Self-Assessed Personal and Professional Prospects and Program Expectations of Students in Three Doctoral Cohorts

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Abstract

The purpose of this study was to determine, through a survey of students registered in the first three cohorts (consisting of 40 students) of Athabasca University's Doctor of Education (Ed.D.) program, the perceived prospects and career and personal plans of students. As they began the program, but before any program interaction had occurred, students were asked to complete an online questionnaire (included as part of this report). (Another questionnaire, completed at the end of the first year of the program, is the subject of another report.) The questionnaire asked students to assess their career prospects (career advancement and career change were known, through previous research, to be major motivations of program students), and their expectations of the program. Specifically, students were asked to state how important an outcome was, and to identify which outcomes were "critical" to their satisfaction with the program. The survey sought to determine the areas in which doctoral students already felt confidence, the areas in which they hoped they would gain greater skills or more capabilities, and the topics considered critical to their satisfaction with the program. Results were analyzed using Microsoft Excel, ATLAS.ti, and SPSS.PC. The conclusions and recommendations showed that students expected programs to provide the following: increased credibility; knowledge of the distance education literature; data-analysis and writing skills; enhanced academic prospects; opportunities to do more teaching; connections to other universities; and broad knowledge of technology developments. Also, to meet students' express expectations, Athabasca University's graduate programs (master's and doctorate) should provide a better introduction to fields (enculturation and socialization); more research opportunities through engagement with the working research community; more direct links to employment; emphasis on development of a unique professional,

academic identity; and specific research and presentation skills, especially writing. Finally, tensions were identified between the role of graduate student, and that of employee and family member, all roles of the program's adult students.

Introduction

Professional doctoral programs have grown in popularity and diversity. Professional degrees focus on preparing novices to enter a field of practice, and to become discerning users, as well as producers, of research. Athabasca University launched a doctorate in distance education, delivered totally at a distance, in 2008, and enrolled its third cohort of 12 students in mid-2010. (There are now a total of 40 students registered in the program's three cohorts, as described below.) This paper is a report of the self-assessments on entry to the program of the students in the first three cohorts, regarding their professional prospects, and their expectations of the doctoral program's impact on those prospects. Later reports will show the entry views of future cohorts, and, as they complete, how graduation impacts students' various self-assessments, as urged in the literature (Washburn-Moses, 2008).

A previous study (Fahy, Spencer, & Koole-Ady, in review) found that there was significant demand for the professional doctoral program (applications exceeded spaces in the program by a ratio of three to one in its first three years). Other findings of this earlier study:

- A survey of students on entry provided useful evidence of their present skills self-assessments, and their expectations of the program.
- Skills rated highly by students in terms of their entry skill level often tended also to be ranked high in terms of expected future learning.
- The skills rated most critical to students satisfaction with the program were: Course design, Curriculum design, Asynchronous technologies, Mobile learning, Writing for publication, Teaching/training techniques, Synchronous technologies, Research methodologies, and Writing skills.

Background literature

After summarizing a previous study of the skills self-assessments and expectations of the cohorts studied here, the focus of the following literature review will be on the rather sparse evaluation literature on professional doctoral programs, especially as related to graduates' perceived prospects and expectations.

The purpose and objectives of a professional doctorate

The Centre for Distance Education's doctorate is the EdD. Applicants are practitioners; thus, the focus of the program is more on improving practice, and producing discerning users of research, than on developing researchers (especially pure researchers). Similar to Australia's "industry ready" graduates of Cooperative Research Centres (CRCs), the Athabasca University program combines academic study with practice-oriented application, including research use (Harman, 2004; Manathunga, Pitt, & Critchley, 2009). It is intended that its graduates, like those of CRC programs, will find related employment, and report satisfaction with their program, based on its impacts on their careers and personal lives.

"Socialization," and orientation to the "culture" of the discipline, as described by Gardner et al. (2007), are elements of the program. *Socialization* is the process through which novices "acquire[d] skills, values, and habits of mind" related to their field, while *culture* is "the sum of activities in the organization" which initiate socialization. Gardner et al. concluded: "An organization's culture … teaches people how to behave, *what to hope for*, and what it means to succeed or fail. Some individuals become competent, and others do not. The new recruit's task is to learn the cultural processes in the organization and figure out how to use them" (p. 289).

The later work of Sweitzer (2009) on the professional identity development of doctoral students showed that the students' openness to socialization, and their goal orientations, were factors influencing the impact of the culture of the discipline on students. Though both studies asserted the salience of the program culture on students' growth and development, neither examined these outcomes from the students' point of view.

Conveying the culture of the profession to novices, and socializing them to distance education principles and practices in the absence of regular face-to-face contact, was a major concern of the distance professional doctoral program at Athabasca University's Centre for Distance Education. That this could be done was suggested by reports of studies of students' prior experiences and expectations. In the Gardner et al. model, *anticipatory socialization* begins before an individual makes the decision to join an organization for the purpose of becoming a senior member (it was assumed that applicants and students were in this stage). *Role continuance* begins at program completion, when the graduate decides whether and how to remain associated with the discipline in practice (for those successfully completing the program, this would be found in their status as alumni). This research was intended to begin exploration of these phenomena, in longitudinal fashion, thereby addressing the present lack of such information, a weakness in the existing literature (Manathunga et al., 2009).

Influence of prior experiences and skill levels on expectations of doctoral students: some literature

Expansion of professional doctorates has resulted in initial research about their impact in some disciplines. Reports of high levels of student and employer satisfaction with such degrees are common in the literature, especially where graduates are employed in areas closely related to their training (Lizzio &

Wilson, 2004; Yeager, Hildreth, Miller, & Rabin, 2007). At the same time, most reports also include specific suggestions for program improvements, some based on graduates' post-program experiences (Harman, 2004; Fjortfoft, 2005; Ewen et al., 2006; Tontodonato, 2006; Washburn-Moses, 2008; Adkins, 2009).

Factors affecting students' experiences subsequent to graduation include both program and personal characteristics and elements. Tobbell, O'Donnell, and Zammit (2009) reported that novices "negotiated" their academic identity while in training, through acquisition of program content (especially independent study), and through their wider social contacts, including workplaces. The needs and expectations of minority students, and gender differences, have been examined in particular (Washburn-Moses, 2007; Miller and Lambert-Shute, 2009). These studies suggest that the graduate is at least partially focused on developing personal expectations, and making professional plans for their futures.

Among personal factors, attitudes and expectations were seen as especially critical to the maturation of a professional identity. Some challenges for professional doctorates (relevant to the present study) appeared to be based on the initial skill levels of students, as well as on their varying expectations for skills growth, new skills acquisition, and eventual application of skills in actual practice. Lizzio and Wilson (2004) reported that the graduate students they surveyed valued acquisition of a wide range of competencies, rather than increased expertise in a narrow set, or deeper levels of skill in restricted areas. Skills also varied. The increasingly interdisciplinary nature of doctoral training, affecting, for example, skills in areas such as writing and presenting (Cutherbert et al., 2009; Parker, 2009), and the acquisition of the specific attitudes, behaviours, and "habits of mind" expected of doctoral candidates in certain fields (Manathunga et al., 2009; Alpay & Walsh, 2009; Kamler, 2008; Gardner et al., 2007), were reported, based on student feedback. Some studies addressed focus in doctoral programs

(Gerdeman, Russell, & Eikey, 2007; Solomon, 2009; Probst & Lepori, 2009), while others assessed graduate satisfaction (Washburn-Moses, 2008). Cumulatively, and preliminarily (due to their newness), these reports suggest that professional doctoral programs may offer different challenges from traditional doctorates, that graduates have opinions about and insights into their training which they are prepared to share if asked, and that understanding these by exploratory research may produce useful information for planners, designers, and policy-makers.

Such research is important because it appears expectations particularly affect student outcomes, especially perceived prospects. Professional doctoral studies change students' identities. Programs also make distinct demands: if the program is international (students and faculty widely dispersed), and if the students are older, challenges include balancing the demands of the multiple roles of student, family member, and employee (Washburn-Moses, 2008). Expectations also affect perceived achievement of personal goals, feelings of belongingness in the program and profession, relations with academics (especially supervisors), and the ability of students to exercise their personal learning preferences in what may be a cross-cultural training environment. Meeting expectations for an appropriate relationship with the supervisor (especially important and problematic when distance is involved), and recognition of students' needs and preferences for mentoring, also affect program impact (Okech, Astramovich, Johnson, Hoskins, & Rubel, 2006; Chapman & Pyvis, 2006). Personal characteristics (gender, marital and family status, size of employer) also affect expectations, especially vis-a-vis career plans (Delaney, 2002).

As noted above, the global growth of professional doctoral programs has increased interest in the "cultures" of programs and fields of practice, as they interact with development of the students' professional identities and expectations. Smith (2000) found that, even in a relatively mono-cultural Midwestern American college of education, there were conflicting emphases,

one vocational and the other more academic. These cultural differences tended to become more pronounced as the program became more interdisciplinary, differences that were reportedly apparent to students. Manathunga et al. (2007) reported similar differences between the goals of students and their prospective employers.

Regarding careers, some studies (Lizzio & Wilson, 2004) reported important differences between the priorities of academics and employers (employers were more interested in graduates' personal skills and attributes; p. 110), suggesting that the study of students' views would be worthwhile in the context of program content and design. Manathunga, Pitt, and Critchley (2009) tracked the perceptions of doctoral program graduates regarding future employment. Based on alumni contacts, they concluded that doctoral programs should assure graduates leave the program prepared for a range of careers.

Program type has a bearing on expectations. Specific program elements were found to be important to the impact of programs using untraditional delivery models and strategies. McPhail, Robinson, and Scott (2008) surveyed a total of 50 doctoral students enrolled in a cohort-based leadership program. Students identified positive program elements such as the cohort itself, the instructors, networking opportunities, and the curriculum. Negatives included dominating cohort members, lack of commitment to the cohort, failure to meet group expectations, use of inappropriate (often traditional) instructional methods, and inadequate facilities. Devanish, Dyer, Jefferson, Lord, van Leeuwen, and Fazakerley (2009) identified the importance of peer support, peer coaching, and study groups. The authors argued that, despite the frequent lack of special attention to and funding for these kinds of interventions, they make a direct contribution to the success of distance doctoral programs.

Besides questions based on program and student characteristics and differences, some issues in professional doctorates arose as a direct result of the fact that students

were adult learners. Leyton-Brown (2008) studied the social and legal implications of admission of students to graduate programs in Canada. His analysis, besides describing the range of programming and learner characteristics nationally in graduate programs, also raised the issue of the tension experienced by doctoral students in their roles as both students and employees. This would be especially true of programs with older students, such as the program in this study (the median age of the students in Athabasca University doctoral program studied here is 50 years).

Overall, the literature on program and learner characteristics of professional doctoral programs, including the expectations and skills of entering students, while sparse, is expanding, and appears to be evolving. Researchers have noted that the easiest phenomena to study may not be the most important to understand (Hoey & Gardner, 1999), and that research should address pertinent questions as programs are modified. Creative methods are increasingly employed (Manathunga et al., 2007; Malone, Nelson, & Van Nelson, 2004). The present study was designed to employ the views and reflections of actual program students as they enter the doctoral program in Athabasca University's Centre for Distance Education to add to our understanding of their assessment of their skills, habits of mind, and expectations. Later, the plan is that these insights will be applied to outcomes, as students leave the program.

Follow-up methodologies

While professional doctoral programs have taken various directions, and despite difference in purposes, content, and students, the views and experiences of alumni and graduates have been recognized as central elements of summative assessment (Leonard, Becker, & Coate, 2005; Ewen, Watkins, & Bowles, 2006). Although there are some insightful reports about basics, such as how students and supervisees communicate (Dow, Hart, & Nance,

2009), researchers have identified the need for examination of other processes, such as how students successfully transition to and through graduate status (Tobbell, O'Donnell, & Zammit, 2009), how they learn research skills (Wikeley, 2004; Lovitts, 2005), how they become familiar with and oriented to the ways of the discipline (Sweitzer, 2009), and development of academic and professional identities (Tobbell et al., 2009; Cuthbert et al., 2009).

Other studies looked at the personal and career-specific objectives, and post-graduate outcomes, of professional doctorates. Harman (2004) focused on employability, applying the term "industry ready" to those graduates whose training experiences, program-specific elements, and personal interests were directed outside of academia. Manathunga et al. (2009) also used this term (p. 92). In 2005, Scott studied the retention, completion, and progression rates of higher education students in Australia. He reported the levels observed in each of these areas among students with different backgrounds, providing a numerical guide to what is "typical," while also establishing that significant variation can be expected within different demographic groups. Pendleton and Sudmant's (2006) survey of over 900 graduates of UBC's graduate programs provided Canadian baseline information on graduates' places of residence, and the proportions reporting being employed in the field for which they trained.

Methods varied, and were creative. O'Connor (2008) used a modified Delphi technique with program administrators, faculty, and representatives of the field to determine the goals of an emergency management graduate program. The participants came to consensus on a list of curricular goals for master's- and doctoral-level students, indicating both that agreement existed among the participants and that the consultative method used was effective in capturing and articulating it. While this study showed that some programs systematically incorporated the views of graduates, the literature in general contains few similar

instances, suggesting that consultation with alumni during planning is not common in program development.

Sometimes evaluative research revealed weaknesses in present program provisions, including the need for fundamental change. Boud and Tennant (2006) studied the competencies needed by those wanting something between the research and academic focus of the Ph.D., and the practical alignment of professional degrees. They concluded that there was little available, and advocated that a third, interdisciplinary route be established for students who wanted something other than a professional doctorate or a research-oriented Ph.D. Presently, nothing concrete appears to have come of these suggestions.

Assessing students' abilities and expectations is often a challenge in evaluation studies. Manathunga et al. (2007) used a portfolio process to provide a structured, electronic template for planning and tracking achievements. Their RSVP tool was an attempt "to wrestle with some of [the] inherent tensions and difficulties … includ[ing] philosophical dilemmas, problems in identifying and individualizing graduate attributes, and implementation issues" (p. 21). Their inquiries led to the conclusion that intense, direct engagement with supervisors and the broader research culture of the field facilitated adoption of "disciplinary ways of knowing, thinking, acting, and being" (p. 21).

There is some attention paid in the literature to issues specific to the evaluation of distance or cohort-based doctorates. Ghezzi (2007) raised the question of distance program credibility, especially in terms of opportunities for the valuable collegial interaction common in campus-based programs. In their defense, distance programs were seen as emphasizing practical skills and relevant, applicable research over theory, and of being more attuned to actual conditions in rapidly changing fields, especially where instructors were practitioners rather than academics only.

Some evaluations have tried to assess the processes by which students become senior members of the discipline. Bromley, Boran, and Myddleton (2007) examined the baseline skills of cohort members, and tracked the evolution of these through the program. This approach used an instrument called the Development Needs Analysis (DNA), involving students in a self-assessment of present skills similar to that used in this study. A self-assessment methodology was also used in the present study.

Implications of the literature

Professional doctorates, addressing practical issues, have grown dramatically in number globally, but little systematic research has yet been done on them. A focus on practice, and mentoring by experienced practitioners, are most common. The views of employers, alumni, and recent graduates are considered in the evaluation of these programs.

Prior examination of the views of members of the present study group showed that they regarded themselves as already skilled in some areas, but that they also expected to enhance their skills in many of the same areas. Specific skill expectations appear closely related to practice, with the most important skills in the areas of learning design, delivery technologies (synchronous, asynchronous, and mobile), writing, teaching, and research (Fahy et al., 2010).

Generally, students of professional doctoral programs are older, and have more practical experience (the professional degree is rarely an entry-level credential). Students expect the degree experience to be practical and relevant to employment questions; relevance is linked to motivation. Studies using the opinions of alumni, and longitudinal studies tracking students' careers after graduation, are most commonly cited.

Graduates generally report feeling prepared by their programs and, after completion, report feeling positive about the experience. Follow-up studies show most graduates find employment related to their training. Regular suggestions for

improvement include better introduction to the field (enculturation and socialization), more research opportunities through engagement with the field's research community, more direct links to employment, emphasis on development of a professional, academic identity, and specific research and presentation skills, especially writing. Students encounter different views of the purpose of the degree, namely academic vs. practical/vocational. There are tensions between the students' role, and that of employee and family member.

The study

The present study examined the personal and professional self-assessments and expectations of the first three cohorts of students entering the Ed.D. program in Athabasca University's Centre for Distance Education. Some findings were reported previously regarding the students assessments of their technology skills, and professional skills and abilities (Fahy et al., 2010), based on data gathered in the first part of the same survey. Responses were obtained from 14 students in each of the 2008 and 2009 cohorts, and 12 students in the 2010 cohort, for a total of 40 students.

The research questions posed here were: What are the self-assessed career prospects and expectations of entering students in Athabasca University's Centre for Distance Education EdD program? And, in which of these skills is growth seen as critical to satisfaction with the program?

Results

Personal characteristics

Table 1 shows some descriptive information about the respondents. The Table shows that there were somewhat more women

in the program than men, and that nearly four of five worked in a distance-related area.

Table 1: Description of respondents

Respondents' characteristics	Cohort 1		Cohort 2		Cohort 3		Total	
	#	%	#	%	#	%	#	%
Gender								
- Female	8	57	9	64	5	42	22	55
- Male	6	43	5	36	7	58	18	45
Employment								
- DE-related area	10	71	10	71	11	92	31	78
- Non-DE-related area	4	29	4	29	1	8	9	22
Total	14	35	14	35	12	30	40	100

Present prospects

Students were asked to rate their prospects and expectations in relation to twenty-two areas of possible future personal and career development, using a scale from 1 (*none/minimal prospects, expectations*) to 5 (*high prospects, expectations*). Fourteen of the 22 skills presented were self-assessed above 3.00 on the Likert scale; the lowest rating (2.00) was for *reviewing publications*. The five prospects students were most likely to self-rate highest were (Table 3, col. 2):

1. Job responsibilities (3.83)

2. Autonomy (3.82)

3. Respect (3.70)

4. Confidence 3.60)

5. Project management responsibilities (3.58)

ANOVA was used to determine whether differences existed based on gender, cohort, or employment status. Bearing in mind that the results were skewed to the positive, as noted above, there were some differences ($p > 0.10$):

- Men were more likely to rate the following *higher*:

  - *Personal confidence* ($F = 11.32$, $p = .002$);

  - *Respect from co-workers* ($F = 3.04$, $p = .089$); and,

  - *Career change options* ($F = 3.37$, $p = .074$).

– The 2010 cohort rated its present levels of *Job autonomy* higher than the other two cohorts (F = 6.87, p = .003).

– Those employed in distance-related areas rated their promotion potential higher (F = 4.20, p = .020).

Expected skill increases

Respondents were asked to identify those personal and professional prospects they expected would increase as a result of the program. As in previous sections of the survey, all of the items were skewed to the positive (only three items were rated below 3.00; the lowest rated, *Number of supervisees at work*, received a rating of 3.46).

The following were rated highest:

1. Familiarity with the DE literature (mean: 4.80)
2. Knowledge of technology developments (4.75)
3. Credibility (4.74)
4. Autonomy (4.59)
5. Confidence (4.52)

ANOVA showed the following differences among the sub-groups (at the 0.10 level):

– Women, more than men, expected the doctoral degree to increase the *Number of their supervisees at work* (F = 3.15, p = .085), their *Data analysis skills* (F = 3.08, p = .088), and their *Connections to other universities* (F = 3.84, p = .057).

– The 2010 cohort rated two items higher in their expectations than did the other two cohorts: *Personal confidence* (F = 3.28, p = .049), and *Connections to Athabasca University* (F = 3.08, p = .058).

– Those employed in DE expected more *Salary increases* (F = 4.23, p = .047), and *Job autonomy* (F = 4.36, p = .044).

– Those not employed in DE expected the program to offer more *International connections* (F = 12.11, p = .001).

Critical prospects and expectations

In response to the request to choose all of the skills that were "absolutely critical to your satisfaction with the program," the following were the prospects and expectations that were mentioned most often:

1. Credibility (25 "critical" mentions)
2. Knowledge of the DE literature (23)
3. Data-analysis skills (22)
4. Academic prospects (20)
5. Opportunities to do more teaching, Connections to other universities, and Knowledge of technology developments (18)

Chi Square showed there were no items on which the three cohorts differed beyond the 0.05 level of confidence.

Respondents were asked to indicate the three *most critical* prospects and expectations, in the order of their criticality, from those they had already rated as *critical* to their satisfaction with the program. These ratings were weighted, to determine priority: a rating of 1 was weighted 3, a 2 was weighted 2, and a 3 was weighted 1. The skills rated highest in criticality were:

1. Credibility
2. Job responsibilities
3. Promotion potential
4. Academic prospects
5. Career change options, and Personal confidence

Clusters of skills

In order to determine where students' interests lay, and to make comparisons possible, the twenty-two skills in the survey were clustered. The following shows the skills clusters, and the items included in the clusters.

Table 2: Skills clusters, prospects and expectations

Cluster	Survey items
Job-related:	Job responsibilities
	More promotion potential
	Career change options
	Salary increases
	Job autonomy
	Number of supervisees at work
Personal status:	Credibility
	Personal confidence
	Respect of co-workers
Opportunities, experiences:	Prospects for an academic career
	Opportunities to do more teaching
	Connections to other universities
	Connections to Athabasca University
	Professional groups, associations
	International connections
	Experience reviewing journal submissions
	Connections with classmates
New skills:	Knowledge of technology developments
	Familiarity with the DE literature
	Knowledge of publication processes

Analyses were conducted on the above clusters to determine whether gender, cohort of membership, or employment status were associated with differences. The findings:

- Men's average ratings were higher on all four clusters.
- On the *Personal status* cluster, the men's mean (3.82, S.D. = .527) was significantly different (p = .077) from the women's (3.41, S.D. = .816).
- On the *Job-related* cluster, the 2010 cohort (3.75, 0.463) differed from the 2008 (3.27, 0.598) and the 2009 (3.10, 0.689) cohorts.
- There were no differences based on employment type.

Table 3: Difference between present and expected prospects and expectations, ranked by *criticality* (col. 13)

Prospects & Expectations (col. 1)	Mean – present level (col. 2)	Rank - present level (col. 3)	Mean - expected level (col. 4)	Rank - expected level (col. 5)	Difference in means, present vs. expected: Col 2 – col. 4 (col. 6)	Rank, Mean diffs. (col. 7)	# "critical" mentions (col. 8)	Rank, "critical" mentions (col. 9)	Weighted score (col. 10)	Rank, weighted score (col. 11)	Criticality score: avg of cols. 9 & 11 (col. 12)	Criticality rank (col. 13)
Credibility	3.48	6	4.74	3	1.26	10	25	1	12	5	3	1
Job responsibilities	3.83	1	4.50	6	.67	22	16	10	20	2	6	2
More promotion potential	3.25	11	4.38	13	1.13	12	16	10	18	3	6.5	3
Prospects for an academic career	3.33	9	4.48	7	1.15	11	20	4	4	10	7	4
Career change options	3.25	12	4.28	15	1.03	15	17	8	9	8	8	5
Personal confidence	3.60	4	4.52	5	.92	16	16	10	11	6	8	5
Opportunities to do more teaching	3.27	10	4.40	11	1.13	12	18	5	3	13	9	7
Data analysis skills	2.95	15	4.41	9	1.46	5	22	3	2	15	9	7
Knowledge of technology developments	3.40	7	4.75	2	1.35	8	18	5	3	13	9	7
Salary increases	3.35	8	4.13	19	.78	19	11	18	22	1	9.5	10
Job autonomy	3.82	2	4.59	4	.77	20	15	13	11	6	9.5	10
Familiarity with the DE literature	3.15	13	4.80	1	1.65	3	23	2	1	17	9.5	10
Connections to other universities	2.65	19	4.23	16	1.58	4	18	5	2	15	10	13

Connections to Athabasca University	3.00	14	4.38	13	1.38	7	15	13	4	10	11.5	14
Project management skills	3.58	5	4.44	8	.86	17	14	15	4	10	12.5	15
Number of supervisees at work	2.67	18	3.46	22	.79	18	2	22	13	4	13	16
Respect from co-workers	3.70	3	4.41	9	.71	21	10	20	9	8	14	17
Knowledge of publication processes	2.48	21	4.40	11	1.92	2	17	8	0	20	14	17
Professional groups, associations	2.95	15	4.23	16	1.28	9	14	15	1	17	16	19
International connections	2.55	20	3.98	20	1.43	6	11	18	1	17	17.5	20
Experience reviewing journal submissions	2.00	22	4.18	18	2.18	1	14	15	0	20	17.5	20
Connections with classmates	2.78	17	3.84	21	1.06	14	10	20	0	20	20	22

*Sum of number of critical mentions, plus weighing of top 3 mentions: each rating of *most critical* was weighed 3, each at *second most critical* was weighted at 2, and each *third most critical* was weighted at 1. *Curriculum design*, for example, received 1 rating of *most critical,* 1 of *second most critical,* and 0 of *third most critical,* for a total *top 3* weighting of 5.

Summary of findings, discussion of implications

A better sense of the expectations of the students for learning in the program was obtained when the difference was calculated and ranked between present skill levels and expected future skill acquisition. The result showed that the following were the skills and expectations that differed most from "presently possessed" to "expected" levels.

Table 4: Learning expectations most different from present skill levels

Technical skills:		Mean expected gain
	Room video	1.95
	Podcasts	1.93
	Wikis	1.79
	CMC	1.72
	Streaming video	1.70
Professional skills:		
	Writing for publication	2.07
	Data analysis	1.77
	Research methodology	1.76
	Conference presentations	1.48
	LINUX	1.44
Prospects and expectations:		
	Journal article reviewing	2.18
	Know the publication process	1.92
	Know the DE literature	1.65
	Connections to other universities	1.58
	Data analysis	1.46

The third question asked, "What learnings do entering doctoral students regard as critical to their satisfaction with the program?" Overall, the following were the items that received the most "critical" mentions. Note that four of the eight are "technology skills," three others are "professional skills and abilities," and only one is from the section "prospects and expectations," suggesting that these students are

more concerned with the acquisition of skills than with expanding
of their personal and professional horizons.

Table 5: "Critical" mentions, overall

Section	Item	Mentions
Technology skills	M-learning	32
Technology skills	Course design	31
Technology skills	Asynchronous technologies	31
Professional skills and abilities	Curriculum design	30
Technology skills	Synchronous technologies	27
Professional skills and abilities	Research methodology	25
Professional skills and abilities	Writing for publication	25
Prospects and expectations	Credibility	25

Overall criticality of learning was calculated on the basis
the average rankings of "expected" skill increases (col. 5),
"critical" mentions (col. 9), and "top 3" ratings (col. 11). By
this standard, the ten learnings or acquisitions from the program
were:

Table 6: Overall critical learning and acquisitions from the doctoral program

Survey section	Item	Overall ranking
2. Present & future technology skills	Course design	1.3
3. Professional skills & abilities	Curriculum design	1.7
2. Present & future technology skills	Asynchronous technologies	3.0
4. Prospects & expectations	Credibility	3.0
2. Present & future technology skills	Mobile learning	3.3
3. Professional skills & abilities	Writing for publication	3.7
3. Professional skills & abilities	Teaching/training techniques	4.0
2. Present & future technology skills	Synchronous technologies	4.3
3. Professional skills & abilities	Research methodologies	4.3
3. Professional skills & abilities	Writing skills	5.7

Some of the above findings are expected based on the literature, while others contradict previous reports or present different perspectives. *Writing* and *Writing for publication* were among the ten highest ranked skills; Kalmer (2008) argued that writing should be a higher pedagogical priority, based on the observation that most doctoral programs do not attend sufficiently to writing skills in science and education. Cuthbert, Spark, and Burke (2009) suggested that multi-disciplinary writing practice could help doctoral students develop an academic identity, and could have further benefits in relation to participants' sense of themselves as disciplinary proponents. Parker (2009) reported that *Scholarly writing groups* enhanced participants' writing, and improved their attitudes towards writing. In this study, writing certainly seemed to be a preoccupation of the students, suggesting that they would accept emphasis on this skill in the program.

Coupled with writing was the focus on research-related skills and outcomes; in the first quartile (the top 17 ranked items) were these: *Research methods* (ranked #2), *Data analysis* (ranked 12th and 15th as a skill and an expected outcome), *The publication process* (tied for #12), and *Knowledge of the DE [distance education] literature* (tied for #15). These suggest the students were aware of the importance of the elements of publication, from the literature to data analysis and writing for publication.

Teaching and training were highly rated as well, consistent with the belief that professional degrees are designed to enhance practice. In the top quartile were the following skills or outcomes related to DE practice: *VOIP, Subject-matter expertise, CMC moderating, Social software, Podcasts, Course design, Mobile learning, Curriculum design, Synchronous technologies,* and *Streaming video.* The cluster of technologies included in this list suggest the tools students view as likely impacting their future practice, and motivating their present graduate interests.

Conclusions

As Athabasca University embarks on its first professional doctorate, the survey sought to determine the areas in which doctoral students already felt confidence, the areas in which they hoped they would gain greater skills or more capabilities, and the topics considered critical to their satisfaction with the program. Skills were identified, including technologies of interest.

The findings also indicated some ambivalence: four of the ten skills the students felt they already possessed were also at the top of the list of skills the students hoped to acquire. This finding either suggests some confusion about what the program should focus on, or underscores the importance attached by the students to these skills.

There was consistency in relation to the importance of writing and presenting, and the centrality of skills related to teaching and research. *Course design* was the skill expected to be enhanced most by the program, followed (in the top 10) by *Teaching and training techniques*, *Writing skills, Curriculum design, Subject-matter expertise, Writing for publication,* and *Speaking skills.*

The results of the survey constitute an initial estimation of the interests and self-assessed capabilities of incoming students to the program. Because the study is designed to be recurrent, longitudinal results will emerge to show whether findings are in any way untypical. Meanwhile, the program can use these findings to monitor program impact, and to assess whether initial assumptions and decisions about program content were consistent with students' expectations.

References

Adkins, B. (2009). Ph.D. pedagogy and the changing knowledge landscapes of universities. *Higher Education Research and Development, 28*(2), pp. 165 – 177.

Alpay, E. & Walsh, E. (2009). A skills perception inventory for evaluating postgraduate transferable skills development. *Assessment & Evaluation in Higher Education, 33*(6), pp. 581 – 598. ERIC Documents: EJ818358.

Bettmann, J., Thompson, K., Padykula, N., & Berzoff, J. (2009). Innovations in doctoral education: Distance education methodology applied. *Journal of Teaching in Social Work, 29*(3), pp. 291 - 312.

Bromley, A. P., Boran, J. R.; Myddelton, W. A. (2007). Investigating the baseline skills of research students using a competency-based self-assessment method. *Active Learning in Higher Education, 8*(2), pp. 117 - 137 2007. ERIC Documents: EJ767172.

Cuthbert, D., Spark, C., & Burke, E. (2009). Disciplining writing: The case for multi-disciplinary writing groups to support writing for publication by higher degree by research candidates in the humanities, arts and social sciences. *Higher Education Research and Development, 28*(2), pp. 137 - 149. ERIC Documents: (EJ833069).

Delaney, A. M. (2002). Discovering success strategies through alumni research. Unpublished paper presented at the Annual Forum for the Association for Institutional Research, Toronto, Ontario, June 2 - 5.

Dow, D. M., Hart, G. M., & Nance, D. W. (2009). Supervision styles and topics discussed in supervision. *The Clinical Supervisor, 28*(1), pp. 36 - 46.

Fahy, P. J., Spencer, B., & Koole-Ady, M. (In review). Analysis of the competency self-ratings and skill expectations of students in three doctoral cohorts.

Gaffield, C. (2010, May). Yes, we need literary theorists. *University Affairs, 51*(5), 35.

Gardner, S. K., Hayes, M. T., & Neider, X. N. (2007.) The dispositions and skills of a PhD in education: Perspectives of faculty and graduate students in one college of

education. *Innovative Higher Education, 31*(5), pp. 287 - 299. DOI 10.1007/s10755-006-9029-1.

Golde, C. M., & Walker, G. E. (Eds.) (2006). Envisioning the future of doctoral education: Preparing stewards of the discipline. San Francisco, CA: Jossey-Bass.

Haga, M. & Heitkamp, T. (2000). Bringing social work education to the prairie. *Journal of Social Work Education, 36*(2), pp. 309 - 324.

Hoey, J. J. & Gardner, D. C. (1999). Using surveys of alumni and their employers to improve an institution. *New Directions for Institutional Research, 101* (Spring), pp. 43 - 59.

Kamler, B. (2008). Rethinking doctoral publication practices: Writing from and beyond the thesis. *Studies in Higher Education, 33*(3), pp. 283 - 294. ERIC Documents: EJ799244.

Lee, A., Brennan, M., & Green, B. (2009). Re-imagining doctoral education: Professional doctorates and beyond. *Higher Education Research & Development, 28*(3), pp. 275 — 287.

Manathunga, C., Lant, P., & Mellick, G. (2006). Imagining an interdisciplinary doctoral pedagogy. *Teaching In Higher Education, 11*(3), pp. 365 - 379. ERIC Documents: EJ753542.

Manathunga, C., Lant, P., & Mellick, G. (2007). Developing professional researchers: research students' graduate attributes. *Studies in Continuing Education, 29*(1), pp. 19 — 36. DOI: 10.1080/01580370601146270.

Manathunga, C., Pitt, R., & Critchley, C. (2009). Graduate attribute development and employment outcomes: Tracking PhD graduates. *Assessment & Evaluation in Higher Education,34*(1), pp. 91 - 103. ERIC Documents: EJ829967.

Menand, L. (2010). *The marketplace of ideas: Reform and resistance in the American university.* New York: Norton. [Reviewed in *The Economist, 394*(8671), p. 90.]

Neumann, R. (2007). Policy and practice in doctoral education. *Studies in Higher Education, 32*(4), pp. 459 - 473.

Okech, J. E., Astramovich, R. L., Johnson, M. M., Hoskins, W. J., & Rubel, D. J. (2006). Doctoral research training of counselor education faculty. *Counselor Education and Supervision, 46*(2), pp. 131 - 145. ERIC Documents: EJ750426.

Parker, R. (2009). A learning community approach to doctoral education in the social sciences. *Teaching in Higher Education, 14*(1), pp. 43 - 54. ERIC Documents: EJ825412.

Probst, C. & Lepori, B. (2009). What is a doctorate? Changing meanings and practices in communication sciences in Switzerland. *European Journal of Education, 43*(4), pp. 477 - 494. ERIC Documents: EJ818745.

Schwier, R. A. & Daniel, B. K. (2007). Did we become a community? Multiple methods for identifying community and its constituent elements in formal online learning environments. In N. Lambropolous & P. Zaphiris (Eds.), *User evaluation and online communities* (pp. 29 – 53). Hershey, PA: Idea Group Publishing.

Solomon, M. A. (2009). How do doctoral candidates learn to be researchers? Developing research training programs in kinesiology departments. *Quest, 61*(1), pp. 74 - 83. ERIC Documents: EJ826833.

Strauss, S. (2007, December). PhDs in science finish faster in Canada than U.S. *University Affairs*, pp. 26 – 27.

Tobbell, J., O'Donnell, V., & Zammit, M. (2009). Exploring transition to postgraduate study: Shifting identities in interaction with communities, practice, and participation. *British Educational Research Journal, 36*(2), pp. 261-278. DOI: 10.1080/01411920902836360.

Tontodonato, P. (2006.) Goals, expectations, and satisfaction of criminal justice majors: Implications for faculty, students, and programs. *Journal of Criminal Justice Education, 17*(1), pp. 162 – 180.

Washburn-Moses, L. (2008). Satisfaction among current doctoral students in special education. *Remedial and Special Education, 29*(5), pp. 259 – 268.

Wiesenberg, F. & Stacey, E. (2005). Reflections on teaching and learning online: Quality program design, delivery and support issues from a cross-global perspective. *Distance Education, 26*(3), pp. 385 - 404.

Yeager, S. J., Hildreth, W. B., Miller, G. J., & Rabin. J. (2007). What difference does having an MPA make? *Journal of Public Affairs Education, 13*(2), pp. 147 – 167.

ATTACHMENT A: Survey Instrument

ONLINE SURVEY of DOCTORAL STUDENTS

Date Stamp:
IP Address:

1. Personal Details

*What is your name?

What degrees do you hold?
(Please include granting institution and year completed)

Do you have any partial credits or any incomplete degrees?

(Please indicate the institution and year started)

What is your current employment status?
(Comments are optional)

☐ employed in distance education-related field

☐ employed in an unrelated field

☐ unemployed

☐ other (please describe)

If you are currently employed, what is your job title(s)?

How long have you been in your current job?
(Years, months)

If you are currently employed, how long have you been with your present employer?
(Years, months)

If you are currently employed, what is the name of your

employer and department?

2. Present & Future Technology Skills

Present tool skills: On a scale of 1 to 5 (where 1 =
none/minimal, **3 =** *average*, **and 5 =** *full proficiency*),
please rate your *present skill level* **in relation to the**
following technologies, tools, and procedures.

Voice Over Internet (VOIP) [▼]

Streaming video [▼]

Room video (e.g., PictureTel) [▼]

Course design [▼]

Teleconferencing [▼]

CMC moderating [▼]

Mark-up languages (HTML, XML, SGML) [▼]

E-mail [▼]

File transfer [▼]

Web search engines [▼]

Mobile learning [▼]

Social software [▼]

Windows alternatives [▼]

Office alternatives [▼]

Synchronous technologies [▼]

Asynchronous technologies [▼]

Podcasts [▼]

Wikis [▼]

Blogs [▼]

Other (Please describe below) [▼]

Future tool skills: On a scale of 1 to 5 (where 1 = *none/minimal*, 3 = *average*, and 5 = *full proficiency*), please rate the *skill level you hope to achieve in the future* as a result of the doctoral program in relation to the following technologies, tools, and procedures.

Voice Over Internet (VOIP) [▼]

Streaming video [▼]

Room video (e.g., PictureTel) [▼]

Course design [▼]

Teleconferencing [▼]

CMC moderating [▼]

Mark-up languages (HTML, XML, SGML) [▼]

E-mail [▼]

File transfer [dropdown]

Web search engines [dropdown]

Mobile learning [dropdown]

Social software [dropdown]

Windows alternatives [dropdown]

Office alternatives [dropdown]

Synchronous technologies [dropdown]

Asynchronous technologies [dropdown]

Podcasts [dropdown]

Wikis [dropdown]

Blogs [dropdown]

Other (Please describe below) [dropdown]

[dropdown]

Ranking the above: After rating the above items, please choose all the items that you consider absolutely critical to your satisfaction with the program.

For those that you have selected, please indicate the top 3 (1st, 2nd, and 3rd) in the blank field beside the option(s).

☐ Voice Over Internet (VOIP)   [   ]

☐ Streaming video   [   ]

☐ Room video (e.g., PictureTel)   [   ]

☐ Course design   [   ]

☐ Teleconferencing   [   ]

☐   CMC moderating

☐   Mark-up languages (HTML, XML, SGML)

☐   E-mail

☐   File transfer

☐   Web search engines

☐   Mobile learning

☐   Social software

☐   Windows alternatives

☐   Office alternatives

☐   Synchronous technologies

☐   Asynchronous technologies

☐   Podcasts

☐   Wikis

☐   Blogs

☐   Other (Please describe)

If you chose "other" as one of the above, please comment:

3. Professional Skills and Abilities

Professional Skills & Abilities: **On a scale of 1 to 5 (where 1 =** *none/minimal***, 3 =** *average***, and 5 =** *full proficiency***), please rate your** *present skill level* **in the following areas.**

Computer conferencing participation [▼]

LINUX and other operating systems [▼]

Teaching/training techniques [▼]

Small group communications [▼]

Counseling students [▼]

Curriculum design [▼]

Program management [▼]

Budget planning [▼]

Finance management [▼]

Project planning [▼]

Team leadership [▼]

Consulting [▼]

Presenting at professional conferences [▼]

Leading PD with colleagues [▼]

Assessment and evaluation [▼]

Writing for publication [▼]

Subject matter expertise [▼]

Leadership capabilities [▼]

Project management responsibilities [▼]

Writing skills [▼]

Speaking skills ⬛▾

Group leadership skills ⬛▾

Decision-making skills ⬛▾

Planning skills ⬛▾

Finance and budget skills ⬛▾

Research methodology skills ⬛▾

Data analysis skills ⬛▾

Other (Please describe below) ⬛▾

Future Professional Skills & Abilities: On a scale of 1 to 5 (where 1 = *none/minimal*, 3 = *average*, and 5 = *full proficiency*), please indicate the *level of skill you hope to achieve* as a result of the doctoral program, in the following areas.

Computer conferencing participation ⬛▾

LINUX and other operating systems ⬛▾

Teaching/training techniques ⬛▾

Small group communications ⬛▾

Counseling students ⬛▾

Curriculum design ⬛▾

Program management ⬛▾

Budget planning ⬛▾

Finance management ⬛▾

Project planning ⬛▾

Team leadership ⬛▾

Consulting ⬛▾

Presenting at professional conferences [▼]

Leading PD with colleagues [▼]

Assessment and evaluation [▼]

Writing for publication [▼]

Subject matter expertise [▼]

Leadership capabilities [▼]

Project management responsibilities [▼]

Writing skills [▼]

Speaking skills [▼]

Group leadership skills [▼]

Decision-making skills [▼]

Planning skills [▼]

Finance and budget skills [▼]

Research methodology skills [▼]

Data analysis skills [▼]

Other (Please describe below) [▼]

Ranking the above: After rating the above items, please choose all the items that you consider absolutely critical to your satisfaction with the program.

For those that you have selected, please indicate the top 3 (1st, 2nd, and 3rd) in the blank field beside the option(s).

☐ Computer conferencing participation [   ]

☐ LINUX and other operating systems [   ]

☐ Teaching/training techniques [   ]

☐ Small group communications

☐ Counseling students

☐ Curriculum design

☐ Program management

☐ Budget planning

☐ Finance management

☐ Project planning

☐ Team leadership

☐ Consulting

☐ Presenting at professional conferences

☐ Leading PD with colleagues

☐ Assessment and evaluation

☐ Writing for publication

☐ Subject matter expertise

☐ Leadership capabilities

☐ Project management responsibilities

☐ Writing skills

☐ Speaking skills

☐ Group leadership skills

☐ Decision-making skills

☐ Planning skills

☐ Planning skills

☐   Research methodology skills   _____

☐   Data analysis skills   _____

☐   Other expectations (Please describe)   _____

If you chose "other" as one of the above, please comment:

_____

4. Prospects and Expectations

<u>**Personal Prospects:**</u> **When students begin doctoral studies, they usually have desired outcomes or expectations; often these are in contrast to their present prospects.**

On a scale of 1 to 5 (where 1 = *none/minimal prospects*, 3 = *average prospects*, and 5 = *high prospects*), please rate the following in relation to your present prospects:

Job responsibilities   [▼]

Salary increases   [▼]

More promotion potential   [▼]

Credibility   [▼]

Number of supervisees at work   [▼]

Job autonomy   [▼]

Personal confidence   [▼]

Respect from co-workers   [▼]

Prospects for an academic career   [▼]

Opportunities to do more teaching   [▼]

Career change options [dropdown]

Connections with classmates [dropdown]

Connections to Athabasca University [dropdown]

Connections to other universities [dropdown]

Professional groups, associations [dropdown]

Familiarity with the Distance Education literature [dropdown]

Knowledge of technology developments [dropdown]

International connectionsin [dropdown]

Experience reviewing journal submissions [dropdown]

Knowledge of publication processes [dropdown]

Other expectations (Please describe below) [dropdown]

Future Personal Expectations: When students begin doctoral studies, they usually have desired outcomes; often these are in contrast to their present prospects.

On a scale of 1 to 5 (where 1 = *none/minimal expectations*, 3 = *average expectations*, and 5 = *high expectations*), please rate *your future expectations* in these areas as a result of the doctoral program.

Job responsibilities [dropdown]

Salary increases [dropdown]

More promotion potential [dropdown]

Credibility [dropdown]

Number of supervisees at work [dropdown]

Job autonomy [dropdown]

Personal confidence [dropdown]

Respect from co-workers [dropdown]

Prospects for an academic career [_____ ▼]

Opportunities to do more teaching [_____ ▼]

Career change options [_____ ▼]

Connections with classmates [_____ ▼]

Connections to Athabasca University [_____ ▼]

Connections to other universities [_____ ▼]

Professional groups, associations [_____ ▼]

Familiarity with the Distance Education literature [_____ ▼]

Knowledge of technology developments [_____ ▼]

International connections [_____ ▼]

Experience reviewing journal submissions [_____ ▼]

Knowledge of publication processes [_____ ▼]

Other expectations (Please describe below) [_____ ▼]

Ranking the above: After rating the above items, please choose all the items that you consider absolutely critical to your satisfaction with the program

For those that you have selected, please indicate the top 3 (1st, 2nd, and 3rd) in the blank field beside the option(s).

☐ Job responsibilities [_____]

☐ Salary [_____]

☐ Promotion potential [_____]

☐ Credibility [_____]

☐ Number of supervisees at work [_____]

☐ Project management responsibilities

☐ Job autonomy

☐ Personal confidence

☐ Respect from co-workers

☐ Prospects for an academic career

☐ Opportunities to do more teaching

☐ Career change options

☐ Connections with classmates

☐ Connections to Athabasca University

☐ Connections to other universities

☐ Professional groups, associations

☐ Familiarity with the Distance Education literature

☐ Knowledge of technology developments

☐ International connections

☐ Data analysis skills

☐ Experience reviewing journal submissions

☐ Knowledge of publication processes

☐ Other expectations (Please describe)

If you chose "other" for any of the above questions, please

comment:

5. Final Comments

Please provide any other comments you wish about any of the questions in this survey. You may also comment on any matters regarding the EdD in Distance Education program.

Check here if you <u>DO NOT</u>consent to the use of the information you have provided in this survey for research purposes.
(Contact the program office if you have questions: 800-788-9041, ext. 6179.)

☐ I <u>do not</u> consent to the use of the information I have provided in this survey for research purposes.