Defining Postsecondary Degrees In The 21st Century

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ABSTRACT

The competition for jobs in the 21st century is increasingly being driven by defining postsecondary learning in light of new and complex environments. To succeed, students must be prepared with knowledge to compete in these environments. Historically, higher education has defined these requirements in their own terms, often through learning outcomes specific to a course, degree or discipline. Given the recent attention toward the accountability of postsecondary education in the United States, a challenge facing our colleges and universities is defining the learning in a common language that is transparent and easily understood by all stakeholders regardless of a degree. The Lumina Foundation's (2011) Degree Qualification Profile (DQP) is one way to accomplish this through five learning areas. This article will discuss how one institution adopted the DQP in the School of Professional Studies and quantified the five learning areas and meaning of its degrees. This study will discuss how three programs (undergraduate and graduate) identified and categorized the five learning areas of the DQP in the degrees, quantified the results, and used them in the assessment process for continuous improvement.

Keywords: Defining Degrees; Postsecondary Degrees; Degree Qualification Profile; Student Learning Outcomes

INTRODUCTION

Colleges and universities face a number of daunting challenges in the 21st century. As the cost of higher education escalates, there is greater demand from various stakeholders that the product deliver an appropriate return on investment. These stakeholders are varied and diverse and include policymakers, accreditors and their agencies, employers, government agencies, and most importantly, the students themselves.

Employers want graduates who are prepared for the demands of the workplace and expect institutions of higher learning to prepare them. Government regulators chafe at the default rate of student loans and question whether colleges and universities are worth the cost. Accreditors also put pressure on institutions but are sometimes more concerned about record keeping and graduation rates. Finally, the student spends 4 or more years and tens of thousands of dollars and is likely the most bewildered about whether it was all worth it.

Traditionally, colleges and universities have placed great importance on measuring their effectiveness. This has generally been done under the auspices of some type of learning assessment. Learning assessment can take place at just about any level: an individual course, a program or major, or at the school or university level. Institutions take learning assessment quite seriously and spend significant resources in training, staff and faculty hours, and outside consultants in an attempt to get it right. For universities, collecting some form of learning outcomes data is a growing component of institutional assessment and a route for institutional self-improvement (Douglas, Thompson & Zhao, 2012).

In the United States, and throughout the world, interest in measuring learning outcomes at all levels of education has merged over the past decade. In higher education, "learning outcomes" are viewed by many stakeholders, including lawmakers and advocates of new and more expansive accountability regimes, as a method to measure the value added, and to a large extent the quality and effectiveness of colleges and universities (Douglas et al., 2012).

The value of a college education is not primarily economic. The experience, skills, and knowledge students develop all contribute to the breadth of knowledge necessary for their individual growth and responsible citizenship

(Committing to quality, 2012). It is understood that granting degrees and credentials are essential for institutions of higher learning, however, students do not just need credentials; they need skills and abilities. The global economy, and a democratic society, increasingly demand that credentials signify the highly developed knowledge and skills that higher education purports to deliver (Adelman, Ewell, Gaston, & Schneider, 2011).

The procedure for determining success in these outcomes has generally been allocated to some form of assessment. But, while institutions are serious about learning assessment measures, many have questioned if what is being measured are the appropriate learning concepts. Large institutions of higher learning especially find change, and adapting to it, quite difficult. We face a system of assessment that has been subject to slow incremental change, to compromise, and to inertia (Boud & Falchikov, 2007).

If traditional assessment measures and procedures do not always accomplish the desired goals, what can be done? We cannot discontinue the process of assessing what our students are learning. Measurements and assessments are important indicators of success and are necessary in the higher education arena, but improving our methods should always be the goal. Are we assessing the appropriate outcomes? Is there a better way to measure students' abilities to cope with an ever more challenging and competitive world?

One of the more recent trends in measuring learning assessment is the Degree Qualifications Profile, or DQP (Adelman et al, 2011). The DQP describes student performance appropriate for each degree level through clear reference points that indicate the incremental and cumulative nature of learning. Traditional learning assessment measures have emphasized what students have learned or what they should know. The DQP maintains this important aspect but adds the potentially more important element of what a student should be able to do, and is useful for the Associate's (AA or AS), Bachelor's (BA or BS) and Master's (MA or MS) levels. It also works across all areas of degree specialization.

While not the originators of the concept, the Lumina Foundation has been the driving force behind the DQP and its acceptance among higher education stakeholders. It has partnered with numerous public and private educational groups as well as universities and accrediting agencies to bring the DQP to the forefront of assessment in higher education. Included in this group, among others, are the Association of American Colleges and Universities (AAC&U), the National Institute for Learning Outcomes Assessment (NILOA), and the Western Association of Schools and Colleges (WASC). These groups working together have beta tested the DQP in over 400 colleges and universities in 45 states (Adelman et al, 2011).

The DQP measures what students can actually do, not just what they have learned. This makes it extremely useful for course development as it invites evidence about student proficiency in a way that keeps faculty judgment firmly in control (Adelman et al, 2011). There is general agreement about the desired outcomes of undergraduate education. This broad consensus includes the development of appropriate levels of knowledge and skills; the ability to integrate and apply knowledge to a variety of problems; and the acquisition of intellectual and social habits and dispositions in preparation for productive, responsible citizenship. Various individuals and groups representing business and education have issued sets of preferred outcomes. Perhaps best known are the Essential Learning Outcomes promulgated by the AAC&U's Liberal Education and America's Promise (LEAP) campaign (Jankowski, Hutchings, Ewell, Kinzie, & Kuh, 2013). The DQP aligns well with the competencies promulgated in LEAP.

While the DQP may not be the magic bullet or panacea for all the problems besetting the process of learning assessment, it does attempt to address some of the shortcomings by measuring real-world competencies. The DQP defines proficiencies in ways that emphasize both the cumulative integration of learning from many sources and the application of learning in a variety of settings, it offers benchmarks for improving the quality of learning (Adelman, Ewell, Gaston, & Schneider, 2014).

The DQP also lends itself to the process of tuning as good as, or better than, any other form of assessment. Tuning develops field-specific reference points that describe a pathway to the student's credential in the field of study while meeting the benchmarks of the DQP (Adelman et al, 2014). Internships and fieldwork, although not necessary to the tuning process, fit especially well into the process and provide valuable assessment measures. Tuning also encourages collaboration among faculty, especially cross-disciplinary collaboration.

The DQP has clearly made an impact on the learning assessment process in higher education. Hundreds of universities, various accrediting agencies, and many educational organizations are convinced of the value the DQP has to offer measuring students' abilities to remain competitive and relevant in the marketplace.

LITERATURE REVIEW

The following are organizations that have contributed to the DQP:

- Lumina Foundation
- U.S. Department of Education
- Association of Public and Land-grant Universities (APLU)
- American Association of State Colleges and Universities (AASCU)
- Association of American Colleges and Universities (AAC&U)
- National Institute for Learning Outcomes Assessment (NILOA)
- Higher Learning Commission (HLC)
- Council of Independent Colleges (CIC)

The DQP is a relatively new concept. The Lumina Foundation published its DQP in January 2011 with the stated purpose “to challenge faculty and academic leaders in the U.S. to think deeply and concretely about educational alignment” (Ewell, 2013, p.1). The Lumina Foundation was not the originator of DQP. In 2007 the equivalent of DQP was a nascent idea developed by the AAC&U, which embarked on a “national project it labeled the Valid Assessment of Learning in Undergraduate Education (VALUE)” (Rhodes, 2012, p. 39). The goal was to determine whether there was an alternative to standardized tests that could produce evidence of broader learning that all stakeholders could embrace.

In 2009, 15 teams of faculty from both community colleges and universities developed rubrics for the 15 essential learning outcomes that fit faculty learning outcomes and employer competencies, as follow (Rhodes, 2013, p. 13):

- Creative Thinking
- Critical Thinking
- Information Literacy
- Inquiry and Analysis
- Oral communication
- Problem solving
- Quantitative Literacy
- Reading
- Teamwork
- Written communication
- Civic Knowledge and Engagement
- Ethical Reasoning
- Foundations and Skills for Lifelong Learning
- Intercultural Knowledge and Competence
- Integrative and Applied Learning

The DQP, synthesized from the VALUE Rubrics, defines five learning areas: specialized knowledge, broad integrative knowledge, intellectual skills, applied learning, and civic learning (see figure 1)

Figure 1. DQP Areas of Learning with Definitions

Specialized Knowledge: Points to learning outcomes that reflect specific areas of study—the terminology, theories, tools, literature, complex problems, and methodologies that characterize the field or major

Broad, Integrative Knowledge: Transcends specific disciplines and involves students in ongoing, integrative ways in the practices of core areas ranging from sciences to social sciences.

Intellectual Skills: Encompasses 5 crosscutting competencies that should transcend disciplinary boundaries: Analytic inquiry, use of information resources, engaging diverse perspectives, quantitative fluency, and communication fluency.

Applied Learning: Focuses on what students can do with what they know as demonstrated through their addressing unscripted problems in a variety of settings, both academic and beyond, bringing together theory and practice.

Civic Learning: Requires both knowledge and a commitment to action and relies on student's out of classroom experiences and capacity for analysis and reflection

Source: Lumina Foundation. (2014). The degree qualifications profile: A learning-centered framework for what college students should know and be able to do to earn the associate, bachelor's or master's degree. Retrieved on February 29, 2016, from <https://www.luminafoundation.org/files/resources/dqp.pdf>

The DQP sorts these five areas according to level of degree—AA, BA, MA. Any institution considering the adoption of the DQP can determine how its degrees complement each other by placing course learning outcomes into one of the five DQP areas of learning (see Figure 1) and then entering this data into the Lumina Foundation's software, which results in a DQP "spider web." An example from National University's degrees for AS, BS, MS Criminal Justice Administration is shown in Figure 2. The figure shows the emphasis placed on each of the learning areas for each of the three degrees. The numbers emanating from the center of the spider web indicate the number of course learning outcomes that support that learning area. With this information, a program lead could then assess if the program and course learning outcomes satisfactorily address the DQP learning areas for the student.

Figure 2. National University's DQP Spider Web for the AS, BS, and MS in Criminal Justice Administration

National Trends

Four hundred institutions and organizations in 44 states and Puerto Rico are working with the DQP in some form. The majority of these schools are affiliated with the Lumina Foundation because Lumina has funded many projects. Nevertheless, a growing number are exploring DQP on their own (Jankowski et al., 2013), and that is where National University currently finds itself, providing the impetus for us to write this research paper.

Figure 3 shows the various degrees of involvement by participating colleges and universities.

Figure 3. Institutional Use of the DQP
Adapted from Jankowski et al. (2013)

Discussion and Vetting of DQP	*145
Review and Clarification of Learning Outcome Statements	126
Assessment of Student Learning	121
Curriculum Mapping and Revision of Curricula	117
Accreditation.....	98
Program Development and Review.....	81
Transfer and Articulation.....	78
Strategic Planning.....	41
Number of Institutions and Organizations	
*National University Involvement	

Note: Jankowski et al. 2013 (p. 9) displayed a chart similar to the one above in which they used a bar chart. We converted this bar chart to the actual numbers of participating agencies to more accurately show National University's participation level for the DQP.

DQP Example of Cooperation Between 2-Year and 4-Year Institutions

So far our paper has presented background information on the DQP. Where recently has the DQP been tested? In 2013 two universities in the University System of Georgia (Georgia State University and Georgia Perimeter College) experimented with the implementation of the DQP. In order to determine transfer student success, two system institutions— what was then Georgia Perimeter College (GPC, a 2-year community college and Georgia State University (GSU), a 4-year research university—collaborated to explore the DQP proficiencies at AA and BA degree levels. Specifically, this project was a partnership between these two institutions which were chosen because more students transfer from GPC to GSU than any other university and in 2013 there were 6,000 former GPC students attending GSU (Kinzie, 2014). Interestingly, GPC is now a campus of GSU.

Three disciplines were chosen because of their high number of transfers: biology, psychology, and criminal Justice. The goal was to have faculty from all three disciplines at both institutions collaborate and establish common DQP learning outcomes between the two institutions, and generate mechanisms for assessing the DQP and evaluating the strengths and weaknesses of individual students. The overarching goal was to build a revised system-wide core curriculum founded on the DQP's five proficiencies in order to improve college completion rates of transfer students. Key to this overhaul was to ensure that first-year and sophomore offerings at the two institutions were compatible so that the transfer process was seamless so that completion of the 2-year degree at GPC automatically resulted in completion of 2-years at GSU (Kinzie, 2014).

The next phase of this project was to assess whether the DQP provided a better measurement of transfer success versus the traditional system, which looked at grade point average (GPA) and other metrics. As of the penning of this paper, anecdotal evidence is the only evidence because the final phase of this project has not been published. For example, the criminal justice faculty member from GSU's criminal justice program, Michael Shapiro, commented, "We need more two-year students to graduate from the four-year program in criminal justice and it is essential that faculty work to make this happen." (Kinzie, 2014, p. 8).

Historical Background of University Courses and Accreditation

As all university faculty know, the sacred cow of course design and approval has been and still is the credit hour. The credit hour has existed for over a century. It was borne out of the industrial assembly line and preferable as standard when the Carnegie Foundation for the Advancement of Teaching promoted it. The credit hour signals the purported combination of time spent in class plus the time spent outside of class learning course specific material (Schneider, 2012).

The credit hour has served a useful purpose; but after a century through which many changes have occurred in higher education, is it time for a shift away from the credit-hour foundation? For example, online courses have very little synchronous, direct classroom contact between the instructor and student, and faculty who teach online classes confirm that student learning in online classes may be superior to onsite classes, which the credit hour favors. Is it time for a change? Is the DQP the answer? The answer, still being judged by experts, is possibly.

The Degree Qualifications Profile and Tuning

The DQP encourages individual institutions to define learning outcomes appropriate to the degrees it offers regardless of discipline. Tuning involves collaboration with faculty and perspective employers to define appropriate outcomes for courses. Bringing in employers to add their desired learning outcomes is an idea that makes sense and should have been incorporated long ago. This concept stresses the importance of advisory committees made up of working professionals in the field who can add substance to DQP learning outcomes. Tuning can be equated to using the five DQP proficiencies and synthesizing them into specific course learning outcomes (Adelman et al, 2014).

The Components of Tuning

Tuning consists of five elements by which participants identify what students earning a degree in a discipline should know and be able to do. The process grows from the assumption that faculty should be determining the discipline's essential learning. Tuning brings together faculty and employers to:

1. Identify essential learning.
2. Map career pathways.
3. Consult stakeholders.
4. Hone core competences and learning outcomes.
5. Implement locally (Lumina Foundation, n.d.,¶ 4)

Example of Tuning for the Bachelor of Science in Criminal Justice

Bachelor's Level, Specialized Knowledge. As the first police officer to arrive at the scene of a robbery with no civilian injuries, you are expected to do several tasks in sequence. List these five tasks in proper order giving the details of each task.

Bachelor's Level, Broad Integrative Knowledge. You have been asked as a community policing officer to attend a meeting of a neighborhood watch group comprised mostly of Hmong immigrants who have recently experienced several graffiti writings that express a hate bias. You want to make sure you are able to make a connection with this group that will establish their trust in you and the police department. Explain how you will research and compile information about the Hmong ethnic group and its culture. What will you include in your presentation?

Example of Tuning for the Bachelors and Masters of Science in Homeland Security and Emergency Management

Bachelor's Level, Intellectual Skills. As a member of a joint task force you are asked to participate in a team that is analyzing a terrorist threat against a high school. List the five stages of a team.

Master's Level, Intellectual Skills. You have been asked to lead a Critical Incident Management organization in response to a hurricane disaster in Charleston, SC. List five steps you would take as the leader of the team to develop a collaborative environment between your organization and the national and local disaster relief agencies supporting the greater Charleston community.

Not All Faculty, Colleges and Universities Are Convinced

We will end this literature review by pointing out that not all colleges and universities and faculty are believers in the proposed DQP. Earlier in this article, we noted that some 400 colleges and universities were at one of various stages of exploration or adoption of the DQP. According to the U.S. Department of Education, National Center for Educational Statistics (2015), there are 4,706 degree-granting 2-year and 4-year institutions in the U.S. Therefore, less than 10 % of U.S. colleges and universities are currently considering the adoption of the DQP. The DQP is relatively new and represents a paradigm shift in higher education. Understanding the challenges, Lumina has set 2026 as its target date to get full or approximately full implementation of the DQP.

Meanwhile, Stephen Pollard (2014), a professor at Truman State University, a public liberal arts university located in Kirksville, Missouri, wrote an erudite article in which he bemoaned the concept of professors as tubes through which curriculum is delivered to students. He used the term “toxic metaphors” (p. 79) as a vague description of the DQP. Certainly Professor Pollard’s concept cannot be discounted, especially by a liberal arts professor teaching courses in philosophy, for example. What would Plato or Aristotle think about the DQP?

METHODOLOGY

The methodology for our study was a survey sent to former National University graduates who had taken and completed the capstone course in one of the three programs being analyzed in this study: Bachelor of Science in Homeland Security and Emergency Management, Bachelor of Science in Criminal Justice Administration, and Master of Science in Criminal Justice Administration. The survey distribution and management was done by the National University Institutional Research (IR) Division. IR mailed 380 questionnaires to 380 alumni who were selected from capstone classes from January 2013 to July 2015. There was no attempt to select students randomly from these classes as we did not believe a random selection was necessary for this research. IR received 46 completed questionnaires: 19 from BSCJA students, 15 from BSHSEM students, and 12 from MSCJA students. The percentage of returned questionnaires was 12.1%. The students were selected based on having completed the capstone courses for one of these three programs. The capstone course in each of the three programs is a research project in which the students choose a research topic, formulate hypotheses, test their hypotheses, and present their findings in a 4-chapter (undergraduate) or 5-chapter (graduate) research paper. The capstone course is the last the students take and leads to graduation. The sample of 380 former students is considered to be a nonrandom purposive sample.

We chose to send the survey questionnaires to these students because they would be the most knowledgeable about the program learning outcomes for these three programs and the resultant data would indicate whether we were able to compare NU program learning outcomes (PLOs) to DQP principles. We chose not to conduct a random sample because the population was small, and we anticipated that there would be a low return rate. This was predicated on the generally low return rate of all surveys sent to alumni by IR.

The following are research questions that we hoped to answer from the survey results:

1. Would adapting the DQP in lieu of the traditional program learning outcomes result in a more accurate measure of the learning outcomes than the one-sentence program learning outcomes that have been the mainstay for assessment at NU?
2. Can the DQP be a legitimate replacement for PLOs for assessment purposes?
3. Will NU’s accrediting agency, WASC, accept DQP as a replacement for PLOs?
4. If the findings show student approval of DQP, will this change the attitudes of a skeptical faculty?

A sample questionnaire is found in the Appendix. The first three questions on each questionnaire were fashioned to correspond to the Specialized Knowledge segment of the DQP. Questions 4-6 were designed to correspond to the Broad Integrative segment of the DQP. Questions 7-10 were fashioned to correspond to the Intellectual Skills segment; 11-13 correspond to the Applied and Collaborative Learning segment; and finally questions 14 and 15 correspond to the Civic and Global Learning segment.

SPSS was used as the statistical package to analyze the results from the 46 returned questionnaires. Specifically Factor Analysis was chosen as the statistical method for analyzing the data. This statistical method is advocated by academic researchers for analyzing Likert scale data as we have gathered for this study:

Factor Analysis is a technique based on how well various items are related to one another and form clusters or factors. Each factor represents several different variables, and factors turn out to be more efficient than individual variables at representing outcomes in certain studies. In using this technique, the goal is to represent those things that are related to one another by a more general name, such as a factor. And the names you assign to these groups of variables called factors are not a willy-nilly process—the names reflect the content and the ideas underlying how they might be related. (Salkind, 2011, p. 300)

The next section of the paper will discuss in detail the findings from the data using the SPSS Factor Analysis statistical program.

FINDINGS AND RESULTS

This section of the paper will display the findings in three sections: BSCJA, BSHSEM, and MSCJA. The findings in each section are the results of entering the Likert scale data into the SPSS statistical program Factor Analysis.

BSCJA Factor Analysis Data

There are various methods of displaying the Factor Analysis data; for simplicity, we have chosen to use only the Communalities table because it is the most intuitive. In the first column are the questions asked on the three questionnaires reduced to a “variable” by truncating the essential heart of the question. These were the “variable view” in SPSS. The “data view” (not displayed) were the scores obtaining using the 5-point Likert scale. The Initial column can have a value of 0 to 1. The Extraction column is the most important for interpreting the data. The values in this column indicate the proportion of each variable’s variance that can be explained by the retained factors. Variables with high values are well represented; whereas, variables with low values are not well represented. BSCJA variables are highly correlated as all of the values are approaching 1.000 (see Table 1).

Table 1. Factor Analysis of BSCJA Questionnaire Data

Communalities		
Variable	Initial	Extraction
Practical Knowledge	1.000	1.000
Investigate Crime	1.000	.970
Group Counselor	1.000	.991
Other Academic Fields	1.000	.981
Global Issues	1.000	.999
Contribute to Humanities and Arts	1.000	.984
Think Critically	1.000	.995
Digital Media	1.000	.998
Write and Talk Intelligently Current Issues	1.000	.987
Other Cultures and Ethnic Groups	1.000	.998
Work Collaboratively with Others	1.000	.986
Analyze New and Unfamiliar Problems	1.000	.973
Lead Group and Prepare Report	1.000	.998
Integrity Honesty and Character Development	1.000	.980
Challenge Own Beliefs	1.000	.999

BSHSEM Factor Analysis Data

Table 2 shows a similar distribution to Table 1. Even though three of the variables fell below .900, any Extraction score above .500 is considered significant.

Table 2. Factor Analysis of BSHSEM Questionnaire Data

Communalities		
Values	Initial	Extraction
Practical Knowledge	1.000	.990
Emergency or Disaster Plan Review	1.000	.663
Risk Assessment	1.000	.948
Broad Education and Insights into Other Fields	1.000	.733
Enlightened me to Global Issues	1.000	.978
Understanding Contribution to Humanities/Arts	1.000	.951
Think Critically	1.000	.967
Research Problem Using Digital Media	1.000	.868
Write/Talk Intelligently About Current Issues	1.000	.981
Better Understand Other Cultures/Ethnic Group	1.000	.962
Disaster Response/Terrorism Task Force	1.000	.962
Analyze New and Unfamiliar Problems	1.000	.989
Lead Group and Prepare Report	1.000	.995
Integrity Honesty Character Development	1.000	.995
Challenge Own Beliefs	1.000	.973

MSCJA Factor Analysis

Table 3 again displays results with high Extraction scores, indicating very significant correlations among the variables.

Table 3. Factor Analysis of the Data Obtained from the MSCJA Questionnaire

Communalities		
Variables	Initial	Extraction
Theories of Practice and Applied Knowledge	1.000	.999
Complete a Major Criminal Justice Project	1.000	.991
Leadership Using Foundational Theories	1.000	1.000
Broad Education/Insights Into Other Fields	1.000	.994
Awareness of Global Issues	1.000	.991
Contribution of Humanities and Arts	1.000	.983
Ability to Think Critically	1.000	1.000
Research Problems Using Scholarly Sources	1.000	.995
Write/Talk Persuasively About Current Issues	1.000	.994
Better Understanding of Other Cultures/Ethnic	1.000	.987
Work Collaboratively with Others	1.000	.997
Analyze New and Unfamiliar Problems	1.000	1.000
Lead Group and Prepare a Report	1.000	.992
Integrity, Honesty, Character Development	1.000	.982
Foundation to Resolve Problems at all Levels	1.000	.987

t-Test for Independent Samples

The final SPSS statistic that was used is the t-test for independent samples. The t-test was used because we were interested in finding out if there was a difference in the average scores of one or more variables between the three groups. The groups were independent because the students responding to the questionnaires were different/separate for each discipline—BSCJA, BSHSEM, and MSCJA.

As Table 4 indicates, with degrees of freedom of 14 and $p < .001$, there is very little chance that the difference in scores between the three groups was due to something other than group membership, in this case being graduates from NU's BSHSEM, BSCJA, or MSCJA. Therefore, we are very confident that the answers the students gave represent their opinions and that this is independently true for each discipline.

Table 4. One-Sample *t*-Test for Independent Samples from the Data Obtained: BSCJA, BSHSEM, MSCJA

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
BSHSEM	80.508	14	.000	4.34533	4.2296	4.4611
BSCJA	69.099	14	.000	4.08333	3.9566	4.2101
MSCJA	77.453	14	.000	4.33333	4.2133	4.4533

LIMITATIONS

There were limitations to our study that we would like to acknowledge. The sample size was not as large as we would have preferred. To some extent, this sample size limitation was due to the vagaries of dependence on alumni returning questionnaires. Therefore, we acknowledge that the results of our study probably lacks external validity. We do not propose that the results can be generalized to other universities which may be considering the adoption of the DQP as National University is currently considering. We also acknowledge that extending our survey to both full-time and adjunct faculty may have yielded additional empirical data that could have been compared with the results obtained from former students. Nevertheless, we believe that our findings indicate and are to some extent supported by the questionnaire results. This limitation of not including faculty in the survey process indicates that additional research is needed which would include faculty in the survey process. Because the vast majority of universities in the U.S. have not incorporated DQP, more extensive research is needed to provide more evidence that DQP is an efficacious means of assessment.

CONCLUSIONS

The results of the research suggest that the perception of the students is that they have a strong understanding of the live learning areas of the DQP based on their course work. This conclusion is supported by the factor analysis where all of the variables in the three programs had an extraction greater than .6000 (the recognized level of significance). All but three of the variables had extractions that were greater than .9000. The students' perceptions were also supported by the traditional assessment measures used by the university to measure course and program learning outcomes. From the findings one can suggest that the five learning areas of the DQP are incorporated into the learning outcomes of each of the three programs. As a result, when faculty discuss these programs, they can discuss the student learning experience from both the discipline and general learning competency perspectives.

The goal of this research was to attempt to evaluate if the learning areas of the DQP could be evaluated in the three programs. The results suggest that evaluations can be made. Although this is only preliminary research, the data suggests that the language of the DQP can be adopted and incorporated into a broader discussion of the meaning of the degree. It also suggests that it can supplement traditional discussions of assessment.

RECOMMENDATIONS

Based on the research, the following recommendations are provided:

Recommendation One

This research study was based on a small sample of undergraduate and graduate students which provides for limited generalizability of the results. However, given the findings, it is recommended that further study be conducted with a larger sample population to better understand the perceptions of the learning areas by students and the generalizability of applying it to course and program learning outcomes.

Recommendation Two

This research evaluated the perceptions of students who completed their capstone or senior projects and did not attempt to disaggregate the student population by such factors as age, gender and ethnicity. It is recommended that further study be conducted on the perceptions of the learning areas by disaggregated populations.

Recommendation Three

Similar to Recommendation Two, the research did not disaggregate the sample population by teaching environment. For example, it did not disaggregate the data by students completing their programs in the online learning environment or in the traditional classroom setting. The researchers recommend further study in this area to better understand how the DQP learning areas may be impacted by the learning environment.

IMPLICATIONS

Implication One: Based on this research, one can suggest that evaluating the student perceptions of the DQP learning areas can be useful in assessing learning. For example, as previously discussed, Table 2 identified three areas of the BSHSEM program that received extraction scores less than .9000. From this information, a curriculum developer could review the program to see how to improve the students' perception of their understanding of the three areas. This could be incorporated into the overall curriculum assessment process for the continuous improvement of the program.

Implication Two: Evaluating academic programs through the learning areas of the DQP may also have marketing and transfer implications. By using the language of the DQP, institutions may be able to better promote their programs to students. For transfer students, it may provide better articulation of course-to-course transfer credit which could lessen the repeating of unnecessary course work; and support more timely degree completions.

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APPENDIX A**NU DQP QUESTIONNAIRE—BSCJA, MSCJA, BSHSEM****Specialize Knowledge**

1. Your NU BSCJA courses so far have stressed practical knowledge in the field of criminal justice.

Strongly Agree	Agree	Don't know	Disagree	Strongly Disagree
5	4	3	2	1

2. If I were required to investigate a major crime scene right now, I believe what I have learned at NU would provide me with the knowledge to this efficiently.

5	4	3	2	1
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3. If I were a group counselor at a California Youth Authority institution, I would know the foundational theories of juvenile delinquency that I learned at NU that could help me be successful.

5	4	3	2	1
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Broad, integrative Knowledge

4. My courses here at NU, to include my general education courses, have provided me with a broad education that has given me insights into other academic fields and their importance to success as a criminal justice employee or future employee.

5	4	3	2	1
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5. My courses here at NU have enlightened me regarding global issues that are important to know as a criminal justice student.

5	4	3	2	1
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6. My courses here at NU have stressed the importance of understanding the contribution of the humanities and the arts and how this knowledge is important for a criminal justice major.

5	4	3	2	1
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Intellectual Skills

7. My courses here at NU have provided me with the ability to think critically about controversial issues, to apply mathematical skills that I did not formerly possess, and to speak-up in conversations where I would not have done so before.

5	4	3	2	1
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8. My courses here at NU have provided me with the skill to research a problem using various digital media (Google, Google Scholar, NU Library, etc.) in order to give me data to make an informed decision.

5	4	3	2	1
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9. My courses here at NU have given me the foundation and confidence to write or talk intelligently about currently issues in criminal justice or other social science fields.

5 4 3 2 1

10. My courses here at NU have provided me with a better understanding of other cultures and ethnic groups and their importance in making up the pluralistic society that America is today.

5 4 3 2 1

Applied and Collaborate Learning

11. If I were working as a police officer, correctional officer, or other criminal justice professional, for example, the courses I have taken at NU have prepared me to work collaboratively with other employees.

5 4 3 2 1

12. If I were working in any position in the criminal justice field, the courses I have taken at NU have prepared me to analyze new and unfamiliar problems and address this problem successfully.

5 4 3 2 1

13. If I were working in any area of the of the criminal justice system, and I was placed in charge of a group that was tasked with researching an institutional problem, I could lead this group and prepare a report of a solution to this problem.

5 4 3 2 1

Civic and Global Learning

14. The courses I have taken at NU have prepared me to be a better citizen from the standpoint of integrity, honesty, and character that can be expected of a graduate of a major U.S. university.

5 4 3 2 1

15. The courses I have taken at NU have given me the foundation to challenge my own beliefs, whatever they may be, of the current state of political rhetoric, social justice, environmental issues and economic issues at the local, national, and global levels.

5 4 3 2 1