

The effect of school-based experience on preservice teachers' self-efficacy beliefs

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This research examined preservice teachers' self-efficacy beliefs immediately prior to and after the final practicum for an undergraduate three-year primary education teaching program. The primary purpose of the study was to explore the effect of the capstone practicum experience on the students' teacher self-efficacy beliefs. A secondary objective was to compare the utility of two established measures of teacher self-efficacy. A cohort of preservice teachers from New Zealand (N = 75) completed the Teachers' Sense of Efficacy (long form) (Tschannen-Moran & Woolfolk Hoy, 2001) and the English version of the Norwegian Teacher Self Efficacy Scale (Skaalvik & Skaalvik, 2007), before and after their final practicum placements. Results indicated that the participants' self-efficacy beliefs increased from pre to post. Further, the NTSES and the TSES were both found to be useful measures for assessing preservice teachers' self-efficacy beliefs, with the NTSES providing more differentiated evaluation. These results are discussed in the context of how capstone practicum experiences can enhance preservice teachers' teacher self-efficacy beliefs.

Introduction

Educational researchers have long been interested in the construct of teacher self-efficacy and its importance in the preparation of new teachers (Berg & Smith, 2014). Indeed, 40 years of research conducted in diverse settings and nations makes a strong case for the power of the construct. Robust teacher self-efficacy beliefs are associated with a wide range of positive outcomes for students and for teachers, including enhanced instruction and learning (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). Furthermore, for beginning teachers, strong teacher efficacy beliefs have been associated with a reduced likelihood of leaving the profession (Knobloch & Whittington, 2002). Nevertheless, the body of research exploring preservice teacher efficacy does not always present consistent results (Duffin, French & Patrick, 2012). Therefore, it seems appropriate to examine this construct more closely.

Literature review

The inconsistent results in studies on preservice teacher efficacy relate at least in part to conceptual and measurement issues as discussed below. A further explanation can be found in the context for the various studies. For example, Smith, Klein and Mobley (2007) found that with increased classroom experience, a sample of preservice teachers in early childhood, primary, secondary, physical education, and special needs programs demonstrated more sophisticated understandings of the role of a teacher and thus a more differentiated sense of efficacy than those with less experience. Similar results were obtained in a study with secondary preservice teachers in New Zealand (Smith, Corkery, Buckley & Calvert, 2013).

Formation of preservice teachers' efficacy beliefs

Research exploring how preservice teachers form their efficacy beliefs is somewhat limited (Pfitzner-Eden, 2016; Tschannen-Moran & Woolfolk Hoy, 2007). Given that practicum can be a high stakes experience for preservice teachers, particularly those on the cusp of their new careers, it seems that knowing what can affect and enhance the development of efficacy beliefs prior to having a classroom teaching experience can only enrich a preservice teacher's success in practicum. As a starting point to examining what might affect the formation of preservice teachers' efficacy beliefs, we can look back two decades to Bandura's (1997) four sources of self-efficacy beliefs: mastery experiences, verbal persuasion, vicarious experiences, and physiological arousal. It seems probable that during a practicum experience, preservice teachers are faced with considerable information from each of the four sources and thus may reevaluate their self-efficacy beliefs in the face of the new evidence obtained.

Consider Bandura's (1997) four sources of self-efficacy beliefs as they relate to the practicum experience. During practicum, preservice teachers are likely to pay close attention to their mastery of the range of skills necessary for success. Further, their performance is typically under the observation of their students, mentor teacher, and visiting lecturers, all of whom provide feedback that might be considered a form of verbal persuasion. Preservice teachers might also make judgments about their own abilities in relation to the practising teachers and other preservice teachers with whom they teach. The utility of these observations as a source of self-efficacy emanating from vicarious experience is related to the degree that the preservice teacher is able to identify with the person modelling any given behaviour. If another preservice teacher, who is judged to have similar capacity, succeeds or fails at a task, the observer's sense of efficacy is likely to be affected. Finally, physiological and emotional reactions might have the potential to either enhance or damage self-efficacy beliefs. It is interesting to contemplate how students may interpret the same sensation differently. A preservice teacher who is experiencing butterflies in his/her stomach may interpret such feelings as anxiety and evidence of weakness; another might describe the same feelings as excitement and evidence of how much the endeavour means to him/her.

Measuring preservice teachers' efficacy beliefs

Measurement issues have posed a further challenge for those researching the teaching of self-efficacy. Skaalvik and Skaalvik (2010) noted the lack of agreement in the field on how the construct should be measured, and suggested that "It has been conceptualised and measured differently by different researchers" (p. 1). Earlier, Roberts and Henson (2001) argued that the "construct validity scores from a variety of instruments purporting to measure teacher efficacy and related constructs has come under significant fire" (p. 5). Of particular concern to them was theoretical confusion and a lack of alignment with the construct of self-efficacy as outlined in Bandura's (1986) social cognitive theory. To understand this theoretical confusion, we will consider briefly the genesis of teacher self-efficacy research.

Questions from two studies conducted in the United States by the Rand Foundation (Armor et al., 1976; Berman, McLaughlin, Bass, Pauly & Zellman, 1977) are widely acknowledged as the advent of teacher self-efficacy research (Tschannen-Moran & Woolfolk-Hoy, 2001). These questions were: “When it comes down to it a teacher can’t really do much because most of a student’s motivation and performance depends on his or her home environment (Armor et al., 1976); and “If I try hard, I can get through to even the most difficult or unmotivated students” (Berman et al., 1977). The Rand questions were underpinned by Rotter’s (1966) locus of control theory. Consequently, teacher efficacy related to “the extent to which teachers believed reinforcement lay within themselves or in the environment” (Tschannen-Moran et al., 1998, p. 202). Yet, Rotter’s (1966) locus of control is different from Bandura’s (1986) approach to self-efficacy. Indeed, Bandura (1997, 2006) demonstrated that locus of control and self-efficacy in social cognitive theory differ. He distinguished between beliefs that people may have about their ability to bring about an outcome (self-efficacy) and beliefs people may have about whether actions can change outcomes (locus of control). A teacher may believe strongly that teachers’ actions have the capacity to change student outcomes (locus of control), but not believe that they, personally, have what it takes to bring about this change (self-efficacy) (Berg & Smith, 2016).

Another measurement issue has been the question of how general or situation specific teaching efficacy measures need to be. Bandura (1997) posited that as self-efficacy for instruction is unlikely to be consistent across subjects, teacher self-efficacy measures should be linked to subject domains. He posited that “omnibus measures” would underestimate the contribution of teaching self-efficacy to student achievement. Lombardo-Graves (2017), in response to finding few valid and reliable measures of preservice and novice special educators’ efficacy, developed the *Pre-Service Special Educators Efficacy Scale* (SEES-I). Others have used adapted versions of the *Teachers Sense of Efficacy Scale* (TSES; Tschannen-Moran et al., 1998) for specific curriculum areas such as dance (Renner & Pratt, 2017) and English as a foreign language (Rozati, 2017). These notwithstanding, in practice measures that are too specific risk having reduced external validity and fewer opportunities for useful application (Pajares, 1996; Tschannen-Moran & Woolfolk Hoy, 2001).

The TSES and the NTSES

In response to these and other challenges in the then existing measures of teaching self-efficacy, Tschannen-Moran et al. (1998) developed the *Teachers Sense of Efficacy Scale* (TSES), which purported to resolve the conflict between internal sources of self-efficacy from social cognitive theory and external environmental sources from locus of control theory. Since that time, Duffin et al. (2012) have suggested that the TSES is “the most promising measure of teacher efficacy to date...” (p. 828). They argued that it is aligned with Bandura’s (1997) self-efficacy theory, as well as recommendations made about the measurement of teacher self-efficacy by Fives and Buehl (2009) and Klassen, Tze, Betts and Gordon (2011). The TSES is made up of 24 items with 8 items in each of three subscales: Efficacy in student engagement; Efficacy in instructional practices; and Efficacy in Classroom Management. Participants respond to each item in terms of *How much can you*

do?, using a 9-point scale ranging from 1 (*nothing*) to 9 (*a great deal*). It has been claimed that the TSES is superior to other measures because of its ability to measure a wide range of skills considered to be important by teachers, and due to its stable factor structure (Woolfolk Hoy & Spero, 2005). The items on the TSES are shown in Appendix A, grouped within the three subscales.

The TSES has been used extensively in research with preservice teachers (Duffin et al., 2012). However, when used with preservice teachers, the factor structure has proven to be less well-defined. Indeed, Tschannen-Moran and Woolfolk Hoy (2001) have suggested that a single factor solution is the most appropriate for this population. That suggestion has been supported by recent studies (Berg & Smith, 2014; Duffin et al., 2012; Fives & Buehl, 2009). However, in her study of 198 final (4th) year Greek primary preservice teachers, Poulou (2007) found that a three-factor solution was a significantly better fit. Pfitzner-Eden, Thiel and Horseley (2014) also found support for a three-factor solution with preservice teachers in Germany and New Zealand. It might be the case that, in keeping with Smith, Klein and Mobley's (2007) conclusions, preservice teachers develop a more differentiated and sophisticated view of teaching at the end of teaching preparation programs when they are more closely aligned with in-service teachers than with beginning preservice teachers. That would suggest that a one factor solution would best explain the variance for beginning preservice teachers, progressing to a three-factor structure over time and with experience.

A less well known, but promising, measure is the *Norwegian Teacher Self-Efficacy Scale* (NTSES) (Skaalvik & Skaalvik, 2007). This measure has been predicated on an analysis of teachers' work in Norway. It has been used successfully in Norway with in-service teachers (Skaalvik & Skaalvik, 2007; 2010). The NTSES comprises 24 items with 4 items in each of six subscales: Instruction; Adapting education to individual students' needs; Motivating students; Keeping discipline; Cooperating with colleagues and parents; and Coping with changes and challenges. Responses to each item are made on a 7-point scale ranging from 1 (*not certain at all*) to 7 (*absolutely certain*). The items in the six subscales are intended to capture something of the breadth of teachers' work, including work with students and other work such as responding to policy change and working with colleagues. The items on the NTSES are shown in Appendix B, grouped within the six subscales. We believe that the items in the NTSES are likely to be well aligned with the roles of teachers in comparable contexts, including New Zealand. In fact, Avanzi et al. (2013) have argued that the NTSES also can be used with success in other cultural contexts. In their study of the psychometric properties of an Italian version of the NTSES, the six-factor structure of the scale was confirmed through the use of multi group confirmatory factor analysis.

The NTSES offers advantages that may prove attractive to teacher self-efficacy researchers. Firstly, its six dimensions offer a multifaceted and nuanced scale that is capable of greater differentiation among various activity domains within teaching. Avanzi et al. (2013) suggested that this differentiation could equip teacher educators with valuable information for targeted teacher support. Secondly, the NTSES avoids theoretical confusion by looking only to Bandura's (1997) understanding of self-efficacy. Its authors

followed Bandura's (2006) guidance, including recommendations that self-efficacy scales should be mindful that self-efficacy is a measure of perceived capability, not intention. Thus, self-efficacy items should be worded as "can do," not "will do." Additionally, to prevent ceiling effects, items must reflect the task demands and allow for sufficient graduation of difficulty of the task. It is noted that to date there are no published accounts of the NTSES being used with preservice teachers or in its English language version. The research reported here represents the first use of the NTSES English language version.

Research questions

Self-efficacy beliefs, once formed, can be difficult to change (Bandura, 1997). This underscores the importance of gaining a robust understanding of preservice teachers' self-efficacy beliefs. Such information can provide insights for those responsible for the development of new teachers, regarding how preservice teachers form their efficacy beliefs, how they distinguish among the various aspects of teachers' work, and to what extent the context and timing of a practicum affects the development their self-efficacy. Consequently, the research questions for this study were:

1. How does a capstone (final) practicum affect preservice teachers' teaching self-efficacy?
2. How do the TSES (long form; Tschannen-Moran & Woolfolk Hoy, 2001) and the NTSES (Skaalvik & Skaalvik, 2007) compare for measuring preservice teachers' teaching self-efficacy?

Theoretical framework

The theoretical framework for the current research utilised Bandura's (1997) concept of self-efficacy from his social cognitive theory. More specifically, we look to the body of teacher self-efficacy research that is underpinned by this model.

Method

Participants

The participants were a convenience sample ($N = 75$) of graduating students from the University of Otago, New Zealand. Participation was voluntary, and all participants were in their final semester of study in a three-year BA in Primary Teaching. The participants' ages ranged from 20 to 44 years, with a mean age of 22.0 years and a median age of 21.0 years. Self-reported gender was 65 female (86.7%) and 10 male (13.3%).

Materials

The materials used in this study were the English translation of the *Norwegian Teacher Self-Efficacy Scale* (NTSES) (Skaalvik & Skaalvik, 2007) and the *Teachers Sense of Efficacy Scale* (TSES, long form; Tschannen-Moran & Woolfolk Hoy, 2001). These were selected following a review of extant teacher self-efficacy measures.

Procedure

Ethical approval for this study was obtained from the University of Otago College of Education Departmental Review Board and underwent Māori Consultation in accordance with University policy. Participation was solicited from students in a final year professional studies class for initial teacher education students. The students received information regarding the study, were given a verbal description of the study, and were provided with the opportunity to ask questions about it. Those students who chose to participate signed informed consent documents.

This study used a randomised pre-post design. Immediately prior to beginning their final practicum, and again immediately following it, participants completed the two measures. The order of presentation of the measures was counterbalanced across participants. Anonymity was assured by using identification numbers; the list of names paired with the numbers was known only to the first author.

Data were analysed using *SPSS* version 24. Descriptive statistics were calculated, to examine means and standard deviations for each item, and to check for any input errors. Next, given the small sample size in relation to the number of items from the measures and given that the preservice teachers comprising the sample were at the end of their initial teacher education program, subscales were formed using the published factors for the two measures when used with in-service teachers. The resulting subscale scores were used then used for all subsequent analyses.

Results

Table 1 shows the descriptive statistics for the pre- and post-subscale scores for the NTSES and the TSES, calculated using the items within the factors as published for the measures. It can be seen that the means increased from pre to post for all subscales on both the NTSES and the TSES. For the NTSES, the standard deviations for the subscales remained stable across the administrations of the measure. The standard deviations for the subscales of the TSES were somewhat larger than those of the NTSES; however, as the range of potential responses was also larger than that of the NTSES this amount of variability was not of concern. It is also noted that the standard deviations for the subscales of the TSES decreased from pre to post administrations.

Coefficient alphas for the resulting subscales are presented in Table 2. As that table shows, for the TSES, the reliability statistics for the responses from the current sample are comparable to the published reliability statistics. Given the extensive body of research that has used the TSES, this was not unexpected. The reliability statistics for the NTSES were somewhat lower for the responses from the current sample, as compared to the published reliability statistics. It should be noted that the NTSES is a more recent measure than the TSES and its published reliability statistics are based on the Norwegian-language version of the measure.

Table 1: Descriptive statistics for the pre- and post-subcales (N = 75)

Measure	Subscale	Pre		Post	
		M	SD	M	SD
NTSES	Instruction	5.22	.55	5.63	.54
	Adapting to individual needs	5.17	.57	5.59	.55
	Motivating students	5.06	.56	5.51	.52
	Maintain discipline	5.02	.62	5.53	.63
	Cooperate with colleagues/ parents	5.15	.61	5.54	.63
	Cope with change	5.38	.66	5.74	.66
TSES	Instructional strategies	6.74	.88	7.28	.74
	Student engagement	6.88	.81	7.33	.66
	Classroom management	7.00	.75	7.41	.71

Table 2: Reliability statistics for the NTSES (Skaalvik & Skaalvik, 2007) and the TSES (long form; Tschannen-Moran & Woolfolk Hoy, 2001) (N = 75)

Measure	Subscale	Coefficient alpha		
		Pre	Post	Published
NTSES	Instruction	.58	.60	.83
	Adapting to individual needs	.48	.58	.90
	Motivating students	.49	.54	.83
	Maintain discipline	.30	.59	.91
	Cooperate with colleagues/ parents	.41	.66	.77
	Cope with change	.58	.75	.81
TSES	Instructional strategies	.88	.89	.91
	Student engagement	.84	.84	.87
	Classroom management	.82	.86	.90

To explore the first research question, which asked how the capstone practicum experience affected preservice teachers' teaching self-efficacy, paired-sample *t*-tests were used to examine the average pre- and post-scores for each subscale on the NTSES and the TSES. The results indicated statistically significant increases at $p < .001$ for all subscales (see Table 3). As Table 3 shows, the effect sizes using Cohen's *d* ranged from .54 (Coping with changes and challenges) to .83 (Motivating students) for the NTSES. For the TSES, the effect sizes ranged from .56 for Classroom management to .66 for Instructional practices.

To explore the second research question, concerning the relationship between the NTSES and the TSES, correlations were calculated for the subscales. The results of this analysis are shown on Table 4. It is most meaningful to focus on the correlations for the pre-NTSES subscales with the pre-TSES subscales, and the correlations for the post-NTSES subscales with the post-TSES subscales. Doing so shows that with three exceptions, the subscales were correlated at $p < .01$. Two of the exceptions were correlated at $p < .05$: the NTSES Maintain discipline (pre) subscale with the TSES Instructional strategies (pre) subscale, and the NTSES Cope with change (pre) subscale with TSES Classroom

management (pre) subscale. The third exception concerned the NTSES Instruction (pre) subscale with the TSES Instructional strategies (pre) subscale; these were not significantly correlated. However, the subscales for the post administrations of these two measures were correlated at $p < .01$.

Table 3: Results of the paired sample t -tests by subscale (N = 75)

Measure	Subscale	t	df	p	d
NTSES	Instruction	5.50	74	<.001	.74
	Adapting to individual needs	5.47	74	<.001	.75
	Motivating students	6.17	74	<.001	.83
	Maintain discipline	6.76	74	<.001	.81
	Cooperate with colleague/ parents	4.66	74	<.001	.63
	Cope with change	4.32	74	<.001	.54
TSES	Instructional strategies	5.41	74	<.001	.66
	Student engagement	5.26	74	<.001	.61
	Classroom management	4.10	74	<.001	.56

Table 4: Correlations of the subscales for the NTSES (Skaalvik & Skaalvik, 2009) and the TSES (long form; Tschannen-Moran & Woolfolk Hoy, 2001) (N = 75)

		Subscale					
		TSES Pre			TSES Post		
		Instruct. strategies	Student engage	Class manage	Instruct. strategies	Student engage	Class manage
NTSES Pre	Instruction	.176	.326**	.370**	.147	.154	.181
	Adapting	.418**	.407**	.296**	.216	.185	.040
	Motivating	.328**	.450**	.397**	.145	.138	.165
	Discipline	.275*	.392**	.377**	.135	.191	.160
	Cooperate	.365**	.355**	.378**	.359**	.270*	.209
NTSES Post	Cope	.331**	.324**	.264*	.336**	.269*	.216
	Instruction	.106	.274*	.238*	.370**	.343**	.533**
	Adapting	.152	.247*	.185	.557**	.590**	.484**
	Motivating	.159	.301**	.168	.537**	.495**	.614**
	Discipline	.062	.210	.148	.455**	.462**	.627**
	Cooperate	.075	.151	.136	.548**	.530**	.600**
	Cope	.147	.175	.095	.598**	.575**	.524**

Note: * $p < .05$; ** $p < .01$

Discussion and conclusion

The first research question addressed the impact of the capstone practicum experience on preservice teachers' efficacy beliefs for a cohort of undergraduate students in a three-year BA program in Primary Teaching in New Zealand. Results indicated that participants in this study reported more robust teacher efficacy beliefs after they had completed their final school-based experience, as evidenced by the significant increases across all subscale scores from the pre- to post-administrations of the two measures. Given that once formed, self-efficacy beliefs are somewhat resistant to change (Bandura, 1997), this result

underscores the need for preservice teachers to experience opportunities for such beliefs to be developed. The findings of this study suggest that the capstone practicum offers such opportunities.

A final “capstone” practicum experience allows preservice teachers to synthesise their university-based classroom experience and previous practicum experiences in a scaffolded environment. In the capstone practicum in which this research was conducted, much of the scaffolding is removed and the preservice teachers experience sustained periods of time in which they have sole charge of the class. It has been described by those involved with the program as a rite of passage from being a student to entering the profession as a pre-registered teacher. Others have found support for increased preservice teacher efficacy over time in particular subject areas (see, for example, Deehan, Danaia & McKinnon, 2017) and contexts (see, for example, O’Neill, 2016; Thomas & Mucherah, 2014).

From the perspective of university-based teacher educators, it is critical that this experience is one that builds teacher self-efficacy belief, rather than diminishing it. To ensure that a capstone practicum experience enhances preservice teachers’ teacher self-efficacy beliefs, teacher educators should make certain that students are well supported to experience mastery success, receive appropriate verbal persuasion, have role models who offer affirming vicarious experience, and are guided to make sense of their physiological and affective states. Jamil, Downer and Pianta (2012) have raised concerns that preservice teachers may not receive adequate information about their mastery of teaching, and therefore rely on other sources, such as affective states. Consequently, feelings interpreted as anxiety may lead preservice teachers to believe they don’t have what it takes; whereas, the provision of robust mastery information could challenge such negative thoughts.

The second research question concerned a comparison of the NTSES and the TSES, in terms of the extent to which each measured the participants’ teacher self-efficacy beliefs. The findings indicated that with only one exception, the pre- and post-subscale scores for these measures were correlated. Thus, we conclude that both the NTSES and the TSES are useful in assessing preservice teacher efficacy in the context of the capstone practicum experience. Each has strengths and limitations that should be considered by those seeking to measure teacher self-efficacy beliefs. The TSES is the more widely used of the two measures, is well established, and has been used extensively in research. By comparison, NTSES has been used rarely outside of Norway and, prior to this study, no results of its use in English-speaking countries have been published. However, the NTSES offers teacher efficacy researchers more differentiated subscales comprised of six dimensions in contrast to the three of the TSES. As such, the NTSES might offer increased construct validity. Furthermore, the NTSES eliminates some of the remaining theoretical confusion in teacher self-efficacy research that has resulted from the dual theoretical foundations of Rotter (1966) and Bandura (1986) underpinning the TSES. Rather, the NTSES is exclusively underpinned by social cognitive theory. A further strength of this measure is its alignment with Bandura’s (2006) guidance on the construct of measures of self-efficacy.

Several limitations to this research are noted and limit generalisability of the findings. To begin, this study was the first use of the English-language version of the NTSES. Additional research using that measure is needed to further inform its reliability and utility as a measure of preservice teacher self-efficacy beliefs. Additionally, the findings reported here are based on a relatively small convenience sample from one program within one university. Future replication is needed with other geographic areas and with preservice teachers in other programs.

For next steps, it would be helpful to conduct some focus groups with preservice teachers regarding the items on the NTSES to examine their validity in English-speaking countries. Such groups might even suggest additional items to measure different aspects of preservice teacher self-efficacy. As data from focus groups and replications of this study become available, an item bank can be built from which tailored measures can be constructed.

Further, self-efficacy beliefs are likely to be affected as new teachers begin their careers as classroom teachers. Responses to the items on these two measures may differ in the context of having the responsibility of a classroom. Consequently, we have begun a longitudinal study that seeks to track the evolution of teacher self-efficacy beliefs of a cohort of preservice teachers through each of their three years of initial teacher education and then across the first two years of their in-service teaching.

The TSES and the NTSES offer those wishing to measure preservice teacher self-efficacy beliefs two valuable measures from which to choose. Teacher self-efficacy researchers can consider which best meets their needs, and in particular, consider how well aligned the items in each are to the complex and varied work in which teachers engage in their particular contexts.

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Appendix A: Teachers' Sense of Efficacy Scale (long form)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

Response categories (7-point scale)

(1) Not certain at all; (3) Quite uncertain; (5) Quite certain; (7) Absolutely certain.

Efficacy in student engagement

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
4. How much can you do to motivate students who show low interest in school work?
6. How much can you do to get students to believe they can do well in school work?
9. How much can you do to help your students value learning?
12. How much can you do to foster student creativity?
14. How much can you do to improve the understanding of a student who is failing?
22. How much can you assist families in helping their children do well in school?

Efficacy in instructional strategies

7. How well can you respond to difficult questions from your students?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for your students?
17. How much can you do to adjust your lessons to the proper level for individual students?
18. How much can you use a variety of assessment strategies?
20. To what extent can you provide an alternative explanation or example when students are confused?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

Efficacy in classroom management

3. How much can you do to control disruptive behaviour in the classroom?
5. To what extent can you make your expectations clear about student behaviour?
8. How well can you establish routines to keep activities running smoothly?
13. How much can you do to get children to follow classroom rules?
15. How much can you do to calm a student who is disruptive or noisy?
16. How well can you establish a classroom management system with each group of students?
19. How well can you keep a few problem students from ruining an entire lesson?
21. How well can you respond to defiant students?

Appendix B: Norwegian Teacher Self-Efficacy Scale

Response categories (9-point scale)

(1) Nothing; (3) Very little; (5) Some; (7) Quite a bit; (9) A great deal.

How certain are you that you can:

Instruction

1. Explain central themes in your subjects so that even the low-achieving students understand.
8. Provide good guidance and instruction to all students regardless of their level of ability.
12. Answer students' questions so that they understand difficult problems.
16. Explain subject matter so that most students understand the basic principles.

Adapt instruction to individual needs

5. Organise schoolwork to adapt instruction and assignments to individual needs.
11. Provide realistic challenge for all students even in mixed ability classes.
18. Adapt instruction to the needs of low-ability students while you also attend to the needs of other students in class.
23. Organise classroom work so that both low- and high-ability students work with tasks that are adapted to their abilities.

Motivate students

2. Get all students in class to work hard with their schoolwork.
10. Wake the desire to learn even among the lowest achieving students.
15. Get students to do their best even when working with difficult problems.
21. Motivate students who show low interest in schoolwork.

Maintain discipline

6. Maintain discipline in any school class or group of students.
9. Control even the most aggressive students.
14. Get students with behavioural problems to follow classroom rules.
19. Get all students to behave politely and respect the teachers.

Cooperate with colleagues and parents

3. Cooperate well with most parents.
7. Find adequate solutions to conflicts of interest with other teachers.
13. Collaborate constructively with parents of students with behavioural problems.
22. Cooperate effectively and constructively with other teachers, for example, in teaching teams.

Cope with change

4. Successfully use any instructional method that the school decides to use.
17. Manage instruction regardless of how it is organised (group composition, mixed age groups, etc.).
20. Manage instruction even if the curriculum is changed.
24. Teach well even if you are told to use instructional methods that would not be your choice.

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Please cite as: Berg, D. A. G. & Smith, L. F. (2018). The effect of school-based experience on preservice teachers' self-efficacy beliefs. *Issues in Educational Research*, 28(3), 530-544. <http://www.iier.org.au/iier28/berg.pdf>