

Dr. Dhananjay Joshi

djjosh007@gmail.com

Dr. Sonal Chabra

sonal.chabra77@gmail.com

Dr. Indrajeet Dutta

indraneet@gmail.com

Pre-Service Teacher Education in India: Some Apposite Issues

Abstract

Teacher quality and educating high-quality teachers have emerged as the fundamental problems to be solved by nations since the correlation between education and economy is becoming more apparent, and the principal factor in student achievement is teacher quality (Cochran-Smith, 2008). Teacher quality has been a continual issue in the field of education (Wang, 2011). Considering teacher education as the bedrock for the national development of our country, the issues gripping teacher education deserve attention from all the stakeholders. In this paper, the writers have made a modest attempt to highlight the concerns gripping one of the largest teacher education systems of the world.

Indian traditions and the mythology have always accorded a high position to the teachers, owing to the influence they have on the society, directly and indirectly. No selection of words can appropriately justify the role teachers' play in a student's life. These days we demand high quality teaching and learning from teachers. It is often said that determinants of quality of education rests upon the quality of teachers which in turn depends upon the knowledge and skills repositories of teachers and how efficiently and effectively teachers use the knowledge and skills during interaction with learners. Thus, teacher should be a practitioner of effective pedagogical skills and assessment practices to ensure high quality education. This has been highlighted by several educationists and researchers in their work. In their work, King and Newman (2001) highlighted that, "Since teachers have the most direct, sustained contact with students and considerable control over what is taught and the climate for learning, improving teachers' knowledge, skills and dispositions through professional development is a critical step in improving student achievement." (p.89)

All this discussion brings a lot of focus on teacher preparation. Traditionally teaching has been considered as an 'art' as well as 'science' and the teacher must acquire some skills which are 'tricks of the trade' (Bajwa & Chabra, 2010). However, UNESCO (1972) has emphasized that 'what once as an art – the art of teaching – is now a science, built on firm foundations, and linked to psychology, anthropology, cybernetics, linguistics and many other disciplines'. Thus, the importance of teacher education has been well accepted now. In fact, teacher education is being recognized as a vital component in economic competition and growth (Tang and Tan, 2015). Post Independence India has set up many commissions and committees which recommended various suggestions to improve the quality of school education in India. The suggestions meant to improve the quality of school education had its direct bearing on teacher education.

Teacher education is a fundamental constituent of the Indian education system. With almost 20,000 recognized teacher education institutions at different levels, India has one of the largest systems of teacher

education in the world. However, teacher education system in our country has been a matter of serious concern for some decades now. The University Education Commission, Secondary Education Commission, Chattopadhyay Committee Report, Acharya Ramamurthy Committee and several seminars and study groups that were set up to discuss improvements in elementary and secondary education, from time to time expressed concern over the poor quality of teacher education. The Twelfth Five (2012-2017) year plan had envisaged a whopping investment of Rs 7786.91 crores over these five years in teacher education scheme in the country. The numbers indicate that there is concern and need felt about the status of teacher education in the country. Besides the monetary investment, there are certain other daunting issues which need attention from all the concerned. In the following paragraphs some aspects are discussed:

Distance Between Technology and Teacher Education

School education is witnessing major changes in the way teaching-learning is taking place using information and communication technology (ICT). These are visible not just in private schools, but even in the government setups also. The Government of India just launched Operation Digital Board (ODB) at school level. However, such changes are not visible in teacher education especially at pre-service teacher education institutions. The use of technology in teaching requires the integrated knowledge among technology, pedagogy, and subject content, and this highly blended knowledge is developed through method courses of a teacher education program towards improving pre-service teacher's technological skills (Zhou & Xu, 2013). The present teacher education curriculum has components of ICT, but they are just components and not well integrated into the curriculum. On the other hand, educational technology experiences in teacher education programs should place heavy

emphasis on learning the content-specific uses of technology that can be transferred to future classroom experiences (Ottenbreit-Leftwich, 2012). The Working Group Report on Elementary Education and Literacy for the 11th five-year plan highlighted that ICT is necessary for bridging the digital divide between government and private teachers, rich-poor, urban-rural, by providing opportunities to effectively use technology to further educational objectives. Sahay (2016) in her research pointed out that ICT has become a prominent part of education, but tendency to assume that teacher education programmes adequately prepares teachers to integrate technology into teaching needs to be questioned. Further, the use of ICT and other newer technologies should not be limited to pre-service teacher education, but should also be extended to explore other avenues like in-service teacher education and continuous professional development. The gamut of these can be especially widened using newer forms like mobile learning, web-based learning. The advent of MOOCs in this sphere is a welcome change.

Teacher Education and Inclusive Education

As proposed by Sarva Shiksha Abhiyan (SSA) and envisioned by Right to Education Act (RTE), inclusion assumes that the overall system of education becomes effective in order to encourage 'Schools for All'. Inclusive education is no more something desirable, but the law makes it mandatory. Inclusion is necessary from both the philosophical and sociological perspective of educational opportunities. However, despite the policy level changes, inclusion has not been able to significantly expand itself in India. Lack of human resources is cited as one of the major reasons for the same (Mani, 2010). There are two facets of this lack of human resources. Though inclusion happens in general school setting, but it requires special educators. Also, it requires general teachers to be more prepared to handle diversity in classrooms. When we

talk about the presence of special educators in schools, CBSE vide the circular no. Acad-31/2015 dated 25th June circular to all the heads of school to appoint special educators for children belonging to different categories like - physical, sensory, developmental and children with specific learning disabilities like dyscalculia, dysgraphia, dyslexia, etc. to aid them in their learning. CBSE in the same circular also has requested to provide special teachers for gifted and talented children. This is in accordance to what India's commitment towards inclusive classrooms as well as removing all kinds of barriers and disparities in providing education to these children. As per the census 2011, almost 61% of children between 5-19 years are attending schools. Thus, a sizeable population of children who are in the schools require special teachers. As per 8th All India Education Survey Published by NCERT in 2015 almost 21% (2,74,445) of schools promote inclusive education and this proportion declines as one moves from primary (60.47%), to upper primary (28.33%) to secondary (6.59%) and finally to senior secondary (5.07%). What is more astonishing is that total number of teachers (80,942 out of 58, 76,632 i.e., 1.32%) who were given training for inclusive education of two weeks is miniscule in number to the total population of teachers working in school education. Also, almost 42% schools were there where no special educators ever visited. Further, total number of special educators prepared by the teacher education institutions in comparison to the total number of teachers required in the schools (1:10) are mismatched i.e., there is huge gap between demand and supply of special educators in schools. The norms say that the ratio of special educators to children with special needs is 1:10 at the primary level and 1:5 at the secondary level.

Falling back on the second aspect of human resources in inclusive classrooms, our teacher education curriculum is not preparing our teachers enough for handling diversity in classrooms. Most of the universities have added a paper on inclusion in classrooms in their teacher education programme; however,

its transaction is largely theoretical. The pupil-teachers are generally not given any kind of experiential training to handle and teach children with special needs. The reason might be many of the teacher educators working in the teacher education institutions did not have any orientation or practical exposure of teaching in an inclusive classroom at school or at higher level nor they are exposed to children with special needs and therefore, they are unable to prepare prospective teachers. This leaves pupil-teachers almost unprepared for the real-life classroom situations.

Gap between Practice and Policy

It is always understood that theory and practice always go hand in hand, at least that's the way they should. In other words, practice should follow the theory. In education, policy considered to be the theory (off course derived from research) based on which plans are to be prepared and executed at the ground level. Honan (2007) called this gap as binary, which needs to be integrated rather segregated to be effective at the ground level. But it was often found that there was the educational theory proposes often being not carried out or executed in the way it must be. That's why often it is noted as "apparent intellectual segregation of educational theory and pedagogical practice" (Dhingra, 2004 cited in Flessner, (2012)). Pre-service teacher education is supposed to be the first crucial stage in the professional journey all prospective teachers embark on. Over the years the curriculum of pre-service teacher education has been increasingly influenced by academic developments in allied areas of psychology and sociology among others, which to an extent has led to sounder and more theoretical teacher education curriculum; at the same time farther from the ground realities of the teaching-learning life of the school. Several studies have shown that the school principals have voiced out their dissatisfaction with the novice teachers. Chabra (2016) found in her study that school principals hold an unfavourable perspective of effectiveness of the secondary

teacher education programme. According to her research a staggering 59% of school principals hold the B.Ed programme as not at all effective with another 23% calling it somewhat ineffective in preparing teachers as per needs of school. It has been true that over the years that classrooms have been diversified and because of that one finds differences in students learning and achievements. This led to structural adjustment in instructional policies to suit the needs of each group of diversified learners. Teachers be it in pre-service or in-service are very much concerned about the changing instructional policies and tries to innovate to find out the teaching strategies that works well in the diversified classrooms helping them to be a lifelong learner as well as “be the change to see the change” (Munthe & Rogne, 2015, Brouwer & Korthagen, 2005). The teacher education curriculum and our teacher educators need help in understanding the demands placed on our students and in making decisions that will affect our teacher education programs. According to Westbury, Hansén, Kansanen, and Bjorkvist (2005) teacher education

institutions must involve/engage the pupil-teachers in all types of academic as well as non-academic works including working in groups with peer teachers, coaching and mentoring students of general and special needs, and most importantly help students in solving their problems (social, academic, personal, etc.) and resolving intra and inter-personal conflicts.

Imbalance between Government and Self-Financing Institutions

The increasing demands on education in view of social, political, industrial and economical changes, and changes in the Government policies, the private sector was given an opportunity to participate in higher education. As a result of that India has seen a significant increase in number of teacher education institutions in general and ‘mushrooming’ of secondary teacher education institutions (Chabra, 2016). *The following table clearly evidences the gaps between number of teacher education institutions run under Government and self-financing mode.*

Table 1: Details of secondary teacher education institutions recognized by NCTE (as on 15-03-2013)

State	Number of districts	Number of Institutions		Intake Capacity	
		Government	Private	Government	Private
Eastern Region					
Arunachal Pradesh	14	0	6	0	600
Assam	23	9	43	660	3725
Bihar	37	6	131	610	14700
Jharkhand	22	4	91	400	9350
Manipur	9	2	5	330	600
Meghalaya	7	1	3	100	300
Mizoram	8	2	0	150	0
Nagaland	8	2	4	200	380
Odisha	30	20	0	2025	0
Sikkim	4	1	2	100	200
Tripura	4	1	3	150	400
West Bengal	19	8	194	808	19600
TOTAL		56	482	5533	49855

Western region					
Madhya Pradesh	48	5	464	500	46900
Maharashtra	35	19	556	1900	55500
Gujarat	25	11	345	1100	34500
Chattisgarh	16	2	135	200	12660
Goa	2	0	4	0	360
Daman and Diu	1	0	1	0	70
Dadar and Nagar Haveli	1	0	0	0	0
TOTAL		37	1505	3700	149990
Northern region					
Haryana	19	19	468	2740	60400
Himachal Pradesh	12	3	87	300	8845
Punjab	17	6	225	1200	23925
Rajasthan	32	8	769	800	79800
Uttar Pradesh	70	4	1136	250	113750
Uttarakhand	13	46	33	4600	3280
Chandigarh	1	2	2	200	410
Delhi	9	3	54	2680	5082
TOTAL		91	2774	12770	295492
Southern region					
Andhra Pradesh	23	5	583	500	62321
Karnataka	27	10	391	1000	39100
Tamil Nadu	29	10	674	708	150110
Andaman & Nicobar Islands	2	2	0	120	0
Lakshadweep	1	0	0	0	0
Puducherry	4	0	36	0	3750
Kerala	14	15	177	1500	17700
TOTAL		42	1861	3828	272981
TOTAL (India)		226	6622	25831	768318

A *large majority* of teacher education institutions are managed by private bodies followed by State governments and a few universities as departments of education. The presence of private institutions is market driven and urban dominated. Though the presence of private sector has helped in expanding capacity, it is characterized by imbalances leaving much gap for the regional disparities. Further it has also influenced the quality of teacher education being offered to the prospective teachers. These

institutions compromise on the attendance of the prospective teachers during the two-year period, which undoubtedly impacts the quality.

Variation in Institutional Capacity for Teacher Preparation Across States

RTE2009 requires availability of professionally qualified teachers at elementary level of school education. According to the Report of

the working group on teacher education (12th plan) submitted in 2011, at that point of time around 5.23 lakh teachers nationwide vacancies were in elementary schools, another 5.1 lakh teachers were required to meet RTE norm of 1:30 and approximately 7.74 lakh professionally untrained were working in school education system. Report further admitted that an inter-state variation in terms of untrained teachers, vacancies and institutional capacity of training the teachers do exist. States like Bihar, West Bengal, Assam Chhattisgarh, J&K, Jharkhand, Uttar Pradesh and Orissa accounts for 6.06 lakhs professionally untrained teachers working in the system and almost 9.73 lakhs vacancies (GoI, 2011 p.15) exist. Table 2 in this section clearly shows the institutional capacity for teacher preparation across states and number of untrained teachers in the school system. As soon as Right to Education (RTE) Act, 2009 was implemented across India (except then J&K), one of the mandatory aspects of the act was teachers have to be professionally trained to teach the children from Class I-VIII. At that point of time almost 10.6 lakhs teachers which rise to 12 lakhs in 2017 and need professional training (School Report Card, NIEPA, 2017). As per the MHRD circular, these teachers need to be professionally trained within five years of the implementation of RTE Act i.e., 31st March 2015. States like Bihar, Uttar Pradesh, Jharkhand, Orissa, West Bengal Chhattisgarh as well as North Eastern States suffers from dual problem: one insufficient number of teacher education institutions and second high percentage of untrained teachers in school education system (Batra, 29th August 2017). With the passage of amendment bill, central government given a time frame till 2019 to trained the teachers working in school education. Prof. Poonam Batra in her article further reiterated that many of the states started hiring contractual teachers and some of the states have

stopped recruiting permanent teachers like MP and Bihar. In one of the Proposal Approval Board (PAB) meeting (held in 2016-17), Tripura had almost 12000 untrained teachers in the school system which needs to be professionally trained in phased manner with collaboration of IGNOU. In another PAB meeting held on 2019-20 on 9th July while appraising the situation of the state, MHRD's concern was that still 3401 untrained elementary teachers are working in state government schools. A similar PAB meeting was conducted for RMSA concerning about untrained teachers in secondary education. It was found out that only 9.6 % (43 out of 448) teachers have B.Ed. qualification in Tripura. The number of teacher education institutions in NER is lesser in number in comparison to other states. So, they always face a shortage of professionally trained teachers for school education. Apart from it, many of the states reel under acute shortage of teachers as appointment of teachers normally takes years to complete. As per MHRD, *the total post sanctioned under SSA and under State government at elementary stage is 51,81,791 but the total post filled 42,74,206 (MHRD, EAG-108). This means a shortage of 9 lakhs (17.51%) teacher posts are lying vacant both under state and SSA scheme.* States like Bihar and Jharkhand had almost more than 30% vacancies whereas states like Uttar Pradesh, Punjab, Delhi and UT Chandigarh had more than 20% vacancies (MHRD-EAG, 2018). Some of the states which have large number of untrained teachers in the school education system are shown in table along with the intake capacity of the teacher education institutions. Since majority of the bigger and populous states like Bihar, West Bengal, Jharkhand, Chhattisgarh, and North Eastern states do not have adequate number of teacher education institutions, therefore, to train the untrained teachers it would take quite a number of years.

Table 2: State wise Number of Untrained Teachers working in the School Education system from Primary to Sr. Secondary Level

S.No	State	No. of Untrained Teachers
1	A& N Islands	64
2	Andhra Pradesh	5577
3	Assam	2,12,483
4	Arunachal Pradesh	11186
5	Bihar	2,47,131
6	Chandigarh	105
7	Chhattisgarh	65824
8	Dadra & Nagar Haveli	219
9	Daman & Diu	114
10	Delhi	0
11	Goa	367
12	Gujarat	203
13	Haryana	10,029
14	Himachal Pradesh	4144
15	J & K	75,051
16	Jharkhand	46823
17	Karnataka	17647
18	Kerala	6011
19	Lakshadweep	39
20	Madhya Pradesh	1,37904
21	Maharashtra	7282
22	Manipur	23413
23	Meghalaya	36751
24	Mizoram	339
425	Nagaland	21277
26	Orissa	64494
27	Puducherry	16
28	Punjab	22562
29	Rajasthan	39,926
30	Sikkim	7785
31	Tamil Nadu	13731
32	Telangana	5741
33	Tripura	28039
34	Uttar Pradesh	266285
35	Uttarakhand	14409
36	West Bengal	268256
37	Total	1201613

Source: School Report Cards, 2016-17 (NIEPA)

So, in 2017, central government started to train all the teachers through distance mode and entrusted the responsibility to NIOS to launch two-year diploma in elementary education. With the help of infusion of technology, NIOS completed the 18 months diploma programme with the enrolment of more than 12 lakhs which is equivalent to the total number of untrained teachers present in school education as provided by the NIEPA in their report (2016-17). But out of the 12 lakhs untrained teachers, almost 1.5 lakh teachers could not pass the examination and they are still in the system and another lakhs did not fulfill the norms of 50% marks in class twelve.

Uncertainties in Policy Formulation Regarding Teacher Education Programmes

The shift from one-year programme to two-year programme and now moving towards an integrated four-year programme within a short span of 3-4 years has rocked the colleges and shaken the teacher educators too. This has largely affected the number of entrants who are applying for different courses also. The first session of the two-year programme saw a large drop in number of students seeking admission to the programme. Large number of colleges had bare minimum admissions to survive the cost of running the programme. In such situations the kind of students seeking admission is also varied in its approach.

Absence of Professional Rigor in Teacher Education Institutions

Time and again questions have been raised about the effectiveness of teacher education programmes. Poor and dismaying results of different teacher eligibility exams have honked about their effectiveness. However, we have seen teachers who do not perform well on these mandated tests, yet are great teachers. And, of course, they 'are not' allowed to teach unless they can pass the tests if the schools follow norms. This is quite a dilemma.

Rising Cost of Pursuing Teacher Education Programmes

Almost 85% of institutes offering B.Ed. programme are running under self-financing mode. It can be arguably said that majority of the teachers are prepared by self-financing colleges. There is a huge gap in the fee structure of the government and self-financing institutes. With the advent of two-year B.Ed. programme, the cost has increased at least double and this has affected the number of students seeking admission to teacher education courses. The past two years have seen significant fall in number of admissions. If the demand from the students' side is low, then probably many of the institutes will shut down automatically which will create a kind of mess in the country where there is already huge shortfall of trained teachers (Dutta, 2018).

Quality Assurance and Internal Efficiency Issues

To assure quality and strengthen internal efficiency in teaching profession, academic and emotional qualities of intending candidates for teacher education are critical. In Indian teacher education institutions, an uncomfortable trend has been observed that candidates who apply for teacher education are those who have either been denied admission in their choice areas of study or are basically looking for an easier job. The usual shortage of applicants seeking admission into programs that would prepare them as teachers in universities is a pointer to why admission and placement in education programs is not as rigorous as it is in other programs. This contrasts with the international standards for teacher selection. For example, the International Labor Organization (ILO) recommends that teachers should be selected based on moral, intellectual and physical qualities. Also, in more developed countries like United Kingdom, applicants are compulsorily expected to possess certain intellectual qualities and personal characteristics before

they are admitted for training (Lassa, 1998). This is a concern at the initial stage of teacher education.

Overview

India has a large force of teachers in school education system. To have continuous supply of teachers in the school education, India needs large number of teacher education institutions. Since last two decades, especially after the launch of Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and more with emphasis on PTR ratio of 1:30 in elementary level and almost 1:40 secondary level, the existing level of vacancies in school education system is almost 17% at elementary level and must be higher at elementary level. Thus, teacher preparation for school education needs not only increase in institutional intake capacity, but also have a strong and robust quality

teacher preparation system. Curriculum prepared at the national level by NCTE (2014) and proposed integrated curriculum for four years will be best among the global. But what is needed that teacher education institutions must transform themselves into real professional institutions where rigor, academic excellence, professional preparation, autonomy and accountability of institutions in teacher preparation should be given top priority. The issues of teacher induction, teacher preparation and teacher appointment should be monitored at each point of time so that quality can be ensured. Policy framing bodies, policy implementation bodies and policy monitoring bodies should be in sync so that expected outcomes (teachers) should be able to lead the light as it is being said that “future of nation is breeding in classrooms” so destiny maker must be professionally trained and equipped for multiple challenges of the classrooms.

References

- Bajwa, C. & Chabra, S (2010). *System and issues in Indian education*. Faridabad: Balaji Publications.
- Batra, P. (2017, 29th August 2017). RTE amendment giving teachers more time to get qualified is poorly thought out and contrary to law. <https://scroll.in/article/847310/rte-amendment-giving-teachers-more-time-to-get-qualified-is-poorly-thought-out-and-contrary-to-law>
- Brouwer, N., & Korthagen, F. (2005). Can teacher education make a difference? *American Educational Research Journal*, 42, 153-224.
- Cochran Smith, M. (2008). *Policy, practice and politics in teacher education*, Thousand Oaks, CA: Corwin Press.
- Chabra, Sonal (2016). Effectiveness of secondary teacher education programme: An evaluative study from perspective of different stakeholders. Unpublished Doctoral Dissertation, GGSIP University, Delhi.
- Dhingra, K. (2004). Students' perceptions of schools of education In *Teaching teachers: Building a quality school of urban education*, Edited by: Kincheloe, J. L., Bursztyn, A. and Steinberg, S. R. 229–240. New York, NY: Peter Lang.
- Dutta, Indrajeet (2018). Preservice secondary teacher education programme: Some concerns of sustainability, *MIER Journal of Educational Studies, Trends & Practices*, 8 (1), 29 -37.
- Flessner, Ryan. (2012). Addressing the research/practice divide in teacher education, Scholarship and Professional Work – Education. 42. https://digitalcommons.butler.edu/coe_papers/42
- GOI (2016). Disabled people in India: A Statistical Profile 2016 http://mospi.nic.in/sites/default/files/publication_reports/Disabled_persons_in_India_2016.pdf
- GoI (2011). Report of the Working Group on Teacher Education for the 12th Five Year Plan https://niti.gov.in/planningcommission.gov.in/docs/aboutus/committee/wrkgrp12/hrd/wg_teacher1708.pdf

- Honan, E. (2007). Teachers engaging in research as professional development in *Handbook of teacher education: Globalization, standards and professionalism in times of change*, Edited by Townsend, T. and Bates, R. 613–624. Dordrecht, The Netherlands: Springer.
- King, M.B. & Newman, F.M. (2001). Building school capacity through professional development: conceptual and empirical considerations. *The International Journal of Educational Management*, 15(2), 86-94. <https://doi.org/10.1108/09513540110383818>
- Lassa, P. (1998). Teacher production: Focus on Nigeria in R. Akpofure (Ed.) *The state of education in Nigeria*, UNESCO. Abuja. pp. 70-83.
- Munthe, E. & Rogne, M. (2015). Research-based teacher education. *Teaching and Teacher Education*, 46, 17–24.
- MHRD. (2018). Educational statistics at Glance. https://mhrd.gov.in/sites/upload_files/mhrd/files/statistics-new/ESAG-2018.pdf
- MHRD.(2017) Proposal Approval Board Minutes of Meeting held on 2nd February 2017 https://mhrd.gov.in/sites/upload_files/mhrd/files/minutes/Tripura%20PAB%20minutes%202017-18.pdf
- MHRD.(2019) Proposal Approval Board Minutes of Meeting held on 9th July 2019 https://seshagun.gov.in/sites/default/files/2019-07/Tripura_PAB_2019_20.pdf
- MHRD.(2019) PAB Minutes of Meeting dated 15th July 2019 https://seshagun.gov.in/sites/default/files/2019-07/WB_PAB_2019_2020.pdf
- NCERT .(2015). All India School Educational Survey(8th) http://ncert.nic.in/pdf_files/8th_AISES_Concise_Report.pdf
- NIEPA. (2017). School Report Cards Retrieved from http://14.139.60.146/ReporterModule/ReportModule/Startup/ViewReport.aspx?g=&C=0&ST=0&ay=2016-17&rt=3&stc=&dc=&bc=&sm=0&sc=null&lev=10&rur=0&rpt=3_35&rt2=1&ag=&STN=India&DSN=&Bn=&Dis=0
- Sahay, Shilpa (2016). *Trend Analysis of Technology Integration by Teachers in India*, At Savannah, 1.
- Tang, K.N. & Tan, C.C. (2015). The importance of ethics, moral and professional skills of novice teachers, *Procedia-Social and Behavioral Sciences*, 205 (2015), 8-12.
- Wang, D. (2011). The dilemma of time: student-centered teaching in the rural classroom in China, *Teaching and Teacher Education*, 27 (1), 157-164.
- Westbury, I., Hansén, S.E., Kansanen, P., & Björkvist, O. (2005). Teacher education for research based practice in expanded roles: Finland's experience. *Scandinavian Journal of Educational Research*, 49, 475–485.