Macquarie School of Education

RESPONSE TO THE QUALITY INITIAL TEACHER EDUCATION REVIEW

About us:

The School of Education at Macquarie University has a strong track record of being an innovative school that is internationally recognised for engagement, research, learning and teaching. We are driven to provide agile, responsive, and flexible evidence-based solutions, programs and services that meet the ever-changing needs of partners in various sectors and contexts. Macquarie School of Education is one of the largest providers of teacher education in NSW and we have a long history of highly productive and collaborative relationships with communities, government, academic peers, and organisations of all sizes. We house a special primary school focusing on early literacy and numeracy; a demonstrator early education child and family study centre; the Macquarie Centre for Reading and the Academy of Continuing Professional Development in Education.

Authors:

Professor Mary Ryan (Dean of Education)

Associate Professor Iain Hay (Director of Professional Learning and Engagement)

Associate Professor Fay Hadley (Director of Initial Teacher Education)

Associate Professor Michael Cavanagh (Director of Education and Employability)

Professor Sheila Degotardi (Director of Research and Innovation)

Summary of Recommendations

1. Promote and support multiple pathways into teaching including early childhood teaching.

2. Remove the current requirement for non-academic entry and rely on professional experience to assess important attributes for teachers.

3. Provide financial incentives to attract diverse students into ITE.

4. Maintain Master's level qualifications for graduate candidates and career changers and provide incentives for ITE providers to develop more flexible programs.

5. Offer scholarships contingent upon a minimum of face-to-face learning in ITE.

6. Create systems that support ITE students to identify with the profession early.

7. Develop a funding pool for schools to partner with universities and community groups to bid for teaching-for- diversity research funding.

8. Reinstate funding specifically designated for professional experience that universities are mandated to spend on ITE.

9. Fund jurisdictions to scale up a more diverse Hub School and early childhood centre model.

10. Provide infrastructure for cross-institutional moderation of TPAs.

11. Support robust university-school partnerships for induction and professional learning.

Part A. Attracting high-quality candidates into ITE matters

Attracting

First, we need to change public perception about the teaching profession. A national media campaign is needed to raise the status and attractiveness of teaching as a career, including explicit reference to early childhood teaching. Teaching should be promoted as a space of high intellectual challenge, problem-solving, improving life opportunities for young people, and deep stakeholder engagement to help address the big social issues we face. This campaign should promote new financial incentives and career prospects.

The introduction of non-academic entry requirements has not made any difference to progress, completion, or retention of students at Macquarie University. It has, however, introduced an additional hurdle for admission that is largely seen by students as an administrative barrier. There are no validated measures of the predictive validity of non-academic entry tools. These attributes are better assessed during professional experience.

Teaching is a mass profession and requires multiple pathways to ensure that dynamic and changing supply needs across jurisdictions are easily met. A healthy and robust system of teacher education needs to offer options to attract diverse cohorts with different motivations and life circumstances. High-achieving school leavers are largely motivated to enter teaching for the following reasons:

> 1) Social justice: ability to influence children's development or contribute to society;

> 2) Intellectual challenge and autonomy; and

> 3) Remuneration along with career prospects (Darling-Hammond, 2017; Gore et al., 2015; Goss & Sonnermann, 2019).

Along with these factors, career-changers also want to minimise disruption to their personal lives and their capacity to earn (Allen et al., 2019).

When Schools of Education are deeply connected to school communities, teaching can be supported as a feasible career (Goe & Roth, 2019). University-school partnership models, such as the Hub School model in NSW, could be scaled up to a more diverse network of schools, and include early childhood services. Hub and spoke models can ensure that regional and rural schools are linked to metropolitan schools and have access to university support and collaboration. Strong, community-based university-school partnerships in diverse schools can enable bespoke and contextualised initiatives such as:

- Federal funding to support early identification of diverse students including Aboriginal and Torres Strait Islander students in senior school and developing wrap-around support to facilitate the pathway to a BEd (including support for LANTITE, which is a significant barrier for diverse teacher education candidates).
- Implementing 'Grow Your Own' programs in rural/remote contexts that enable teacher education candidates from rural and remote schools to work at the school in a paraprofessional role while studying for a BEd (or MTeach) online, with school holiday intensives.

- Enabling prospective candidates to try out teaching prior to applying (in line with the 'Discover Teaching' initiative, UK) conducted through partner schools in students' demographic.
- Use of financial incentives to attract diverse students: eg scholarships and fee waivers, opportunities to work as paraprofessionals in schools while studying, bonuses for obtaining successful certification and bonuses for teaching in "hard to staff" schools or subject areas experiencing shortage (e.g. in line with US initiative *Teacher diversity in America, (Brown Center on Education Policy*, 2018). Underwriting the cost of teacher preparation through service scholarships and loan forgiveness in exchange for a commitment to teach in high-need schools or subject areas, typically for at least 4 years.

Recommendation 1

Promote and support multiple pathways into teaching, including early childhood teaching.

Recommendation 2

Remove the current requirement for non-academic entry and rely on professional experience to assess important attributes for teachers.

Recommendation 3

Provide financial incentives to attract diverse students into ITE.

Research has advised the need to be cautious in assuming fast-track programs that place considerable value on school-based training can always necessarily generate effective, culturally responsive, and reflective teaching (Cash et al., 2020; Reynolds et al., 2016) or resolves the question of a lack of alignment between theory and practice (Schneider, 2018; Zeichner, 2010; Zeichner & Bier, 2015). The reliance on observation and imitation rather than deeper cognitive engagement for example in reasoning and judgement (Billett & Choy, 2012), can mean that deeply entrenched, yet ineffective practices, are maintained. Further, a US study by Redding and Smith (2016) found that alternatively certified teachers were more likely than traditionally certified teachers to leave the profession, and less likely to remain in the appointed hard to staff school.

Master's qualifications for teaching are more highly valued than the PG Diploma, particularly for career changers (Ojala et al., 2021). In addition, master's level degrees place a strong focus on understanding, interpreting, and using data and evidence: important skills for graduate teachers. The value of more flexible, accelerated master's programs in attracting career changers and targeting teacher shortages in particular subject areas and hard to staff schools has been shown internationally over recent years (DfE Teacher Recruitment and Retention Strategy, 2019; Ojala et al., 2021; Podolsky et al., 2016; Worth et al., 2018).

We support initiatives within MTeach programs which can target candidates by minimising disruption to their personal lives and their capacity to earn while ensuring an effective alignment

between theory and practice. Integrated strategies in university-based programs overseas and in Australia are based on key principles:

- Subsidised preparation through scholarships/bursaries and employment (0.6 – 0.8 FTE load) (e.g. as paraprofessionals or teachers) generally in 2nd year, or from 2nd half of 1st year;
- Flexible pathways such as fast-tracking (eg 18 months, using intensives and trimester structures); or part time over 3-4 years while teaching;
- Recognised prior learning of teaching roles to reduce professional experience days
- Flexible delivery (online and blended; weekly or intensive offerings);
- Effective mentoring in schools by designated induction mentors working closely with university supervisors;
- Connection with other ITE students within communities of practice offering opportunities to collaborate;
- Guaranteed post-qualification employment (in mutually agreed positions and schools with teacher shortage).

We are committed to partnering with education authorities by being responsive to the changing demands of workforce demand. At Macquarie we have demonstrated our ability to swivel quickly to work with employers to provide quality teachers for school systems across Australia.

<div style="border:1px solid #000; background:#f8d7da; padding:10px;">

Recommendation 4

Maintain Master's level qualifications for graduate candidates and career changers and provide incentives for ITE providers to develop more flexible programs.

</div>

Retaining

Macquarie University data show high rates of retention and success in 2018, with comparable performance by ATAR and non-ATAR entry students.

- The Success Rates of all Education students in 2018 was 87.2%. Three programs [Bachelor of Arts – Psychology with Bachelor of Education (Primary) – 94.8%, Bachelor of Education (Early Childhood Education) (Birth to 12) – 90.7%, Bachelor of Science with the degree of Bachelor of Education (Secondary) – 89%] exceeded the faculty average and five Education courses were above the University average.
- Students who entered Education courses through ATAR in 2018 had success rates of 85.4% (although some courses were significantly higher: the Bachelor of Education (Early Childhood Education) (Birth to 12) (92.2%), the Bachelor of Science with the degree of Bachelor of Education (Secondary) (91%) and the Bachelor of Teaching (Early Childhood Education) (90.6%).
- Education students who entered through non-ATAR pathways had success rates of 88.9% with some courses performing higher: Bachelor of Arts – Psychology with Bachelor of Education (Primary) (94.7) and Bachelor of Education (Early Childhood Education) (Birth to 12) (98.8%).
- In 2018 the average GPAs for all Education courses (2.42/4) exceeded both the Faculty and University averages, for both ATAR and non-ATAR cohorts.

> ➢ The Retention Rate of Education Students in 2017 was 83.4%, higher than the University average.

For undergraduate students, blended learning programs offer the greatest opportunity for success (AITSL, 2019). Scholarships could be offered to encourage students from diverse backgrounds to undertake a minimum amount of face-to-face learning.

Key factors impacting ITE retention include 'belongingness', resilience, and organisational and time management skills (Bowles & Brindle, 2017). A sense of belonging to the profession can strengthen commitment to ITE programs. ITE students are sometimes regarded as outsiders to the profession: not readily permitted to access school systems, student data or professional learning opportunities. A new category of *Transitional Accreditation* could be introduced to provide a sense of 'status' for ITE students; and include access to school and TRA systems and resources, opportunities to 'log' professional learning; paraprofessional work; and a pathway to conditional accreditation.

Recommendation 5

Offer scholarships contingent upon a minimum of face-to-face learning in ITE.

Recommendation 6

Create systems that support ITE students to identify with the profession early.

Part B. Preparing ITE students to be effective teachers

Readiness

At Macquarie University we are interested in graduating teachers who not only have relevant discipline knowledge and teaching know-how, but who also understand and strive for those capabilities that will make teaching a sustaining career for years to come. Our evidence-based 5Rs framework, when consciously adopted and continuously developed, leads to high quality outcomes for both teachers and students. We have developed this program logic for all our Initial Teacher Education programs, and this includes developing our TES to be: Resilient; Reflexive in their teaching practice; Responsive to children, colleagues, parents, professionals, and communities; Ready to learn; and Research engaged. We have mapped these 5Rs across our programs with specific indicators for our students about where they will have the opportunity to collect evidence of these capabilities across their units of study. These attributes must be demonstrated by our final year students in our MQTPA.

Teaching Diversity

Accreditation bodies in jurisdictions across Australia require all ITE programs to prepare graduates to work effectively with diverse learners, but research suggests that these same programs lack the space to address all the dimensions of this challenge (Rowan et al., 2021). Responding appropriately to the diversity of a student population requires teachers to have a robust understanding of three interrelated bodies of knowledge: teaching about, catering to, and teaching for diversity. Teaching *about* diversity involves providing future teachers with information about the common

needs and challenges of groups of learners (such as patterns of success or failure that have been linked to groups such as migrants, or children from low socio-economic backgrounds).

Teaching *to* diversity refers to strategies for teaching these groups learners: working with the status quo. Teaching *for* diversity, however, recognises that educators need to do more than *accommodate* diversity and *overcome* obstacles: rather, we need to create genuinely equitable environments that enable all students to achieve excellent outcomes. To achieve this, we need to challenge the beliefs and structures that produce the inequities in the first place. Teaching about and catering to diversity are necessary but insufficient for the pursuit of outstanding education. Developing the sophisticated skillset that allows us to teach *for* diversity takes time and deliberate effort. It also requires deep engagement with diverse community groups (Ryan et al., 2020). Funding could be provided for universities and schools to partner with community groups and develop context-relevant and evidence-based strategies for teaching diversity.

Professional Experience and TPA

Strong university-school partnership networks, such as a scaled-up NSW Hub School model, could be champions of graduate teacher excellence, supporting diverse networks of schools and early childhood settings to establish a networked approach to placements, with professional experience coordinators (induction mentors) in every hub network. This kind of approach could help to alleviate some of the challenges of practical experience including difficulty in finding placements, the variance in the quality of experience across schools, and the high costs of administration and relationship maintenance (Toe et al., 2020). Close partnerships supported by this kind of model have the potential to improve the quality and consistency of induction, supervision, and assessment (Green et al., 2020).

> "Focusing on the teaching standards and relating these back to my lesson plans and evaluations was really valuable, I am much more familiar with these standards now and I now see that they are an essential guide to help us maintain good teaching practice." (Final year Secondary Education student)

Funding is needed to help solve these enduring issues such as availability of places, the quality of placements and the cost of the provision of professional experience (both to providers and employers). The change in federal funding for ITE means that professional experience in ITE is no longer funded through a separate payment, considerably reducing the overall funding per ITE place. This reduction in funding has exacerbated the issues in delivering quality professional experience placements.

> *"In terms of transition to the profession, I think that our university courses have taught us much of what needed to be included in the MQTPA, and the MQTPA serves as a documentation of this learning."* (Final year Birth-12 Education student)

The Macquarie Teaching Performance Assessment (MQTPA) is a key component of the final professional experience and is based on the core teaching dimensions of Planning, Teaching, Assessing, and Reflecting. We have robust assessment and moderation processes in place to ensure validity and reliability of our TPA. We use two complementary processes to externally moderate our TPA:

> "In my TPA I focused on enhancing the maths or English learning that was occurring in the class during the prac through differentiating class activities." (Final year Primary Education student)

1) the use of expert groups and

2) the pairwise comparison method.

The use of expert groups to design, assess and moderate assessment instruments can be particularly effective for comparison of judgement across different instruments that assess the same core dimensions (Richardson & Coates, 2014). In addition, consensus moderation through calibration workshops with experts has been shown to significantly reduce grader variability across different assessment instruments (O'Connell et al., 2016). Expert groups have been used alongside psychometric methods for establishing equivalence in cross-national higher education assessment (Richardson & Coates, 2014); and in calibration workshops across institutions (O'Connell et al., 2016).

> *"The calibre of students and their insight has been evident in the high quality of early career teachers from MQ that I have been fortunate enough to be able to employ as Principal when staffing my school. This has been apparent with our most recent temporary engagement of a full-time teacher for 2020 following their placement as a final year professional experience student placement in 2019".* (Public School Principal).

The method of pairwise comparison/judgements has been used to assess educational performances in a variety of domains (Humphry et al., 2017) and also for educational standards setting (Wyatt-Smith et al., 2020). An advantage of the pairwise judgement method is that an analytic rubric is not needed and that assessors are better at making comparisons between work samples than scoring work samples from an analytic rubric. Pairwise comparison methods have been used to moderate assessments and teacher judgements on assessments with a high degree of reliability (c.f., Humphry et al.,2017).

To support all providers to engage in rigorous external moderation processes for their TPA, technology infrastructure could be provided for all providers to use.

Recommendation 7

Develop a funding pool for schools to partner with universities and community groups to bid for teaching-for-diversity research funding.

Recommendation 8

Reinstate funding specifically designated for professional experience that universities are mandated to spend on ITE.

Recommendation 9

Fund jurisdictions to scale up a more diverse Hub School and early childhood centre model.

Recommendation 10

Provide infrastructure for cross-institutional moderation of TPAs.

Induction and support

Clear guidance is needed for jurisdictions to differentiate the expectations of *graduate* and *proficient* teacher. Broadly, the emphasis for Graduate Teachers is on the demonstration of knowledge and understanding, and use of teaching strategies, whereas for Proficient Teachers, it is on planning, design, implementation, and application. The need for consistent, high quality in-school professional support to reach and maintain Proficient standards is an issue requiring urgent attention. Stronger

and more systematic mentoring and induction programs are needed for preservice teachers and new graduates including those in casual teaching positions.

The increasing complexity of teaching diverse groups means that predetermined technical skills and passed-down experiential knowledge may be insufficient for the kinds of complex problem-solving that is required for most contemporary teaching contexts (Willegems, Consuegra, Struyven, & Engels, 2017). Effective teacher professional learning is fundamental for the ongoing support and motivation of teachers (Cosner, Leslie & Shyjka, 2019). Key design features include contextual relevance, active learning (O'Meara, Whiting & Steele-Maley, 2015) an iterative approach over a longer duration, and based on a theory of action (Kennedy, 2016). Strong university-school partnerships can enable collaborative practice-based research and ongoing evidence-based professional learning to address real issues in classrooms, early childhood settings and school communities. Darling Hammond (2017) emphasises in her review of education systems globally, that strong and coherent education systems and school improvement initiatives (such as in Ontario and Finland) are grounded in evidence-based practices throughout classrooms, early childhood settings, and schools; systematic induction and mentoring for novice teachers; and highly developed, school-embedded systems of professional learning as a collective rather than individual effort. She warns that in the context of teacher shortages "placing too strong an emphasis on recruitment without concomitant attention on professional development and retention could result in a continual churn within the teaching profession" (p. 294).

The Academy of Continuing Professional Development in Education (ACPDE)

The '*Academy'* is an integral component of the Macquarie School of Education. Through the ACPDE, we offer exceptional learning opportunities including customised short courses, targeted professional development courses, symposia and "think tanks" to workshop ideas. We deliver bespoke professional learning through face-to-face, onsite training, webinars and/or blended delivery.

> *"Participating in the course proved very valuable and provided me with exactly what I had sought both in terms of content, reading, assessment activities and the experience of participation." (Classroom teacher, participant in micro-credential course in online learning)*

> *"Can you pass on my thanks to everyone at Macquarie, Academy of Professional Development and IBM who were involved in the program. I very much enjoyed participating and both my students and myself were able to use practical resources from the program in our lessons." (Classroom teacher, participant in IBM/AI professional learning)*

ACPDE has been established to enable the implementation of Macquarie's strategic goals of providing high quality continuing professional learning for teachers, early childhood centre directors, educators, as well as school and system leaders no matter where they work and live. Our professional development courses also offer participants a pathway into postgraduate studies based on recognised prior learning.

Recommendation 11

Support robust university-school partnerships for induction and professional learning.

References

Australian Institute for Teaching and School Leadership (AITSL) (2019): Initial Teacher Education: Data Report 2019. file:///D:/ITE%20submission%20research/Reports%20incl%20AITSL/AITSL%20ITE%20Data%20Report%202019.html

Billett, S. & Choy, S (2013). Learning through Work: Emerging Perspectives and New Challenges, *Journal of Workplace Learning*, 25(4), pp264-276

Bowles, T. & Brindle, K. (2017). Identifying facilitating factors and barriers to improving student retention rates in tertiary teaching courses: a systematic review, *Higher Education Research and Development,* 36(5):1-17, DOI:10.1080/07294360.2016.1264927

Cash, A. H., Williams, J.A. & Hart, L.C. (2020). University-district partnerships to improve field experiences: Associations with candidate perceptions and performance, *Teacher and Teacher Education* 94, pp 1-12.

Coenen, J., Cornelisz, I., Groot, W., Maassen, H., van den Brink, B. & Van Klaveren, C. (2017). "Teacher Characteristics and Their Effects on Student Test Scores: A Systematic Review." *Journal of Economic Surveys* 32, no. 3: 848–877. https://doi.org/10.1111/joes.12210.

Cosner, S., Leslie, D. & Shyjka, A. (2019): Supporting Instructional Transformation Tied to Standards-Based Reforms: Examining a Learning-Focused Approach to Supporting School-Wide Implementation, *Leadership and Policy in Schools*, DOI:10.1080/15700763.2018.1551550

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291e309. https://doi.org/10.1080/02619768.2017.1315399

Department for Education (DfE) (2019). Teacher Recruitment and Retention Strategy, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/786856/DFE_Teacher_Retention_Strategy_Report.pdf

Goe, L. & Roth, A. (2018). Diversifying the Teacher Workforce: Evidence From Surveys, Phone Interviews, and Site Visits With Educator Preparation Programs, ETS Report Series, Volume 2019, Issue 1 Pages: 1-51

Gore, J., Holmes, K., Smith, M & Fray, L. (2015). Investigating the factors that influence the choice of teaching as a first career, A Report commissioned by the Queensland College of Teachers. https://cdn.qct.edu.au/pdf/Research/WhyPeopleChooseTeachingLiteratureReview.pdf

Goss, P. & Sonnemann, J. (2019). Attracting High Achievers to Teaching, Grattan Institute Report No. 2019-08, July 2019.

Green, C.A., Tindall-Ford, S.K. & Eady, M. (2020). School-university partnerships in Australia: a systematic literature review, *Asia-Pacific Journal of Teacher Education, 48*(4), 403-435

Humphry, S., Heldsinger, S., & Dawkins, S. (2017). A two-stage assessment method for assessing oral language in early childhood. *Australian Journal of Education, 61*, 1–17.

Kennedy, M. M. (2016). How Does Professional Development Improve Teaching? *Review of Educational Research, 86*:4, 945-980. doi:10.3102/0034654315626800.

McConney, A., Price, A., & Woods-McConney, A. (2012). *Fast track teacher education: A review of the research literature on Teach For All schemes*. Perth: Murdoch University, Centre for Learning, Change and Development.

O'Connell, B., De Lange, P., Freeman, M., Hancock, P., Abraham, A., Howieson, B. & Watty, K. (2016). Does calibration reduce variability in the assessment of accounting learning outcomes?, *Assessment & Evaluation in Higher Education*, 41:3, 331-349.

Ojala, K., Isopahkala-Bouret, U. & Varhelahti, M. (2021). Adult graduates' employability and mid-career trajectories after graduation with Finnish UAS Master's degree, *Journal of Education and Work*, 34(1)

O'Meara, J. G., Whiting, S. & Steele-Maley, T. (2015). The contribution of teacher effectiveness maps and the TACTICS framework to teacher leader professional learning, *Journal of Education for Teaching: International Research and Pedagogy*, 41(5), pp 529-540

Podolsky, A., Kini, T., Bishop, J. & Darling-Hammond, L. (2016). *Solving the Teacher Shortage: How to   Attract and Retain Excellent Educators*. Learning Policy Institute, September 2016.

Redding, C. & Smith, T.M. (2016). Easy in, Easy out: Are Alternatively Certified Teachers Turning Over at Increased Rates? *American Educational Research Journal*, Vol. 53, No. 4, pp. 1086–1125 DOI: 10.3102/0002831216653206

Reynolds, R., Howley, P., Southgate, E. & Brown, J. (2016). Just add hours? An assessment of pre-service teachers' perception of the value of professional experience in attaining teacher competencies, *Asia-Pacific Journal of Teacher Education*, 44:5, 455-469, DOI: 10.1080/1359866X.2015.1086971

Richardson, S. & Coates, H. (2014). Essential foundations for establishing equivalence in cross-national higher education assessment. *Higher Education*, 68, 825-836.

Rowan, L., Bourke, T., Lunn-Brownlee, J., Ryan, M., Walker, S., & L'Estrange, L. (2021). How does Initial Teacher Education Research Frame the Challenge of Preparing Future Teachers for Student Diversity in Schools: A Systematic Review of Literature. *Review of Educational Research.* 91(1), 112-158. https://doi.org/10.1007/s13384-021-00434-y

Ryan, M., Rowan, L., Lunn Brownlee, J., Bourke, T., L'Estrange, L., Walker, S. & Churchward, P. (2020). *Teacher education and teaching for diversity: A call to action.* Teaching Education. https://doi.org/10.1080/10476210.2020.1844178

Schneider, J. (2018). Marching Forward, Marching in Circles: A History of Problems and Dilemmas in Teacher Preparation, *Journal of Teacher Education* Vol. 69(4) 330–340.

Skourdoumbis, A. (2012) Teach for Australia (TFA): can it overcome educational disadvantage?, *Asia Pacific Journal of Education*, 32:3, 305-315, DOI: 10.1080/02188791.2012.711298

Toe, D. M., Ure, C., & Blake, D. (2020). Final Year Preservice Teachers' Views of Professional Experience in Partnership Schools. *Australian Journal of Teacher Education, 45*(2). http://dx.doi.org/10.14221/ajte.2020v45n2.6

Willegems, V., Consuegra, E., Struyven, K. & Engels, N. (2017). Teachers and pre-service teachers as partners in collaborative teacher research: A systematic literature review. *Teaching and Teacher Education*. 64 (3): 230-245.

Worth, J., Lynch, S. Hillary, J., Rennie, C. & Andrade, J. (2018). Teacher Workforce Dynamics in England, *National Foundation for Educational Research*, https://www.nfer.ac.uk/media/3111/teacher_workforce_dynamics_in_england_final_report.pdf

Wyatt-Smith, C., Humphry, S., Adie, L., & Colbert, P. (2020). The application of pairwise comparisons to form scaled exemplars as a basis for setting and exemplifying standards in teacher education, *Assessment in Education: Principles, Policy & Practice,* 1 – 21. DOI: 10.1080/0969594X.2020.1712326

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college and university-based teacher education, *Journal of Teacher Education*, 61, (1-2), 89-99.

Zeichner, K. & Bier, M. (2017). Opportunities and Pitfalls in the Turn Toward Clinical Experience in US Teacher Education 1, In K. Zeichner (Ed.) *The Struggle for the Soul of Teacher Education*: Routledge, pp 20-46.