Comparative Work Within the Context of Practicum Settings: A First Look at What Motivates and Challenges Cooperating Teachers from Five Countries

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Introduction

The current study is set within a context of a larger research project which addresses a significant challenge in Teacher Education: the largely untutored and atheoretical approach to student-teacher mentoring in practicum settings. This "crisis" (Rubenstein 2014) continues because student-teacher mentoring falls between the jurisdictional gap where, on the one hand, schools regard universities as the final arbiters of the B.Ed. degree and are reluctant to be unduly proactive in that domain (Russell and Russell 2011) and, on the other hand, universities see the schools as a threshold across which they step cautiously for fear of losing practicum placements (Beck and Kosnik 2002). The continued neglect of student-teacher mentoring has serious consequences, for example: beginning teachers often lack basic skills on entry to the profession (Boyd et al. 2007; the dropout rate after entry is unacceptably high (Ingersoll and Kralick 2004); and pupil achievement in beginning teachers' classes can be negatively effected (Harris and Sass 2011).

By drawing on two theoreticians, Sarason (1996) and Alexander (2001), this research project proposes a framework that both pinpoints the underlying factors for this crisis and highlights a potential solution. In the first instance, the absence of "practitioner inquiry" and the lack of "a specialized knowledge base" for mentoring are seen as the main impediments to the development of student-teacher mentoring. In the second instance, unless student-teacher mentoring is conceptualized as a Professional Practice—which implies practitioner inquiry and a knowledge base—then mentoring will continue to languish as labour or technical work, a situation that is neither productive nor tolerable given the impact of teacher preparation on

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teacher quality, teacher retention, and pupil learning. By conceptualizing student-teacher mentoring as a Professional Practice, this study is guided by two questions:

1. What are the dimensions of mentoring, as identified by mentors, that enhance (motivate) or constrain (challenge) mentoring and how can these dimensions be used to facilitate practitioner inquiry?
2. What are the dimensions of mentoring that are peculiar to or representative of local, national, and international mentoring contexts such that knowledge claims arising from mentoring research in these contexts can be judiciously used for a specialized knowledge base?

In answering these questions, this work is grounded in the tradition of phenomenology (Husserl 1980) and draws on the Mentoring Profile Inventory (MPI) (Clarke et al. 2012) which is a 62-item instrument currently available in five languages on the web. First, the MPI will be used to elicit student-teacher mentors' conceptions of mentoring. An important part of this phase (and a key aim of the study reported in this paper) is to generate *Individual MPI profiles* that accurately identify mentors' conceptions with the potential that the MPI could be used as a tool for practitioner inquiry. Second, the MPI will be used to generate *Aggregate MPI Profiles* for cohorts of mentors at local, national, and international levels (also an aim of the study reported in this paper) with the potential of eventually developing a metric that can be used to make judgments about research outcomes in these contexts; that is, to provide the ability to distinguish idiosyncratic claims from those that might contribute to broader conceptualizations of mentoring.

In sum, the larger research context tackles a persistent but rarely acknowledged challenge in Teacher Education by conceptualizing and facilitating student-teacher mentoring as a Professional Practice. The more focused research reported in this paper is designed primarily to gather data to help in answering the first question—eliciting the motivations and challenges as reported by mentors—and to provide evidence for addressing the second question—what are the differences between the motivation and challenges faced by mentors within and across local, national and international contexts.

Literature Review

Professional Practice is characterized by an activity known as "practitioner inquiry" (Green 2009; Hargreaves 2001). Practitioner inquiry, within the context of student-teacher mentoring, allows mentors to make explicit *why they do what they do* as mentors. Mentors who do not engage in practitioner inquiry rely almost exclusively on their own experiences as student-teachers to guide their current supervisory practices. In short, they 'teach as they were taught' without thinking

critically or reflectively about *why they do what they do* (Bullough and Draper 2004; Hobson et al. 2009). As such, they unwittingly replicate past practices that are often unresponsive and inappropriate to the current teaching contexts in which they and their student-teachers find themselves (Kent 2001). When practicum mentors fail to inquire into their supervisory practices, they are unable to:

- interpret current teaching practices in ways that make sense to novice teachers (Smith 2005);
- develop a language for conveying the complexities of teaching to novices (Hastings 2005); and
- separate 'the personal' from 'the professional' in the context of mentoring (Swennen et al. 2008).

Further, when mentors fail to be reflective, relevant, and respectful in their work with student-teachers, they fail as stewards of and gatekeepers to the profession (Smith 2010). For example, research shows that poorly prepared mentors allow more students to pass their practicum than do their more professionally prepared counterparts (Clarke 2003). Research also shows that, for example, one third of Canadian teachers leave the teaching profession in their first five years with an unsatisfactory practicum experience contributing to their abandonment (Canadian Teachers' Federation 2011). Without practitioner inquiry as key component of the Professional Practice of mentoring, the successful preparation and supervision of student-teachers will continue to be seriously compromised (Darling-Hammond 2000; Clotfelter and Vigdor 2007).

A second key element of Professional Practice is having access to, and being able to draw upon, a "specialized knowledge base" (Green 2009; Hargreaves 2000). Essential characteristics of a specialized knowledge base include:

- the provision of a framework or structure within which knowledge claims arising from research can be located and categorized (de Jong and Ferguson-Hessler 1996; Sweeny 1994);
- a method by which those claims can be judged, without which "there is no guarantee that the knowledge generated at local sites is correct or even useful" (Hiebert et al. 2002, p. 23); and
- the development of theoretically sound principles and specific practices that professionals can use to query their own practice and adopt as they see appropriate (Achinstein and Athanases 2006).

It is widely agreed that student-teacher mentoring lacks a knowledge base upon which mentors can draw. The most recent review of the international literature on student-teacher mentoring confirms that the research is dispersed, disconnected, and disparate (Clarke et al. 2014). In short, there is currently no way to make informed judgments about the claims from the mentoring literature such that we can distinguish between claims that are particular to the contexts in which they were generated and those that are more representative of mentoring within and across contexts. Without a framework or structure, the development of specialized

knowledge base for mentoring languishes and the quality of student-teacher learning is dangerously diminished (Glanz 2000).

In the absence of practitioner inquiry and a specialized knowledge base, mentors are left to continually 'reinvent the wheel' and have little opportunity to move beyond 'trial and error' to more sophisticated understandings of mentoring (Shulman 1987). In sum, mentoring in practicum settings remains largely untutored and atheoretical. The outcome of this neglect within the context of mentoring is that the preparation of student-teachers (Borko 2004; Devos 2010) and, by implication, the quality of pupil learning, is unreasonably compromised (Clotfelter and Vigdor 2007; Gareis and Grant 2014).

The intention of the current study is to test and demonstrate how the Mentoring Profile Inventory can be used in service of the goals of the larger research project, namely, practitioner inquiry and a specialized knowledge base. As such, the focus of the project reported in this paper will be on eliciting mentor's conceptions of their practice (i.e., their motivations and challenges in working with student-teachers) and comparing and contrasting those conceptions within and across international contexts.

Method

The Use of the Term 'Cooperating Teacher'

Student-teacher mentoring is a special form of teaching set in the immediacy of the practicum setting. Classroom teachers in schools throughout the world who take on this role are known by a variety of names; for example, school-based teacher educators, school advisors, practicum supervisors, school associates, or mentors. In North America, where this paper originated, the most common term used for this role is cooperating teacher and this is the term that will be used throughout the remainder of this paper.

Data Collection

The Mentoring Profile Inventory. The MPI is a web-based inventory offered in five languages: Chinese, Thai, French, Spanish, and English. The MPI was constructed in a North American context (Canada) and its development occurred in concert and direct collaboration with professors from China, Thailand, Spain, and France to ensure that as far as possible that the underlying concepts were relevant, consistent, and valid beyond North American (Clarke 2012). When cooperating teachers complete the MPI they automatically receive a simple single-page report depicting their results in an easy to read graphical form (Fig. 1).
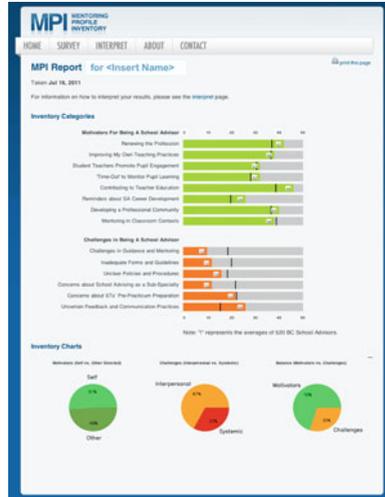
Fig. 1 Mentoring profile
inventory report

Table 1 Mentoring profile inventory: items, scales, and balance charts

Items: Motivator (32) and Challenge (30)	Scales: Motivator (8) and Challenge (6)	Balance Charts: Intermediate (2) and Overall (1)
• It's the 'right thing to do' to help and mentor Student Teachers • It's satisfying to know I can facilitate a Student Teacher's development • I'm making a real difference when I coach beginning teachers + 29 other items	• Renewing the Profession • Improving My Own Teaching Practices • Student Teachers Promote Pupil Engagement • 'Time-Out' to Monitor Pupil Learning • Contributing to Teacher Education • Reminders about SA Career Development • Developing a Professional Community • Mentoring in Classroom Contexts	Motivators: Self versus Other
• Difficulties in outlining what Student Teachers can expect from me as a Cooperating Teacher • Difficulties in articulating the evaluation procedures at the start of the practicum + 28 other items	• Challenges in Guidance and Mentoring • Inadequate Forms and Guidelines • Unclear Policies and Procedures • Concerns about School Advising as a Sub-Specialty • Concerns about STs' Pre-Practicum Preparation • Uncertain Feedback and Communication Practices	Challenges: Interpersonal versus Systemic
62 Items →	14 Scales →	3 Balance Charts

Motivators versus Challenges

The core of the MPI is a 62-item survey that quantifies the important features that motivate (32 items) and challenge (30 items) cooperating teachers in their work with student teachers (Table 1, Column 1). Motivator items ask teachers to indicate the degree to which a particular statement represents a motivator for working with student teachers (e.g., "Supervising helps refine my own teaching practices and

skills"). The five possible response options for motivator items are: Not a Motivator (or Does Not Apply), A Slight Motivator, A Moderate Motivator, A Significant Motivator, or A Critical Motivator. Challenge items asks teachers to indicate the degree to which a particular statement represents a challenge in working with student teachers (e.g., "Lack of clarity about supervisory responsibilities at the district or regional level for student teachers"). The five response options for the challenge items are: Not a Challenge (or Does Not Apply), A Slight Challenge, A Moderate Challenge, A Significant Challenge, or A Critical Challenge. Item responses are scored from 0 to 4 (e.g., '0' for Not a Motivator or Not a Challenge, '1' for A Slight Motivator or A Slight Challenge, '2' for A Moderate Motivator or A Moderate Challenge, etc.). The responses to the MPI are then processed into 14 scales: 8 motivator scales and 6 challenge scales (Table 1, Column 2). A respondent's scale scores are the linear sums of each respondent's answers to the items that comprise each of the scales. For convenience, all scale scores are renormalized to a common range of 0–50 in the final report.

Beyond the 14 scales, there are two internal MPI structures that provide an additional level of detail for understanding teachers' conceptions of the practicum (Clarke et al. 2012). These structures result in two intermediate balance charts: one for motivators illustrating the balance between 'self' and 'other' motivations; and one for challenges illustrating the balance between 'interpersonal' and 'systemic' challenges (Table 1, Column 3). For the motivators, the 'self' score reflects personal gains from working as a cooperating teacher. The 'other' score reflects gains offered to others as a result of working as a cooperating teacher. For the challenges, the 'interpersonal' score reflects challenges with communication, feedback, etc., that arise from interpersonal relations when working as a cooperating teacher. The 'systemic' score reflects a lack of clarity about policies, a paucity of guidelines, or unclear evaluation forms or procedures, etc., that are essentially procedural in nature and arise when working as a cooperating teacher. Calculations for the internal components of the two balance charts (self/other and interpersonal/systemic) are reported as percentages. A third and final balance chart depicts the overall balance between the 32 motivator items and the 30 challenge items of the MPI (Table 1, Column 4). Calculations for the internal components of the third balance chart (motivator/challenge) are also reported as percentages.

The MPI is freely available on the web with the understanding that: (1) all MPI respondents will always have access to their own *Individual MPI Profiles* at any time (via a unique URL that is sent to them by email); and (2), their results will become as part of the MPI database for use in larger-scale MPI analyses of cohorts of cooperating teachers (e.g., local, national, or international cohorts). All names and other personal information are removed to ensure confidentiality and anonymity of respondents for larger-scale analyses.

Generating Aggregate MPI Profiles. *Aggregate MPI Profiles* for a cohort of cooperating teachers is possible by using identifiers that respondents provide when completing the MPI, for example, country designation. *Aggregate MPI Profiles* can also be generated through a special provision within the MPI that allows project coordinators to allocate a unique Project Code to their group of cooperating

teachers. For example, if a professor at Beijing Normal University (BNU) in China was interested in tracking the collective results of the BNU cooperating teachers who supervised student-teachers during the 2015 academic year, he or she could apply for a special Project Code (e.g., 'BNU2015') which the BNU cooperating teachers would then enter when completing the MPI. The project coordinator would subsequently use this code to track the *Aggregate MPI Profile* for his or her cohort of Beijing cooperating teachers.

In this study we use the country designation of the MPI respondents who have completed the MPI over the past five years to construct five international cohorts of cooperating teachers. The total number of respondents in the current study is 1479 and includes cooperating teachers from the following countries: Spain (n = 124); New Zealand (n = 178); Australia (N = 314); China (n = 258), and Canada (n = 538).

In all five countries, university professors who were involved at the outset in the development and testing of the MPI were instrumental in arranging for the cooperating teachers from their countries to complete the MPI. The Australian sample has received an additional boost in the past year because the MPI has been included as part of a national resource package for cooperating teachers: the Australian Institute for Teaching and School Leadership (AITSL) program (see www.aitsl.edu.au/initial-teacher-education/supervising-preservice-teachers). As a result, at least half of the Australian sample is made up of cooperating teachers from across Australia who have taken the MPI independent of a particular professor's invitation.

Data Analysis

This study draws on *Individual MPI profiles* to develop *Aggregate MPI profiles* which are necessary for a comparative analysis of cohorts of cooperating teachers from international contexts. *Aggregate MPI profiles* are based on each cooperating teachers scale scores (20 in total) that constitute the *Individual MPI Profiles* and averaged across each of those scales for a cohort of cooperating teachers.

Statistical comparisons across cohorts using *Aggregate MPI Profiles* are done with one-way ANOVAs for the 14 scales, where the $p < 0.05$ Games-Howell test for post-hoc multiple comparisons is applied to determine which specific cohort means differed from each other and by how much. In particular, the Games-Howell procedure does not assume equal variances across groups, hence corrects for unequal sample sizes while remaining sensitive to small differences between means. Throughout, we maintained a standard $p < 0.05$ alpha level to determine the significance of differences between means or any pairs of means. Comparison of the balance charts is simply a comparison of the percentage scores for the two components that constitute each of the three charts (self/other, interpersonal/systemic, and motivators/challenges, respectively).

Data Reporting

We report the results to the comparative analysis using a chart designed specifically for this purpose (Fig. 2). This chart enable us to locate individual country results against:

(1) the backdrop of the overall sample of cooperating teachers; and
(2) the cohorts of cooperating teachers from other countries.

Normalized MPI Challenge Scores Compared Across Five Countries

Australia-A (n=314), New Zealand-Z (n=178), China=Q (n=258), Canada=C (n=538), Spain-S (n=124),

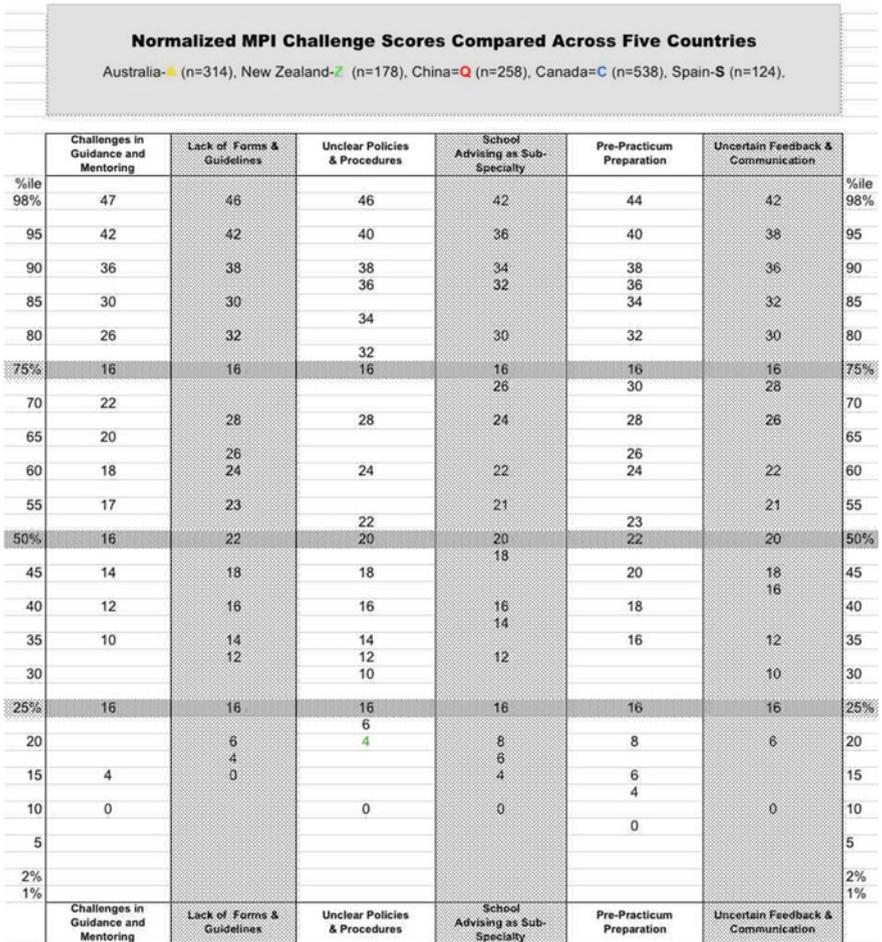| %ile	Challenges in Guidance and Mentoring	Lack of Forms & Guidelines	Unclear Policies & Procedures	School Advising as Sub-Specialty	Pre-Practicum Preparation	Uncertain Feedback & Communication	%ile
98%	47	46	46	42	44	42	98%
95	42	42	40	36	40	38	95
90	36	38	38	34	38	36	90
			36	32	36		
85	30	30			34	32	85
			34				
80	26	32		30	32	30	80
			32				
75%	16	16	16	16	16	16	75%
				26	30	28	
70	22			24		26	70
		28	28		28		
65	20						65
		26			26		
60	18	24	24	22	24	22	60
55	17	23		21		21	55
			22		23		
50%	16	22	20	20	22	20	50%
				18			
45	14	18	18		20	18	45
						16	
40	12	16	16	16	18		40
				14			
35	10	14	14	12	16	12	35
		12	12				
			10				
30						10	30
25%	16	16	16	16	16	16	25%
			6				
20		6	4	8	8	6	20
		4		6			
15	4	0		4	6		15
					4		
10	0		0	0		0	10
					0		
5							5
2%							2%
1%							1%
	Challenges in Guidance and Mentoring	Lack of Forms & Guidelines	Unclear Policies & Procedures	School Advising as Sub-Specialty	Pre-Practicum Preparation	Uncertain Feedback & Communication	

Fig. 2 An example of the format used to report the comparative analysis (in this case, the MPI challenge scale report chart)

On this chart, the central axis (i.e., the shaded horizontal line) that runs left to right midway through the chart is the point at which 50% of the population falls above the line and 50% falls below the line. The far left and right margins of the chart (percentiles) represent the percentage of the population that resides at the particular points indicated. For example, 10% of the population resides beyond the 10 and 90% points of the chart. Twenty-five percent of the population resides beyond the 25% and 75% points or interquartile ranges (i.e., the shaded but slightly fainter horizontal lines).

The identifier that we use to locate each individual country's position on the 8 Motivator scales and 6 Challenge scales is the mean score for that country for that scale. We use the mean because it best represents the collective assessment of all respondents from that country on that scale. Subsequently, we centered all scales on the report sheet such that each scale mean fell on the 50% percentile line and then adjusted each scale's dispersion to conform to a near-normal distribution. We highlighted the semi-interquartile range (25 and 75%) in preference to standard deviations because most cooperating teachers (and other audiences) are more intuitively familiar with percentages than standard deviations. Nevertheless, all tests of statistically significant differences among countries are performed using standard ANOVA procedures. The advantage of this configuration is that we are able to provide both an accurate reflection of each country's scores for each individual scale and an overall picture of where that country is located in relation to the cooperating teacher sample as a whole and to the cohort of cooperating teachers from the other countries.

Finally, we connect the points on each of the scale scores for each country thereby generating a single line that represents each country across the motivators scales and across the challenge scales. This line, in itself, has no particular significance, however, we found that the line helps readers to visualize how each country differs from the overall sample and other countries in the study.

The Results

The results will be reported in three sections: a comparative analysis of the motivator scale scores; a comparative analysis of the challenge scale scores; and a comparative analysis of the two components that make up each of the three balance charts. As this paper is being presented in a Chinese context, the analysis concludes with a special consideration of the 10 'hot button' issues for each of the motivators and challenges (based on the individual items that constitute the MPI) for the Chinese cooperating teachers.

With respect to the first two comparisons (motivators and challenges scales), the results are examined in terms of what is distinctive for a particular country on each of the scales in comparison to:

(1) the scores of the overall sample of cooperating teachers; (i.e., that country's results in comparison with the central axis or black line that runs left to right midway through the chart or the point at which 50% of the sample falls above the line and 50% falls below the line), and

(2) the scores on each of the scales for the five countries (i.e., that country's results as depicted a by a line joining the individual scale scores for that country in comparison to the other four countries).

Motivator Scores

Motivator Scores by Country in Comparison To the Overall Sample. We begin with a comparative analysis of the motivator scales for each country in relation to the overall sample of cooperating teachers; in particular, we highlight those occasions where the scale score for a country differs from the score for the overall population by 15 percentile points. Although arbitrary, we have chosen this point (65th percentile and above or 45th percentile and below) as being a point at which a country starts to distinguish itself in a substantive way from the overall sample of cooperating teachers (Fig. 3).

(a) Australia and New Zealand. Although Australia and New Zealand are two separate countries with their own distinctive educational systems, it is interesting to note the high degree of similarity between these two nations. Two of the motivator scores stand out as being particularly high (above the 65th percentile line). In these two instances, the cooperating teachers indicate that they are motivated to work with student-teachers because: (a) it helps them to improve their own practice; and (b) their belief in the importance of mentoring with in classroom contexts. One of the motivator scores stands out as being particularly low (below the 35 percentile line) and therefore is not seen by the Australian or New Zealand cooperating teachers as being an important motivator, namely, 'having time out to monitor pupil learning.'

(b) Canada. What is particularly striking about the Canadian cohort of cooperating teachers is that the Canadians, with the exception of two scales, either fall near or just below the median scores for the overall sample. Where they do differ markedly from the overall population (outside the 35th percentile) is that they do not regard 'renewing the profession' or 'reminders about career development' as being strong motivators for working with student-teachers.

(c) China. The Chinese cohort of cooperating teaches in comparison to the overall sample of cooperating teachers are quite strongly motivated in working with student-teachers on nearly all scales and in particular in terms of seeing their work with student-teachers as: (a) 'an opportunity to promote pupil engagement'; (b) allowing 'timeout to monitor pupil learning'; and (c) serving as 'a reminder about career development.'
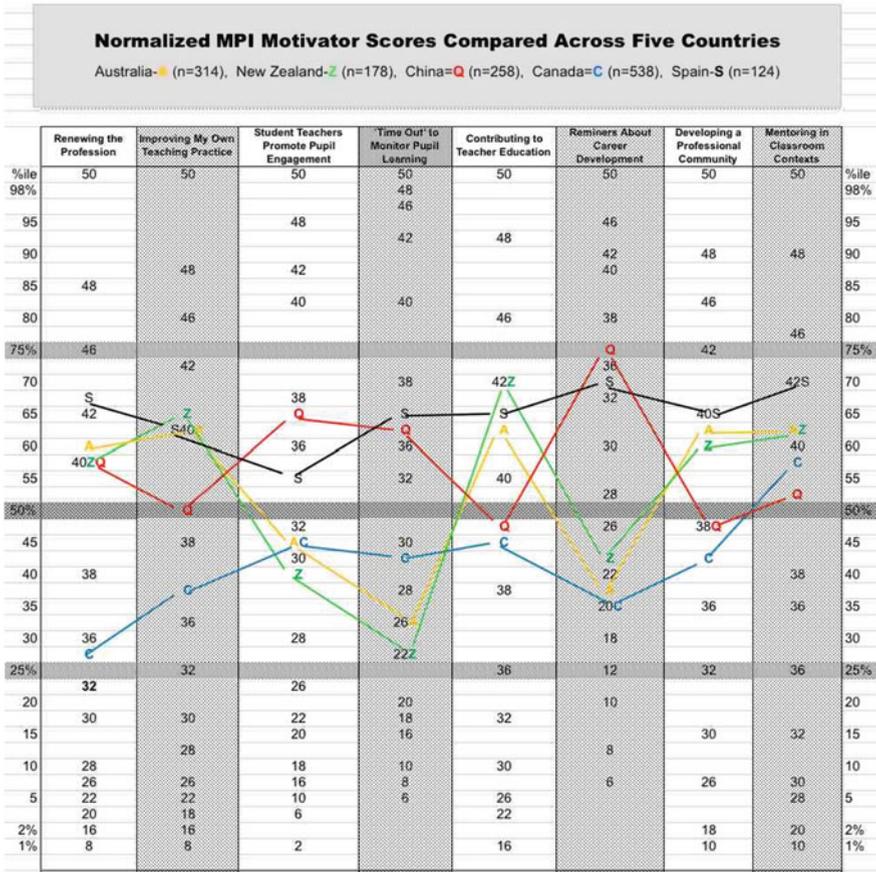
Normalized MPI Motivator Scores Compared Across Five Countries

Australia-▲ (n=314), New Zealand-Z (n=178), China=Q (n=258), Canada=C (n=538), Spain-S (n=124)

%ile	Renewing the Profession	Improving My Own Teaching Practice	Student Teachers Promote Pupil Engagement	'Time Out' to Monitor Pupil Learning	Contributing to Teacher Education	Reminders About Career Development	Developing a Professional Community	Mentoring in Classroom Contexts	%ile
98%	50	50	50	50	50	50	50	50	98%
				48					
				46					
95			48			46			95
				42	48				
90		48	42			42	48	48	90
85	48		40			40			85
				40			46		
80		46			46	38		46	80
75%	46	42				36	42		75%
70			38	38	42Z	32		42S	70
65	42 (S)	40 (Z)	Q	S	S		40S	Z	65
60	40ZQ		36	36		30	Z	40 / C	60
55			S	32	40	28		Q	55
50%			32		Q	26	38Q		50%
45		38	30 (AC)	30 / C	C	Z	C		45
40	38	C	28 (Z)	28	38	22		38	40
35		36		26		20C	36	36	35
30	36		28	222		18			30
25%	32	32	26		36	12	32	36	25%
20	30	30	22	20	32	10			20
15		28	20	16		8	30	32	15
10	28	26	18	10	30	6	26	30	10
5	26 / 22	22	16 / 10	8 / 6	26			28	5
2%	20 / 16	18 / 16	6		22		18	20	2%
1%	8	8	2		16		10	10	1%

Fig. 3 The MPI motivator report chart: comparative analysis

(d) Spain. The Spanish cohort, in comparison with the overall sample of cooperating teachers are the most highly motivated (across all scales) in comparison to the overall sample in their work with student-teachers. In particular, five scales are distinctive: (a) 'renewing the profession'; (b) allowing 'timeout to monitor pupil engagement'; (c) a sense that they are 'contributing to Teacher Education'; (d) 'reminders about career development'; and (e) the importance of 'mentoring in classroom contexts.'

Motivator Scores by Country in Comparison To Other Countries. In an attempt to identify differences between countries, we move from scale to scale and report those instances where the scale scores for countries are distinctively different from other countries (Fig. 3).

(a) Renewing the Profession. Canada is the only country that differs in a substantive way from all the other countries all of whom regard 'renewing the profession' as a motivator for working with student teachers (60th percentile). The Canadians report this as being as a relatively weak motivator for working with student-teachers.

(b) Improving My Own Teaching Practice. Once again, the Canadians standout in relation to all other countries in reporting that this is not a particularly strong motivator for them in working with student teachers.

(c) Student-Teachers Promote Pupil Engagement. The most distinctive feature about this scale is that Chinese and Spanish cooperating teachers value working with student-teachers in terms of 'promoting pupil learning' as a much stronger motivator (65th and 55th percentile, respectively) than any other country (42nd percentile).

(d) Timeout to Monitor Student Learning. This scale splits the countries in a significant way with both China and Spain regarding the opportunity that student-teachers provide in terms of allowing 'timeout to monitor pupil learning' as being an important motivator. On the other hand, Australian and New Zealand (and the Canadians to a lesser extent) do not see this as a particularly important motivator in their work with student teachers.

(e) Contributing to Teacher Education. The Australians, New Zealanders, and Spanish regard this as being a relatively important motivator for working with student teachers (65th percentile) whereas the Chinese and Canadians much less so (47th percentile).

(f) Reminders About Career Development. We see a very large split between China and Spain who regard this as a particularly important motivator (75th percentile) while the other three countries do not see this as overly important (40th percentile).

(g) Developing a Professional Community. We see a similar split here to an earlier scale, 'contributing to Teacher Education,' were we find the Australians, New Zealanders, and Spanish see this as relatively important (63rd percentile) but the Chinese and Canadians much less so (45th percentile).

(h) Mentoring in Classroom Context. The results show that all five countries see this as important with four countries clustering together (60th percentile) with the Spanish reporting the strongest results of all five countries (75th percentile).

Challenge Scores

Challenge Scores by Country in Comparison To the Overall Sample. As with the motivator scale comparisons, we begin our comparison of the challenges scales with a comparative analysis of each country in relation to the overall sample of cooperating teachers (Fig. 4).
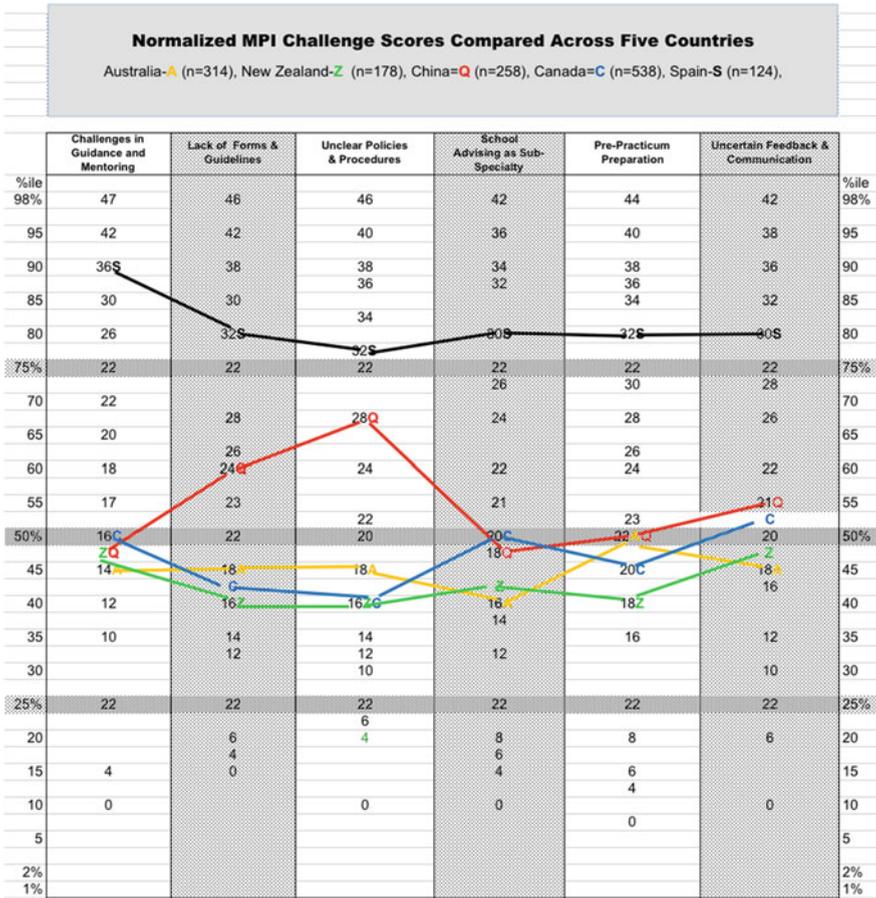
Normalized MPI Challenge Scores Compared Across Five Countries

Australia-A (n=314), New Zealand-Z (n=178), China=Q (n=258), Canada=C (n=538), Spain-S (n=124),

%ile	Challenges in Guidance and Mentoring	Lack of Forms & Guidelines	Unclear Policies & Procedures	School Advising as Sub-Specialty	Pre-Practicum Preparation	Uncertain Feedback & Communication	%ile
98%	47	46	46	42	44	42	98%
95	42	42	40	36	40	38	95
90	36S	38	38	34	38	36	90
			36	32	36		
85	30	30			34	32	85
			34				
80	26	32S	32S	30S	32S	30S	80
75%	22	22	22	22	22	22	75%
				26	30	28	
70	22			24			70
		28	28Q		28	26	
65	20						65
		26			26		
60	18	24C	24	22	24	22	60
55	17	23		21		21Q	55
			22		23	C	
50%	16C	22	20	20C	22CQ	20	50%
	ZQ			18Q		Z	
45	14A	18A	18A		20C	18A	45
		C		Z		16	
40	12	16Z	16ZC	16A	18Z		40
				14			
35	10	14	14	12	16	12	35
		12	12				
30			10			10	30
25%	22	22	22	22	22	22	25%
			6				
20		6	4	8	8	6	20
		4		6			
15	4	0		4	6		15
					4		
10	0		0	0		0	10
					0		
5							5
2%							2%
1%							1%

Fig. 4 The MPI challenge report chart: comparative analysis

(a) Australia, New Zealand, and Canada. As with the earlier analysis, we can see that the three countries, although each has a different educational system, display remarkable similar results for all of the challenge scales. Their results all fall on or very near the result for the overall sample of cooperating teachers (i.e., the shaded line running from left to right in the middle of the chart). The scores for the three countries fall within the 40th percentile to 50th percentile range with the no scale scores being particularly distinctive for any of the three countries.

(b) China. The scores for the Chinese cohort of cooperating teachers follow a similar pattern to the above countries with two exceptions. The Chinese cooperating teachers show that they are distinctly challenged by: (1) the 'lack of forms and guidelines' (60th percentile); and (2) 'unclear policies and proce-dures' (68th percentile) compared to the overall sample of cooperating teachers.

(c) <u>Spain</u>. A completely different picture emerges for Spain. The Spanish coop-erating teachers, in comparison to the overall sample, display extremely high levels of challenge across all six scales (75th percentile to 90th percentile).

   <u>Challenges Scores by Country in Comparison To Other Countries</u>. It should be noted at the outset that three countries—Australia, New Zealand, and Canada—report remarkable similar scores across all six scales and mostly lying near or just below the 50th percentile.

(a) <u>Challenges in Guidance and Mentoring.</u> Spain, in comparison to the other four countries, whose scores are located around the 50th percentile, report an extremely high level of challenge on this scale with the cohort score being located at the 90th percentile.
(b) <u>Lack of Forms and Guidelines.</u> This scale shows that both China and Spain are distinctly more challenged than Australia, New Zealand, and Canada, whose scores reside around the 50th percentile, with the Chinese cohort at the 60th percentile and the Spanish at the 80th percentile.
(c) <u>Unclear Policies and Procedures.</u> A similar result here to the previous challenge scale with China at 68th percentile and Spain at the 78th percentile.
(d) <u>School Advising as a Sub-Speciality.</u> Here Spain differs from all other countries (who are located between the 40th and 50th percentile) by reporting at the 82nd percentile.
(e) <u>Pre-Practicum Preparation.</u> The same as the above with Spain reporting at the 80th percentile.
(f) <u>Uncertain Feedback and Communication.</u> Again, very similar to the above with Spain reporting at the 80th percentile and the other countries lying between the 45th percentile and 55th percentile.

   <u>A Comparative Analysis of the Internal Components of the Balance Charts.</u>
   An analysis of the three balance charts—motivator, challenge, and overall—shows that the percentage scores for the two sectors within each of these charts are remarkably similar. Only in a couple of instances are the differences noteworthy (Table 2).

Table 2 Balance chart scores: internal components

	Motivator balance chart		Challenge balance chart		Overall balance chart	
	Self	Other	Interpersonal	Systemic	Motivators	Challenges
Australia	50.99	49.01	56.14	43.86	67.72	32.28
New Zealand	51.58	48.42	58.01	41.99	67.48	32.52
Canada	50.59	49.41	54.66	45.34	66.64	33.36
China	50.09	49.91	47.03	52.97	63.56	36.44
Spain	49.85	50.15	48.07	51.93	54.54	45.46

Table 3 Top 10 motivator items for the Chinese cohort

	Top ten MPI motivator items
1	It's gratifying to watch student teachers learn and develop
2	It's satisfying to work with another adult
3	Supervising is important to education and to society in general
4	Supervising helps develop student teachers into teachers
5	Supervising cautions me about the dangers of self-aggrandizement
6	Supervising helps refine my own teaching practices and skills
7	Producing more teachers is our social responsibility
8	It is satisfying to know I can facilitate a Student-Teacher's Development
9	Student Teachers keep me on my toes to hone my own teaching skills
10	Supervising STs confirms that there are many "right ways" to teach

In the ideal world, we posit (or theorize) that the Motivator and Challenge balance charts should be roughly balanced with a 50/50 balance between the scores suggesting that:

(1) in the case of Motivators, that there is an even balance between inward and outward sources of satisfaction for working with student-teachers on practicum; and

(2) in the case of Challenges, we would hope that neither the interpersonal or systemic challenges outweigh each other and that a balance between the scores is evident.

With respect to the final chart—the overall balance between motivators and challenges—it is hoped that cooperating teachers are generally more motivated than challenged, therefore a chart where the motivation percentage is somewhat greater than the challenge percentage would be ideal.

In our analysis of the data, all five cohorts of cooperating teachers show around the 50/50 split between 'self' versus 'other' for the Motivator Balance Chart. The results for the Challenge Balance Chart differ a little more from country to country, although not drastically so. The Australians, New Zealanders, and Canadians show that 'interpersonal' challenges are greater than 'systemic' challenges in their work with student-teachers (approximately a 57% vs. 43%). China and Spain show an almost 50/50 balance between 'interpersonal' and 'systemic.'

Finally the Overall Balance Chart for the Australia, New Zealand, Canada, and China cohorts is remarkably similar showing a 2/3rds versus 1/3rd. balance. The only distinctly different Overall Balance Chart is for Spain which shows a 55% versus 45% balance with the motivators just outweighing the challenges. This balance chart is edging towards a point where the challenges outweigh the motivators for being a cooperating teacher.

Table 4 Top 10 challenge items for the Chinese cohort

	Top ten MPI challenge items
1	Unclear feedback mechanisms between Faculty Advisors* and Cooperating Teachers
2	Absence of systematic procedures to select and prepare Faculty and Cooperating Teachers
3	Power and authority issues between Faculty Advisors and Cooperating Teachers
4	Lack of clarity about the roles and responsibilities of Faculty Advisors
5	Lack of access to university resources for assistance with STs who are struggling
6	Uncertainty about specific practicum preparation for STs prior to practicum
7	Little general agreement on a 'standard model' for supervising student teachers
8	Absence of feedback from Administrators to inform me how well I am assisting STs
9	Unhelpful Supervision Handbook guidelines, scenarios and examples
10	Little information about university course work for Student Teachers prior to practicum

*Faculty Advisors are instructors from the university who visits student-teachers on practicum

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As a confirmatory strategy, the top ten items highlight more specific features that each country might want to attend to. These results provide a more fine-grained analysis of the issues of most importance for a particular cohort of cooperating teachers, in this case we use China as an example (see Table 4), as this paper was presented in a Chinese context.

These items provide a particular insight into how and in what ways cooperating teachers in China conceive of their work with student teacher in practicum settings. Further, there are some clear trends appearing in this final analysis; for example, for the Challenge items the relationship between the cooperating teacher and the faculty advisor (i.e., the supervisors from the university) appears to be problematic. This specificity provides important direction to those responsible for establishing relationships and offering professional development opportunities for cooperating teachers in practicum settings.

Discussion

The comparative analysis provided by this paper provides both an overview of the MPI and an appreciation of how the MPI can be used to highlight issues of importance for cooperating teachers. We do not assume to know and understand the individual nuances presented by each country's context and believe that those nuances are better examined in detail by those whose daily work is with student-teachers and cooperating teachers in those contexts. Some of this work has already begun in the Chinese context (Lu et al., in press). Colleagues in Australia and Spain are working on similar analyses in their countries that will be published in the near future.

In conclusion, we argue that such analyses are important for three reasons. First, they are important for the identification of issues that might otherwise remain hidden or unrecognized from *a single-context perspective* but become apparent when perspectives from *other cooperating teacher contexts are brought into play*. Second, comparative analyses are important because what might be claimed as being *distinctive in a particular context* might be shown to be *less so* when that claim is located against the backdrop the other cooperating teacher contexts. Third, in the case of the cooperating teacher literature, the comparative analyses presented here represents an important shift in from what has been largely *idiosyncratic within-context analysis* to *comparative across-contexts analyses.* We are excited by the potential that the MPI has to offer and the issues that it highlights within the context of cooperating teachers working with student-teachers in practicum settings.

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