of the background to ITE, what MRVS is, whether/how MRVS is currently used in ITE and if there is potential for its use in ITE going forward towards 2030.

The main findings from the research were that the use of MRVS in teacher education is limited, but offers many benefits to ITE providers and their trainee teachers. Equally, research found that the implementation of the use of MRVS in ITE could present many challenges to the sector including; cost, resistance to its use from expert colleagues and academics and a current lack of evidence of impact on trainee teacher outcomes.

It was found that MRVS could be used to provide different experiences to students (Cohen and Wong, 2021), to provide interventions prior to, during and after placements and it could provide both standardised assessment (Cohen, 2020) and become a more credible and useful tool to aid reflection and impact on practice development (Barshay, 2020).

The use of MRVS aligns to the Core Content Framework (CCF) and Early Career Framework (ECF) in England and could play an important role in Intensive Training and Practice as part of the new ITE quality requirements for 2024. Further exploration into its use and impact on ITE and ECF outcomes both in the UK and further afield is recommended.

Key References

Barshay, J. (2020) ;Learning to teach from naughty avatars', The Hechinger Report Available at: Teacher training simulations combined with coaching help teachers (hechingerreport.org) (Accessed: 3 July 2022)

Cohen, J. (2020) Virtual Event: Mixed reality simulations in teacher education. [Webinar]. UCL, IOE – Faculty of Education and Society 10 November. Available at: VIRTUAL EVENT: Mixed reality simulations in teacher education | IOE - Faculty of Education and Society - UCL – University College London (Accessed: 3 Juy 20220

Cohen, J. and Wong, V (2021) 'Using classroom simulators to transform teacher preparation' Brown Center Chalkboard. Available at: Using classroom simulators to transform teacher preparation (brookings.edu) (Accessed: 28 June 2022).

McGarr, O. (2020) 'The use of virtual simulations in teacher education to develop pre-service teachers' behaviour and classroom management skills: implications for reflective practice ', Journal of Education for Teaching, Volume 47 (Issue 2) Pp. 274-286 Available at: Full article: The use of virtual simulations in teacher education to develop pre-service teachers' behaviour and classroom management skills: implications for reflective practice (tandfonline.com) (Accessed: 29 June 2022)

Collective Mindset: Developing beliefs about intelligence in the dynamic social context of a school

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Implicit beliefs that we hold about intelligence are influential, especially our beliefs about its malleability (Sauce and Matzel, 2018). Is intelligence unchangeable, or can it be grown and developed? Existing research suggests that an individual's implicit belief about malleability of intelligence can support the development of a mastery-approach goal orientation through

growth Mindset, which can positively impact on achievement and outcomes (Dweck and Yeager, 2019). This appears to be a simple and logical conclusion, but it can be problematic putting theory into practice in real-world, social primary school settings. This presentation shares new research that engages critically with Mindset Theory to understand how teachers might practically ameliorate for challenges associated with implementation in real-world sociocultural contexts. It will then particularly focus on practical implications this has for children's knowledge acquisition (Speer, 2005) and our own practice in teaching and teacher education.

This research is a case study of a primary school where teachers were deliberately and collaboratively adopting a pedagogical approach for the development of individual's growth Mindset. It set out to investigate characteristics of the learning environment using ethnographic approaches that combined participatory observation, interviews and focus groups with teachers and children (Walsh and Seale, 2018). Ongoing thematic analysis (Braun and Clarke, 2019) explored incongruences, congruence and alignment between behaviours and espoused beliefs as the research evolved.

Findings identify characteristics that support a new social model of pedagogy informed by Mindset Theory.   The interdependence of six key practices is important to the model's structure, with the centrality of 'metacognition' and 'negotiation of meaning' making it distinctive. These two central practices focus on accurate interpretation of Mindset Theory and acknowledging complexity of beliefs. Dialogue and self-social regulation play a pivotal, integrative role in the development of these practices, which encourage teachers and children involved to critically challenge each other's understanding of Mindset Theory.   As this research evolved a substantive theory of 'Collective Mindset' developed to explain the relationship between the practices, principles and beliefs that underpin the model.

In this context, 'Collective Mindset' is defined as a shared belief held by teachers and children in their capacity to take action together to develop growth Mindset (Leslie, 2021, p. 177). This is a shared belief in their conjoint capabilities to execute the courses of action required to develop intelligence; where they believe that together they have agency to cultivate and sustain practices that develop growth Mindset for themselves and each other.

Key References

Braun, V. and Clarke, V. (2019) 'Reflecting on reflexive thematic analysis', *Qualitative*

Research in Sport, Exercise and Health, 11(4), pp. 589-597.

Dweck, C. and Yeager, D. (2019) 'Mindsets: A view from two eras', *Perspectives on*

Psychological Science, 14(3), pp. 481-496.

 Leslie, P. (2021) *Collective Mindset: The role of culture, community and metacognition in the development of shared beliefs about intelligence.* Lancaster University.

 Sauce, B. and Matzel, L.D. (2018) 'The paradox of intelligence: Heritability and malleability

coexist in hidden gene-environment interplay', *Psychological Bulletin,* 144(1), pp. 26-47.

Speer, N. M. (2005) 'Issues of methods and theory in the study of mathematics teachers'

professed and attributed beliefs', *Educational Studies in Mathematics*, 58(3), pp. 361-391.

Walsh, D. and Seale, C. (2018) '*Doing ethnography*' in C. Seale (ed.) Researching Society and Culture, 4th edn. London: Sage, pp. 257-284.

Understanding pulse and rhythm: Developing confident musicianship for generalist teachers.

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There is a distinct lack of research-informed music education discussion focusing on pedagogy led by generalist teachers (teachers who teach several curriculum subjects), particularly special school teachers (Ockelford & Markou, 2012). Whilst research has highlighted the issue of confidence in generalist primary teachers for teaching music in mainstream settings (Holden & Button, 2006), this doctoral thesis is potentially one of the first in-depth pieces of work to focus on the classroom musicianship, music pedagogical competence and confidence of generalist teachers in special schools. The Provision of Music in Special Education report (Welch et al., 2016) reviewed special school music provision in England but did not explore the practice of generalist teachers. This mixed methods, longitudinal study examined the efficacy of a professional learning model in Special Educational Needs and Disabilities (SEND) music. It was designed to support teachers to acquire the music subject knowledge, classroom musicianship skills and pedagogy to teach music, *as* musicians. It explored participants' competency and confidence gain as a result of their engagement with training, facilitated by the researcher acting in a mentor capacity.

The study was based on the researcher's own extensive experience as a music teacher and coordinator in various special schools. It was driven by a professional desire to address concerns the researcher had regarding the quality of music education provision for pupils with SEND. This was an important issue to explore because the musical progression and musical behaviours of these learners are not fundamentally dissimilar to that of their typically developing peers (Ockelford, 2008; Welch & Ockelford, 2010). Depriving them, therefore, of a high-quality music education that develops them *as* musicians is literally dehumanizing (Lubet, 2009).

Various tools were used to collect data including a survey, a timeline and 'river' of music experience, interviews, focus group discussions, classroom observations and corridor memos. Research findings revealed that there is a set of core music teaching competencies that generalist teachers require in order to develop the Pedagogical Content Knowledge (PCK) that equips them to teach SEND music effectively. The development of some of these competencies appeared crucial in challenging wider attitudes and belief systems participants had about music education for pupils with SEND. The research makes recommendations in how similar music training may be replicated effectively with other teachers and how the applied training model has the potential to be used for other aspects of teacher professional learning within specialist provision.

Key References

Holden, H. & Button, S. W. (2006) The teaching of music in the primary school by the non-music specialist, *The British Journal of Music Education, 23*(1): 23-38.