with no IB experience) in the study (Panich, 2001). “Since the students were matched only by SAT scores and not by SAT scores and gender, no further analysis was conducted” (Panich, 2001, p. 36).

In regard to the descriptive statistics for the study, Panich (2001) found that the total students in her sample had a mean verbal score of 632.97 (range 460 to 800) and a mean mathematics score of 638 (range 450 to 800). The mean GPA of all students was a 3.23 and ranged from failing (.30) to an A average (4.0). When she broke the statistics

down by the various categories of students Panich (2001) found that student who had completed the full IB Diploma had achieved the highest mean grade point average. This was true in each of the three years as well as for the total population. Panich wrote:

There was a statistically significant difference between the mean GPA and that of each of the other groups of students in the study with one exception. For students who matriculated in 1998, there was not a statistically significant difference between the higher mean GPA of students who earned the IB Diploma and the lower mean of the students who had no IB experience. It is possible that this result was influenced by the relatively small size of the 1998 sample (2001, p. 56).

This 1998 sample was less than half of the 1999 and the 2000 group combined and perhaps if there had been a larger sample available in 1998, statistical significance could have been reached. One implication of the study is that it is the first time a researcher has been able to successfully complete a study investigating how IB students, including those who completed the Diploma and those who only completed IB Diploma Programme Course subjects perform on a college campus. It suggested that the IBDP does prepare students for university level work and the findings could be used by individual high schools to encourage students to attempt the entire program or could also make the case for universities to continue recognizing the IBDP and single Diploma Programme Course subjects. An additional research direction for this study might be to look at these cohorts again at the end of their third or fourth year but to date there is no indication that this has been done.

Further, as Florida is a state that has a university recognition law concerning the IBDP and students can receive up to 30 credits for their IB coursework, it is possible that some of the coursework tracked during this study was not really first-year university coursework and much more advanced than a traditional freshman student would take. In that case, replicating this study in a state without a recognition statute similar to Florida's would be difficult. Also, even within the current study, the level of courses between the IB Diploma students and the students without an IB coursework does not take into account AP examination credit or the level of difficulty of coursework taken and this is another consideration that a future study might want to consider to get a more complete picture of the complexity of this issue.

First College Courses in Florida – Caspary and Bland (2011)

The most recent effort to track how IBDP students were doing in college level coursework was commissioned by IB and completed by Kyra Caspary and Jennifer Bland at the Center for Education Policy of SRI International in 2011. The goal of the study was to investigate “the relationship between performance on IB exams and college course performance in the same subjects [using] data for IB students from Florida” (Caspary & Bland, 2011, p. 1). Like Panich's dissertation, this study also focused on the University of Florida as it is currently the institution in the United States the greatest number of IB students attend (Caspary & Bland, 2011).

The sample for the study included 4,845 students who took IB examinations between spring 2000 and spring 2005 and entered the University of Florida the following fall after taking their IB examinations. Eighty-four percent of the students in the sample

were IB Diploma graduates (3,961) compared with 79 percent of all Florida students in the same time period who earned their IB Diploma (11,125 of 14,083 in the state) (Caspary & Bland, 2011). The researchers reviewed course-taking patterns in seven subjects including: physics, chemistry, biology, mathematics, English, Spanish, and French. These subjects were chosen because they are typical subjects that first year college students would take.

Within the study, the various IB subjects were first mapped to college courses. Although some IB subjects like physics only matched to one subject, other like chemistry were matched to biochemistry as well as chemistry. IB Biology was matched with biological sciences, while all IB math subjects were matched with math, statistics and engineering courses. IB English was matched to not only English but English education coursework. Finally, IB French and Spanish courses were paired with the matching language and literature courses on the university campus (Caspary & Bland, 2011). Following this, the researchers split the students into IB grade levels corresponding to achievement on the IB examinations – one to three, four and five, and six and seven and then displayed the grade distribution of the students in each course according to these grade bands. As a reminder, IB achievement runs from one to seven with seven being the highest score and four general being considered a passing score where a university might consider credit or recognition.

For the study, there were two kinds of results – frequency of college course and the analysis of grades. For students who took IB physics, either standard level (SL) or higher level (HL), General Physics with Calculus I was the preferred course. Credit for

IB physics ranged from three to 10 credits depending on score (Caspary & Bland, 2011). Once in the physics course, students who had earned a six or a seven on the IB examination did the best with 61 percent earning an A in the class at the end of the semester while 10 percent of students who earned a one to three earned an A (Caspary & Bland, 2011).

For those students who did take a chemistry course during their first year, they generally entered General Chemistry II as their first chemistry course. Of the 154 students, “Half the students who scored a four or five on the exam earned As in the course, and nearly three quarters of those who scored a six or a seven earned As in the course” (Caspary & Bland, 2011, p. 2). Credit for chemistry at the University of Florida ranged from four to eight credits depending on achievement.

Only 10 students in the study entered a biology course and all took General Biology. One possible explanation for this could be some of the University of Florida’s general education requirements or students’ specific majors. Credit for biology ranged from four to eight credits and students who achieved a six or seven on either level of the IB biology examination general entered directly into the second semester of the General Biology course (Caspary & Bland, 2011). When the grades were analyzed, it was found that 57 percent of the students who received a six or seven on the IB exam also got an A in the General Biology course; in addition, when this was broken down by SL and HL participation, 57 percent of the SL students and 56 percent of the HL students received As in General Biology. In the General Biology II course (the second semester course mentioned earlier, 59 percent of those students with a six or seven on the corresponding

IB biology exam received As. No student who scored in the one to three range received an A, although 36 percent of those students did receive Bs (Casparry & Bland, 2011).

For mathematics, the course taken with the most frequency was Precalculus Algebra/Trigonometry. This course was not limited to a particular IB mathematics examination with the exception that students that took the IB mathematics HL examination frequently enrolled in Introduction to Engineering instead (Casparry & Bland, 2011). Students earned lower grades in the Precalculus Algebra/Trigonometry course. “Even for students who scored a six or seven on the IB mathematics exam, a B was the most common grade” (Casparry & Bland, 2011, p. 28). In comparison, more than 80 percent of the students earned an A in the Introduction to Engineering course regardless of their IB score.

Nearly all students in the researcher’s sample took the IB English exam and the most popular course for these students was Technical Writing. Credit is given at the University of Florida for a score of five or higher and three credits for a score of four, which fills the general education composition requirement (Casparry & Bland, 2011). The students who took Technical Writing did the best of any subject overall, with the percentage of As being highest (72 percent) for students who earned a six or seven on the corresponding IB exam. Students who chose not to take Technical Writing, took Freshman Composition I. In Freshman Composition I, students also did well with 33 percent of students who achieved between a one and a three on the IB English exam getting an A in the course (Casparry & Bland, 2011).

Finally, in the areas of world languages the most frequent first courses for students were Intermediate Spanish Conversation I and Intermediate French Conversation II corresponding to the IB Spanish and IB French examinations respectively. Of 3,826 students that took the IB Spanish exam, 3,186 did not take Spanish in their first two years at the University of Florida. Similarly, 866 students took an IB French exam and 687 did not take a French class during their first two years at UF. This is perhaps due to the University of Florida's general education requirements not requiring the study of a foreign language while the IBDP does require study of a second language (Caspary & Bland, 2011). Despite this, 57 percent of students who took the Spanish conversation course and earned a six or seven on the IB Spanish examination earned an A while 66 percent of French students who earned a six or seven earned an A (Caspary & Bland, 2011).

The study by Caspary and Bland is valuable in that it shows that students who undertake IB coursework, especially the IB Diploma are well-prepared for the work that they will need to do in university-level courses. As shown by the data across all subjects, students that score higher on IB examinations, have a greater chance of obtaining an A in their first college-level courses in that same subject area. The weaknesses of the study, however, are that it doesn't explore other factors that might also contribute to students obtaining an A in their courses or how IB students compare to other advanced academic students such as students coming from the AP Program which the state of Florida supports in a similar way to IB in terms of university recognition and credit. It is good that IB is commissioning studies to see how their students are faring in their university

coursework but it is also suggested that this work should be broadened to include persistence and retention, eventual majors, opportunities that IB Diploma and IB Diploma Programme Course students take advantage of such as study abroad and volunteer opportunities to perhaps assess the effectiveness of CAS and perhaps a student assessment of credit and recognition at colleges. There is a definite need for additional research although any tracking of IB students and attempts to provide solid data to back up the IB organization's belief that that program prepares students well for university coursework will help the organization, teachers, students, and policy makers make the case for American university recognition.

Summary

These perception studies as well as the research on the university performance of IBDP students are important because they provide evidence for those inside and outside of the IB organization that the IBDP successfully prepares students for university level coursework and beyond. In addition, they provide additional evidence that IB students may be successful at institutions of higher education and may provide a basis for making a case to award credit for IB examinations, both higher and standard level as well as for the IB Diploma. However, it is unclear how much of the university performance statistics are related to the IBDP curriculum itself or the characteristics of IB students. Is college achievement in terms of a grade point average related more to the program studied or to the idea that advanced students perhaps self-select into the IB program or are counseled into it? As there has been an a reluctance to award credit for standard level examinations in the United States, perhaps this research will help to inform university officials that

standard level coursework might be worth taking a look at if students are still maintaining high grade point averages and maintaining the grades that universities first accepted the students for. Further, as this research study is looking at the development of credit policies and the perceptions of university officials, these questions will also be explored in the universities profiled.

Chapter two provided a summary of the relevant policy and literature germane to the study. Because this dissertation deals with a piece of active law, and that law is unique in the United States and the world, the peripheral issues connected to that statute and university recognition of IB programs in general needed to be fleshed out. In addition, because of the additional intent of the study to investigate university perceptions of the IBDP, the four related perception studies needed to be reviewed and connected to the proposed study. As IB recognition in the United States is so different from IB recognition abroad, a clear understanding of the climate in the United States was required to undertake and fully understand the context of any research study here. Further, as there is no research concerning university recognition policy connected to a statute and IB, this research will establish a base for which further research can be completed. Chapter 3 will now discuss the methods for the dissertation.

CHAPTER THREE

Methods

The research study examined how university officials at five public universities in the Commonwealth of Virginia have developed and provided a policy response in accordance with the Virginia statute concerning IB and AP credit recognition. Because this law concerns credit policies for International Baccalaureate (IB) and Advanced Placement (AP) examinations, it is believed that university officials had to familiarize themselves not only with the requirements of the statute but also with the particulars of individual IB and AP coursework to make informed policy decisions, especially at institutions where there were not specific IB or AP policies in effect before the Virginia law. In addition, this study aimed to understand university officials' attitudes concerning both the statute itself (and all its individual provisions) and IB student readiness for college-level course work. This study used qualitative case studies, document analysis, and website reviews to create narratives of the process of changing policy and the implementation of required directives. For this study, there are two settings, the larger, capital S setting of the Commonwealth of Virginia and the smaller, lowercase s setting of the universities which is where the cases exist (Stake, 1995). The policies of the institutions (the implementation of the Virginia law) were the cases being investigated.

This chapter presents the methods employed including the research design, participants, and the procedures for the research study. The design is followed by an overview of the settings and the participants. Then, there is description of the data sources, data collection, and procedures for data analysis. Finally, issues concerning validity and limitations are addressed.

Research Questions

The study used a combination of qualitative case study design and artifact review. Both were required because there was need to review where university policies were before and after the compliance date of the Virginia statute (May 31, 2011). Qualitative interviews were used to clarify and obtain deeper information concerning university policies and their development as well as ascertain the perceptions and attitudes of university officials.

The following research questions were addressed in the study:

1. What are senior university officials' perceptions of the International Baccalaureate Diploma Programme (IBDP)?
 - a. In what ways do senior university officials believe IB students are prepared/unprepared for undergraduate coursework?
2. What policies do universities in Virginia have in place for granting credit for IB higher and standard level coursework and for recognizing the IB Diploma?
 - a. What is the officials' rationale for these policies?
 - b. How were these policies developed?

3. Has implementation of the Virginia law influenced university recognition of IB and AP in Virginia? If so, how?
 - a. Are senior university officials familiar with the requirements of the law?
 - b. What impact has the law had on the attitude of senior university officials toward the two programs (AP and IB)?
 - c. How has the law influenced universities' policies regarding credit for IB courses and the IB Diploma?

Research Design

There were two primary sources for this study and each was qualitative in nature. Qualitative interviews and document review were employed to both investigate the research questions and triangulate information provided by the universities. Data were gathered through interviews and by examining policy documents provided by the universities. Further, because the Virginia statute required that institutions placed IB and AP policies on websites so that the public had access to them, these materials were used for the purpose of triangulation and to gather supplemental information. The study had a purposeful sample consisting of five individual policy case studies from five Virginia public universities of the 15 that had to comply with the law. The chosen university sample consisted of the following universities: The College of William and Mary, University of Mary Washington, Virginia Commonwealth University, Virginia Polytechnic Institute and State University, and Virginia State University. The rationale for the choice of these five universities as settings is explained under the Institution and

Participant Selection section. The case is the policy for implementation of the Virginia law at each setting.

Semi-structured interviews were used to elicit responses to research questions concerning policy development and perceptions about the IBDP and IB students. The interview protocol used some of the questions from the Daly (2010) unpublished study with new questions added to accommodate the new requirements of the Virginia statute. Because Virginia is the only state in the United States with this type of recognition statute and field testing the interview protocol was not possible in another location, feedback regarding the interview guide was sought from researchers at the Australian Council on Educational Research (ACER) because they worked on the 2007 Australia/New Zealand perception study. The interview protocol was reviewed by Dr. Daniel Edwards (a senior research fellow in higher education at ACER) in Australia and the guide was adjusted and finalized based on structural suggestions regarding some of the interview questions. The purpose for choosing the semi-structured interviews was to generate as much information as possible on experiences, attitudes, and perspectives (Glesne, 2006).

Qualitative research endeavors to provide a complex picture of the issue under study and often involves looking at the larger picture that emerges. Because of the multiple issues presented in the Virginia statute, a case study approach allowed the researcher to present not only an accurate account but also provide the detail necessary to clearly flesh out issues involved and provide a comprehensive report of the perceptions of university officials of IB students. In this study, the semi-structured interviews were

crafted with a framework of ideas to be explored and the intent of seeking greater understanding of the case (Merriam, 1998; Stake, 1995).

Institution and Participant Selection

This research consists of five policy case studies with the case being the policy for implementation of the Virginia statute. Following that, there are settings of the university and multiple university officials (interviewees) that helped uncover the case. Because of the nature of the study and the fact that currently, no university in Virginia has the same exact IB or AP policy, it was not possible to maintain confidentiality of the universities. Officials from universities consented to participate in the study and understood that no names would be used. Universities, on the other hand, would not be masked as each university in the Commonwealth before and after the compliance date of the Virginia statute had its own distinct coursework tied to its own credit policies and no university recognition policy was the same as any other. The site selection for the cases was based on the idea that case study research is not sampling research but is intended to maximize what can be learned about a subject (Stake, 1995). Each of the cases selected was chosen because of the complexity of where the university was pre-compliance to post-compliance and to better understand the complex issues associated with the policy making process. Cases were also chosen on the basis of accessibility and a desire to work with a diverse selection of institutions.

The College of William and Mary, located in Williamsburg, was chosen as a setting because the university is selective (32 percent were admitted who applied in fall 2010) and before the Virginia statute had a policy of only accepting higher level IB

examination credit generally with scores of five; some exams needed scores of six or seven (National Center for Educational Statistics, n.d.-a.). In addition, attempts by the Mid-Atlantic Association of IB World Schools to engage the College in any dialogue and get officials from the university to attend a symposium concerning IB and university recognition in 2010 were not successful¹. In 2011, after the compliance date of May 31, 2011 the College of William and Mary changed their IB credit policy to accept some standard level examinations for the first time (College of William and Mary, 2011). The College of William and Mary also gives AP credit for some scores of four but requires mainly scores of five for students to receive credit. It was important to learn the rationale for this decision regarding IB standard level credit as it is quite possible that William and Mary is the one of most selective colleges in the nation now providing any standard level credit and this would be a direct result of the Virginia statute (National Center for Educational Statistics, n.d.-d). In addition, there was no information to date from the College that the requirement of the statute of addressing the IB Diploma has been satisfied.

The second setting was the University of Mary Washington, located in Fredericksburg. This university was selected because again, this university had a previous history of only accepting IB higher level examinations with scores of generally five or higher but instead of changing their policy in the way that the College of William and

¹ This information is based on a comparison of the symposium invitation list versus the actual attendance list on the day of the event.

Mary had post-compliance, Mary Washington chose to address the IB Diploma instead. In addition to the policy of granting credit for scores of five and higher on higher level IB examinations, The University of Mary Washington decided to grant 15 credits to students earning the IB Diploma as “Most IB Diploma students will have some credit awarded from scores on the higher level individual tests. If those credits do not add up to 15, then UMW will award the difference as IB Diploma elective credits” (University of Mary Washington, 2011b). Mary Washington also gives credit for AP examinations with scores of three or better. Representatives from the Mid-Atlantic Association of IB World Schools (including the researcher) met with Faculty Senate members in November 2010 to discuss the differences between standard and higher level IB coursework as well as answer questions about various IB subjects.

The third setting chosen was Virginia Commonwealth University (VCU) in Richmond. Prior to the Virginia law’s enactment, VCU already gave a significant amount of IB higher and standard level credit but chose to revisit some of those policies and take a look at the core requirements of the IB Diploma. (Virginia Commonwealth University, 2010a). The university decided on a Diploma policy of awarding three credits for Theory of Knowledge (TOK) provided students achieved a C or better in the subject. These credits are elective credits at the institution. In addition to IB credit, VCU grants students AP credit mainly for scores of a three although a few examinations require a four (Virginia Commonwealth University, 2010b). The university also attended a college admissions and credit symposium² sponsored by the Mid-Atlantic Association of IB

² Again, this is based on a comparison of the invitation list and the actual attendance list for the event.

World Schools in September 2010 and actively works to recruit more IB students to their campus (C. Sesnowitz, personal communication, April 14, 2011).

The fourth university included as a setting was Virginia Polytechnic Institute and State University (commonly called Virginia Tech) in Blacksburg. For the academic year 2010-2011, Virginia Tech (VT) granted up to 30 credits for IB Diploma Programme Course students (HL credit only) and 38 credits for IB Diploma students (a combination of HL and SL credit). After the compliance date of May 31, 2011, VT continued this practice, but what was interesting about VT was that within their individual credit charts, it was possible for a student to receive 12 credits for one individual examination. Some other examinations could receive eight credits, while others received four (Virginia Polytechnic Institute and State University, 2011b; 2011c). This was dependent on the examination, level, and the student's achievement. Virginia Tech also gave credit for IB Diploma graduates who earned a C in TOK and the extended essay (Virginia Polytechnic Institute and State University, 2010a).

Virginia State University was the final setting. This Historically Black University located in Petersburg had no specific credit charts for either the IBDP or the AP Program prior to the Virginia statute. However, the university's document for academic regulations and procedures included the following:

Virginia State University recognizes the International Baccalaureate (IB) diploma or individual International Baccalaureate courses. Advanced standing and credit for corresponding courses may be granted if the student scores 3-7 on the Higher Level examination and 4-7 on the

Standard Level examinations (W. Hill, personal communication, December 10, 2010).

Virginia State was the only public university in the state that granted credit for multiple higher level examinations for scores lower than a four, traditionally considered a passing score for IB. The provost at the university charged a special designee with Virginia State's compliance for the Virginia statute. It was this person who was tasked with acquiring documents and drove Virginia State's policy development. Virginia State now has complete charts detailing IB higher and standard level credit as well as AP credit and does not grant any IB credit for a score lower than a four on any examination. Some AP credit is granted to students who achieve scores of three and other AP credit is granted for scores of a four. Given the amount of change at this institution and the fact that this university did not have policy charts prior to the statute, there was interest in learning how these policies were developed.

The second level of participants for the study was university officials who had a role in working with IB and AP policy. These are the people who were interviewed and depending on the university, these officials were directors of admission, registrars, provosts, university administrators, and members of faculty. At some universities in the Commonwealth, there was a parallel process of academic review with faculty committees. It was paramount that the participants in the research were the people who are/were responsible for compliance with the Virginia statute. It was important to identify the correct people at the institutions in order to be provided with the opportunity to interview the people most able to answer the research questions. Depending on how the

policy was created and/or developed at each university, interviews were completed with a different number of individuals. The following table lists the institution and the number of individuals interviewed.

Table 1: Number of Interviews by University

Institution	Number of Interviewees
College of William and Mary	2
University of Mary Washington	3
Virginia Commonwealth University	3
Virginia Polytechnic Institute and State University	6
Virginia State University	2

Data Collection and Data Sources

Fourteen of the 16 interviews for this study were conducted on the university campus of each institution; two interviews were conducted via telephone. One interview conducted by telephone was done because the interviewee was not available in person and the limited information provided was conducive to a phone interview. The other phone interview was conducted because it involved information that needed to be followed up on because of an emerging understanding during analysis and was completed after data collection on the VT campus. Generally, face-to-face interviews allowed for interviewees to provide documents easily. In-house interviews allowed interview subjects to have more resources at hand, control their environment, and allowed for an investigation of the complex issues on the campus by allowing observation as well as the providing for the interview (Stake, 1995). Initial contact for all interviews was completed

by telephone and then followed up with a combination of email and telephone as necessary. Interview questions were not provided in advance for most interviews with the exception of the faculty members at Virginia Tech; this was necessary to explain to the departments what research was being conducted and what documents might need to be obtained before the interview. Interviews with those in administrative and policy development roles at institutions lasted between six minutes for the shortest interview and 69 minutes for the longest. With faculty members at VT, the shortest interview was 11 minutes and the longest interview was 42 minutes.

Qualitative interviewing was used to answer both perception questions as well as the statute-related and policy development questions. The interview guide employed during the Daly unpublished study (2010) was used as a starting point but was expanded to accommodate the new requirements of the Virginia statute and account for things learned during the unpublished study. A copy of the interview guide is Appendix E. Any documents relating to policy that could not be easily found on university websites were requested from university officials. With AP and IB policies, universities and colleges should have a policy chart detailing the various IB and AP examinations, accepted scores and university courses that the AP or IB exam will match to once credit is granted. For all universities with the exception of Virginia State University, this information was obtained from the individual institution websites. Officials at Virginia State provided the information directly from their policy manual; it has not yet been placed on the University's website. In addition, a search was done for university governing board (i.e. Board of Visitors) documents related to compliance with the Virginia statute and

acquired documents that were submitted to the State Council for Higher Education for Virginia (SCHEV). As this study had a component of knowing what universities were doing before the compliance date and after, tracking of university IB and AP policies before and after the compliance date had also been completed. Short memos were dictated in the process of document analysis and after interviews that helped in the reflection on both the effectiveness of interview questions and richness of emerging data. These memos helped to not only process the material learned from university officials but allowed a quick assessment of the effectiveness of interview questions, allowing adjustments in the interview protocol quickly if necessary to suit a changing situation at an institution or a new policy understanding.

The semi-structured interview was used with university officials who had direct influence over the IB and AP policies at their respective institutions. The interview guide was designed to elicit responses concerning attitudes concerning the Virginia statute, perceptions of the IBDP and IB students, policy development at each Virginia institution, and specifics about the institution's IB and AP policy before and after the compliance date. The interview guide was self-designed although some questions about knowledge concerning different parts of the IBDP and strengths and weaknesses of IBDP students had been adapted from the previous IB perception studies (Coates et al., 2007; International Baccalaureate, 2003) as they were deemed suitable for this study as well.

In order to collect data, officials at the selected policy case study setting institutions were telephoned to ascertain who worked on the Virginia law compliance. When the Virginia law was passed, the State Council of Higher Education for Virginia

(SCHEV) sent out a letter to every provost in the Commonwealth. This letter is included as Appendix D. Depending on institution, the provost charged different officials with the task of complying with the statute. For the current study, all five of the study institutions have reported their policies to SCHEV although VSU's policy is still not on their website (C. Johansen, personal communication, June 1, 2012).

After it was determined who at each institution was responsible for compliance with the Virginia law (and at some institutions this was already known) a telephone call was made to explain the goals of the current study and discuss the potential interviewee's role. At some institutions this was multiple people as faculty committees were used to determine individual subject policies and there was a need to understand some of the differences between subjects as well. If the potential interviewee(s) agreed to participate, an interview was scheduled. All interviews were arranged at a mutually convenient time. At the beginning of each interview, the purpose of the study, the goals of the research, and what types of questions were to be asked were described. The confidentiality issues associated with the current study and how the interviews will be recorded using a digital recorder were also explained. Oral consent for recording of the face-to-face interviews was obtained because George Mason's Human Subject Review Board did not require a written consent from interviewees. Face-to-face interviewees were told that some notes would be taken so that all details would be clear. The two phone interviews were not recorded and only notes were taken. The recorded interviews were transcribed by a professional company. Steps concerning data analysis are provided in the next section. The following table lists all interviews and interview lengths.

Table 2: Interview Lengths

Institution	Interview Length
College of William and Mary	Interview 1: 47 minutes Interview 2: 69 minutes
University of Mary Washington	Interview 1: 31 minutes Interview 2: 42 minutes Interview 3: 16 minutes
Virginia Commonwealth University	Interview 1: 45 minutes Interview 2: 6 minutes (phone) Interview 3: 18 minutes
Virginia Polytechnic Institute and State University	Interview 1: 10 minutes (phone) Interview 2: 42 minutes Interview 3: 11 minutes Interview 4: 27 minutes Interview 5: 33 minutes Interview 6: 39 minutes
Virginia State University	Interview 1: 52 minutes Interview 2: 61 minutes

Because of the nature of the current study, there are several delimitations. When discussing IB and AP students with university officials in Virginia, it was possible that they considered as their base of knowledge all IB and AP students and not only those originally from Virginia or even American secondary schools. In the case of IB, this may also include international students as the IBDP is offered in more than 130 countries throughout the world (International Baccalaureate, 2011c). Several interviewees did put IB and AP students in the larger class of advanced academic students and when discussing perceptions of these students had difficulty separating IB students from other students who engage in rigorous curricular options. Because the current study focused on policies at Virginia universities and

perceptions of IB students who also had an American secondary school diploma, there was a need to continually focus discussion with university officials on domestic IB students rather than those who are considered international students despite the fact that these students may now be included in policies now in place at the institutions. Most officials interviewed focused on domestic IB students, and even considered IB students that their institutions were seeing from Virginia and surrounding states.

Data Analysis

Data analysis is the core of any line of research and that is why it is not easy to look at the transcribed interviews and be able to interpret and analyze the perspective of interviewees without following a certain data analysis strategy (Maxwell, 2005). As interviews were received back from the professional company, they were reviewed for general errors and cleaned up in places where the professional company could not understand what was on the recording. This was done by listening to the recordings and correcting and transcribing where the professional company had marked an inability to understand the recording. Notes taken during or immediately after interviews sometimes helped in this process. After this was completed, the transcripts were read and open coded according to categories using a start list developed from the research questions and from prior knowledge obtained in the Daly (2010) unpublished study. Open coding was the central technique to identify the issues and themes from the interviewees' responses to the qualitative interviews. These categories included:

- Policy development
- Attitudes of university officials

- Perceptions of the IBDP
- Perceptions of IB students
- Impetus for the Virginia law
- Specific IB policy
- Specific AP policy

These categories were later reduced to four larger categories which became the basis for the organization of the Chapter 4. These categories became: Policy Development, Attitudes of University Officials, and Perceptions of Officials towards IB Students, and Perceptions of Officials Regarding the IBDP. At some institutions, data regarding areas of the IBDP was scarce. Although officials could discuss qualities that were valued in IB and other advanced students (including those that pursued AP classes, honors, and dual enrollment options), the individuals who worked on compliance with the Virginia law did not always have the ability or desire to comment on the core elements of the IB Diploma Programme. In addition, questions about how well different elements of the IBDP prepared students for university coursework could not be answered at most universities as not one of the universities tracks these students' performance after enrollment. These issues are explained further under the applicable university case in Chapter 4. Additionally, the process of analysis began in the field as work at some institutions was completed earlier than at others and the independence of Virginia's higher education system allowed each policy case study setting to be initially analyzed separately. Cross case analysis is presented in Chapter 5.

Informal notes were also made about each transcript so that details about each university's IB and AP policy could be documented in a simpler format. As often as necessary throughout these steps, memos were used to make sense of emerging data, keep the researcher organized, and help to build the narrative for each university. A dictated memo was used as a prelude to a first draft of each case study narrative, with thoughts about policy development, attitudes of university officials and perceptions of officials outlined in bullet form and then uploaded to be used as a writing tool.

Documents and interview transcripts were analyzed with the idea of triangulation; policy understandings were checked and verified with university governance documents as well as websites and IB and AP policy charts. In addition, legal compliance verification was also provided by officials at SCHEV. Some patterns did emerge unexpectedly (such as the strong faculty governance structure at VT and W&M) as well as develop from the study research questions and the start list. As the university's narrative was created, the words of the interviewees have been woven throughout.

Depending on the type of policy document offered by university officials or found through research, coding was employed. Governance documents that explained policy development, resolutions, university bulletins, and compliance reports, were open coded for the categories listed above. Although these documents did not touch upon all categories, they provided information for some including policy development, attitudes of university officials, specific IB policies, and specific AP policies. Because IB and AP policy documents involved many examinations and cut scores, these documents were generally not coded. An institution's 2010-2011 IB credit chart was compared to the

2011-2012 IB credit chart to see if all of the IB examinations that the university recognized in 2010-2011 were still recognized in 2011-2012 and still had 1) the same minimum score required and 2) the same corresponding credit award. This was also done in the case of AP examinations for 2010-2011 and 2011-2012 because the law had a provision for comparable credit between AP and IB examinations. Credit award charts were also used for triangulation of interviews. Discrepancies in any of the credit charts were investigated with the universities, for instance, a discrepancy was found at VT when IB credit for design tech was discontinued in the 2011-2012 academic year. The various documents analyzed from each institution are provided in the following table. Analysis was completed in the following manner for an individual university: interviews would be coded first, then documents would be read and potentially coded and then documents and interviews would be reread to check that the coding was correct and if necessary, categories could be rearranged before a first draft of a narrative was started. No new categories arose from the document review but some categories were reconsidered usually in the area of the IB or AP policy moving to policy development.

Table 3: Documents Analyzed

Institution	Documents Analyzed
College of William and Mary	<ul style="list-style-type: none">• Undergraduate Course Catalogs for 2010-2011 and 2011-2012• Course Selection Guidebook 2011• December 7, 2011 Full Board of Visitors Agenda• IB and AP Policies on College website
University of Mary Washington	<ul style="list-style-type: none">• Undergraduate Academic Catalogs 2010- 2011 and 2011-2012• Approval of UMW's IB Credit Policy Report to the Board of Visitors• Report from the University of Mary Washington: Implementation of Code of Virginia § 23-9.2:3.8.• University Faculty Handbook• IB and AP Policies on University website
Virginia Commonwealth University	<ul style="list-style-type: none">• University College Brochure• Undergraduate Bulletin University College 2011-2012• Letter from VCU provost to Commonwealth regarding VCU policy• IB and AP Policies on University website (Additional sources of academic credit)
Virginia Polytechnic Institute and State University	<ul style="list-style-type: none">• AP Charts for 2010-2011 and 2011-2012 (on University website)• IB Higher and Standard Level charts for 2010-2011 and 2011-2012 (on University website)• Board of Visitors Minutes from November 7, 2011• Reaffirmation of University Policy dated November 7, 2011• Pages 4-7 of <i>Composition at Virginia Tech</i> – used in English 1105, 1106 and H1204 courses• Undergraduate Courses in Chemistry – Descriptions and Syllabi• Topic lists for Physics 2205, 2206, 2215, 2216, 2305 and 2306• IB subject guides for Chemistry and Physics
Virginia State University	<ul style="list-style-type: none">• Virginia State University Undergraduate Catalog (no year)• Virginia State University Policies Manual – IB, AP and CI Acceptance Policy• Board of Visitors Draft Minutes, January 20, 2012

In terms of organizing to write the policy case studies, attention was paid to the fact that potential audiences for this work may be those interested in policy, in university organizational structures, and those interested in IB and AP programs as well as education. As there are various stakeholders for the investigation and there is no standard format for case study research (Merriam, 1988), care was taken to construct the narratives in a manner so that the emerging data were clear and created an easily understood description of not only the policy case, but the perceptions toward IB students. Toward that end, the four categories that were finalized during data analysis were also used to present each policy case study: Policy Development, Attitudes of University Officials and Perceptions of University Officials toward IB Students, and Perceptions of University Officials Regarding the IBDP and that order was kept consistent throughout Chapter 4. The final product includes a mix of particular (quotes from people interviewed) and general (connecting data to the subject as a whole) description with interpretative commentary “to provide a framework for the particular and general descriptions just discussed” (Merriam, 1988, p. 200).

Aside from the interviews and document analysis concerning each institution’s IB and AP policy, a snapshot of demographic information about each institution in the sample is provided to complete the narratives. This information is provided at the beginning of Chapter 4. This demographic information provides context for a reader about the settings of the policy case studies. Most data are publicly available and involves information about university size, undergraduate population, graduation rate, selectivity, and numbers of IB and AP transcripts sent to each school in 2010. This information was

obtained from the National Center for Educational Statistics (NCES), International Baccalaureate, and the College Board.

Potential Biases and Validity Issues

For the current study, there were two potential issues regarding bias. First, I currently work in the area of university recognition as a college partnership consultant for the Mid-Atlantic Association of IB World Schools and there are possible consequences of that association in both how I was perceived and how this influenced university participation as case studies and in interviews. The role as a consultant for the Association has been both educational in terms of providing information about IB but has also been one of advocacy in that I worked to promote legislation in 2011. In working with some colleges I would ultimately have been trying to get the Virginia colleges and universities to comply with the Commonwealth's statute. Despite continual disclosure of my association and my status as a doctoral candidate, some universities possibly perceived me to be more favorable towards IB than AP despite the fact that the goal of the current study was to understand the policymaking process and the perceptions of university officials regarding the beliefs about the law in Virginia and the IB student readiness for college level work. This was important to remember as well; the current study was not about IB or AP being better than the other. It was about how the colleges created policy in response to the law and the officials' perceptions of IB students and their attitudes about the law.

During interviews and data collection, disclosure was made about my status. Some of the study universities were already aware of this as I had visited two of the

universities (University of Mary Washington and Virginia State University) in the past. Another, the College of William and Mary had been in contact with the Mid-Atlantic Association's President, Asheesh Misra. During analysis, work was reviewed by a critical friend, a former colleague who is familiar with this work and understands the intricacies of both the Virginia statute and the IB and AP examinations to make sure the conclusions reached were not corrupted by any bias. As a result of this feedback, the categories used during analysis were revisited and an explanation was provided regarding some past consulting work.

Another potential issue that could lead to researcher bias was that my role as a consultant required me in the past to provide information to Virginia public universities and colleges regarding policy development. This was on an as-requested basis only. I explained specific IB courses and provided documents readily available on the IB website or in the public domain. In order to minimize researcher bias in this regard, short memos were created relating to contact with Virginia university officials including what documents were provided and what was discussed during meetings. In order to mitigate any potential bias issues as the study was conducted, the same former colleague (now a doctoral student) again reviewed written findings to determine if conclusions were accurate and the language used to portray university officials and actions seemed objective. Based on feedback received from this individual, some changes were made to the final text.

In case study, the university officials who were participating in the study played a major role as it was necessary to trust that the university officials were honest in conveying

policy information. In order to ensure validity of results and to verify emerging data, participants were involved in member checking, a process where an interviewee is asked to examine drafts of writing where the interviewee is featured (Stake, 1995). Interviewees were sent selections of text where they were featured. In two cases, where the interviewees had significant power and they were featured in large parts of text, the entire interview transcript was sent to the interviewee. Member checking was done via email, after data analysis and approximately 12-14 weeks after each interview. One third of interviewees responded to requests for member checking and in a few cases small corrections were made. Triangulation of data (interview notes, university, and Commonwealth documents) was used to verify findings.

One validity threat that was possible at some institutions was regarding interviewee selection and whether or not there were enough interviewees in order to get a clear understanding of the policy making process at the institution. The institution that this applied to in the current study was Virginia Tech because it was at VT where the Virginia law compliance was involved in a parallel process with faculty for individual examinations and where individual AP or IB examinations had significant differences in the amounts of credit awarded. It was necessary to intentionally try to interview faculty who had different perspectives and opinions about the Virginia law and also had information about the courses with which the IB and AP examinations were paired. Thus, there was an attempt to collect data from several departments and interviews stopped when the same information was repeated and no new information was forthcoming.

Ethical Issues

As discussed previously, confidentiality of the universities cannot be maintained because not one of the IB and AP policies in the Commonwealth to date is the same. When an institution agreed to participate, anyone seeking that institution's policy information would be able to identify that institution. Despite this, I believe it was possible to maintain the confidentiality of the interviewees and coded collected data by assigning an identification key to each interview. By using an identification key, data could be connected to each of the interviewees. I am the only person with access to the identification key. No interviewees have been named in Chapter 4 and no one's job title has been named explicitly.

CHAPTER FOUR

Findings

The goal of this study was to investigate two distinct lines of inquiry: the perceptions of university officials regarding the International Baccalaureate Diploma Programme (IBDP) and International Baccalaureate (IB) students, and the universities' policy development in response to the Virginia statute. The research obtained revealed differences in how the five universities in the research study created and implemented policy in response to the Virginia law. At all institutions, the statute had an impact on the attitudes of university officials. Also, at some institutions, those who worked on the policy development did not have enough contact with IB students to comment on the college readiness of them, and questions regarding perceptions of IB students could not be answered fully.

When the proposed research was presented to George Mason University's Office of Research Subject Protections, the research study was deemed exempt because it fell under Exempt Category 2, research involving the use of educational tests including interview procedures. The study was approved on October 20, 2011. This allowed the research to proceed without requiring interview participants to sign a consent document. Interviews for the study were completed between November 8, 2011 and December 7, 2011 with document review continuing throughout the interview and analysis process.

In order to avoid any implication of ranking and because the policy response at all five universities was different, the five universities are presented in the order they were visited. This allows for each setting of the university to be presented in light of the research questions and allows for the case, the policies of the institutions regarding IB and AP credit, to be fully fleshed out. It also allows for explanation concerning problems with perceptions of the IBDP and IB students as these questions in the interview protocol were not able to be fully answered at all institutions. Reasons for this are considered in Chapter 5.

With the research questions regarding policy development, perceptions of officials and the influence of the law on attitudes in mind, each university is presented with four main organizational categories forming the basis for the chapter: Policy Development, Attitudes of University Officials, Perceptions of Officials towards IB Students, and Perceptions of Officials Regarding the IBDP. Within the narrative of each setting, these four categories are discussed. At some institutions, where information was not able to be obtained about either IB students or the IBDP, the reasons are explained under the appropriate heading. So that a reader outside Virginia (and perhaps outside the United States) might be able to compare study institutions in terms of campus setting, undergraduate population, selectivity, and graduation rates, this information is summarized in Table 4. Additionally, the number of IB transcripts and AP examination scores to each institution in 2010 are provided in Table 5. This gives a reader an approximate idea how many IB and AP examinations went to the study institutions,

keeping in mind that these numbers are not limited to Virginia or even the United States but would still be affected by the 2010 Virginia statute.

Table 4: University Demographic Information

Institution	Campus Setting	Fall 2010 Undergraduate Enrollment	Fall 2010 Selectivity	Full Time Graduation Rate
College of William and Mary	Suburb: Large	5,898	32%	95
University of Mary Washington	Suburb: Small	4,354	74%	83
Virginia Commonwealth University	City: Midsize	23,217	71%	85
Virginia Polytechnic Institute and State University	City: Small	23,690	67%	92
Virginia State University	Suburb: Large	5,075	58%	74

(National Center for Educational Statistics, n.d.-b.)

Table 5: International Baccalaureate and Advanced Placement Statistics for 2010

Institution	IB Transcripts Requested	AP Exams Received	AP Students³
College of William and Mary	155	3,117	1,131
University of Mary Washington	73	1,258	547
Virginia Commonwealth University	301	3,728	1,948
Virginia Polytechnic Institute and State University	408	9,549	4,111
Virginia State University	<15 ⁴	259	200

(College Board, 2010b; J. Sanders, personal communication, October 4, 2011; M.

Sherman, personal communication, February 14, 2012).

Virginia Commonwealth University

The first institution visited for the research study was Virginia Commonwealth University (VCU) located in Richmond. As explained in Chapter 1, university officials at this institution already awarded students some credit for both standard and higher level International Baccalaureate (IB) examinations prior to the May 31, 2011 deadline of the

³ AP students may take more than one examination. This number represents the number of students presenting AP examinations at each institution in 2010.

⁴ The IB organization tracks institution transcripts once 15 are requested. In 2010, Virginia State University had less than 15 requests but the exact number is not known (J. Sanders, personal communication, October 4, 2011).

Virginia statute. In addition, the university had charts detailing Advanced Placement (AP) credit awards for students. Since the time of the State Council of Higher Education for Virginia (SCHEV) letter to VCU's provost and the time when all university provosts were verbally notified of the requirements of the law (September 2010), the university had worked to review their IB and AP policies and comply with the requirements. The process required VCU officials to fit the Virginia statute into existing policies and programs, review IB and AP coursework in departments, and decide if changes needed to be made to existing policy. At this institution, three officials were interviewed.

Policy Development at VCU

Officials at Virginia Commonwealth University took the approach of reviewing the IB and AP courses with faculty to determine how credit might be revised as it was felt by officials that putting the decision regarding credit in hands of faculty would be doing the best for students. One VCU official said: "Anytime we put it back into the faculty's hands I think we are always going to be doing the best equating of these credits or giving them [students] the most they are able to get." Policy at VCU for IB and AP credits begins as a curriculum issue and starts in individual subject disciplines so as the Virginia law needed compliance by the universities, in VCU's case, individual subject disciplines were the first point in any policy response. Should an individual department decide upon review of curriculum documents that either the IB or AP policy needed to be changed, it next goes to VCU's Curriculum Committee. If the policy passed the Curriculum Committee, it then moves to the individual college level and then moves to the university

level. Only a significant change would be referred to the Board of Visitors. As the same VCU official explained:

Now if there is a minor tweaking of things, we ask the Board [of Visitors] to give us approval to do that. Take it through the Curriculum Committee and stop there. But if it is a whole scale issue, if we are taking a three and making it a five before we are going to give credit for it, or we are taking a subject out of something like that then we will go back to the Board.

VCU's policy for IB and AP credit as well as the Cambridge examination program which is not included in this research study but is now part of Code of Virginia § 23-9.2:3.8 was approved by their Board of Visitors on November 11, 2011. The university officials interviewed did not express issues with students receiving credit for IB, AP, or other comparable programs, but did have issues with the Virginia law's requirement to have the policy be approved by the Board of Visitors. The same official stated:

We worked with the departments to get that [credit] ironed out. Then this statute comes and says well that is fine and dandy, but it has to be approved by the Board...my gut reaction was that they were thinking that we were not being as conducive as they wanted us to be with accepting these credits.

All of the institutions in the current study, including VCU, are accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, commonly referred to as SACS. As members of, and accredited by SACS, students that attend the five institutions in the research study only have to complete 25 percent of their

credits at the institution (Southern Association of Colleges and Schools Commission on Colleges, 2012), meaning that they can use IB, AP, dual enrollment, the College Level Examination Program (CLEP), Cambridge International, and possibly other transfer credit options to fulfill their requirements for their degrees. As the same university official from VCU stated:

I thought we were pretty liberal with what we accepted. People could, students could actually, get maybe a whole academic year off of their requirements because they could come in with these credits and it would satisfy these courses and they could move on so we could get them through faster.

Virginia Commonwealth's final policy gave credit for IB higher level tests with scores of three to seven and standard level examinations with scores of four to seven. One examination, Latin HL, received credit with what is typically regarded a non-passing IB score of a three⁵. To recognize the IB Diploma, VCU awards three elective credits to IB Diploma graduates who achieved a C or higher in their Theory of Knowledge (TOK) course. This policy of awarding credit for TOK actually existed at VCU for some time as granting credit for the Theory of Knowledge course appears with the first IB credit table in the VCU undergraduate catalog for the 2004-2005 academic years (Virginia Commonwealth University, 2004). Officials at VCU were not able to explain how the decision was first made to give credit for Theory of Knowledge because the faculty who

⁵ Of the approximate 113,000 students that sat for IB examinations worldwide, just over 900 sat for either the Latin HL or SL examination.(International Baccalaureate, 2011h). VCU is the only institution in the study giving credit for what is considered a non-passing score.

probably were instrumental in that decision are no longer at the university. One faculty member said, “It has always been the case. The fact that it’s elective credit, it’s possible that no department wanted to take ownership.” Regarding AP examinations, VCU awards credit for scores of three to five depending on test⁶.

A common core for VCU students. In order to understand how policy development and credit impacts students, it is important to understand an academic structure unique to students at VCU. Students at VCU take a core curriculum which consists of 21 credit hours and sets the groundwork for student success in their major (Virginia Commonwealth University, n.d.). In 2007, the university replaced their introductory English sequence with two semesters of coursework called Focused Inquiry which is generally required of first-year students unless a student is awarded credit through IB, AP, or some other program. The first course in the Focused Inquiry sequence, UNIV 111, might be missed by a student should they receive credit for either an IB or AP examination in English; a student receives UNIV 111 credit for an IB English score of a four and an AP English Language and Composition or English Literature and Composition score of a three (AP has two possible English examinations students can take). The score of four in IB and three in AP would be considered comparable scores. Students at VCU move as a group through the Focused Inquiry sequence and the

⁶ For information on VCU’s specific IB and AP credit policies before and after the compliance date of the Virginia statute, please see Appendix A.

coursework provides students a chance to not only complete the classes together but bond with other students new to campus.

Because of the IB and AP credits, there are sometimes arguments about placement in UNIV 111, 112 and 200 – the English writing sequence. One official at VCU said:

I would like to think that all of our students would take 111, 112, and 200.

We have not gotten to that point where we can say now when you come here we will give you elective credit for your Advanced

Placement/International Baccalaureate, but this is our core and you need to take it. Two reasons we have not done that. Number one, we do not have enough seats for everybody. We do not have the budget to hire enough people to teach everybody. In addition, you have parents and students who have taken these courses thinking this will give me some Advanced Placement/International [Baccalaureate] credit. That needs to be recognized and that is where we are.

Another university official put the issue in terms of what VCU is trying to make sure students can do. “Our main thing is at the end of the day we want to make sure you [students] can write. That is one of the main things that employers say, they cannot write, they cannot speak, play well together.” One interviewee also noted that students who do receive credit for any examinations at VCU, including IB and AP can also forego that credit and opt to take UNIV 111, 112, and/or 200 should they feel that they would benefit from the skills taught in those classes.

Attitudes of University Officials

Because the Virginia statute is the first law of its kind in the United States that required the public colleges and universities to provide comparable credit for IB and AP (and now also Cambridge International) programs, this research sought to flesh out the opinions of university officials in regard to the meaning of comparable credit as well as attitudes regarding the Virginia statute and university recognition legislation in general. Officials at VCU were asked specifically about the provision in the law concerning comparable credit because the idea of placing IB and AP side-by-side for credit awards had not been done before. In addition, prior to the statute, policies at several of the Commonwealth's institutions for IB and AP had not been comparable or equivalent and it was a question if the institutions read the wording of the law as intending to be equal in terms of giving credit at the same scores for IB and AP or if the policies for IB and AP were to be determined in the same manner. Copies of the two bills that informed this research study and created Code of Virginia § 23-9.2:3.8 are included as Appendices B and C.

Officials at VCU interpreted the phrasing in Code of Virginia § 23-9.2:3.8 which states, "Each public institution of higher education's policies for course credit for standard and higher level International Baccalaureate courses shall be comparable to its policies for granting course credit for Advanced Placement courses," (*Virginia Acts of Assembly*, 2010) as requiring the universities to determine the policies in the same manner. One official said:

So, however you apply the credit or do that equivalency or whatever it is, the articulation of that credit that it has to be the same as what you are doing for Advanced Placement...It does not necessarily mean that the course you would take in the International Baccalaureate is the same in Advanced Placement, that you would get the same credit. It just has to be the same procedure to do that.

One official at VCU did have a theory for why statutes like the Virginia law came about:

I think part of the impetus for this is because they [legislators] do not like that graduation rates are five, six years. They want them to be four and maybe four and a half. What can we do to marry high school and college and get students out faster? Not faster, but in a more timely fashion I would say.

According to the National Center for Educational Statistics, VCU had 23,217 undergraduate students enrolled in 2010. Of those, 84 percent or 19,502 were full-time whereas 16 percent or 3,715 were part-time students (n.d-c.). Some students may attend VCU and other institutions part-time due to financial considerations. The same official continued:

I also do not think they [legislators] understand that there are a lot of students that go part-time and that the six year graduation rate is understandable given you have to step out and take some time to make some money....because they give us part of our budget that this is what you [sic] need to be doing. I do not really think they understand what it is

that we are doing. It is our responsibility. We would not be able to function if we did not have, if we were not trying to do everything that was possible to help the student move through our programs.

Although this study focused on the policies the public universities had to develop concerning IB and AP credit, in 2011, Commonwealth universities were asked to develop policies for the Cambridge examination program as this was added to Code of Virginia § 23-9.2:3.8 and some officials noted there has also been a push to add credit for dual enrollment programs to university bulletins. As of this research, credit for dual enrollment programs has not been mandated by the Virginia legislature.

Perceptions of University Officials toward IB Students

The interview guide had two types of perception questions: those designed to elicit data concerning the characteristics of IB students and those designed to elicit opinions from university officials concerning the IB Diploma Programme (IBDP) and the preparation it provides students for undergraduate level coursework. In some cases throughout the research, university officials would group both IB and AP students in the same category, as both classes of students take challenging programs that culminate in examinations that are eligible for college credit. This was the case at VCU and the perception data about students focused on the characteristics of both IB and AP students. One official said:

...if they have done Advanced Placement or International Baccalaureate they are those students who are going to be very proactive. They are the

students who are going to be eager learners. They are going to make an investment in their learning.

Another official remarked how the IB and AP students seem to understand the university system. As this official pointed out:

I think the students who are in International Baccalaureate and Advanced Placement credits are really smart students. Even if they are smart to the extent where you are thinking, oh well, they are gaming the system, I still think that is smart...If you can look at what you want to do in the future and you can say hey, I can get some credits taken care of now, that is what I want to be able to do. Then I can spend more time focusing on the areas of interest that I have.

The same official also discussed how advanced academic students such as those who have IB and AP credits can pursue other options because of the credit, such as second majors and obtaining a Master's degree in an accelerated program. "I am thinking that those students, I am thinking they are bright, I am thinking they understand the system; they know how to move forward in it which is a big plus." Officials at VCU would like all students to take the UNIV 111, 112, 200 sequence within the University's shared core but acknowledged that students do come into the university with IB and AP credits. Additionally, the SACS requirement that students need only 25 percent of their credits from accredited Virginia institutions allows students to look for other options to fulfill degree requirements, should financial consideration, job placement, or residence be an issue.

Perceptions of University Officials Regarding the IBDP

When officials at VCU were asked about elements of the IBDP such as Theory of Knowledge and the extended essay, the officials who were responsible for policy development, although they were also faculty members, did not have enough familiarity with the elements of IBDP to comment fully or pass judgment and therefore, perception data in this regard was not available. In addition, VCU does not track either IB or AP student performance once admitted and in fact, no university in the research study does at this time although each university technically would have the means to do so through their divisions of institutional research. One university, the College of William and Mary, has interest in doing this and will be discussed later. Various issues, including manpower and institutional priorities have not allowed for tracking of IB and AP student performance at the five Commonwealth institutions.

University of Mary Washington

The second university visited was the University of Mary Washington (UMW) which has its main campus in Fredericksburg. Prior to the Virginia law, the university accepted IB higher level examination credits only. During the Code of Virginia § 23-9.2:3.8 policy review year, the university implemented an IB Diploma policy that guaranteed a minimum of 15 credits to IB graduates (University of Mary Washington, 2011). For most AP examinations, UMW grants credit to students for a score of a three. At UMW, three officials participated in interviews.

Policy Development at UMW

The University of Mary Washington first offered IB credit to students in 1990. As explained by one university official:

At that time we used to have a plenary faculty meeting once a month that was convened by the dean of faculty and a faculty committee put forward a recommendation at that time that was adopted...And once SB209 was passed by the Virginia legislature and became law, we looked at reexamining our IB credit policies in order to achieve compliance with SB209.

At Mary Washington, all courses that IB or AP credit would feed into are offered by departments in the College of Arts and Sciences and so for policy development, it was determined that the Academic Affairs Committee of that college would have the initial authority over the issue of compliance with Code of Virginia § 23-9.2:3.8 (Harper, 2011). According to the UMW Faculty Handbook, one of the tasks of the Academic Affairs Committee is to “evaluate undergraduate academic policies, procedures, and standards on an ongoing basis, formulating recommendations as necessary to ensure the continuing reputation and record of the College as a high-quality liberal arts institution” (University of Mary Washington, 2011b, p. 163). The Academic Affairs Committee began reviewing UMW policies for IB in September 2010 and as part of that review examined policies in place at other institutions in the Commonwealth including the College of William and Mary and the University of Virginia. In addition, members of the Committee heard a presentation from two officers of the Mid-Atlantic Association of IB World Schools

during their meeting on November 15, 2010. The researcher was present at that time and heard questions asked by the UMW Academic Affairs Committee regarding the IB Diploma Programme (IBDP), Higher and Standard Level examinations, extended essays, and assessment issues. The then President-Elect of the Mid-Atlantic Association of IB World Schools, Asheesh Misra, provided UMW officials with IB subject guides for various subjects including many taught at UMW.

Officials at UMW determined through their review that the university would continue to grant credit for the same scores as it had in the past. On this point, one official said:

...our faculty has judged that the higher level IB courses are the ones that equate to the AP courses and on that basis we have established a score of five for granting credit for the higher level IB and a score of three out of five for the AP...And that metric is equivalent⁷.

The justification for that decision was not clear, as another university official said: “I don’t know who made that decision...I would assume that they did that years ago...And I think when the Committee looked at the law, I think we looked at it from the point of having their policy in place”. Regarding the IB Diploma, UMW awards a minimum of 15 credits to an IB graduate. According to Harper (2011):

⁷ For information on UMWs specific IB and AP credit policies before and after the compliance date of the Virginia statute, please see Appendix A.

Awarding credits for the IB diploma recognized the rigor and scope of the IB program. It also provides additional credit for a student who completed the IB diploma but did not have at least 15 credits available as a result of higher-level test scores. Most IB diploma students will have some credit awarded from scores on the higher-level, individual tests. If those did not add up to 15 credits, then UMW would award the difference as IB diploma elective credits (p. 2).

The University of Mary Washington approved the policy at their Board of Visitors meeting held April 14-16, 2011.

What is not stated in the compliance report given to SCHEV is that it is possible for IB Diploma students to be awarded standard level IB credit. Generally, for IB students at UMW, IB Standard Level (SL) credit is not available and is not referenced on the UMW website (University of Mary Washington, 2011a). However, for IB Diploma graduates, it is possible for SL examination scores to be used for credit if a student does not have enough Higher Level (HL) examination scores to make up the minimum 15 credits that UMW is guaranteeing IB Diploma students in the Diploma policy.

No cut scores were set by UMW for SL examinations and the policy of using SL scores to make up for the difference of the 15 credits for IB graduates is not written anywhere. As one interviewee reported, it is possible that students may not know to request the credit or ask for a departmental review. In addition, because the policy is not written anywhere, it is possible for one department to require one cut score in one discipline and another cut score in a completely different discipline whereas all IB HL

examinations require a score of five. Although originally the Academic Affairs Committee agreed that there would be no SL credit, for IB graduates who do not have 15 credits made up of completely HL examinations, SL examinations could be sent to department chairs to be ruled upon for credit. One university official expressed concerns that different departments would make decisions differently:

Even though we haven't experienced it, I am concerned with consistency across the disciplines. I can imagine one department awarding credit while the other department denying the awarding of the credits.

Incoming students at UMW have until November 15 of their first year to resolve IB and AP credit.

Finally, UMW allows all incoming students to obtain up to 90 credits from all sources including IB and AP. This was a change to UMW policy as a result of Code of Virginia § 23-9.2:3.8:

We used to have a limit in International Baccalaureate of 30 credits which we did away with in response to the legislation because that would have been a barrier to the student getting the full amount of credits that they would be entitled to for the completion of the Diploma and the results of three or four scores that they would have achieved...So when we originally passed our first IB credit rule in 1990, there was a ceiling of 30 credits which we did not have any ceiling for AP credits. So, part of our move to establish equivalence of the two was to do away with the credit ceiling on the IB.

In addition to AP and IB, UMW awards credit for dual enrollment, courses taken at other institutions, and CLEP. Ninety credits of work from other sources would leave just 25 percent of work to be completed at UMW and would meet the guidelines required by SACS one UMW official said.

Attitudes of University Officials

When asked about their feelings about the Virginia statute and university recognition legislation, officials at UMW were not opposed to credit for students but noted the “legislature meddling in what should be the responsibility of the faculties of individual colleges and universities.” For another official, IB and AP were viewed as two distinctly different programs and the idea of trying to put them together and give them the same credit was difficult. On the point of comparability that official said:

You know, when you look at AP and the IB, I see them as two different spectrums...And trying to line them up and make sure that we’re giving them the same thing – I still don’t see how we do that.

Officials at UMW also addressed the idea that Code of Virginia § 23-9.2:3.8 was a direct response to advocacy groups pushing for IB credit at Virginia colleges and universities. As one university official stated:

I think it’s shortsighted and I think it is a situation where advocacy groups get, you know, a legislator who maybe doesn’t understand these issues very deeply. But it’s an easy approach to just say, “Well, you know, we’ll establish a standard.

That same official extended his thoughts to IB parents and others associated with the program:

...The IB individuals I have had occasion to talk with – they're passionate and they believe very seriously in the quality of their educational program. And I think a lot of the parents who have students who have gone through the IB program were probably frustrated by not getting as much credit as they thought their students deserved and they found the ear of the legislators. Next thing you know we've got a rule.

Officials were asked what IB could do to better inform the university about their programs. One university official noted issues with the IB organization (and representatives from the Mid-Atlantic Association of IB World Schools) connecting IB programs to knowledge, skills, and attributes and how that might equate to courses and programs at UMW:

How do we look at IB and get a clear understanding of how it equates to courses we teach here at the University of Mary Washington? I didn't feel like that question was answered by the representatives. Nor did I feel like that question was answered in the literature they provided. And they gave us a thumb drive and all of that. I just couldn't get clarity on what IB really was trying to [do] – I understand the community service. I understand the broader view of thinking, creative thinking and all of those things. But I just don't see how it equated to an individual course.

Another official discussed the difference in organizational structure between IB and the College Board, which has universities and high schools as member institutions and is involved in other programs besides the AP Program:

The difference is, for something like AP, we're almost all members of the College Board...We get regular interactions with them. I don't see us able to go to IB conferences or interact with IB because that's a small part where College Board is more than just AP.

Perceptions of University Officials toward IB Students

When asked about IB students and college readiness, one university official said that there are probably varying levels of readiness, in the same way that there are varying levels of readiness for students who pursue other options to prepare for university coursework:

It's not a question where I think there could be a universal one-size-fits-all answer. I've had some over the years that I've taught and had some excellent students who had IB, AP credits. I've had some that were disappointments. It's true of every student and every faculty member's experience.

This official, as well as the others at UMW, did not distinguish IB from AP students and generally placed them into the same category of those students who took academic courses during high school which result in a culminating examination which then may be eligible for college credit depending on the student's score. The same official continued, "Each school system is different. Each student is different. The

maturity of the student, what they've done in addition to the AP or the IB courses – I mean all of that works into the mix.”

Another official at UMW also looked at IB students through the lens of advanced academic students, grouping them with AP and dual enrollment students because these groups follow rigorous coursework. These students were called “talented” and “goal-driven” but again, these terms were used to describe students in advanced coursework and were not specific to IB student characteristics.

Perceptions of University Officials Regarding the IBDP

When officials were asked to comment about the core elements of the IBDP, some officials were hesitant to express opinions about the IB because these questions were based on impressions rather than statistical data. Regarding knowledge, one interviewee expressed knowledge of “what’s stated on the International Baccalaureate web page.” The university does not track either IB or AP students after admission and thus officials had no specific data on the performance of these students. Regarding policy, however, some of the elements of the IBDP contributed to UMW’s faculty accepting the 15-credit policy for the IB Diploma as one official explained:

It was on the basis of the extended essay and some of the other components that were a part of the overall IB Diploma. Were it not for that, I don’t know what the faculty’s opinion would have been about awarding credit for the standard score independent of that.

Virginia Polytechnic Institute and State University

The third institution visited was Virginia Polytechnic Institute and State University, commonly called Virginia Tech and located in Blacksburg. Prior to the Virginia statute, this university awarded IB Diploma students up to 38 credits for successfully passing IB examinations and 30 credits for IB Diploma Programme course students who successfully passed IB examinations. On the AP side, students could be awarded up to 38 credits. Virginia Tech's policy was that the credits awarded depended on subject with the credits ranging from three to 12. Moreover, in some subjects, the policy was different for majors and non-majors⁸. Six interviews were completed at the institution.

Policy Development at VT

Officials at Virginia Tech viewed their IB and AP credit policy as an overarching policy that awarded up to a certain amount of credit to an incoming student for successful performance on IB and AP examinations. Within those policies (AP and IB Diploma students can earn up to 38 credits whereas IB Diploma Programme course students can earn up to 30 credits) each department had the flexibility to determine how many credits and how an individual IB or AP examination matched coursework taught at VT. These determinations can be changed every year depending on department, IB and AP course and examination details, and the faculty involved. Additionally, IB graduates may be

⁸ For information on VT's specific IB and AP credit policies before and after the compliance date of the Virginia statute, please see Appendix A.

awarded credit for one standard level examination whereas IB Diploma Programme course students only are permitted to receive credit for higher level examinations (Virginia Polytechnic Institute and State University, 2010a).

Each department has the freedom to update their IB standard and higher level as well as AP credit policy courses and cut scores every year. That is, it is possible that a student entering VT in one year would be able to obtain credit that a student entering another year would not. For students who attempted AP examinations entering Virginia Tech in 2010, the university offered possible credit for 38 examinations and this did not change in 2011. Cut scores for AP examinations varied with 24 requiring a score of a three for credit, 14 requiring a score of a four and one requiring a score of a five (Virginia Polytechnic and State University, 2010b; 2011a).

The policy to allow IB graduates to obtain credit for one IB standard level course did not change from 2010 to 2011 and all cut scores and standard level credit offered by VT remained the same over the time period over the policy review. As of fall 2011, the university offered credit to students for 29 subjects for a score of a six (Virginia Polytechnic Institute and State University, 2010d; 2011c). Regarding the IB higher level IB examinations, VT faculty made a two adjustments from 2010 to 2011 including adding credit for the Japanese A examination and dropping credit for the design technology examination (Virginia Polytechnic Institute and State University, 2010c; 2011b). In 2011, students obtained credit for 32 higher level examinations with scores of four, three with scores of five and one with a score of six. In addition, IB graduates were entitled to credit for Theory of Knowledge (TOK) and the Extended essay provided they

obtained at least a grade of C (Virginia Polytechnic Institute and State University, 2011b).

When the Virginia statute came into effect and the Commonwealth's provosts' were notified of the provisions of the law, VT reviewed the law with their legal counsel and decided that their policy as it had existed was in compliance with the statute. "We also looked at the subject areas like English and math to assure that the credits awarded and the scoring...with the IB and the diploma were dealt with in the same manner," one official said.

Should a new examination be initiated by either IB or AP, the procedure for VT to offer credit for that examination is to request the syllabus and textbooks for that examination and refer the decision to the relevant VT department. A university official explained:

When we ask for the textbooks, we want to see the copyright page and the table of contents. The syllabus and textbooks are bundled and they are given to the department for consideration. Then they review the syllabus and the work.

As a department reviews a syllabus and other materials for a particular examination, the department also determines what VT college level course is comparable to the examination being reviewed and what cut scores are necessary for incoming students to receive college credit. As one VT official explained, once these decisions are made, the department sends the final verdict back to the University Registrar so that it can be added to the relevant policy chart for the next cohort for students coming into VT. In VT's case,

the Board of Visitors only has to approve a change to the overarching policy of granting up to 30 and 38 credits to IB Diploma Programme Course students, AP, and IB Diploma graduates respectively. To comply with the Virginia statute, VT purposely “would not have written a policy so specific that requires a policy change every time there’s a subject change.” Virginia Tech did not want to have to go back to their Board of Visitors every time a department wanted to change a cut score, add subjects, or delete a subject. Again, the same university official said:

I would hope no university would do that because that requires you have to go all the way back through governance. And so you write a policy that says that there has [sic] be a review of the subject area but it’s reviewed by the subject experts.

With the current policy, University departments can annually evaluate examinations and cut scores as well as review changes in current programs without having to wait for Board of Visitors approval. Because VT was technically in compliance with the Virginia statute prior to the enactment of the law, instead of writing a resolution to have the policy approved university officials wrote a resolution reaffirming the existing university policy accepting AP and IB examinations. The Cambridge Advanced examinations were also included in the resolution. This resolution was presented and approved by VT’s Board of Visitors on November 7, 2011.

Perceptions of policy from department faculty. Because of the nature of VT’s policy (an overarching IB and AP credit policy with strong faculty input), IB and AP credit decisions were discussed with five faculty members in four different departments

(physics, chemistry, mechanical engineering, and English) at VT. For some science courses at VT, credit awards are different for majors than for non-majors as department officials determined that different VT coursework is appropriate for different scores on IB and AP examinations as well as different majors. This is true for biology and physics for students presenting AP credit and physics for students presenting higher level IB credit. The beginning courses for science and engineering majors in these departments are different than for non-majors who are filling general education requirements. Because each individual department decides its' individual IB and AP credit policy at VT underneath the overarching policy of 38 and 30 credits for IB Diploma/AP and IB Diploma Programme course students respectively, each department wields significant power in deciding policy for IB and AP examination credit.

The Department of Physics at VT awards credit for the IB higher level examination with a score of four and gives students between four and nine credits for their performance in physics (same for physics and engineering majors but different courses) and is very active in monitoring physics majors' performance once they are admitted according to one department member. Students with IB standard level credit (IB graduates only) get four credits again with the distinction for majors and non-majors. Those with AP credits depending on exam are awarded between four and eight credits but majors cannot get credit for the AP Physics B examination or for scores of three and four on the AP Physics C: Mechanics examination (Virginia Polytechnic Institute and State University, 2011a; 2011b). The Department reviews their credit decisions annually as a response to email from the Registrar asking if there should be any changes to credit

policies and have not had to make any changes to their process. According to one university official:

...for the physics majors themselves we watch carefully what's going on and we take the highest level [in AP]. The only change we could make is well, no sorry you can get no credit at all. I think a more general view of this is that even a five is stretching it, because I just think the intensity at which physics is taught at the university level is a little higher than at the AP level.

The same official also said sometimes it is also suggested that students forego their AP credit if it apparent that they may not be prepared for majoring in physics.

Sometimes a new program complicates issues with credit by examination as well. In the Department of Physics at VT, a new program called the Integrated Science Curriculum stretches over four semesters and integrated biology, chemistry, mathematics, and physics. It requires students to forego their IB or AP credit to participate. Students in the program take two years to complete introductory physics instead of one year. By way of explanation:

...the idea for this course is that really this would better prepare these students, give them better opportunities in the future to be – to take their career wherever they want to go in biology or physics or something like that, or some cross discipline like medical physics, or medical science or whatever. They'll have a much better background for doing that kind of thing. Many of these students, we think are hopefully the best students that

are coming here...Many of them have fives in AP physics for example.

But we're telling them, not only are you not going to get credit for your course because you have to take physics anyway but you are going to take it for two years instead of one.

Students and parents have to make hard choices to take opportunities that might be better in the long run or to perhaps accept credit for coursework taken in high school because they have invested time, energy, and perhaps money. Very few students have taken the option of this new program said one department official.

In the Department of Chemistry, incoming students to VT can earn eight credits for a score of a score of four or higher on the AP chemistry examination and between four and 12 credits for a score of four and higher on the IB higher level chemistry examination. IB graduates who earn a six on the standard level chemistry examination can earn four credits (Virginia Polytechnic Institute and State University, 2011a; 2011b; 2011c). Despite the credit awards listed on the chart for the university, a department official expressed concerns about chemistry majors being prepared for coursework saying, "We very strongly urge them (students) to decline their chemistry credit...it's not sufficiently deep to prepare them for their course work as a chemistry major." This same VT official also expressed concerns trusting AP and IB as well as coursework taken at community colleges saying:

Nobody, no matter what background people come in with, in fact our official policy for transfer students who have taken coursework at

community colleges is don't take any chemistry at the community college.

Come here and take the chemistry.

When asked if he had any personal experience with IB or AP, the official answered that he had none with IB and "almost no personal experience with AP" adding:

I think that most people who are teaching AP or IB are teaching from the text, they're teaching from the book. In other words, they're simply explaining what they've read the night before and talking about it. And that they're limited to largely teaching the limit of their ability and that's not effective... You need to be teaching stuff that is way below your ability. You need to know much more than you're teaching. And so I just don't think that they're qualified for the most part.

The Department of English reviewed AP and IB credit through the lens of writing competency and achievement in comparison to courses taught at VT. For students who take either the AP Language and Composition or the AP Literature and Composition examination, they receive credit for a score of three and higher. Students cannot receive credit for both tests and a three gives a student credit for one of VT's first year writing courses whereas a score of four or five results in credit being awarded for both of the first year writing courses (Virginia Polytechnic Institute and State University, 2011a). For students presenting IB credit, a score of four on the higher level IB English A1 or A2 examination receives credit for one of the first year writing courses whereas a score of five or higher receives credit for both. For IB graduates, a score of six in the IB English

A1 or A2 standard level examination receives credit for one of the first year writing courses (Virginia Polytechnic and State University, 2011b; 2011c).

In the English Department, AP credit determinations were first decided by a Composition Committee. One university official explained the Composition Committee consisted of the Director of Composition, the Associate Director of Composition, the Assistant Director of Composition, several elected instructors, a graduate student, and perhaps an interested professor or two. This same official continued:

There were two tests...And there are you know, scores of three four and five. And we decided fairly simply that either test, a score of three gives credit for the first semester. And a score of four or five gives credit for both. And our thinking there, and I do remember this discussion, was that we're interested in the level of writing competency and achievement much more than we are in how many AP courses the student took. So looking at the tests, the exams, the writing of the students and some of their subsequent work, what we found was the student who achieves a score of three pretty much knows and can do what we would have taught them in our first semester. A student who achieves a four or five pretty much knows and can do what we would have covered in our second semester...And that's been in place for a long time.

The same official noted that many people now believe a three (on the AP exam) is too low for credit but when a change was proposed "We got instant screaming feedback from people in almost every department who said, 'But it's a recruiting tool.' We can get

students to come here because they will get credit for a three...So we backed down.”

Although officials at VT were proactive about AP, they were not as familiar with IB and didn't accept the credential until later. The same official again, “We never had any input into – I guess they [the university] took it from some concordance tables somewhere. I did not make any of these decisions and I'm perfectly happy not to have done so.”

Students in the Virginia Tech Composition Program use a common textbook (George, 2011). The first semester (English 1105) focuses on analysis and critical thinking while the second semester (English 1106) emphasizes research, writing longer and more complex texts, and producing work using primary and secondary sources. An additional course, called Honors English, is a combined critical thinking and research writing course that asks students to engage in multiple forms of research.

When asked if officials at VT had reviewed syllabi for AP and IB courses, officials in the Department of English mentioned connections through students interning in the local high school's English department because of the University's English Education program. “I would say that people in the Composition Program are very familiar with what's being taught in the AP classes.” Blacksburg High School (closest to campus) teaches AP coursework while the nearest IB school, Salem High School, in Salem is 33 miles away (*Distance Between Cities*, 2010) sees fewer teaching interns coming from VT. In the 2011-2012 academic year, Salem High School teachers worked with several teaching interns in their IB preparatory classes but only one teaching intern was actually working in an IB class (J. Sandel, personal communication, February 14, 2012).

Finally, another faculty member revealed that the cancellation of IB design technology credit in 2011 was due to not being able to get a copy of a syllabus from the main IB website and also being unable to locate a university representative who had login credentials for IB within the VT deadline to make a decision for the IB credit guide. There had been some errors in VT course equivalencies and this faculty member had been asked to review the credits. According to that interviewee:

What made us feel a little better about the decision to drop the equivalency is that we have never seen students try to transfer these credits to our department and did not expect the change would impact future students. If a student did take the IB exam and wanted to petition for credits, we would consider adding the equivalencies back after reviewing a copy of the syllabus provided by the student. Or if the IB people were able to send us a copy of the syllabus, we certainly review it for future guides.

Although the university had the overarching policy of 38 or 30 possible credits depending on the type of credit presented, depending on examination and department, students can be awarded significant amounts of credit for a single subject and can even max out VT's policy with only a few examinations should they score extremely well.

Attitudes of University Officials

As one of the research questions in this study sought to obtain the attitudes of university officials regarding the Virginia law and university recognition legislation, officials at VT were asked how they felt about the current statute. Because officials were also in the process of reviewing credit for the Cambridge examination program which

had been added to Code of Virginia § 23-9.2:3.8 in 2011, some officials combined their discussion of IB and AP into their process of reviewing Cambridge credit as well. This notwithstanding, one official thought the Virginia law was inappropriate because of its' requirement to treat all of the programs the same. This university official said:

And so when we are at the end of the day, when we are through with the Cambridge Exchange, if we find that their English is not comparable to the content that we accept from IB or the content that we accept from AP, we'll say that we can't accept that. But what the law says is we then must not accept AP and IB. And so we will have to take opportunities away from students because of the way the law was written...What the law says is we must treat everything else comparable.

The official thought that the issue of comparability was problematic because one program may have a strong course and may match up well to coursework at VT and another program may not. In addition, it could turn out that credit given for a particular program may be harmful when students are ultimately not successful in a particular discipline. A situation like this would prompt a change the following year. In that case, other programs, because of the comparability issue could also be threatened:

That's my fear at the end of the day, and that's what we tried to say to our legislators that you really might hurt another program because they may be strong in something and not the other and we'll see as we assess things.

Perceptions of University Officials toward IB Students

At VT, university officials (who had both administrative and faculty roles at the university) had differing opinions about IB students. In some cases, like in the Department of Chemistry, a faculty member discussed how the Department suggests IB (and AP) students forego their examination credit and take their chemistry courses at VT. Others like two university officials in the Department of English (faculty members who also serve administrative roles), thought the credit given at VT was appropriate to the skills the students came into university studies with from the IB and AP examinations. As with other universities in this study, officials often grouped IB students with AP students, perhaps because both classes of students are seen by university officials as taking coursework that is rigorous and preparing them for college-level classwork. One official, whose role was administrative, said of these students:

I know from my admissions colleagues that they [IB and AP students] are seen as taking a more vigorous curriculum in high school as opposed to just the standard courses. And that's what we're looking for. Can you succeed in taking courses that purported to require the additional work, work similar at college level be assessed at a college level? That's what they're looking for.

Officials at VT reported viewing the IB Diploma differently from the IB Diploma Programme course subjects. One official said, "We see it as concluding, starting a program and following through and completing it...And so it is seen as an advanced step, other than just taking IB courses."

Perceptions of University Officials Regarding the IBDP

Questions regarding perceptions about the core elements of IBDP, including Theory of Knowledge (TOK) and the extended essay were not able to be answered as the officials interviewed did not have much knowledge of these areas. Virginia Tech gives credit for both TOK and the extended essay provided that IB graduates achieve a grade of a C. With TOK, students obtain credit in the Department of Philosophy. For the extended essay students obtain elective credit (Virginia Polytechnic Institute and State University, 2011b). Both of these credit policies have in been effect for some time and are not new additions because of the Virginia statute. Virginia Tech has both the TOK and the extended essay credit policy listed on documents back to 2007 on their website (Virginia Polytechnic Institute and State University, 2007).

Virginia State University

Unlike the other universities in this study, Virginia State University (VSU) did not have complete charts outlining the IB and AP credit university officials offered and the coursework it would exempt students from at VSU. Prior to the Virginia law's enactment in 2010, VSU granted students credit for AP examinations with scores of three and higher. For IB higher level examinations, VSU granted credit for scores of three and higher while for IB standard level examinations VSU accepted scores of four and higher (Virginia State University, 2006). It was the only university in the study which also accepted what was traditionally considered a non-passing IB score for IB higher level

examinations as a four is generally considered a passing score⁹. Two interviews were conducted at VSU.

When the Virginia law was passed in 2010, the Mid-Atlantic Association of IB World Schools sent letters to every provost at every public university (Bassett, 2010) offering to explain and provide resources concerning the various IB standard and higher level coursework. In addition, staff met with officials at Virginia State University in December 2010 and February 2011¹⁰. At those meetings, officials were provided with a flash drive containing course descriptions of IB standard and higher level subjects in all six groups (language and literature, language acquisition, individuals and societies, experimental sciences, mathematics and computer science, and the arts), summaries of the requirements for the extended essay and Community, Action and Service (CAS) requirement and details about the Theory of Knowledge course. Virginia State officials were also provided with a comparison of AP and IB examinations completed by the Thomas B. Fordham Institute, titled *Advanced Placement and International Baccalaureate: Do They Deserve Gold Star Status?*

Policy Development at VSU

At Virginia State University, compliance with the Virginia law was assigned by the provost to a special designee. This official had complete control of policy

⁹ For information on VSU's specific IB and AP credit policies before and after the compliance date of the Virginia statute, please see Appendix A.

¹⁰ The researcher was the Mid-Atlantic Association of IB World Schools representative who met with officials at VSU.

development for the university. VSU's policy is considered a first effort by officials at developing a policy and it is possible that the policy will get changed once officials start recruiting efforts with it. The official said:

It's our starting point. But once you get more people aware of it, recruiting with it, we'll see where it needs to change. Because I created this policy by looking at what I could find at other institutions, by making a lot of judgments on my own about what I thought was reasonable, and with nobody else on campus that I could really turn to who had any knowledge about any of it...I believe that this is a policy that will continue to evolve.

Virginia State's policy gave credit for 18 higher level IB examinations with scores ranging from a four to a six. Five examinations required a score of a four, 12 required fives and one examination (economics) required a score of a six for students to obtain credit at VSU. For the IB standard level examinations, VSU gave credit for 12 examinations with scores between a four and a seven. The SL music examination can receive credit with a score of a four while two others need scores of a five, seven tests need a six and two examinations need the top score of a seven. For AP, VSU gave eight AP examinations credit for a score of three and seven for a score of four bringing the total to 15 (Virginia State University, 2012).

The procedure to develop the policy at VSU was twofold. The first phase of the policy development involved looking at course descriptions about the examinations. In some cases, subjects matched up very easily to those at VSU. One university official said, "It was relatively easy to say, you know, chemistry equals chemistry. That's easy."

The second part of policy development involved looking at other institutions' policies but did not involve other faculty involvement at VSU. The university official who developed the policy wants to see faculty involved with developing policy but thinks some faculty need to see more advanced academic students on campus first before they will get involved. VSU had less than 15 IB transcripts sent to the institution in 2010 and 259 AP examination scores representing 200 students for the May 2010 AP examination session (J. Sanders, personal communication, October 4, 2011; M. Sherman, personal communication, February 14, 2012). As it was explained by the university official who developed the VSU policy:

But there is still – it is some widespread belief on this campus that we're never going to get more than 15 [IB transcripts]. We've got a President who has set a direction that we will attract those students. You have a contingency on campus that says, 'Yes, let's have the policy. Let's go after them. Let's be involved.' And you have people that say that's never going to happen.

This official said he believed that credit policy development at VSU would continue in the same way for the foreseeable future as “these things go to the Provost and then the Provost determines who on his team is best suited to develop the policy.”

Faculty involvement in policy development for IB and AP programs at VSU will be directly tied to an increase in students the university receives with these credentials, a university official thinks. “I think if five years down the road we're still looking at 15 kids, then no. I think departments will say 'no, it's not worth it [being involved]'.” For

the present, the university official who developed the VSU policy realized that policy development was up to him:

I wish because I'm not always going to be here and I wish there were a policy that would insure involvement but there isn't...Since there isn't, if there's only one person who's going to sit and do research and develop this policy, try to do it as good as it can be done, I think I'm probably the best person on campus for the job.

Once the initial policy was written, the next step for VSU was to have the Board of Visitors approve the policy as required by Code of Virginia § 23-9.2:3.8. The first draft of the policy was completed by August as it was requested for a presentation concerning college credit in Virginia (it was previously stated in Chapter 3 that the researcher was tracking policies in the state for this research as well) but the policy was not approved by VSU's Board of Visitors until January 20, 2012. Although originally reminded to file a compliance report by SCHEV, VSU has now filed one and is up to date (C. Johnansen, personal communication, June 1, 2012). VSU was not alone as several institutions in the Commonwealth missed the May 31, 2011 reporting deadline because their policies had not received governing board approval.

Attitudes of University Officials

Although officials at VSU were in agreement with officials at other institutions in the Commonwealth about the need to have a final policy go through an approval process with governing boards and thought this requirement in the Code of Virginia § 23-9.2:3.8 was burdensome, officials at VSU generally looked at the development of their IB and

AP policies as a something necessary to attract the types of students that they would like to have on campus. One official considered why the legislature might have required governing board approval:

We were curious as to why something like that [the IB/AP law] would rise to the level of the Board...But based on what I see they're forcing schools to take on, maybe the larger schools won't do it if they don't require it.

Another official spoke to the idea why developing the policy was a good thing for VSU:

We don't attract or go after a lot of IB/AP students and that's something that we want to change. So the development of this policy – whereas some institutions may have looked at it as a burden, it was a gift to us. This is a great thing to have. This is a great thing that we should want to promote that will enable us to attract the kinds of students we want to attract. So, I'm in complete agreement with that.

Virginia State officials were in agreement about increasing the number of IB and AP students that attended the Historically Black University. Historically Black Colleges and Universities, also called HBCUs were established by The Higher Education Act of 1965, which defines an HBCU as:

...any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of black Americans, and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary [of Education] to be a

reliable authority as to the quality of training offered or is, according to such an agency or association, making reasonable progress toward accreditation (U.S. Department of Education, 2010, para. 2).

As part of Executive Order 13532 passed February 26, 2010, VSU, as well as other HBCUs are striving to meet the goal of increasing the number of college graduates (60 percent of adults ages 25 to 34 with an Associate's degree or higher) in the United States by 2020 (U.S. Department of Education, 2010). To do this, VSU needs to award approximately 65 more degrees each year. The university currently awards about 650 degrees every year (U.S. Department of Education, 2011). One official considered policies including the IB/AP policy as potentially good for persistence to degree completion but noted he had no empirical evidence for this idea.

When asked about the language in Code of Virginia § 23-9.2:3.8 regarding comparable treatment of IB and AP examinations, officials at VSU had a similar response to officials at other institutions; comparability referred to method and not equal credit for the different programs. In some cases at VSU, depending on course, credit between IB and AP is equal but for other courses IB fares better and in some cases AP fares better. This is true at VCU, VT and W&M and there are also cases where there are not comparable courses in IB and AP. On this point, one official said:

You had to set a standard so if we need a three on the AP English exam or whatever, we set a standard, stick to it, give the student credit for the course and the student does not have to take another course. Yes. We're doing the same for AP and IB. We do the same for all college credit.

The official who developed VSU's AP and IB policy also addressed the idea of setting a standard in developing policy but discussed comparability in terms of thinking about AP in terms of whether or not it was comparable to a standard level or a higher level IB course. As he explained:

We have to be able to first differentiate between an AP course and a standard or a higher level IB course. I understand it [comparability] to mean that the law is giving us the latitude to determine where standard level, higher level, and AP fit and what the equivalencies are...In some ways I think the law is giving us latitude that we should have in a perfect world, but shouldn't have in the actual world.

When officials at VSU were asked about the impetus for the Virginia statute as well as their feelings about university recognition legislation in general, officials noted drawbacks with such legislation because it assumes a relationship that might not exist between the K-12 environment and higher education. One official noted, "Knowledge on the part of the higher ed[ucation] environment of the high school environment – the IB, the AP environment, I don't think that really exists. I think that's a drawback." Another official thought the law had more to do with reducing the costs for higher education or time to degree for Virginia high school students. Either way, if VSU officials had the ability to change the statute, they would have first made it so that any policy would not have needed board approval. Further, as one official explained:

I would have either been more prescriptive or I would have required demonstration of the knowledge or in-service professional development

presentations of the people making policies in the higher ed[ucation] environment...I think there was great professional latitude given to us, but we don't know enough about IB particularly and even AP to a certain extent...I think it is so hard to tell academia what to do...I think we need to be honest and say there are areas that we don't know anything. And, you know, we've got these really bright, committed high school students taking very challenging curricula who, when they do that – and I don't believe they're doing it for the reward of college credit, but when they do that they should be given a reward of college credit. And it's the high school environment that knows that these kids are doing. We don't.

Despite differences in how officials might have changed the requirements of the law, all were in agreement that Code of Virginia § 23-9.2:3.8 and the policy developed as a result of the statute would be beneficial to VSU in the future.

Perceptions of University Officials toward IB Students

When asked questions about perceptions of IB students, despite seeing fewer of these students than any of the other institutions in the research study, officials at VSU were the most adept at being able to separate IB and AP students in their responses to questions about characteristics of the students and consciously separated the two groups of students in their answers. Generally, VSU officials looked at IB students favorably. Regarding IB students in general officials noted a “sense of commitment and drive” as well as a “zeal for learning.” One official also noted that IB students had “obvious

intellectual ability, intellectual curiosity. You've got to be a very able student to do this course work."

Another quality that IB students bring to VSU was that they are good role models for other students said one official while another noted that they elevated the academic atmosphere around campus. Further, as one the same official explained, "It takes a big leap of faith and commitment for a student to decide to sit for IB exams and start thinking they can get an IB Diploma." One official however, did ask about the socialization of IB students during interviews, mentioning that he saw an article in this vein and in response to a question about possible weaknesses in IB students.

When asked about AP students, officials at VSU perceived AP students as similar to IB students "but probably with less of a commitment and drive piece. I think that probably the intellectual curiosity is similar from our standpoint."

Perceptions of University Officials Regarding the IBDP

Because knowledge about the IB and the AP program was still very new, questions about perceptions of the IBDP, especially questions about core areas such as how TOK or the extended essay might prepare students for university study could not be answered at this time. In addition, VSU's policy development did not include a Diploma policy and neither TOK nor the extended essay had been included in the policy that was approved by the Board of Visitors. Virginia State also does not track either IB or AP students after admission. Despite this lack of knowledge, one university official said of both IB and AP programs, "The real upside to both IB and AP is that these programs show that there is a real work ethic there."

As VSU continues their process of policy development and some time passes, the university may find that adjustments are needed to the policy accepted by their Board of Visitors said the architect of their policy. In addition, as the new policy did not have an IB Diploma policy, this may also be required in the future by SCHEV. Virginia State does now have a template to work with for IB standard and higher level courses as well as AP courses, something that the university did not have prior to the enactment of Code of Virginia § 23-9.2:3.8. University officials said they hoped to use this policy as both a recruiting tool and as a model for future policy development.

The College of William and Mary

The final university to be visited was The College of William and Mary (W&M) located in Williamsburg. This institution, chartered in 1693 and the second oldest in the United States, is considered a Public Ivy (The College of William and Mary, 2012). In the Commonwealth, the University of Virginia is also part of this class of schools as Public Ivies, a term coined by Richard Moll in the 1980s based on admissions selectivity, quality undergraduate program including a focus on the liberal arts, economic resources and prestige (Moll, 1985). The institution is the most selective institution of the 15 public universities in the Commonwealth of Virginia with a 32 percent admission rate (National Center for Educational Statistics, 2012). Because of this distinction, credit by examination in regards to IB and AP at the liberal arts institution was previously in line with other highly selective institutions in the nation as many of these institutions only awarded credit for higher level IB coursework. A search of institutions at or below the College of William and Mary's percentage of applicants admitted found that out of 48

possible four-year institutions, only six gave IB standard level credit and two of those institutions, Texas A&M University and Bucknell University limited the granting of IB standard level credit to those students who had earned an IB Diploma. The other four schools that issued IB standard level credit were Bates College, Bowdoin College, the University of North Carolina at Chapel Hill, and Vanderbilt University (National Center for Educational Statistics, n.d.-d). Daly (2010) found that most IB credit is awarded for higher level examinations only; despite this, the Virginia law now has added William and Mary to a small group of institutions awarding IB SL credit in the United States.

Before the enactment of the Virginia statute, W&M offered credit or exemption for 20 IB higher level exams with minimum scores ranging from a four to a six. Of those scores, the three language examinations (French, Spanish, and German) that students could present a score of four exempted them from the College's language requirement. Of the remaining examinations, nine needed a score of five and seven needed a score of six. Five of those examinations were either subject to departmental review or gave students exemptions rather than credit (College of William and Mary, 2010). Course exemptions recognized that a student was prepared for a lower level course and would allow them to take an upper level course offering sooner. The year before the Virginia law no standard level IB credit was offered at W&M¹¹. Locally, the College was cited in *The Washington Post* with other selective colleges in the Washington D.C. metropolitan

¹¹ For information on W&M's specific IB and AP credit policies before and after the compliance date of the Virginia statute, please see Appendix A.

area for not reviewing IB standard level credit policies (Matthews, 2011). The registrar at W&M rebutted Matthews' article in the *Virginia Informer* and explained the policy mechanisms the College used to revise IB and AP policies in accordance with the Virginia statute (Mann, 2011).

Regarding AP examinations, the College of William and Mary gave credit or exemptions for 35 AP examinations with scores of three and higher. Of those, all eight of the examinations that had a cut score of a three received credit. Of the 21 examinations that had a cut score of a four, eight needed the maximum score of a five to receive credit rather than an exemption and one, AP International English Language, underwent department review for either a score of a four or a five (College of William and Mary, 2010). The remaining six AP examinations needed the maximum score of a five to obtain credit.

After Code of Virginia § 23-9.2:3.8 became law, W&M began a process to review their IB and AP credit in an effort to comply. At the College, this task was largely left in the hands of one person whose job it was to review the relevant course descriptions, consult with other university officials, and get a completed policy to the College's provost and Board of Visitors for approval and as required by the Commonwealth's statute. Although this one person spearheaded the task, W&M has a highly developed faculty governance process and it was the faculty who actually made the decisions regarding IB and AP examination credit at the institution. Two interviews were conducted at W&M.

Policy Development at W&M

Like several of the other universities in this study, W&M had a policy for IB and AP credit but had to comply with the legal provisions of the Virginia statute. According to officials at W&M however, there was a robust faculty governance process in existence prior to the compliance review. Faculty expects to be a part of governance at the College. The Board of Visitors has 11 standing committees which create policy and bring business to the Board and faculty participate on all 11 standing committees (D. Brandon, personal communication, February 17, 2012). Revision of the IB and AP credit policies was put in the hands of the faculty as one university official explained:

What we did is we pulled down some from what Asheesh [Misra] sent¹², but some of his stuff wasn't complete, so we had to go to IBO¹³ [the IB] as well. We pulled down all of the exam and curriculum materials and then we also pulled all of the exam descriptions for AP...We sent every department every exam from both AP and IB, standard level and higher level.

The same interviewee said that officials at W&M sent IB and AP materials to every subject that had a home department. For courses like the IB Informational Technology in a Global Society (ITGS) course and others that did not fit into a specific

¹² Asheesh Misra is president of the Mid-Atlantic Association of IB World Schools and the IB Diploma Coordinator at George Mason High School in Falls Church, Virginia. He sent W&M IB subject outlines for IB courses in all six subject groups in fall 2010.

¹³ In 2008, the IB dropped the "O" from their acronym and officially became the IB. Unless in a quote, the latter style has been used.

department, officials sent the details and examinations to a few different faculty members to see where courses like these might fit or if the content resonated with something at W&M. Every department then had an undergraduate committee or a curriculum committee review the materials that were sent over a couple of months. Again, that same official:

...each department handled it in a different way...I think one thing about this process is that it caused them to recognize how much credit they're giving already for other things...Some of them were very honest with us and said they don't feel comfortable doing this right now, we want to look at it again next year. My sense is that departments are continuing to think about and consider this so I think that'll be continually reviewed.

That same official indicated that if W&M does not do an annual review of their credit policies that the institution will at least do a biennial review. Another thing that has happened at W&M is students initiating a policy review:

What I have noticed that has happened more with AP than with IB is that students have gone to departments and said 'Would you please reconsider your cut score, or would you reconsider what I get credit for' so that's caused some of them to kind of do a review on their own without us initiating anything formally.

When W&M's process was complete, the departments that wanted to institute changes to the 2010-2011 policy notified the educational policy committee in time for the policies to be included in the 2011-2012 undergraduate catalog. Regarding AP examinations, W&M

continued to give credit or exemption to students for the same number of examinations as in the past (The College of William and Mary, 2011). In terms of IB higher level examinations, again, no changes were made from 2010-2011 but eight IB standard level examinations now receive credit or exemption. Some of these examinations, including the IB examinations in classical studies (Greek and Latin) and music require a departmental review (The College of William and Mary, 2011).

Faculty at W&M also reviewed the IB Diploma program as part of their compliance with the Virginia statute. According to the same official:

I specifically asked for exemption from the lower division writing requirement based on the receipt of the Diploma because I felt like the extended essay probably satisfied the intent of our lower division writing requirement, but the response from the faculty writing committee and they all had an example of their own kids experience with writing in high school and they said no...They declined to do it at that time.

W&M's policy for 2011-2012 did not award any credit based on the IB Diploma but rather awarded credit based on examination scores.

After the policies were decided by the departments, they were organized into the policy chart by the educational policy committee and then sent to the Board of Visitors for approval. Normally, for academic policies such as this one, Board approval would not be necessary but because of the requirement in Code of Virginia § 23-9.2:3.8, approval from the Board of Visitors is necessary and must be reported to SCHEV. W&M had sent

in documentation to SCHEV and then received word that they needed Board approval earlier in 2011. As explained by one official:

At William and Mary the Board doesn't get involved with this because the Board has delegated authority for curricular matter to the faculty. The feeling was the faculty blessed it, it made it to the catalogue, the Board doesn't review and detail everything that goes into the catalogues so we're done.

In December 2011, the IB and AP policies received approval through a resolution presented at the December 9, 2011 meeting.

Attitudes of University Officials

Regarding the attitudes of university officials at W&M, like officials at other institutions, the requirement of getting credit policies approved by the governing board of the institution was outside of the governance structure at the College which allows faculty to have a large role in setting academic policy. When asked about the provision in the Virginia law that discussed comparable treatment for IB and AP examinations, officials also discussed the idea of method in terms of how the review was done. One official defined the provision in the Virginia law in the following way, "...what we're requiring is that everybody goes back and looks at their policy for AP and IB and makes sure that at least internally you're using some consistency in a policy for AP and IB."

When asked about university recognition legislation in general and changes they would have liked to see to the Virginia statute, officials at W&M discussed the idea of

legislators being involved in credit in the first place and how this issue has evolved. From one official:

The whole notion of the state trying to use high school curriculum to satisfy college level requirements is an interesting evolution that began a few years ago; I think it was when Governor [Mark] Warner was still governor...you earned a special certification with your high school diploma if you graduated with more than 15 hours of college work so it's changing the definition of what public college education is.

That same official applied the credit issue to W&M:

You're visiting today at a very traditional, four year, liberal arts institution where there's lots more to a William and Mary degree than just a 120 credits. You know what I mean? Certainly we understand economic reasons to want to graduate early but we do want to make sure that students get more than just a 120 credits. At William and Mary, we want them to have all kinds of additional extracurricular experiences, a coherent and intentional education and that sort of thing. What I do believe is that the proliferation of college credit for high school work changes the relationship between high school and college by blurring the lines.

William and Mary students are required to be enrolled full-time during their undergraduate careers. Another official discussed the idea that he had concern that some legislative mandates don't always recognize the "unique character of different

institutions, which I think are perfectly capable of exercising autonomy in figuring out what the right credit policies are for their populations.” This same official continued:

I think one of the challenges is that faculty are in charge ultimately of credit policies. But credit policies are not a high priority for faculty...it gets into some of the minutia of college administration that tends to be off of a faculty member’s radar, when that faculty member is much more concerned with the heavy lifting of teaching and research.

Officials at W&M said that the eight standard level courses were a start to their IB policy development and said departments that were perhaps not ready to add courses for the 2011-2012 academic years might do so in the future.

Perceptions of University Officials toward IB Students

When asked about perceptions of IB students and the IBDP, officials at the College of William and Mary were able to discuss attributes of students who held an IB Diploma in particular but put general IB students and AP students together in the larger category of students who attempted challenging curricula. Because W&M is a highly selective institution, officials said they want students to have taken the most rigorous program available to them in their secondary schools. Both single IB Diploma Programme courses and AP courses would meet the rigor desired by W&M. As one College official explained:

We want them to understand that we’d love to see things like the ability to write at the college level through an extended essay, the ability to have exposure to interdisciplinary learning in the way that Theory of

Knowledge certainly accomplishes. But for some students, two-year courses just aren't the right match to that student yet. That student still really is much more interested in modular component courses, the variety that he or she can get out of an AP curriculum. There are other students for whom the IB is a much better match. So it still, it still really comes down to who the student is...we're going to take some of the very best students in our pool who are coming out of both of those worlds.

The same official said IB and AP students both shared qualities that were attractive to W&M including "embracing challenge", "flexibility", "initiative", "passion", and "the ability to be curious but then to follow that curiosity over time."

When discussing IB Diploma students, W&M officials noted students completing the IB Diploma not only provided a good college preparatory experience but the international spotlight connected with goals at the College. "The international focus is one that William and Mary has tried to expand within our undergraduate experience, so for students to have an international perspective in high school is a plus as well." Another official added, "We will admit some students who might have the lower GPA, but who are the IB Diploma candidates over the student [sic] with better grades who is not completing the full IB Diploma."

Perceptions of University Officials Regarding the IBDP

Because of the nature of the policy response and the people working on the policy, it was possible to obtain some information about perceptions of the IBDP. Officials at W&M spoke favorably of the IBDP as a rigorous program of study that

prepares students for undergraduate work on W&M's campuses but also balanced this with how one might be misled by looking at credit awards. As one official elaborated:

If you were to take stock of what we want to see on the basis of how a university awards credit, you'd think we like dual enrollment more than we like anything else. And we would for William and Mary at least, we would much prefer to see a student, especially if you're in an IB school, pursuing the IB Diploma, then taking dual enrollment down the street at the local community college...We believe that's [IB] a curriculum that is better preparation for this experience and it is a richer culmination of the high school experience that they're having...it has in common with our curriculum so many of the same values, the idea of writing at expanded length, the idea of relationship between the disciplines. The global component you know.

W&M also noted that IB students also come to the institution from abroad and was the only institution in the research study to bring up this point on their own. Moreover, the institution is the only one in the study that is interested in tracking IB and AP students in some way in the future possibly for performance during freshman year although the institution has not yet had the manpower yet to do so.

Summary

The intent was to provide five case study narratives of five Commonwealth universities detailing the policy response for Code of Virginia § 23-9.2:3.8. Within each case study narrative, several points were addressed: policy development at each

institution, attitudes of university officials towards the Virginia statute and university recognition legislation, and perceptions of university officials to varying degrees. In each case study, the policy of each institution was described and the mechanisms related to governance were also explained. Chapter 5 presents discussion in light of the study's three research questions and will evaluate the data collection efforts in relation to each question. In addition, a policy theory for the development and re-evaluation of credit policies at the Virginia institutions will be presented and avenues for future research will be discussed.

CHAPTER FIVE

Discussion and Conclusions

This study had three research questions concerning university officials' perceptions of the International Baccalaureate Diploma Programme (IBDP), IB students, and individual universities' policy responses to Code of Virginia § 23-9.2:3.8. Copies of the two bills that informed the study and became Code of Virginia § 23-9.2:3.8 are provided as Appendix B and C. Chapter Two provided the background for how the Virginia law came into existence and how IB university recognition was handled in other states. Further, the preceding IB university perception studies were outlined and analyzed although it should be noted that none of these studies had the added component of a university recognition law. Differences in IB recognition procedures in the United States and with the United Kingdom, Australia, and India were provided as examples. The goal of study was to investigate the policy response provided by the five Virginia universities as required by Code of Virginia § 23-9.2:3.8. Additionally, the study examined university officials' perceptions of the IBDP and the level of college readiness demonstrated by IB students as well as officials' attitudes toward the Virginia law and university recognition in general.

While completing the qualitative interviews required for the research study, two things became apparent. First, in many instances, the individuals responsible for a

university's policy compliance with the law were not always able to provide a response to questions regarding IB students as they themselves were not the people in contact with large numbers of these students. As was the case at four of five of the study universities, officials would put IB students in the larger category of students who pursue rigorous curricula and would include IB students in the same group as those students who pursue dual enrollment credits while still in high school, take AP coursework, or are honors students. The second thing that was clear from interviews was that the Virginia law had an impact on the attitudes of university officials, as many university officials expressed concerns about receiving the mandate from the legislature.

Research Question 1

The first research question asked: "What are senior university officials' perceptions of the International Baccalaureate Diploma Programme (IBDP)?" and there was a sub-question asking "In what ways do senior university officials believe IB students are prepared/unprepared for undergraduate coursework?" Officials at all (five out of five) of the universities in the research study recognized the IBDP as a rigorous program of coursework that students take during their secondary careers. Further, officials at three of the study universities (UMW, VT, and W&M) were able to speak to specific requirements of the IBDP that either contributed to their policy decisions or were compatible with programs offered at the university.

At UMW, the elements of the IB Diploma were part of the reason that the faculty accepted the idea of a minimum of 15 credits as an IB Diploma policy but university officials said their knowledge was limited to what was on the IB website. At VT and

W&M, however, the IB Diploma was viewed differently from pursuing single IB Diploma Programme Course subjects. At VT, this translated to the policy of awarding up to 38 credits for students who earned the IB Diploma which included possible credit for the extended essay and the Theory of Knowledge class as long as students achieved a grade of C or higher. At W&M this was more of an understanding that the IBDP and the curriculum at W&M had several things in common including the international perspective, the idea of knowledge being connected, and writing at an advanced and extended length.

Regarding the sub-question of how university officials perceived IB students and how well they considered them ready for undergraduate level coursework, some university officials could not separate IB students from other students who pursued AP or even dual enrollment coursework. This was the case at VCU and UMW. An official at UMW also noted that there are some excellent students as well as some less prepared students in both (AP and IB) programs. At one university, VT, department officials (specifically those in chemistry) discussed how students with credit may not be ready for work as majors and it was suggested that students should forego their chemistry credit awarded in secondary school and take their chemistry courses at VT. Other department officials at VT did not agree with this stance as they felt it was an individual student issue.

At universities that were able to differentiate between IB and AP students, officials looked at the IB students in terms of qualities that they bring to a campus. At VSU and W&M, they perceived IB students as having qualities like commitment, drive,

and curiosity. Virginia State officials also discussed how having IB students on campus elevated the academic atmosphere and provided good role models for other students. As W&M is already recruiting from a highly-selective group of students, IB students must also be competitive with other students trying to gain admission to the College, including AP students, dual enrollment students, and students who pursue several honors courses at their local high schools. Officials at VT and W&M noted that the IB Diploma does sometimes give students an edge in admissions over students taking single Diploma Programme courses as the completeness of the program provides an added element of rigor.

Questions concerning individual elements of the IBDP generally could not be answered by interviewees in detail as most participants only had a basic idea of the core elements of the IBDP. It was found that some individual department members also had not seen a recent IB course description for their discipline or were much more familiar with the AP Program in their subject area. Seeing this as the case, conversations were continued about how IB might inform universities better about their programs, and university officials offered various ideas including clarification of higher level and standard level courses to make them more in line with university level work, reaching out to universities more (officials at UMW provided specific examples of outreach similar to how the College Board works with universities including regional conferences and periodic publications) and providing universities with an easy-to-read alignment of IB coursework tied to knowledge, skills and attributes so that faculty can easily match IB courses and examinations to university classes.

University officials were asked about the IBDP and IB students to get to their beliefs about both the IB program and IB student preparation for university-level work. Although some officials could not answer questions about the core elements of the IBDP, the fact that officials at all five universities in the study recognized the program as a rigorous course of study that students undertake to prepare themselves for university level work, showed respect for the program even if interviewees were not familiar with all elements. Regarding IB students, many officials put these students in the same category as other advanced academic students. The tenor of discussion was generally favorable about these students as they challenge themselves in high school and are often motivated to succeed in higher education.

Research Question 2

The second research question concentrated on the policies that the settings had in place for IB higher and standard level coursework and for recognizing the IB Diploma prior to and currently meeting the legislative policy mandate. The main question, “What policies do universities in Virginia have in place for granting higher and standard level coursework and for recognizing the IB Diploma?” and the two sub-questions “What is the officials’ rationale for these policies?” and “How were these policies developed?” were answered by university officials during interviews and found in assorted documents including policy charts and compliance reports. Policy development at universities appeared to be a complex and time consuming process, requiring various individuals to craft meaning in response to the mandate given by the Virginia legislature. For some universities, like VT, a structure was already in place for reviewing IB and AP policies so

when the Virginia law was passed in 2010, university officials only had to review the memorandum provided by SCHEV and make sure that their existent policy was in compliance. For others, like VCU, the existence of the 21-hour common core influenced policy development as university officials worked to ensure compliance with the law but also maintain the structure they have worked very hard to create for students. At UMW, the focus on creating policy was geared towards creating a Diploma policy and recognizing the rigor of the IBDP, while still working within UMW's governance structure. William and Mary used their faculty governance structure to review the IB and AP examinations and decided to issue some IB standard level credit while VSU created IB and AP policy charts for the first time in response to Code of Virginia § 23-9.2:3.8.

As the interviews were conducted, it became clear that Virginia's universities are fiercely independent in their policy development. Each university has its own structure for developing policy and no two IB and AP policies are exactly alike. There are similarities between universities in terms of cut scores and accepted examinations but no university in the research study developed their policy in exactly the same manner.

A theory for university policy development. As mentioned in Chapter 2, Kingdon's (1995) multiple streams model was useful to explain the development and the passage of Code of Virginia § 23-9.2:3.8. However, as the universities worked to comply with the Virginia statute, creating IB and AP policy and working within existing university structures required a process of sensemaking, a process that:

Involves the ongoing retrospective development of plausible images that rationalize what people are doing. Viewed as a significant process of

organizing, sensemaking unfolds as a sequence in which people concerned with identity in the social context of other actors engage ongoing circumstances from which they extract cues and make plausible sense retrospectively, while enacting more or less order into those ongoing circumstances (Weick, Sutcliffe, & Obstfeld, 2005, p. 409).

Daly (2010) maintained the individual university officials had the autonomy to develop credit policies in their own ways as all the institutions in that study had different structures of governance and policy development. This was again confirmed through the research study as each setting had unique policy development structures and employed different sensemaking techniques (Weick, 1995; Weick, Sutcliffe & Obstfeld, 2005) to make sense of the mandate required by the Virginia legislature and create policy in accordance with the statute.

University officials at the study institutions used sensemaking where those at the institution employed perception, interpretation, and action to build policy and make meaning from the requirements handed to the university from SCHEV (Datnow & Park, 2009). In the case of Code of Virginia § 23-9.2:3.8 the construction of IB and AP policies was a complex process because it required coordination with various university offices to produce a final result. As Hall & McGinty (1997) noted, policy development is subject to conflict. “While actors may share collective intentions in some situations, in other contexts resistance by others can also affect the achievement of goals...actors may differ on ends, means to ends, and the distribution of rewards” (Hall & McGinty, 1997, p. 443). Those in power have the ability to shape the message, including what is to be valued and

what might be discounted. In universities, those in positions of leadership can shape the message sent out and can also frame policy making and interpretation by a Board of Visitors (Datnow & Park, 2009).

Although VSU was in a different place in terms of policy development from the other research study universities, university officials still turned to sensemaking as the policy theory in developing the policies for the University. As one of the properties of this theory is that it is “enactive of sensible environment” (Weick, 1995, p. 30) university officials produced policy according to the environment of which they were a part. Because VSU enrolled fewer IB and AP students than other institutions in the research study, the university previously had an ill-defined policy and students presented scores to the relevant departments for credit. With the enactment of the Virginia law and the University’s desire to attract more IB and AP students, the university was moved to act, worked in the environment that they faced and created a policy which reflected both the statute’s requirement for compliance and the university’s desires (Weick, 1995).

Whereas the rationale for individual credit policies varied depending on setting and on individual departments, decisions were made based on the content of the curriculum, assessed material, and potentially what connections that material had to undergraduate coursework. Some decisions, such as where credits might count or fit within a student’s program, were made because departments were unwilling to take responsibility for the credits, leaving the credits in an elective position where the credits would count towards a student’s degree total but not count towards a major or minor. This was true at VCU in the case of TOK.

The mechanisms for the development of policies at the settings ranged from faculty committees to departmental review to one person taking on the compliance with the Virginia statute. This showed the range of variation at the Virginia public colleges and universities and the strong independence of the Commonwealth's higher education system. There was no one-size-fits-all model at the Virginia study universities and the universities found methods that worked for them. Even within those systems, however, the settings still had people unaware of IB standard and higher level coursework. This problem is one that still needs to be addressed for IB credit to be decided accurately.

Research Question 3

The third research question focused on the influence of the statute on recognition of IB and AP in Virginia. The main question, "Has implementation of the Virginia law influenced university recognition of IB and AP in Virginia? If so, how?" and the three sub-questions "Are senior university officials familiar with the requirements of the law?", "What impact has the law had on the attitude of senior university officials toward the two programs (AP and IB)?" and "How has the law influenced universities' policies regarding credit for IB courses and the IB Diploma?" attempted to get to the issue of comparability between the two programs (AP and IB). Those who advocated for the Virginia law originally argued that it was necessary because students were not being recognized for IB examinations and the IB Diploma at Commonwealth universities. Regarding this research question, however, it is not possible to determine how the Virginia law has influenced university recognition in Virginia as no Commonwealth university tracks their credit awards for any program (AP, IB, dual enrollment, or Cambridge). Despite this, there have

been clear changes to the IB policies at all five study universities from the time that Code of Virginia § 23-9.2:3.8 was passed in 2010 and compliance was required by May 31, 2011.¹⁴

At all of the study institutions, all officials interviewed were generally familiar with the requirements of the law. Because of the overarching policy at VT (38 credits for the IB Diploma and AP/30 credits for IB Diploma Programme course subjects), some faculty interviewees were less clear about the IB Diploma policy but could accurately speak about their own subject matter. They also were aware they had to evaluate their disciplines for the Cambridge Examinations which had been added to Code of Virginia § 23-9.2:3.8 and was not part of this research study.

Regarding attitudes of university officials, the Virginia statute was clearly seen as an IB law as most officials spoke about IB during interviews. In terms of policy development, however, AP was also adjusted as cut scores and examination credit were changed over the course of the review year by some institutions in the research study¹⁵. For example, at UMW, two AP examinations were added over the policy review year and at VCU, the cut scores for AP were lowered to a three (previously VCU's AP examinations were split between a three and a four depending on examination; only two now require a four). Further, W&M officials discussed pulling AP syllabi as part of their review but decided to keep their credit the same, and VT faculty engages in an annual

¹⁴ Please see Appendix A for a listing of all five study universities and their IB policy development pre- and post- May 31, 2011.

¹⁵ Please see Appendix A for a listing of all five study universities and their AP policy development pre- and post- May 31, 2011.

procedure where they can revisit credit awards for AP and IB. Also, since VSU did not have any policy charts for AP or IB, the provost's special designee did have to complete a review of AP in order to create VSU's first AP and IB policy and comply with the Virginia mandate. Despite officials' perceptions of the law as an IB mandate, officials did engage in a review of AP as well.

Code of Virginia § 23-9.2:3.8 has definitely influenced universities' policies regarding credit for IB courses and the IB Diploma. Of the study universities, UMW and VCU have instituted IB Diploma policies under the statute. Virginia Tech, which had an existing IB Diploma policy, reaffirmed their policy during the compliance year. Virginia State, which previously did not have any defined credit charts, now gives credit for 18 higher level IB courses and 12 standard level IB courses and W&M which only previously gave IB higher level credit has instituted a policy that extends credit for eight standard level courses.

Overarching Themes

Throughout the research study, several themes were apparent in the interviews. These themes continued to emerge during data analysis and university officials' quotes often touched upon them in Chapter 4 in the individual case study narratives. As with many pieces of law, there are two sides: the policy makers who create the law and those who have to implement the law. With Code of Virginia § 23-9.2:3.8, it was clear that the university officials who had to create the policy in response to the Virginia statute had various views about the directive from the legislature. This theme and four others are discussed in the following sections.

There was a continuum of views expressed about the Virginia statute. Credit for IB and AP examinations was seen by most university officials as an academic matter and not something that the Virginia legislature should be mandating. It was not that university officials were opposed to giving credit but manner in which Code of Virginia § 23-9.2:3.8 was passed and given to some universities was considered inappropriate by some university officials and even called “meddling in what should be the faculties of individual colleges and universities” by one university official. When the original bill which created Code of Virginia § 23-9.2:3.8, SB 209, was passed in the Virginia Senate, it passed with no opposition. Further, when the bill was voted on in the House of Delegates, it passed with a vote of 96-0-3. The following year, Senate Bill 1077, which corrected some of the language in Code of Virginia § 23-9.2:3.8 also passed with similar numbers.

This idea does cut both ways, however. In Virginia, the Governor proposes a biennial budget which gives an appropriation to public higher education (McDonnell, 2011). The legislature has to approve that budget. The public higher education institutions set their annual tuition rates based on the amount of money that they receive from the Commonwealth each year. In some ways, university officials do mind the legislature as the legislature gives them part of their operating budget. The question is: Should the universities get to pick and choose what the legislature should get to mandate? If AP and IB credit is a public question and the legislature chooses to take it up, then should the universities at least consider the question since the legislature is partially

funding the public universities? Or, do university officials believe that the legislature should simply fund the public university and not expect anything in return?

One university in the research study does need to be noted as an exception. Officials at VSU considered the law necessary for their institution and one official called it a “gift.” Virginia State, however, was in a different situation policy-wise from the other institutions in the study and looked at the Virginia statute as requiring the University to do something that had been previously overlooked. Either way, in the case of Code of Virginia § 23-9.2:3.8, there were a range of views expressed and depending on institution, officials thought there were different reasons for the statute. Since the statute has been in effect, another examination program, the Cambridge International Examinations (commonly known as A-levels), have been added and the Commonwealth universities have now been required to develop policies to accept these credits as well.

Higher education governance is complex and credit policies may not need governing board approval. When university officials were asked what they wanted to change in the Virginia statute, most officials wanted to change the requirement to have policies for AP and IB approved by the governing boards of the higher education institutions. This requirement, although probably seen by policy makers as a way to put some kind of an official stamp on university AP and IB policies, was seen by those at the colleges and universities as extremely cumbersome and in some cases, outside of the governance structure of the institutions. At VT, for instance, their overarching policy of 38 credits maximum for students with an IB Diploma or AP credit and 30 credits maximum for students with IB Diploma Programme course subject work would need to

go to their Board of Visitors should officials at VT decide to change those numbers. The individual subject credit under that overarching policy would never have to be approved by the Board of Visitors within VT's current governing structure but because of the way Code of Virginia § 23-9.2:3.8 was written, VT had to reaffirm their existing policy and their existing charts for the 2011-2012 academic year. Similarly, at W&M, credit policy would never have gone to their Board of Visitors for approval. Except for the Virginia law, it would have stopped at the educational policy committee and then gone to the registrar for inclusion in the next year's catalog. Faculty governance there is extremely robust and once faculty reviewed the relevant documents, it did not need another approval.

All five institutions in the research study have different mechanisms for policy development and board approval. Of those universities included in the study, only UMW's governing board had approved their IB/AP policy prior to the Virginia's statute's compliance deadline of May 31, 2011. All other universities approved their policies after the deadline. It should also be noted that depending on institution, governing boards meet only a few times a year (approximately five) and each university has a different procedure and structure for their governing board.

As each university has a different structure for faculty governance and how they might approve credit policies, each university also has a different configuration for their Board of Visitors. By way of example, the W&M Board of Visitors also conducts business relating to Richard Bland College, Virginia's only junior college and affiliated with W&M. In addition to hearing from committees and discussing legal and personnel

matters, some Board of Visitors also find the need to table agenda items to the next meeting causing delays. It is possible that the reason that governing boards did not approve credit policies prior to the compliance date was for this very reason. It is more likely that this requirement to have the governing board approval in the first place was shortsighted by policy makers as the intent was there to put an official stamp on the IB and AP credit policies but there was a lack of understanding about the inner workings of not only the higher education arena but the mechanisms used at universities to create and approve academic policies such as these. Official procedures such as a Board approval, although well-intended, slowed up enactment of these policies and perhaps created more frustration for those who were charged with creating and implementing the IB and AP policies. For any future legislative efforts regarding examination credit, approval by the Board of Visitors should not be required as it only frustrates those creating the policies and is outside of the governance structure of the Virginia universities.

The culture of the institution shaped the policy development. While completing the research study, it became clear that the five institutions of higher education (VCU, UMW, VT, VSU, and W&M) were each very different from one another and that the individual culture of the institution drove the policy development. Further, at some institutions, individuals also influenced policy development as they influenced the culture of the institution. Because of the existence of the 21-credit common core at VCU, students who receive IB or AP credit may miss one or more of the Focused Inquiry classes at VCU and thus start these courses with a group of students that has already formed a bond in a previous course. This may present a problem for a new

student just adjusting to campus but VCU has not changed the policy situation because 1) they are committed to the common core and 2) they do not have enough seats in their classes at this time should they deny IB and AP credit in English and require students to take all of the courses in the Focused Inquiry sequence. Finally, it was more important to officials at VCU that students be able to read and write effectively and if they were proving this through IB and AP credit or through the taking the full Focused Inquiry sequence the officials at VCU believed that they were meeting their objectives.

At UMW, however, the structure for policy development was very different. Because UMW had clear documentation about which committee (Academic Affairs) should take up the charge received from the Virginia legislature, UMW proceeded to have that committee review the IB policies for the university. The result for UMW was the creation of the IB Diploma policy and the elimination of the cap on IB credits.

Virginia State University was in a very different place from the other four study institutions. Prior to the Virginia statute, the university simply published on their website and in university documents that students could receive credit for IB and AP examinations once they submitted scores to VSU but there were no specific charts detailing examinations, specific cut scores, or equivalencies for Virginia State work. Since VSU did not see many IB or AP students (less than 15 IB transcripts were received in 2010 and only 259 AP exams were received in 2010), the provost designated one person to create a policy in order to comply with the Virginia statute. The university hopes to use the policy not only to meet the requirements of the statute but to also recruit IB and AP students to VSU's campus and looked towards this goal in creating the policy.

If this goal is successful, university officials hope that faculty might get involved in policy development. Time will tell if VSU officials will get their wish but it will take admissions efforts and a concerted effort by the leadership of the university to make sure VSU officials in the field are actively looking for and recruiting the students the policy was written to attract. At VSU, those interested in attracting AP and IB students to the institution influenced the policy development.

At VT, the faculty annually has an opportunity to review and change IB and AP course credit policies. Some of the science subjects have separate credit policies for majors and non-majors and each of these policies can be reviewed annually and in time for the next cohort of students. Each department has the freedom to set their own credit policies and there is not a uniform mechanism university-wide for reviewing credit aside from when a new examination or a change is discovered. In that situation, a syllabus and the relevant books are requested from IB or the College Board and then sent to the relevant department but once the examination reaches the department level, each department may have its' own structure for reviewing credit and it may come down to one person making a decision or a committee making a decision.

The College of William and Mary took a more collaborative approach with their faculty in the policy development process. Because W&M has an extremely strong faculty governance structure, faculty reviewed the IB and AP credit policies over a couple of months before making decisions that led the College to offer IB standard level credit for the first time. Previously, W&M had only offered higher level IB credit but

after the credit review, decided that credit for eight standard level examinations was appropriate. Most American universities provide higher level IB credit only (Daly, 2010).

The idea of comparability was understood differently by university officials, policy makers, and other stakeholders. This idea of comparable credit in Code of Virginia § 23-9.2:3.8, specifically outlined in section B of the statute as: “Each public institution of higher education's policies for course credit for standard and higher level International Baccalaureate examinations shall be comparable to its policies for granting course credit for Advanced Placement examinations” (*Virginia Acts of Assembly*, 2011) was understood by university officials to mean that policies for both IB and AP examinations should be developed and reviewed in the same manner. However, this was actually not the intended idea of the policy makers who developed the law and those who advocated for the statute (B. Bassett, personal communication, June 4, 2012). In the eyes of Senators Barker and Puller, those at IB, members of the Mid-Atlantic Association of IB World Schools, as well as many parents and students, the idea of comparability was one of equity. This would mean for AP examinations that receive the minimum cut score of a three, the same subject IB examinations should also receive the same minimum cut score which in the case of IB would be a four. In some instances IB and AP are treated equally but generally AP examinations are set at lower minimum scores (generally a three) throughout the Commonwealth with a five generally being required for IB examinations.

Another point on the equity issue is the question of which IB examination should be treated comparable to AP examinations. For most of the Virginia universities, if they

are treating the two examinations equally, it is the higher level IB examinations and often the standard level examinations require nearly the top grades on the IB scale (six or seven). As noted in Chapter 1, a standard level IB examination is the culmination of a one-year, 150-hour IB course that can only be taken in the final two years of high school while a higher level IB examination is the culmination of a two-year, 240-hour course that is again, taken only in the final two years of secondary school. Advanced Placement examinations are generally one-year courses and students may take AP courses at any grade level. Individual schools determine AP prerequisites.

At the study institutions, the College of William and Mary generally does treat IB and AP equally for most examinations although again, they use the IB higher level examinations. At W&M, students can receive credit or exemption for IB higher level examinations generally with a score of a five while most AP examinations require a score of a four for exemption and five for credit. With the standard level IB examinations which W&M is only offering for the first time in the 2011-2012 academic years, scores range from a five to a seven for exemption and/or credit (College of William and Mary, 2011).

UMW, on the other hand, decided that an AP score of a three is equivalent to an IB higher level examination score of a five (University of Mary Washington, 2011b; 2012). With UMW's IB Diploma policy, it is possible to receive IB standard level credit should a student not receive 15 credits from their higher level examinations but there are no set cut scores for IB standard level examinations and this would be decided for a student on a case-by-case basis, meaning one subject might be equivalent and one might

not be. At VT, however, there are three subjects on the IB side that fare better. For the IB higher level chemistry, Chinese, and economics examinations, VT requires the minimum IB score of a four for credit while requiring a score of four on the AP side (one above the minimum). The university also gives credit for several examinations on both each side which do not have a match on the other (Virginia Polytechnic Institute and State University, 2011a, 2011b). Virginia Tech's current policy only allows students who earn the IB Diploma to get credit for one IB standard level examination. Although Virginia State does recognize several additional examinations on the IB side, many of their cut scores are slanted more favorably towards AP and as with most institutions where they are comparable to AP are with their higher level credit. The one notable exception to this is music where AP credit is not offered and both higher level and standard level credit for music is given to students for a score of four (Virginia State University, 2012).

The idea of comparability as used in the law is an interesting issue. The university officials who participated in the research study felt that as long as they employed the same procedure to review both IB and AP they were in compliance with the Virginia statute but to the other stakeholders the idea of comparability meant a completely different thing and a meaning to one individual or one group of individuals is not necessarily the same to another. Further, the subtleties of the levels of comparability as demonstrated above with issue of cut scores and the different IB examinations highlights another issue with the problem of comparability: a two year course is simply not the same as a one year course but changing the mindset of universities is difficult, especially through legislative mandates. The question then becomes how it would be best to get the

Virginia universities to make the changes required by the Virginia statute as a Diploma policy was also required and not all institutions have enacted one.

University officials perceive advanced academic students favorably. Although many university officials could not separate IB and AP students during interviews, the general tenor of responses about these students was positive and included adjectives such as “proactive” and “goal-driven.” Other officials noted that students in both programs had “passion” and “showed initiative.” Both programs are viewed as challenging curricula that students undertake to prepare for university coursework. Where officials could not separate IB and AP students from students who take other advanced programs, dual enrollment, or honors courses, this might be attributed to the fact that those individuals responsible for policy development did not come in close contact with these students but spoke about impressions instead. Further, Coates et al. (1997), International Baccalaureate (2003) and Daly (2010) all noted the value of IB students on university campuses. Tarver (2010) also found this true of both AP and IB students. The fact that university officials perceive these students favorably shows respect for these programs (IB and AP) and the skills they develop in students.

Recommendations

As this research study is completed, a few recommendations are offered to policy makers and university officials. These are based upon the emerging themes of the research study as well as things learned while conducting interviews. Recommendations are also offered to those at IB so that relationships could be developed between university officials and the IB organization.

If policy makers wanted compliance, there should be consequences for non-compliance. One of the problems with Code of Virginia § 23-9.2:3.8 is there is no enforcement clause in the statute. If a university does not comply with the law, there are no consequences except the fact that students have to forego IB and AP credit or individually pursue credit for their examinations on their own at the Commonwealth's institutions. Although the 15 public universities in Virginia were required to turn in compliance reports to the State Council of Higher Education for Virginia (SCHEV) regarding their compliance with the law, this was a simply reporting act and the form of these reports varied greatly.

For a policy to have any effect there needs to be repercussions for non-compliance. If one did not pay taxes, surely there would be consequences. If Code of Virginia § 23-9.2:3.8 had been tacked on to an appropriations bill and money was tied to compliance surely those with university programs at stake would have found a way to review the necessary documents. No one wants their program discontinued or put in danger, however, when Code of Virginia § 23-9.2:3.8 was written, this was the one flaw. Those considering a law like this in the future or in another jurisdiction should consider the question: What happens if an institution does not comply with the law?

University officials should strive to make sure those who are responsible for policy decisions have access to relevant information. One of the findings of the research study was that there were still department officials unaware of IB higher and standard level coursework. Because of this finding, university officials should make sure that those in departments have the information necessary to make informed policy

decisions. IB provides access to subject guides, exam marking schemes, and other documents through an account with a secure access password, however, as individuals leave or transfer positions, others may not always know about the resources (B. Poole, personal communication, February 14, 2012).

Department officials can often best decide what skills and knowledge match up to courses at a particular institution but it very hard to do that when the information is lacking or nonexistent. Without IB subject guides or other documents, it is extremely difficult to translate what in one IB course matches up to in a college course and ultimately, it is the students who lose out. Providing officials with access to these documents or providing them with information about how to request information from IB regarding subject area documents and course guides is paramount to making good credit decisions.

International Baccalaureate should work to foster relationships with the universities in Virginia and elsewhere in the United States. IB should work to develop relationships with university officials more. Although the IB Americas Global Centre is based in Bethesda, Maryland, and is now only a short distance from many of the universities that participated in the research study, university officials expressed a lack of knowledge about IB. This might take some time on behalf of the IB organization but IB might consider reaching out to university officials to make them aware of changes in subjects, provide seminars about assessment, and educate officials about the core elements of the Diploma Programme as well as the differences in higher and standard level examinations.

Although IB has the College and University Recognition Task Force (CURT), this is a voluntary group and only meets a few times a year. Any outreach executed well could potentially benefit students in terms of recognition and credit. The IB organization has also University Relations Manager. This individual might want to consider outreach not only focused towards university admissions personnel but also those in registrar and faculty roles as this study found that depending on institution those individuals do also make decisions concerning college and university credit policies.

Ideas for Future Research

There are three possibilities that could be suggested for further research. The first centers on quantifying the number of credit awards at Virginia institutions, the second revolves around tracking students from advanced academic coursework, and the third looks at the IB recognition landscape. The following suggestions are not listed in any particular order:

1. The first possible study would be to complete a quantitative study of the number and type of credit awards over a span of time at Virginia institutions. As no institution currently tracks credit awards for either AP or IB, it would be a valid question to explore how much credit universities are awarding to students and for which examinations. Further, it would be of interest to study how many students are being awarded credit under the new Diploma policies available in the Commonwealth.
2. The second possible study focuses on tracking students from advanced academic coursework (AP and IB) as they start university coursework. As few

studies exist in this realm and none exist in Virginia, a study tracking these students and university performance in beginning college-level courses could answer questions regarding college readiness, perceptions about university life and college credit from the student's point of view. A study that tracks grades could also provide the universities with quantitative data that they could use to make credit decisions based upon how students are doing in beginning coursework.

3. A third study might look at the IB recognition landscape. As there are 18 states that currently have university recognition laws of some kind or another a study might review the policy similarities they share. Is there common language that benefits students and teachers? What are the conditions in the United States that make university recognition legislation necessary?

Final Thoughts

When Code of Virginia § 23-9.2:3.8 was passed by the Virginia legislature in 2010, those who advocated for the law thought it would mean that IB students in the Commonwealth of Virginia would no longer have to argue for the IB credit that they worked so hard to earn. The idea of comparable policies, however, interpreted differently by the universities, policy makers, and the IB community may be the hardest point to overcome as cut scores are unequal and two-year higher level examinations are still compared to one-year AP examinations. New rights take time and there have been gains. Several universities in the Commonwealth give significant standard level credit to students and a few have an IB Diploma policy on record. That is not to say more work

cannot be done. Those who make policy and who advocate should attempt to work with the universities. The universities should also attempt to reach out to IB more than they have in the past. International Baccalaureate also needs to reach out to university faculty and others who create policy. The concluding thought on Virginia statute is that over the next couple of years there will be additional movement regarding IB credits at Virginia universities as other institutions review credit, institute Diploma policies, and react to students. The Virginia statute is in effect and without another legislative mandate to repeal it, it will remain law.

APPENDICES

APPENDIX A – TRACKING OF STUDY UNIVERSITIES

Table 6: Dissertation Universities Pre and Post Compliance

Institution	IB Policy Pre Compliance	IB Diploma Policy Pre Compliance	AP Policy Pre Compliance	IB Policy Post Compliance	IB Diploma Policy Post Compliance	AP Policy Post Compliance
College of William and Mary	Typically, a score of 5, 6 or 7 on a HL IB exam will earn a student credit and/or exemption. No SL credit. 23 exams eligible. Languages could earn exemptions with a score of 4.	None listed	Typically, a score of 4 or 5 on an AP exam will earn credit or exemption. 35 AP exams were eligible.	Higher level exams generally require a 5 to receive credit although some need a 6 or 7. Computer science, chemistry, English, music and modern language A and B SL tests get credit with scores of 6 and 7. Classical language SL gets credit for scores of 5-7. Found in course selection guidebook 2011-2012.	None stated	Some 4s but a lot of 5s for credit. 4s gets exemptions in some cases. 35 AP exams eligible.

Institution	IB Policy Pre Compliance	IB Diploma Policy Pre Compliance	AP Policy Pre Compliance	IB Policy Post Compliance	IB Diploma Policy Post Compliance	AP Policy Post Compliance
University of Mary Washington	Currently only accepts HL scores of 5 or higher. No SL credit.	None listed	3 or better on all AP examinations.	UMW will give credit for 38 HL exams with scores of 5 or higher. No SL credit.	UMW will now grant a minimum of 15 transfer credit upon matriculation to an IB Diploma student. Awarding credits for the IB Diploma recognizes the rigor and the scope of the IB program. Most IB Diploma students will have some credit awarded from scores on the HL individual tests. If those credits do not add up to 15, then UMW will award the difference as IB Diploma elective credits. These elective credits will not apply to the major or Gen-Ed requirements. A minimum of 15 transfer credits would count towards the overall total required for graduation.	UMW gives credit for 40 different AP examinations with scores of 3 or better.

Institution	IB Policy Pre Compliance	IB Diploma Policy Pre Compliance	AP Policy Pre Compliance	IB Policy Post Compliance	IB Diploma Policy Post Compliance	AP Policy Post Compliance
Virginia Commonwealth University	17 HL courses get credit at a 4, other HL courses get credit at a 5; 3 SL courses get credit at a 4, 18 SL courses get credit at a 5, 1 at a 6.	None listed.	About half 3s, other tests 4s	VCU standardized their credit. HL courses require a 4 for credit while SL classes require a 5 for credit. Latin HL can get credit with a 3.	Students with the IB Diploma will receive 3 credits for TOK as long as they get a C. Listed as UNIV 291 at VCU.	Mainly 3s for credit. One of the Computer science exams and the economics exam are exceptions with 4s.
Virginia State University	VSU recognizes the IB diploma or individual IB courses. Advanced standing and credit for those courses may be granted if the student scores 3-7 on the HL exams and 4-7 on the SL exams. No chart prior to law.	None listed.	VSU granted credit for AP courses. Students needed to send scores from the College Board and the university required a 3 or higher. No chart prior to law.	18 HL courses receive credit with mixed scores. Some HL courses can receive credit with scores as low as a 4 (music, theatre, some languages). Others need a 5. 6 SL courses receive credit (music needs a 4, others need 5 or higher)	None stated.	16 AP exams are getting credit some with 3s and others with 4s – pretty split.

Institution	IB Policy Pre Compliance	IB Diploma Policy Pre Compliance	AP Policy Pre Compliance	IB Policy Post Compliance	IB Diploma Policy Post Compliance	AP Policy Post Compliance
Virginia Tech	Maximum of 30 hours if diploma is not earned. HL courses: 4s required for credit. SL courses: 6s required for credit.	With the IB Diploma, credit is awarded for HL courses based on scores in the HL Credit Table. Credit for only one SL course is awarded if a 6 is earned. Credit is awarded for TOK with a C or higher and Extended Essay with C or higher. Maximum of 38 hours may be awarded.	3s or better.	<p>37 HL exams receive credit with scores of 4 or higher.</p> <p>29 SL exams receive credit with scores of 6 or higher.</p> <p>A maximum of 30 credit hours may be earned for IB Diploma Programme course students.</p> <p>Credit for individual exams vary by department – See individual charts on website.</p>	With the IB Diploma, credit is awarded for Higher Level (HL) courses based on minimum scores shown in the HL Credit Table. Credit for only one Standard Level (SL) course is awarded provided a minimum score of 6 is earned. In addition, credit is awarded for TOK with a grade of C or higher and Extended Essay with a grade of C or higher. A maximum of 38 hours may be awarded.	38 AP exams receive credit. Some require 3s, others 4s.

APPENDIX B – VIRGINIA ACTS OF ASSEMBLY -- 2010 SESSION

CHAPTER 598

An Act to amend the Code of Virginia by adding a section numbered 23-9.2:3.8, relating to course credit for International Baccalaureate and Advanced Placement courses.

[S 209]

Approved April 11, 2010

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 23-9.2:3.8 as follows:

§ 23-9.2:3.8. Course credit; International Baccalaureate and Advanced Placement courses.

A. The governing boards of each public institution of higher education shall implement policies to grant undergraduate course credit to entering freshman students who have successfully completed one or more International Baccalaureate or Advanced Placement courses. The policies shall:

1. Outline the conditions necessary for the institution to grant course credit, including the minimum required scores on examinations for courses in the International Baccalaureate or Advanced Placement programs; and

2. Identify the specific course credit or other academic requirements of the institution that the student satisfies by successfully completing the diploma program.

B. Each public institution of higher education's policies for course credit for standard and higher level International Baccalaureate courses shall be comparable to its policies for granting course credit for Advanced Placement courses.

C. The governing boards of each public institution of higher education shall report to the State Council of Higher Education for Virginia the policies adopted and implemented pursuant to this section, and shall make the policies available to the public on the institution's website.

APPENDIX C – VIRGINIA ACTS OF ASSEMBLY -- 2011 SESSION

CHAPTER 157

An Act to amend and reenact § 23-9.2:3.8 of the Code of Virginia, relating to International Baccalaureate and Advanced Placement courses.

[S1077]

Approved March 15, 2011

Be it enacted by the General Assembly of Virginia:

1. That § 23-9.2:3.8 of the Code of Virginia is amended and reenacted as follows:

§ 23-9.2:3.8. Course credit; International Baccalaureate and Advanced Placement examinations.

A. The governing boards of each public institution of higher education shall implement policies to grant undergraduate course credit to entering freshman students who have successfully ~~completed~~ taken one or more International Baccalaureate or Advanced Placement ~~courses~~ examinations. The policies shall:

1. Outline the conditions necessary for the institution to grant course credit, including the minimum required scores on examinations for courses in the International Baccalaureate or Advanced Placement programs; and

2. Identify the specific course credit or other academic requirements of the institution that the student satisfies by successfully completing the *International Baccalaureate* diploma program.

B. Each public institution of higher education's policies for course credit for standard and higher level International Baccalaureate ~~courses~~ examinations shall be comparable to its policies for granting course credit for Advanced Placement ~~courses~~ examinations.

C. The governing boards of each public institution of higher education shall report to the State Council of Higher Education for Virginia the policies adopted and implemented pursuant to this section, and shall make the policies available to the public on the institution's website.

APPENDIX D – SCHEV MEMORANDUM



COMMONWEALTH of VIRGINIA

Andrew B. Fogarty
Interim Director

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
James Monroe Building, 101 North Fourteenth Street, Richmond, VA 23219

(804) 225-2600
FAX (804) 225-2604
www.schev.edu

To: Chief Academic Officers of Virginia Public Higher Education Institutions
From: Joseph G. DeFilippo, Director of Academic Affairs
Subject: Implementation of Code of Virginia § 23-9.2:3.8. *Course credit; International Baccalaureate and Advanced Placement courses*

As discussed at the September 10th IPAC meeting, I am writing to follow up on the implementation of Code of Virginia § 23-9.2:3.8 (SB 209 in the 2010 General Assembly), which places certain obligations on public institutions of higher education with regard to their policies on the awarding of college credit for International Baccalaureate and Advanced Placement courses.

§ 23-9.2:3.8 requires institutional governing boards to implement policies that “grant undergraduate course credit for successfully completing International Baccalaureate (IB) or Advanced Placement (AP) courses.” These policies shall satisfy the following requirements:

- Each institution shall outline conditions necessary to grant IB and AP credit, including minimum required scores on examinations for courses.
- Each institution shall identify the specific course credit or other academic requirements of the institution that the student satisfies by successfully completing the diploma program.
- Policies for granting credit for standard and higher level IB courses shall be comparable to those for AP courses.
- Governing boards shall report adopted policies to the State Council of Higher Education and publicize such policies on the institution’s website.

If you have not done so already, please institute a process this academic year to review existing policies, identify any revisions necessary to comply with the above requirements, and secure governing board approval of the final policy or policies. To satisfy the reporting requirement of the legislation, institutions should submit to SCHEV documentation that includes the following components:

- A. The policy or policies that have been developed to satisfy provisions of the legislation delineated above.
- B. Attestation that (i) the policy or policies have been approved by the governing board in satisfaction of the legislation, and (ii) they are available on the institution’s website.

C. Brief description of the review process that was employed to develop the policy or policies, including criteria used to ensure that IB and AP credit-granting policies are comparable.

Please submit information comprising A, B, and C at your earliest convenience, but in any case by *May 31, 2011*, to:

Dr. Carmen Johansen, Senior Associate for Academic Affairs
State Council of Higher Education for Virginia
James Monroe Building
101 N. 14th St.
Richmond, VA 23219
carmenjohansen@schev.edu

The above memo was sent to all Virginia provosts about the 2010 legislation and provided guidelines for the changes that needed to be made to university policies.

APPENDIX E – SEMI-STRUCTURED INTERVIEW GUIDE

Most of the interview guide below was used with officials at universities in a policy making capacity. The sections on perceptions of IB students and department policies were used with those university officials who were in departments and had input in credit policies.

Regarding the Virginia Statute:

1. What is your understanding of the Virginia IB/AP law?
2. Please describe the processes your university went through to comply with the recent Virginia IB/AP statute.
3. What is your understanding of the phrasing in the law that says “*policies for course credit for standard and higher level International Baccalaureate courses shall be comparable to its policies for granting course credit for Advanced Placement courses*” (Virginia Acts of Assembly, 2010)?
4. How do you feel about university recognition legislation/laws in general? Are there benefits to recognition legislation? Downsides?
5. Would you have changed anything about the Virginia recognition statute? If so, what?
6. What do you think was the impetus for the Virginia statute?
7. What would be your ideal IB policy?
8. What would be your ideal AP policy?

Regarding Credit and Recognition for IB and AP:

1. What kind of credit or recognition does your university offer for IB examinations?
2. What kind of credit or recognition does your university offer for the IB Diploma?

3. Could you tell me how policies for IB are developed at your university? What are the rationales for these policies?
 - a. Probes: Who is responsible for changes? How often are policies reviewed? What is the structure? Does faculty read syllabi? Who determines cut scores? How?
4. Could you tell me about credit or recognition your university offers for AP examinations?
5. Could you tell me how policies for AP are developed at your university? What are the rationales for these policies?
 - a. Probes: Who is responsible for changes? How often are policies reviewed? What is the structure? Does faculty read syllabi? Who determines cut scores? How?

Regarding Perceptions of the IBDP and IB Students:

1. What are the qualities that make IB students attractive or unattractive to your institution? (Strengths) Unattractive?
2. Do you feel that the IB Diploma provides students with any specific advantages at university? If so, what advantages?
3. Do students who take IB Diploma Programme courses have any specific advantages over students who have never engaged in any advanced coursework? Can you identify specific strengths?
4. What weaknesses, if any, can you see in how the IBDP prepares students for undergraduate study? The IB Diploma? IB Diploma Programme courses?
5. Could you please comment on the strengths and weaknesses of the of the following characteristics of the IB Diploma as preparation for university coursework:
 - a. The Theory of Knowledge course
 - b. 150 hours of Community Action and Service (CAS)
 - c. The 4,000 word extended essay
 - d. The various in-depth subject requirements

For Faculty Involved in Credit Review:

1. Can you please explain the process of credit review and approval in your department?
2. Does faculty read syllabi as part of credit review? If so, how often? Which faculty members are involved in this process?
3. Why might IB and AP scores for similar courses at a university be different? Can you explain how these decisions are made and what they are based on?

Miscellaneous Information

1. Are there programs and/or activities (i.e. extracurricular) at your institution that might be especially suitable to IB students given the nature of the program they have completed?
2. Are there programs and/or activities (i.e. extracurricular) at your institution that might be especially suitable to AP students given the nature of the program they have completed? Other advanced academic groups?
3. How can IB better inform the university about its programs?

APPENDIX F – RESEARCHER PERSPECTIVE

I started this study with eight years of experience as an IB Language A teacher and more than three years of focused study of the IB and university recognition. In addition, during my eight years teaching IB Language A, I was responsible for students in their final year of high school and was involved with them in the college application process. Being in a Virginia secondary school, I also became acquainted with the various universities in the state (public and private) and this gave me an understanding of the standards these universities required in the area of advanced coursework. In 2009, I also completed a doctoral internship at IB's Vancouver office, the office previously designated by IB to work on university recognition issues and also the office which handled IB examination transcripts and communications with universities. The Vancouver office closed in December 2011. At that office, I worked on several projects including writing a feasibility brief for what a full-scale North American university perception study of the IBDP would entail and how it might be accomplished. This internship and the contacts at IB that I made as a result of my time there helped me greatly in continuing my research as work in the area of university recognition is scarce and having access and good relations with the various people at IB offices around the world made getting information much easier.

In addition to completing an internship at IB's office in Vancouver, I was also fortunate to complete another doctoral internship at the University of Bath in the UK

where I met Professor Jeff Thompson. Thompson, a former academic director of the IB, worked on the 2003 UK university perception study and has been a tremendous help to me in providing information not in the original document. He is also responsible for much of my knowledge about the British university system with the exception of the UCAS tariff system.

Additionally, I work as a college partnership consultant for the Mid-Atlantic Association of IB World Schools and this position has allowed me to gain access to some of the universities that I used for my study. My position as the college partnership consultant for the Association required me to contact all the Virginia public universities in 2010 to offer them information about the IBDP on an as-requested basis as universities prepared IB and AP policies in compliance with the Virginia law. The potential biases associated with this position and the current study have been outlined. I have been careful in my role with the Mid-Atlantic Association of IB World Schools, always disclosing that I was a doctoral candidate at George Mason as well as a researcher in the proposed study area, and careful to provide information only, noting that ultimately it was a university's decision what policy they would implement when it came to the Virginia statute. I should also note that several universities in the Commonwealth did not respond to any attempt from the Mid-Atlantic Association of IB World Schools to discuss IB credit at their institutions. In addition to working with Virginia universities over the last year, I also worked with the Association in another state to attempt to get a university recognition bill passed during 2011 (the measure was eventually withdrawn) but witnessed firsthand the methods that universities and their agents use to oppose such

actions. In getting the bills introduced and then preparing for meetings and hearings, I was in contact with the state senator and his legislative aide, providing research and advice regarding wording and recognition in the United States and in other parts of the world.

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CURRICULUM VITAE

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