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Korean graduate students' perceptions of guidance and professional development

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Abstract Past studies have indicated shortcomings in the training of graduate students in the US, especially for practical career skills, teaching skills, and non-academic careers. Students thus find professional development and guidance lacking for the demands of the modern marketplace. This study extends this research to the unique situation of current graduate students in Korea, who represent an under-studied population and face further challenges from the demands of internationalization. From survey data at one representative university, this study examines (1) whether Korean graduate students feel that they receive sufficient guidance, training, and support for professional development and (2) whether Korean graduate students feel prepared for specific academic and professional careers and career skills. Additionally, English skills, motivation, and other factors are examined. Various shortcomings in these areas are reported, which parallel those found in the US, while unique problems also arise from the demands of English for academic and professional purposes. Korean graduate students require additional support and professional development programs to address these shortcomings.

Keywords Korea · Graduate students · Preparing future faculty · English-mediated instruction · Professional development

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Introduction

Graduate students generally expect to learn what they need for their academic and professional careers from their advisors and graduate school experience. In addition to content area knowledge and expertise in research methods, this includes job search skills, teaching skills, workplace skills, and an altogether well-rounded training to prepare them for their future careers (Lechuga 2011). Studies suggest, however, that this is not necessarily the case and that their training in practical and career skills can be incomplete and unsatisfactory (Bellows 2008). Graduate programs are traditionally founded on training in research, which alone does not meet the needs of today's graduate students in the modern academic job market, nor the needs of universities hiring new Ph.D. holders (Austin and Wulff 2004). Graduate students find themselves unprepared for classroom teaching skills or practical career skills (Smith et al. 2002). Since today's graduate students will be tomorrow's teachers and professionals, training in these areas takes on a greater importance as competition increases and job opportunities remain limited.

Students enroll in graduate school for various reasons, and the instrumental motives for graduate education are dependent on the market and work opportunities that the market can or cannot offer (Bedard and Herman 2008). We thus approach graduate students and their professional needs in Korea through the framework of neoliberalism, in which individuals are seen as "economically self-interested subjects…and the best judge of his/her own interests and needs" (Olssen and Peters 2005, p. 314). Graduate students, for example, expect to better themselves through further education and mentoring. Seeking higher education is a desire well entrenched in Asian countries where education fever is high (Seth 2002), but internationalization can bring additional expectations and demands for students and institutions. The Korean government and top universities have promoted internationalization, e.g., through initiatives promoting research funding and training for professors and graduate students, international research collaboration, publishing research in international journals, and developing world-class universities (Shin 2009a). These universities also attempt to attract foreign students and increase their international rankings, so Korean graduate students in most fields also face an added burden of coursework in English (English-medium instruction, or EMI) and using English in their future careers (Piller and Cho 2013).

In this light, the present study examines South Korean graduate students' perceptions about whether they receive sufficient guidance and whether they feel graduate school has equipped them with the skills needed for their future careers. Korean graduate students are a severely under-researched population, whose experiences bear upon issues of graduate school education in the current global context.

Literature review

The decision to attend graduate school is often tied to economic considerations and a quest to better equip oneself for the market, especially during economic turndowns, which drive even more to apply (Bedard and Herman 2008). The motivation to enroll in graduate school is thus influenced by neoliberalism, which has driven higher learning institutions to justify education in the marketplace and produce self-interested individuals (Giroux 2002; Jo 2005; Olssen and Peters 2005). Neoliberalism, as "an economic doctrine that has undergirded the global expansion of advanced capitalism" (Piller and Cho 2013, p. 24),

fosters individual competition especially in academia. This is evidenced by the increasing enrollment of women and minority groups in the US (Gonzales et al. 2013) and increasing numbers of international students, which shows how graduate degrees are seen as vehicles of advancement (Patton 2013). Applicants choose schools according to "to individual preferences, tastes, and expectations" (Perna 2004, p. 489), and once admitted, students expect in-depth instruction, mentoring from advisors, interaction with colleagues, and rigorous research agendas (Girves and Wemmerus 1988). How well a graduate institution meets those needs determines students' satisfaction levels (Lee 2006a, b), so students' goals of self-improvement depend not only on the quality of academic training, but also on the specific professional skills that can be cultivated and the available support programs to make them more marketable.

Studies of professional development indicate significant shortcomings in graduate education at American universities in career preparation (Austin 2002a, b), particularly in training and mentoring. Many employed Ph.D. holders report a lack of preparation from their doctoral programs for practical skills important to their current work, such as working in interdisciplinary contexts, designing research projects, technical writing, communication skills, management responsibilities, and classroom teaching (Nyquist and Woodford 2000; Smith et al. 2002). Those entering academic careers may not be properly socialized into the faculty culture or prepared for the demands and expectations that new faculty face; some also report a disconnect between their teaching expectations and how research is more highly valued (Austin 2002a, b). Social and institutional contexts can shape supervision practices of students' academic writing, and supervisors' involvement or intervention greatly affects students' thesis writing (e.g., Dysthe 2002, in Norway). Surveys of former doctoral students in the US (Golde and Dore 2001; Nerad 2004; Nerad et al. 2004) indicate that their training did not prepare them with teaching, collaboration, teamwork, and organizational or managerial skills, and they faced long transitions from Ph.D. completion to stable employment.

Surveys of American graduate students also indicate that those in some fields were not informed about non-academic job options, were discouraged from non-academic jobs, and were not adequately informed about the limited number of academic jobs available in their fields (Davis and Fiske 2001; Gemme and Gingras 2012; Golde and Dore 2004; Smith et al. 2002). About half of all doctoral students had aspired to faculty careers, but only half of those would-be professors start out in tenure-track jobs, with the rest first starting in temporary positions (Nerad et al. 2004). Other studies report that most humanities and science majors aspired to faculty careers, while those in fields with stronger connections to industry (e.g., chemistry and engineering) were less likely to do so (Golde and Dore 2004; Smith et al. 2002). Outside of these industry-related fields, professors' assumptions were that doctoral students were interested in or preparing for tenure-track professorships.

In Korea, the situation appears even more problematic. Graduate school enrollment has been steadily increasing in the past decade (Shin 2012). Meanwhile, tenure-track positions in Korea have become increasingly competitive, especially for those with domestic Ph.D.s, as many universities now prefer to hire those with Ph.D.s from Western universities (Byun et al. 2013; Petzold and Peter 2014). Korean master's and doctoral students (as in other countries) also need professional communication skills for their careers, for which English skills take on a primary importance because of the status of English as the lingua franca in academia (Nunan 2003) and because graduate courses are increasingly being taught in English because of internationalization (Byun et al. 2011). Korean students in general graduate schools (i.e., research-focused graduate programs) may be required to teach in English, present at international conferences, and publish in English. For Ph.D. holders

especially, the number of international publications determines their potential of finding and keeping an academic job (Lee and Lee 2013).

Based on the past literature and these observations, the present study attempts to examine Korean graduate students' perceptions of the support and training for the job market they receive through guidance and graduate school education by means of a survey. The aforementioned studies of graduate students' perceptions and satisfaction with career preparation were mostly conducted in the American context in the 1990s and early 2000s. No known studies have examined graduate students in Korea and their unique needs, i.e., what graduate training entails for them as stakeholders. This study is the first to our knowledge to address such issues in the Korean context, examining their beliefs and how graduate school training is regarded in Korea. The following research questions are thus proposed: (1) Do Korean graduate students feel that they receive sufficient guidance, training, and support for their professional development? (2) Do Korean graduate students feel prepared for specific academic and professional career skills that they will likely need? Thus, the study explores these needs and perceptions of graduate students in Korea.

Research setting and subjects

The research site is the graduate school of X University (XU, a pseudonym) in Seoul, South Korea, with 5600 enrolled in the general graduate school[1] as of 2013, when the subjects were recruited. XU is classified as a conventional research-oriented university (Shin 2009b), so its graduate school is representative of Korea. The study participants were 110 graduate students from various majors in master's or doctoral programs, who were recruited through non-credit seminars at XU's Center for Teaching and Learning (CTL), various graduate courses, and snowball sampling. The respondents included 64 doctoral students at various stages of their studies and 46 terminal master's students. We examine master's and doctoral students together, as the nature of general graduate school is highly academic and research-oriented at XU[2] and as there is no delineation regarding master's or Ph.D. courses.

Instrument

Respondents were asked to fill out a survey on specific study-related and career-related skills. A set of 49 questions pertaining directly to our research questions were drawn from previous studies (Golde and Dore 2001; Nerad and Cerny 1999; Smith et al. 2002), specifically, items on skills, guidance, and training were selected and adapted as necessary (e.g., changing wording to make questions relevant to current programs rather than to former students). Respondents rated their perceptions on five-point Likert scales for training and skills in the following areas: (1) their current academic work; (2) practical and career-related skills (e.g., particular research and writing skills), including future academic or professional career-related tasks; (3) finding academic and non-academic jobs; (4) classroom teaching and related skills. Another item queried their future career interests: academic, teaching, and research positions, and non-academic careers. These question items appear in Tables 4, 5, 6, and 7 below along with the results. As discussed below,

[1] This number excludes foreign students studying abroad at XU and professional graduate programs.

[2] In XU's general graduate school, a thesis is compulsory for master's students so the nature of graduate work is similar to doctoral students.

other question sets probed their academic motivation (13 items), general English skills (6 items), and demographics (9 items).

In analyzing their perceptions and skills, we also considered students' academic motivation, as this can affect students' perceptions, self-efficacy, and achievement (Deci et al. 1999). Motivation was not examined in the previous studies of former American graduate students, but could be a relevant factor for current students. Motivation was measured with an inventory based on self-determination theory, a commonly used model of motivation in educational psychology (Deci et al. 1999; Ryan and Deci 2000). This inventory, the Activity-Feeling State (AFS) scale (Jang et al. 2009), contains ten questions (and three fillers) measuring intrinsic motivation via its three subcomponents of autonomy (sense of desire, free choice, and personal interest), competence (sense of personal growth or competence), and social relatedness (sense of forming connections with others in learning or using skills). The scale was developed for use in differing situations and contexts and has been validated for use in Korean educational contexts (Jang et al. 2009). Respondents answered AFS questions for their academic studies (e.g., "Studying in my current field of study makes me feel…") on five-point Likert scales; from these, scores were calculated for autonomy, competence, and relatedness motivation and a total score for overall intrinsic motivation toward their studies.

A set of nine questions probed demographic background and other experience as possible explanatory variables: (1) amount of time, if any, spent living abroad in English-speaking countries; (2) amount of teaching or tutoring experience, e.g., in private commercially run schools (*hagwon* in Korean), public schools, or private tutoring; (3) an estimated percentage of their graduate courses conducted in English (EMI courses); (4) other demographic variables: gender, major, marital status, time spent in one's current graduate program, and type of degree program (master's, Ph.D., or combined master's plus Ph.D.). Another six questions asked for self-ratings of English abilities (e.g., writing, speaking, and overall) on a five-point Likert scale.

For all the above question types, participants completed an online or hard copy version, in English or Korean, which took 15–20 min to complete.[3] The Korean version was translated, back-translated into English, and checked and modified for clarity and accuracy. We used simple correlation and chi-square statistics to analyze associations, without necessarily assuming causality or directionality.

Results

The demographic, experiential, and career interest variables are reported below. Respondents have been in graduate school for an average of 2.2 years (median 2.0 years; for doctoral students, mean = 2.6 years, median = 2.2 years, range = 0.5–9 years), as shown in Table 1.

About 38 % of respondents were from the humanities, 34 % from social science fields, 24 % from STEM fields (science, technology, engineering and math, plus a few medical and health sciences-related students), and 5 % from business-related fields (Table 2: Total for both genders).

Chi-square tests showed that gender and marital status had no significant correlations with any other variables. For experience abroad, 49 respondents had spent some time studying or living abroad (mean = 1.0 years, maximum = 16 years), but most of these

[3] An additional 73 questions dealt with other issues for a separate study. Space limitations preclude us from including all the items here, but readers can email the authors for the complete survey contents.

Table 1 Duration: number of years spent thus far in one's current graduate program

Years	Count	%	Years	Count	%
<1.0	28	25.2	5.0–5.5	6	5.4
1.0–1.5	26	23.4	6.0–6.5	2	1.8
2.0–2.5	26	23.4	7	1	0.9
3.0–3.5	11	9.9	9	1	0.9
4.0–4.5	9	8.1	Total	110	100

Table 2 General academic areas

Gender	Humanities	Social sciences	STEM	Business	Total
Female	27 (24.5 %)	24 (21.8 %)	11 (10.0 %)	4 (3.6 %)	66 (60.0 %)
Male	15 (13.6 %)	13 (11.8 %)	15 (13.6 %)	1 (0.9 %)	44 (30.0 %)
Total	42 (38.2 %)	37 (33.6 %)	26 (23.6 %)	5 (4.5 %)	110 (100 %)

only spent one-half to 1 year abroad; about 25 respondents indicated a desire to study abroad later for a Ph.D., particularly in the US. For teaching experience, 73 respondents reported some brief teaching or tutoring experience (mean = 1.3 years, median = 1.0, maximum = 15 years), but their teaching experience was mostly brief, informal experience in private (*hagwon*) teaching. The average number of EMI courses in their programs was 31.5 % (median 20 %, range 0–100 %, depending on major). Mean self-ratings for English abilities (on a five-point scale) were as follows: reading, 4.3; writing, 3.5; listening, 4.0; speaking, 3.6; overall, 3.8.

We asked about various career plans (university teaching positions, business or industry jobs, non-teaching research jobs, government jobs, NGOs, and university administration). Chi-square tests showed no correlations for career area, gender, or academic area (humanities, STEM, social sciences, or business). The general results are shown in Table 3.

While many expressed an interest primarily in academic careers (48.2 %), 32.7 % were undecided in whether they would pursue academic or non-academic jobs after graduation.

Guidance

The students rated the quality of guidance from their advisors and departments for various specific skills as well as overall ratings for advisors, departments, and the university. Here, departmental guidance refers to general information dissemination, seminars, and other activities provided on the departmental level to students. In contrast, advisor guidance refers to individualized mentoring by the advisor to their advisees such as thesis/dissertation supervision. Overall, these ratings were not very high; ratings for advisor guidance were moderate at best, and ratings for departmental or university guidance were rather low.

Ratings were particularly low for future professional or job-related skills (items 6–10) than current academic skills (items 1–5; means 1.7–2.1). Not surprisingly, the difference between these subsets (items 1–5 cf. 6–10) was significant ($\chi^2 = 60.0$, $p < 0.0001$). Separate questions asked for an overall assessment of support from advisors, departments, and university (Table 5). For all guidance ratings, chi-square tests showed no significant

Table 3 Breakdown of career preferences

Career types	Count	Percent
Academic only (tertiary teaching positions)	53	48.2
Non-academic	15	13.6
Undecided (either academic or non-academic)	36	32.7
No response	6	5.5
Total	110	100

Table 4 Ratings for advisor and departmental guidance, with means, standard deviations, and medians

	Skill area	Department guidance			Advisor guidance		
		Mean	SD	Median	Mean	SD	Median
1.	Writing CVs	1.7	1.0	1	2.3	1.4	2
2.	Publishing papers in academic journals	1.9	1.0	1	2.8	1.4	3
3.	Conference presentations	1.9	1.0	2	2.6	1.4	3
4.	Writing a master's thesis or Ph.D. dissertation	2.1	1.1	2	3.3	1.5	4
5.	Other writing: proposals, research statements, grant applications, etc.	2.1	1.2	2	3.0	1.3	3
6.	Classroom teaching	1.8	1.0	1	2.2	1.2	2
7.	Preparing for academic careers	1.9	1.1	1	2.8	1.2	3
8.	Finding academic jobs	1.8	1.0	1	2.3	1.2	2
9.	Preparing for non-academic careers	1.8	1.0	1	2.2	1.2	2
10.	Finding non-academic jobs	1.7	1.0	1	2.1	1.1	2

1 = none; 5 = very much

Table 5 Overall satisfaction with guidance

Variable	Mean	SD	Median
Advisor	2.9	1.2	3
Department	2.1	1.0	2
College or university	1.9	1.0	2
Overall	2.3	0.9	2

1 = none; 5 = very much

differences for program type (master's or doctoral), amount of time in school, academic area, or other demographic factors.

Ratings of the quality of guidance and advising were noticeably mediocre to low, for general ratings (Table 5), and especially for specific skill areas (Table 4), and the students seem generally unsatisfied with guidance from their departments and university. Advisor guidance correlates with departmental guidance, $r = 0.48$ ($p < 0.001$) and with college guidance, $r = 0.46$ ($p < 0.001$), with variance inflation factors (VIF) over 3.5. In analyzing other items below, guidance was entered as an independent variable: either advisor, departmental, or college/university guidance, or an aggregate of all three (overall guidance); only the one best fitting option was used to avoid multicollinearity. Open-ended

Table 6 Confidence levels for particular skills

	Skill area	Descriptives			Associated variables		
		Mean	SD	Median	Variables	*r*	*p*
1.	Oral presentations	3.4	0.9	4.0	Guidance, overall	0.34	<0.0001
2.	Writing reports and/or articles	3.6	1.0	4.0	Guidance, advisor	0.33	<0.0001
3.	Other types of professional writing	3.2	1.1	3.0	Guidance, advisor	0.30	0.002
4.	Critical thinking skills	3.7	1.0	4.0	Guidance, overall	0.30	0.002
5.	Analyzing data or information	3.5	1.0	4.0	Guidance, overall	0.30	0.002
6.	Designing research projects or experiments	3.4	1.0	4.0	Guidance, overall	0.30	0.002
7.	Working in an interdisciplinary context	2.8	1.1	3.0	Guidance, overall	0.42	<0.0001
8.	Management, administration, and/or organizing	2.9	1.1	3.0	Guidance, overall	0.40	<0.0001
9.	Classroom teaching	2.8	1.0	3.0	Guidance, overall	0.41	<0.0001
					Teaching experience	0.23	0.020
10.	Designing course materials (syllabi, lesson plans, exams, homework, etc.)	2.9	1.0	3.0	Guidance, overall	0.35	<0.0001
					Teaching experience	0.20	0.039
11.	Teaching/lecturing classes in English	2.3	1.0	2.0	Guidance, overall	0.27	0.01
					English—general	0.34	<0.0001
					English—speaking	0.63	<0.0001

1 = low; 5 = high

comments on guidance were also elicited, and 33 responded with comments, as discussed later.

Affective factors and guidance

Indices for academic motivation based on autonomy (mean = 3.6, SD = 0.9), competence (mean = 3.3, SD = 0.7), and connectedness (mean = 3.4, SD = 0.8) were similar and correlated with each other; these were summed together for an overall index of intrinsic motivation (mean = 3.5, SD = 0.6). Comparisons with other variables showed that overall academic guidance correlated moderately with overall motivation ($r = 0.37$, $p < 0.001$), including autonomy-based ($r = 0.29$, $p = 0.002$) and competence-based motivation ($r = 0.29$, $p = 0.003$). English ability also seems related to their competence-based motivation ($r = 0.29$, $p = 0.002$).

Preparation for current and future skills

Respondents were asked to rate their current skills and preparation for certain tasks related to their graduate school work ("Please indicate how well your graduate school training has helped you develop these skills"). The relevant factors associated with these self-ratings

Table 7 Future preparation self-ratings

Skill area	Descriptives			Associated variables		
	Mean	SD	Median	Variable	*r*	*p*
1. Teaching undergraduate courses	3.0	1.2	3.0	Guidance, overall	0.19[a]	0.053
				English ability: speaking	0.18[a]	0.066
2. Teaching graduate courses	2.4	1.1	2.0	Guidance, overall	0.28	0.004
				Motivation, competence	0.29	0.003
3. Using technology in the classroom	3.1	1.3	3.0	Guidance, advisor	0.27	0.007
4. Advising undergraduates	3.1	1.1	3.0	Guidance, department	0.26	0.007
5. Advising graduate students	2.4	1.0	2.0	Guidance, department	0.28	0.005
6. Collaborating with others in interdisciplinary research	2.8	1.0	3.0	EMI courses	0.20	0.048
7. Doing research or scholarly work	3.2	0.9	3.0	Guidance, advisor	0.36	0.0002
				EMI courses	0.28	0.029
8. Presenting at academic conferences	3.1	1.0	3.0	Guidance, advisor	0.23	0.019
9. Publishing research findings or scholarly work	3.0	1.0	3.0	Guidance, advisor	0.36	0.0002
				Duration (years in school)	0.38	<0.0001
				English ability: writing	0.19[a]	0.058

1 = low; 5 = high

[a] Marginal correlation

were academic guidance, self-ratings of English abilities, and previous teaching experience (Table 6).

Their self-ratings for current academic skills (items 1–6; means 3.4–3.7) are higher than future professional skills (collaborative, organizational/administrative, and pedagogical skills; items 7–11; means 2.4–3.1), and the difference between these two skills sets is significant ($\chi^2 = 28.3$, $p = 0.01$). To whatever degree they feel confident or capable in each of these skills, this seems related to their satisfaction with academic guidance. Their sense of preparedness for pedagogical skills seems to interact with academic guidance and previous teaching experience, as well as perceived abilities in general English and English-speaking skills. However, their teaching-related skill ratings were low, especially for EMI.

Respondents were also asked to self-rate how well they feel prepared for specific career-related tasks ("For these future tasks, indicate how prepared you feel"). These ratings were compared to other survey variables (Table 7).

Academic guidance consistently correlated with these skill self-ratings. For some skills, perceived English abilities, previous teaching experience, amount of time spent so far in graduate school (duration), and amount of EMI courses were relevant factors. Those related to teaching were generally rated as low (items 1–5; means 2.3–3.1).

General discussion

For the first research question regarding professional development, the results show shortcomings in the guidance given to students at all stages. These results are not necessarily an indictment of XU or the Korean system per se, as they also parallel the problems experienced by American graduate students in the aforementioned studies. The numerical ratings show low satisfaction with academic and professional guidance in academic skills. Open-ended comments on this were elicited, and the 33 responses from master's (first and second year) and doctoral students express similar attitudes; a few representative responses are summarized as follows.

> *Need more guidance for education and future career success.* (Business, 5th year)
> *Little support in developing needed skills throughout the program. University-level measures are urgently needed. I think my tuition is being wasted.* (Humanities, 2nd year)
> *Guidance offered to graduate students is generally not enough.* (Social Sciences, 3rd year)
> *Guidance needed for careers as well as research.* (Social Sciences, 3rd year)
> *Guidance from department and professors only focus on research.* (STEM, 2nd year)

The data and comments show general dissatisfaction with the amount and quality of guidance received, including general support, specific skills, academic life, and career guidance. These sentiments partly reflect the fact that professors at Korean universities are overextended and tend to be assigned many graduate students on top of administrative duties.

Guidance consistently correlated with most self-ratings for training and skills. These results implicate guidance as an important factor for students' performance and later outcomes and suggest that appropriate guidance can promote students' sense of efficacy for their current work and professional development. Advisor guidance, along with a supportive departmental atmosphere, is important for doctoral students' socialization into the academic world and development of a sense of personal and professional identity as academics (Bargar and Mayo-Chamberlain 1983; Sweitzer 2009). The quality and frequency of contact with professors contribute to students' academic socialization, their development of healthy professional and academic identities, and their productivity (Weiss 1981), as does involvement in professional associations (Gardner and Barnes 2007), hence the need to actively support students in conference activities, networking, and publishing. Healthy professor-student relationships lead to effective mentoring and satisfaction with their training as the students benefit from the master-apprentice relationship, receive support, and are socialized into the field (Lechuga 2011). This socialization process directly affects the marketability of the student.

The lowest ratings for guidance were reported for career-related areas, especially for non-academic careers. This is consistent with the previous studies of US doctoral students, and, in fact, concerns about the job market and advisor difficulties are among the reasons for graduate student attrition in the US (Golde 1998). In Korea, with an excess number of Ph.D. holders seeking lectureships and professorships, it is particularly unrealistic for so many to find stable academic jobs. Master's and doctoral students expect some career guidance, and our survey indicates that more specific information from departments about career preparation, job prospects, and non-academic job options is needed, but that such information is limited.

The results suggest that the interaction of guidance with students' intrinsic motivation in turn affects overall performance and career preparation. Intrinsic motivation levels were not very high in our data (3.5/5.0 overall), and a few factors were positively associated with motivation. Overall guidance was most often positively associated with overall intrinsic motivation as well as with its subcomponents (autonomy, competence, and connectedness). Thus, the degree to which the students showed intrinsic motivation seems to be related to the quality of academic guidance received. The causal relationships between guidance and motivation are not clear-cut here. Nonetheless, it seems likely that guidance would contribute to motivation, since intrinsically motivated students would feel more empowered (i.e., autonomy) in their research and professional development, and competence motivation and efficacy would enhance each other. Also, intrinsically motivated students use more effective learning strategies and enjoy better long-term achievement (Deci et al. 1999). If students perceive their guidance as lacking, this may adversely affect their academic motivation and leave them less prepared for transitioning into their future careers.

Overall, master's and doctoral students both indicated shortcomings in their training. Korean graduate students may expect more personal guidance, given their expectations of professors in Korea's educational culture, which is influenced by Confucian ideals of teachers and the roles of teachers and learners (Ho 1994; Shin 2012). Teachers are authority figures and are considered "main providers of information" (Lee 2006a, b, p. 447). Thus, graduate students, as recipients of learning, expect guidance and direction from advisors and other sources such as the department. Korean university departments do offer some orientation sessions, special lectures, academic writing seminars, and community support, but the survey results also show that these do not suffice and may not compensate for shortfalls in personal guidance. Newer students especially experience difficulty finding quality advising and mentoring time with their professors. Yet even master's students have needs and expectations for professional development and self-improvement (Lee 2006a, b). Master's degree programs are considered a crucial step to the Ph.D. and not just ancillary (Conrad et al. 1998). For research-oriented master's degree students, their advisors' availability determine the depth of research (Brown and Krager 1985). These considerations hold true for Korea, where many master's students expect to continue on to doctoral programs, and in fact, only one-third of our survey participants indicated that they were terminal master's students.

Our second research question asks whether Korean graduate students feel prepared for specific academic and professional skills that they will likely need. Overall, their skill self-perceptions were not very high. When asked how well their training has prepared them for such skills (Table 6), they rated themselves somewhat more favorably for current academic skills (research, writing, and analytical skills) than for other practical or career-oriented skills (management, organization, collaboration, and teaching skills). They indicated a lack of guidance for specific skills for which they showed rather low scores (e.g., specific types of academic writing and skills related to job preparation; Table 4). Ratings for future academic job skills (collaboration, research skills, presenting and publishing research, Table 7) were likewise not very high. Thus, these ratings for current academic skills seem mediocre, while ratings for practical and career-related were generally low. Students seem to have a low to medium sense of efficacy in these skill areas, or perceive their training and preparation as insufficient, especially for those skills that fall outside the purview of their normal academic course work and training. To the degree that they did feel some sense of efficacy in these areas, academic guidance (advisor, departmental, and university) correlated positively with their positive self-evaluations. Spending more time in graduate school

correlated only with publishing skills, suggesting that learning by experience or osmosis contributes only to this one academic skill, but not to others. Overall, both master's and doctoral students sense they are not receiving practical skills to prepare them and position themselves for the neoliberal job market in which competition and a need for self-improvement prevail.

English experience shows some relationship with the graduate students' sense of efficacy or confidence. Self-ratings for overall English ability were associated with competence motivation and overall motivation. For many XU graduate students, much of their work involves English, so at least moderate English skills would understandably enhance their sense of competence and growth and thus overall motivation. English ability was correlated with self-ratings for teaching in English and was marginally associated with a few other skills, but otherwise their moderate self-ratings for English skills were apparently not sufficient to benefit their sense of efficacy in many skill areas. The number of EMI courses was positively correlated with a few skills (namely, interdisciplinary/collaborative and research skills), indicating that graduate students do not generally feel they have benefited from EMI or that EMI has not contributed meaningfully to skill development or efficacy. EMI correlated positively with the social connectedness component of motivation, but correlated negatively with overall academic motivation. EMI courses may create a more unhealthy extrinsic motivation toward English or may have adverse effects on comprehending course contents (Hou et al. 2013; Yin 2009). These EMI results and their low self-ratings for English skills indicate a need for (1) more attention to improving students' language and communication skills and their sense of efficacy as English learners; (2) more services and support for students' academic English skills; and (3) reconsidering how EMI is implemented at the graduate level. Such linguistic capital is important for teaching and finding jobs in the international marketplace.

Teaching experience was another helpful external factor, but the students' experience with this was also too limited to impart strong benefits. The respondents' teaching experience, if any, was informal and very limited. Graduate students in Korea usually serve as research assistants and not as teaching assistants, as graduate student recitations are not common. Our respondents' low self-ratings for teaching-related skills are thus understandable; their ratings showed that they felt unprepared for teaching if entering a teaching field. When asked if their current training has prepared them for teaching or for specific teaching and advising skills (Tables 6, 7), their overall ratings were low and were especially low for teaching in English (EMI). The doctoral students rated themselves as low as the master's students, which is of concern, since some of them will later teach university courses and will do so with little preparation.

Addressing students' needs

These findings mirror those from previous studies of shortcomings in American graduate education in providing practical skills and mentoring. The traditional model where students learn from observing professors, the so-called osmosis theory of learning and professional development (Golde 2008), has not served students well in the neoliberal job market. Instead, more direct training, mentoring, and socialization into academic life are needed. Universities also can better prepare students for non-academic careers, for example, by helping them to identify and develop specific transferable skills that can be applied to non-academic contexts (e.g., collaboration, teaching, communication, analytical, and technical skills as well as more specialized skills for particular professional careers), as some of these skills are cultivated to some extent in academic contexts (Gilbert et al. 2004). Centers

for teaching and learning (CTLs) could offer many such services and support, but in Korea, such centers and their budgets are generally allocated for new faculty and undergraduate support services, not for graduate students (and those services offered at XU are exceptional and very limited).

Alternative models for pedagogical skills, professional development, and career preparation are needed. Pedagogical training programs can help with teaching skills and self-efficacy (Griffith et al. 2010; Postareff et al. 2007). For graduate students in the Korean context, however, time-intensive training programs or regular work is not feasible, and classroom teaching opportunities are not available for those interested in teaching. One possible alternative model could be learning communities, modeled on faculty learning communities (FLCs), where students meet for self-directed and group pedagogical development under the guidance of a departmental mentor (Brower et al. 2007; Marbach-Ad et al. 2010, 2012). A similar model would be preparing future faculty programs (PFFs) consisting of credit or non-credit seminars and assignments on professional development and teaching skills (von Hoene 2011). Doctoral PFF participants show more interest in faculty careers and classroom teaching (Golde and Dore 2001), and such programs allow students to gain and share information and experiences, e.g., regarding graduate school, careers, academic and professional cultures, and the realities of faculty work (Nyquist et al. 2001). Such programs can facilitate students' socialization into academic culture (Bellows 2008) and academic citizenship (Gaff 2002), and specific academic and professional English skills could also be integrated into such programs. Another source of teaching experience could come from service teaching or volunteer teaching and outreach in the community, e.g., community service teaching programs (Trautmann and Krasny 2006).

Conclusion

The findings show that the XU graduate students do not feel adequately prepared for their academic or professional careers. These results mirror those from American graduate programs and also indicate additional difficulties because of academic English needs. Students need more guidance for various skill areas and future careers. The neoliberal economy "dictates what is required for employability" (Lee and Lee 2013, p. 227), and thus graduate schools need to provide the means and resources for students to fulfill these requirements, whether they pursue another advanced degree or enter the job market. These findings indicate a need for more services and training beyond the normal course skills and research skills that graduate programs typically emphasize. Implementing supplementary programs and evaluation studies of their effectiveness would hopefully help universities to provide a better atmosphere for the professional development of graduate students.

As a cautionary note, these relationships are correlational, and more study is needed to understand causal relationships among these factors, long-term outcomes, perceptions of departmental atmosphere, rationales for attending graduate school, general satisfaction with graduate school, and future expectations (Anderson and Swazey 1998). A limitation that must be noted is that although master's and doctoral students were grouped together here because of their similar results and the research-oriented nature of XU, a larger study might find differences in perceptions and needs between the two populations.

This study goes beyond past studies by examining Korean graduate students' self-perception and by showing relationships among academic, professional, and language skills and the quality of guidance they receive. This study highlights the important

relationships or effects of guidance on students' skills, self-efficacy, and academic motivation and points to ways in which Korean universities can better train and prepare its graduate students.

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