Humber
INSIGHTS

Faculty Perspectives on
Diploma-Degree Pathways and Student Preparedness

ONCAT Project 2017-35

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Executive Summary

Funded by the Ontario Council on Articulation and Transfer (ONCAT), this study investigated faculty perspectives on students' academic preparedness and social adjustment, as well as their views on the effectiveness of pathways in supporting student's academic goals and the college's enrolment objectives. The research focused on three intra-institutional, diploma-degree pathways and combined interviews, an online survey and an analysis of student grades to address the research questions.

Faculty perspectives on pathway students' academic preparedness and social integration is important because of the role that they play in promoting these opportunities and influencing student experience. The associate deans, program coordinators and faculty that participated in this study recognized the value of pathways in meeting strategic enrolment targets, improving student access to advanced credentials and enhancing students' employment prospects. They were also cognizant of the need for comprehensive curriculum mapping to ensure that pathway students acquire the appropriate knowledge and skills to ease the transfer from diploma to degree programs. Further, they recognized the value of and often took part in various strategies and events that promote pathways and orientate students to their new programs.

The pathways examined in this study were intra-institutional block transfers typically involving multiple students from the same cohort. The nature of this transition is not likely to create the same level of "transfer shock" or administrative, academic and social challenges often associated with credit transfer and inter-institutional pathways (e.g., see Decock & Janzen, 2015; Ishitani, 2008; Toblowsky & Cox, 2012).   However, faculty were sensitive to potential issues, particularly those related to the social integration of pathway students and took steps to facilitate a cohesive classroom environment.

Finally, while faculty believed that in general, students were appropriately prepared for degree studies, they also reported that pathway students were less skilled in areas such as writing, research and foundational content than their non-pathway colleagues. However, analysis of student grades and academic standing showed pathway students outperformed their colleagues in every semester.

As the first line in promoting pathways and shaping the student experience, it is important to ensure that faculty have an accurate and complete understanding of the successes and challenges associated with pathway programs and in particular, student performance.

Introduction

Research pertaining to post-secondary pathways, credit transfer and college-university or diploma-degree transfer has focused on three main areas of study: articulation agreements, standards and institutional processes to promote and support transfer (e.g., Carter, Coyle & Leslie, 2011; Tobolowsky & Cox, 2012; Young, Piché & Jones, 2017), the experiences and outcomes of transfer students including retention and academic performance (e.g., Gerhardt & Masakure, 2016; Gorman, Phelps & Carley, 2012; Ishitani, 2008; Lakehead University, 2012; Percival et al., 2016) and transfer student characteristics including those related to diversity and access (Henderson & McCloy, 2016; Kerr, McCloy & Liu, 2010; Pendelton & Lambert-Maberly, 2006; Porchea et al., 2010). There is little research which examines faculty perspectives regarding pathway students' preparedness although their viewpoints may influence both student access and experience. The purpose of this study was to gain insight into faculty:

- understanding of Humber College's intra-institutional, diploma to degree pathways;
- perceptions of pathway students' academic preparedness and social adjustment;
- views on the effectiveness of pathways in supporting student's academic goals and the college's enrolment objectives; and
- role in promoting and supporting existing student pathways.

In 2011, the Ontario government identified three goals for enhancing student pathways and mobility: to expand and improve pathways to respond to student demand; to improve transparency and access to information about pathways and credit transfer; and to support student success (Ontario Ministry of Training, Colleges and Universities, 2011). Participation by post-secondary institutions is mandatory but each can determine its own level of involvement. In addition, a governmental agency,

the Ontario Council for Articulation and Transfer (ONCAT), was established to support the achievement of these goals through research, partnerships and building system capacity.

In Ontario, research and work in the area of student mobility continues to grow but the lack of a system-wide method for tracking students as they move through post-secondary institutions and the continued approach of bilateral institutional agreements significantly hinders the development of a comprehensive and integrated pathway and transfer system. Further, research is highly institution-specific making it difficult to draw conclusions about the success of transfer and pathway processes and programs.

However, there appears to be some conclusions that can be drawn from recent research into pathways. The first is that pathways are beneficial to students by increasing access to universities and advanced credentials, particularly for under-represented or at-risk groups (Kerr, McCloy & Liu, 2010). Additionally, pathways provide students with opportunities to acquire both the practical skills associated with diploma programs and broader theoretical learning of a degree program thereby improving employment opportunities (Academica Group, 2017).

The second major conclusion that can be drawn from the research is that when compared to non-pathway students, pathway students excel academically both in terms of retention and GPA (Gerhardt & Masakure, 2016; Gorman, Phelps & Carley, 2012; Ishitani, 2008; Lakehead University, 2012). However, differences in age, maturity and experience between pathway students and incoming high school graduates often result in the formers' lack of social integration (Gawley & McGowan, 2006; Henderson & McCloy, 2016).

Methodology

This research used a mixed methods approach, combining interviews, an online survey and analysis of student grades to understand faculty perspectives on pathways and pathway students. Three of the college's diploma to degree pathways were examined. Each of the degree programs had two feeder programs which were two-year diplomas and/or three-year advanced diplomas. Table 1 below outlines the feeder and receiver programs, as well the years required to complete both credentials in the pathway. For example, 2+3 indicates the feeder diploma program required two years and the degree required an additional 3 years.

Table 1: Internal Program Pathways – Program selection based on pathway popularity

Feeder Program	Receiver Degree	Years
Police Foundations (Diploma)	Bachelor of Social Science – Criminal Justice	2+3
Community and Justice Services (Diploma)	Bachelor of Social Science – Criminal Justice	2+3
Accounting, Business (Diploma)	Bachelor of Commerce – Accounting	2+3
Accounting, Business Administration (Advanced Diploma)	Bachelor of Commerce - Accounting	3+2
Interior Decorating (Diploma)	Interior Design	2+3
Architectural Technology (Advanced Diploma)	Interior Design	3+3

Interviews. Structured interviews (see Appendix A) with associate deans, program coordinators and full-time faculty teaching in the above described pathway programs focused on their understanding of pathways, their perceptions of pathway students' academic preparedness and social adjustment, and their views regarding the role pathways play in supporting student and institutional goals. Interviews were recorded, transcribed and analyzed to identify themes within participants' responses.

Surveys. All part-time and full-time faculty teaching in any of Humber's 23 degree programs with a pathway option were invited to participate in an anonymous online survey (see Appendix B). The survey focused on perceptions of pathway students' academic preparedness and social adjustment.

Grades Analysis. To assess for potential differences in academic performance between pathway and non-pathway students and assess the alignment of faculty perceptions with data on academic performance, students' annual GPAs for core program courses and their academic standings were compared for each semester between fall 2015 to winter 2018 using t-tests, chi-squared and z-tests. Only students' in the target degree programs described above were included in this analysis.

Results

a. Participants

Interviews were conducted with three associate deans, seven program coordinators and three full-time faculty associated with the target pathway programs. Participants had an average of 12 years of experience in teaching or administration in post-secondary education with a range of four years to 32 years. Of the ten program coordinators and faculty, six taught in diploma (feeder programs) and four taught in degree (receiver) programs.

Forty-one faculty (27 full-time and 15 part-time) that taught in degree programs offering pathways participated in the online survey. Most (35.7%) had taught at Humber for 6-10 years while 30.9% had taught for more than 10 years and the remaining 33.4% had taught five years or less.

b. Knowledge and promotion of pathways

Pathways are an important strategy for increasing access to degree programs and improving student experience. Deans and faculty interviewed for this study acknowledged the importance of pathways in helping students to achieve their educational and employment goals by providing a mix of applied skills and theoretical knowledge.

> *I see a lot of value in pathways. [They are] great for students who did not have the GPA to get into the degree and needed those 2 years of content learning plus maturity and academic technique. It's great that it is offered to students.*

At the same time, some also recognized that pathways create opportunities for student recruitment and are effective in helping their programs and schools meet enrolment targets.

> *We strategically bank on [pathways] when looking at projections and our enrolment. You always can count on a certain number of transfers. We do a fair job of promoting these opportunities recognizing it's not for every student.*

When asked to identify the strategies they use to promote pathway opportunities, respondents referenced the open house, various information sessions/fairs/town halls/presentations, direct promotion to top students by faculty and program coordinators, targeted marketing materials, orientation, and the program website.

Interview participants (associate deans, program coordinators and full time faculty) were knowledgeable of the pathways associated with their programs and able to articulate the requirements for entry into the degree pathways. Survey participants (full time and part time faculty) were somewhat less familiar with the degree pathways. Specifically, of the 39 participants who provided valid survey responses, 27 (69%) were able to identify the pathways associated with their degree program; full-time faculty and faculty who had been employed at the college more than 10 years were the most knowledgeable. Specific to their own classes, most survey respondents (54.8%) were unable to identify pathway students. Of those faculty who could identify the pathway students, they reported their students often self-identified or they became aware of them through program tracking and a general knowledge of students within the cohort.

c. Perceptions of student academic preparedness

Overall, interview participants believed that pathway students were well-prepared for degree-level study, in part, because they were among the best students in their diploma programs. However, several respondents were concerned that pathway students lacked the writing, research and referencing skills as well as the theoretical foundation for degree-level study:

> *Anecdotally we hear from students that they don't feel as academically prepared as they thought they were going to be, because the writing and the research is at a different level than the diploma program.*

> *They are certainly very well versed in their diploma knowledge. For the most part they don't have as many skills connecting theoretical frameworks…which is a limitation. Sometimes there is a weakness in writing; getting the right academic sources to support statements or just the level of writing.*

Survey participants were asked to compare pathway and non-pathway students on several dimensions related to academic preparedness including the overall quality of the work, and writing, research and math skills. Table 2 summarizes their responses. Overall, most respondents reported pathway students to be equally or more prepared in most skill areas. However, similar to interview participants, over one-third identified skill gaps in writing and research, as well as their general content and foundational knowledge. Approximately one-quarter of respondents believed pathway students' overall quality of course work demonstrated less skill.

Table 2: Faculty Perceptions of Academic Preparedness

	More skilled than non-pathway students	Equally skilled to non-pathway students	Less skilled than non-pathway students	I don't know / Not applicable	Total
Quality of course work / assignments	19.0%	38.1%	26.2%	17.7%	42
Writing skills	12.2%	36.6%	34.1%	17.1%	41
Math skills	4.9%	24.4%	17.1%	53.6%	41
Research skills	16.7%	26.2%	38.1%	19.0%	42
Content/foundational knowledge	16.7%	35.7%	30.9%	16.7%	42

d. Students' Academic Performance

Analysis of students' grades indicated that faculty perceptions of pathway students' lack of preparedness is inconsistent with the data. Specifically, a semester by semester analysis of the grades of pathway and non-pathway students in the target programs shows that pathway students significantly out-performed their non-pathway colleagues in every semester (see Table 3).

Table 3: Grades Analysis
Results of t-tests comparing Student Course Grades by Pathway Status

Course Semester	Non-Pathway		Pathway		t	df
	n	Mean (SD)	n	Mean (SD)		
3	1744	75.0 (11.618)	295	78.0 (8.793)	-5.233*	486.131
4	2602	74.4 (12.832)	762	76.9 (12.765)	-4.661*	1246.158
5	2061	75.5 (12.866)	542	76.8 (11.806)	-2.121*	2601
6	2833	74.5 (12.17)	814	76.4 (10.442)	-4.343*	1505.556
7	2162	76.1 (10.619)	552	77.5 (9.074)	-3.017*	973.417
8	2149	78.6 (9.685)	584	80.1 (8.463)	-3.514*	1036.131

*significant at the $p < .05$ level.   Note. SD = Standard Deviation.

Analysis of academic standing also revealed that pathway students were significantly more likely to achieve "good standing" and less likely to be placed in a "probationary" status than their non-pathway colleagues (See Table 4 below).

Table 4: Academic Standing
Results of Chi-square (X2) and z-tests on the relationship between Student Academic Standing and Pathway Status; Fall (2015, 2016, 2017) and Winter (2015, 2016, 2017, 2018) Terms

Academic Standing	Fall Terms**		Winter Terms**	
	Pathway n (%)	Non-Pathway n (%)	Pathway n (%)	Non-Pathway n (%)
Good Standing	406 (96.7%)*	1441 (91.1%)*	452 (95.2%)*	1404 (91.2%)*
Probation	10 (2.4%)*	118 (7.5%)*	17 (3.6%)*	110 (7.1%)*
Required to Withdraw	4 (1.0%)	22 (1.4%)	6 (1.3%)	26 (1.7%)
Total	420 (100.0%)	1581 (100.0%)	475 (100.0%)	1540 (100.0%)

* z-test, significant at the $p < .05$ level   **chi-square X^2, significant at the $p < .05$ level

e. Perceptions of student social adjustment

The pathway students in this study joined their degree programs in the second or third year of the degree – well after students' social networks are typically established. While this study did not investigate the students' perspectives on their social integration, it asked faculty and associate deans about their perspectives. Interview participants reported that pathway students adjusted well to their advanced standing position but some also pointed out that social divides did exist:

> [There is] room for improvement; I see social cliques that exist with students from their previous programs. The cliques exist well into the 4th year of the degree. We've tried to integrate students more, and it is an area for improvement.

To support better social integration, faculty stated that they used group work in the classroom, encouraged pathway students to take advantage of the college's services, and organized orientation sessions to connect pathway students with non-pathway students.

Most survey respondents also viewed pathway students' social integration positively, identifying them as equally or more adjusted in terms of faculty engagement and collaborative group work, but less socially connected with their classmates (see table 5). As some faculty noted:

> It can be hard for students to integrate into classes that have already been together for two years. Our faculty in third year classes do extensive activities to increase group cohesiveness and facilitate positive group dynamics.

> Our program tends to be pretty tightly-knit as a community, which comes from the students working closely together for four years. It can be tough for pathway students to crack that, though I would say that we have observed that the higher their capabilities, the quicker and easier they integrate. Also, on engagement with faculty, we see a lower level there too, probably because they haven't had the time to establish themselves with us the same way the full degree students do. Again, maturity and capability skews this in a more positive direction.

Table 5: Faculty Perceptions on Social Adjustment

	More than non-pathway students	Equal to non-pathway students	Less than non-pathway students	I don't know	Total
Participate in collaborative/ group work	16.7%	61.9%	2.4%	19.0%	42
Make social connections with classmates	4.8%	52.4%	21.4%	21.4%	42
Engage with faculty	28.6%	42.8%	11.9%	16.7%	42

Conclusion

Faculty perspectives on pathway students' academic preparedness and social integration is important because of the role that they play in promoting these opportunities and influencing student experience. The associate deans, program coordinators and faculty that participated in this study recognized the value of pathways in meeting strategic enrolment targets, improving student access to advanced credentials and enhancing students' employment prospects. They were also cognizant of the need for comprehensive curriculum mapping to ensure that pathway students acquire the appropriate knowledge and skills to ease the transfer from diploma to degree programs. Further, they recognized the value of and often took part in various strategies and events that promote pathways and orientate students to their new programs.

The pathways examined in this study were intra-institutional block transfers typically involving multiple students from the same cohort. The nature of this transition is not likely to create the same level of "transfer shock" or administrative, academic and social challenges often associated with credit transfer and inter-institutional pathways (e.g., see Decock & Janzen, 2015; Ishitani, 2008; Toblowsky & Cox, 2012). However, faculty were sensitive to potential issues, particularly those related to the social integration of pathway students and took steps to facilitate a cohesive classroom environment.

Finally, while faculty believed that in general, students were appropriately prepared for degree studies, they also reported that pathway students were less skilled in areas such as writing, research and foundational content than their non-pathway colleagues. However, analysis of student grades and academic standing showed pathway students outperformed their colleagues in every semester.

As the first line in promoting pathways and shaping the student experience, it is important to ensure that faculty have an accurate and complete understanding of the successes and challenges associated with pathway programs and in particular, student performance. Further investigation into a wider range of pathway programs and students' academic performance is needed.

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Appendix A – Interview Questions

a. Associate Dean Interview Questions

1. Using the definition provided, what are the pathway opportunities in your program cluster?

2. How effective are pathways in helping students to reach their educational and employment goals?

3. a) As the Associate Dean, what are your perceptions of the academic preparedness of students in pathway programs?
   b) How does their preparedness compare with that of other non-pathway students?
   c) What strategies or approaches does your school use to help students meet the academic demands of pathway programs?

4. a) As the Associate Dean, what are your perceptions of the social adjustment of pathway students?
   b) How does their social adjustment compare with that of other non-pathway students?
   c) What strategies does your school use to help the adjustment process?

5. How effective are pathway programs at helping Humber, your school or programs to meet enrolment goals?

6. What strategies does your school/programs use to promote pathway opportunities?
   a. How effective are these strategies?
   b. What role do your program coordinators and faculty play in promoting pathway opportunities?

7. In general, what contributes to the success of a pathway student?

8. What more could Humber do to best support our pathway students?

b. Program Coordinator Interview Questions

1. How long have you been teaching at Humber?

2. What are the pathway opportunities to/from your program(s)?

3. Based on the definition provided, would the program(s) you currently teach/coordinate be considered a feeder program (students from your program transition to other programs after completion) or a receiver program (students transition into your program)?
   a. Which programs are feeders? Which programs are receivers?

4. How effective are pathways in helping students to reach their educational and employment goals?

5. Do you believe students in a pathway program that move to a higher credential have an advantage or disadvantage compared with non-pathway students?

   Feeder:
6. To what extent/how frequently do students in the feeder program transition into the receiver program?

   Receiver:
7. a) With regards to the feeder to receiver pathway, what are your perceptions about the academic preparedness of pathway students entering into the receiver program?
   b) How does their preparedness compare with that of other non-pathway students?
   c) What strategies do you use to help pathway students meet the academic demands of your program?

8. a) How would you describe the social adjustment of pathway students who enter the receiver program?
   b) How does their social adjustment compare with that of other non-pathway students?
   c) What strategies do you use to help the adjustment process of pathway students?

   All:
9. In general, how effective are pathway programs at helping your program/school to meet enrolment goals?

10. What strategies do you use to promote pathway opportunities?

11. In general, what contributes to the success of a pathway student?

12. What more could Humber do to best support our pathway students?

c. Faculty Interview Questions

1. How long have you been teaching at Humber?

2. What are the pathway opportunities to/from your program(s)?

3. Based on the definition provided, would the program(s) you currently teach in be considered a feeder program (students from your program transition to other programs after completion) or a receiver program (students transition into your program)?
   a. Which programs are feeders? Which programs are receivers?

4. How effective are pathways in helping students to reach their educational and employment goals?

5. Do you believe students in a pathway program that move to a higher credential have an advantage or disadvantage compared with non-pathway students?

   Feeder:
6. To what extent/how frequently do students in the feeder program transition into the receiver program?

   Receiver:
7. a) With regards to the feeder to receiver pathway, what are your perceptions about the academic preparedness of pathway students entering into the receiver program?
   b) How does their preparedness compare with that of other non-pathway students?
   c) What strategies or approaches do you use to help pathway students meet the academic demands of your program?

8. a) How would you describe the social adjustment of pathway students who enter the receiver program?
   b) How does their social adjustment compare with that of other non-pathway students?
   c) What strategies do you use to help the adjustment process of pathway students?

   All:
9. What strategies do you use to promote pathway opportunities?

10. In general, what contributes to the success of a pathway student?

11. What more could Humber do to best support our pathway students?

Appendix B – Online Survey Questions

1. How long have you been teaching at Humber?

2. What is your current teaching status?

3. What diploma/advanced diploma programs receive advanced standing in your degree program (ie., what pathways are associated with your degree program)?

4. Are you able to identify students in your class(es) that received advanced standing (ie., pathway students)?

5. How are you able to identify pathway students in your class(es)?

6. How do pathway students compare to non-pathway students on the following academic aspects:

	More skilled than non-pathway students	Equally skilled to non-pathway students	Less skilled than non-pathway students	I don't know / Not applicable
Quality of course work/ assignments				
Writing skills				
Math skills				
Research skills				
Content/foundational knowledge				

Please add any additional comments here: _____

7. How do pathway students compare to non-pathway students on the following social aspects:

	Less skilled than non-pathway students	Equally skilled to non-pathway students	More skilled than non-pathway students	I don't know / Not applicable
Participate in collaborative/group work				
Make social connections with classmates				
Engage with faculty				

Please add any additional comments here: _____

Table 1: Program expenditures per FTE per year for Bachelor's degree programs

Fiscal year	Program expenditures per FTE	Student support expenses per FTE
2014-2015	$7,230	$2,628
2015-2016	$6,737	$2,762
2016-2017	$7,102	$2,850
2017-2018	$6,916	$3,322