



FEATURE

Developing place-attentive teaching and learning in initial teacher education in Scotland through the pillars of Arctic pedagogy

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Developing place-attentive teaching and learning in initial teacher education in Scotland through the pillars of Arctic pedagogy

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Summary

The University of the Highlands and Islands has adapted its Initial Teacher Education PGDE programmes by drawing on the five pillars of Arctic Pedagogy: language, digitalisation, community, elders, and culture. Through ongoing cycles of practitioner enquiry, reflective tasks have been redesigned to help student teachers connect with the places and communities of their school placements. Initial challenges, especially for secondary teachers, led to revisions emphasising ‘place’ over ‘artefacts’. This evolving Northern pedagogical approach aims to strengthen cultural awareness, confidence, and contextual teaching across Scotland’s diverse educational settings.

Keywords: Arctic pedagogy, place-attentiveness, initial teacher education, Scotland, place pedagogy

Introduction

The University of the Highlands and Islands (UHI) is a unique tertiary university model in Scotland with forty-eight campuses, research institutes and specialist learning centres working in partnership. Each campus connects with its community through courses aligned with regional employment and interests. The partnership provides access to education: from SQA programmes for secondary pupils to doctorates and world-leading research. This feature explores the institution’s development of Arctic Pedagogy as part of its Initial Teacher Education programmes.

Initial Teacher Education is offered at UHI through the Professional Graduate Diploma in Education (PGDE) and undergraduate degrees. The PGDE – a teaching qualification for graduates – is offered in primary or secondary, and Gaelic or English, through full-time (one year) or part-time (two year) models. The programmes utilise digitalisation to bridge some of the geographical divides UHI faces. Student teachers engage with learning materials through a networked approach, accessing learning and teaching online in collaborative groups via their local campus. This mirrors parts of education in Scotland, with *e-Sgoil*, a remote teaching provision for Gaelic education, allowing pupils access to areas of the curriculum inaccessible within their schools.

In addition to campus-based study, PGDE student teachers undertake nineteen weeks of school-based placements. These placements are offered within local authority areas near to the student teachers’

study base. Mountains and waterways divide the geographical landscape, meaning that some student teachers carry out significant return journeys of multiple hours to access the campus or school placements. The school placements aim to provide varied experiences with student teachers encountering large inner-city schools, and small rural schools with only a handful of pupils. The programmes enable student teachers to share practices and reflect on the successes and challenges of these settings. This approach embraces the variety of educational settings that Scotland has. It also creates unique challenges for teacher educators to equip student teachers and pre-service teachers accordingly.

The pillars of Arctic Pedagogy in the Scottish framework

In 2022 and 2023, the Teacher Education team came together to explore the five pillars of Arctic Pedagogy. These pillars are language, digitalisation, community, elders, and culture (UArctic Thematic Network on Teacher Education, 2019). The UArctic Thematic Network on Teacher Education for Social Justice and Diversity in Education recognises that teaching in the North creates unique opportunities and challenges. In many ways the education system and culture in Scotland mirrors our Arctic neighbours. The parallels resonated with the teaching team, spread across UHI campuses. We celebrate the unique skills each lecturer brings, building on individual strengths. This collaborative approach creates rich discussion and evaluation of teaching with awareness of place-attentiveness, paramount in a geographically spread institution.

In 2024, Mark Lindley-Highfield and Ali Hepburn travelled to the University of Lapland in Rovaniemi to attend the *Exploring Arctic Futures* conference as part of UHI's membership of the UArctic Thematic Network on Teacher Education. Both presented current research and pedagogical approaches to our peers in the Circumpolar North. Discussions at this conference further reinforced Arctic Pedagogy as resonating with UHI.

An example of this can be found in the pillar of *language*. Linguistically Scotland is a multilingual nation. The official languages are English, Gaelic, Scots, and British Sign Language. The presence of Gaelic and Scots in public life depends on geography and institutions. In certain areas of Scotland, these can be the domestic language of the home, where the formal language of the school could be English. While Gaelic is significant in the West Highlands of Scotland, there are Gaelic medium schools in both rural and urban settings. Across the Northeast, Caithness, Orkney and Shetland, Scots is the dominant domestic language, although this arguably has less public presence. Many pupils navigate a bilingual life, where the language of the school and the language of the home are not fully synchronised. This awareness is vital for student teachers in Scotland. Historically, people reflect on being corrected when they spoke Gaelic or Scots in school, with English being the only accepted formal or professional language. Attitudes have changed towards this, particularly in the development of Gaelic medium schools, however Scots continues to be less prevalent in formal education. Education Scotland (2017) and the Centre for the Scots Leid (2025) have made resources available to promote Scots in schools, and individual schools have done work to promote the language, such as Monymusk Primary School in Aberdeenshire, which won 'Scots School o' the Year' in 2023 (Renton, 2023).

Digitalisation is an important pillar at UHI. The structure of the PGDE sees student teachers engaging with lectures and seminars online from their local campus. This provides student teachers with the opportunity to work both in-person with their local peers and digitally across Scotland. Lectures are delivered remotely via the Virtual Learning Environment (VLE) with student teachers accessing these from conference rooms, allowing discussion and reflection in smaller groups or with the full cohort. Where student teachers are on their own at a smaller campus, they can connect digitally with other small campuses. All course materials are available on the VLE with assignments submitted and assessed digitally. School planning folders are created and accessed online as a collaborative resource between placement class teachers, student teachers and university staff.

Education in Scotland recognises, via the Scottish Index of Multiple Deprivation, that *communities* have varied needs. Within many communities the primary and secondary schools form a central community focus. This can be seen in rural schools, where the school can be used by other community groups, sharing resources. Arctic Pedagogy recognises these organisations as distinct. We acknowledge the importance of equipping student teachers with the skills to identify the priorities and uniqueness of each school community. This is reflected in the structure of UHI with each campus and learning centre both forming, and serving, a unique community.

The pillar *elders* is used to describe mentors for teachers and student teachers. The role of the elder is recognised as a person who values and promotes education and culture. The PGDE programmes are based on a collaborative mentor approach, working with peers, lecturers and class teachers. Acknowledging the importance of preparing school pupils for the world of work, elders can be recognised as members of the community who can support learners making connections with local industry and regional interests.

The Scottish Government recognise the importance of developing a positive whole school ethos and culture through relationships, learning and behaviour. *Culture* can be viewed at the micro-level within a classroom and more broadly in the community that the school sits within. As teacher educators we are aware of the range of global cultures our student teachers come from, and we also strive to create a warm and collaborative learning culture across UHI.

The first cycle: developing Arctic Pedagogy at UHI

Until 2022-23, PGDE student teachers reflected on their learning against the GTCS Standard for Provisional Registration (2021) in ePortfolios: documents not formally assessed but receiving informal tutor feedback. Staff were reporting a wide range of student outcomes. Some entries were tokenistic, others overly long and unwieldy for staff to comment on. Student teachers were also dissatisfied that they had to complete work that was not formally assessed. Around this time, we carried out our review of this provision.

At staff professional learning events of 2022, staff observed the ability to make connections between the experiences of our student teachers and our programmes' contexts, and some of the key ideas of Arctic Pedagogy. This was principally in the form of the five pillars, which are used to aid pedagogic reflection. The teacher education team considered how to support student teachers in their awareness

of the uniqueness of our communities. Acknowledging each school as a unique environment, where the pupils and teachers play an active role in contributing to the wider community, sees a need for student teachers to demonstrate place-attentiveness. The team recognised the importance of equipping our student teachers with the skills to demonstrate an awareness of this and to celebrate and utilise Arctic Pedagogy within schools.

Building on the work of Redford and Nicol (2021), who noted the place attentive nature of our PGDE programmes, the module leader for Reflection and Enquiry as Professional Learning (REPL) was keen to consolidate this strength through the ideas of Arctic Pedagogy. Another member of the teaching team, Ali Hepburn from UHI Orkney, shared this interest in Arctic Pedagogy and, as a consequence, plans were discussed for the revision of our work to develop place-attentiveness further. An aim of this was to encourage student teachers to extend their cultural understanding of their school placement settings.

REPL is a module delivered in the full-time programmes to both primary and secondary student teachers as a combined cohort. Building on feedback from previous student teachers, the team undertook a review of the module. Self-evaluation, reflection and enquiry are embedded in the GTCS Standard for Provisional Registration and are seen as career-long priorities for teachers in Scotland. Having reflected on Arctic Pedagogy as an approach that aligns with the Northern focus of UHI, we recognised the opportunity to incorporate this into the module.

The module leader was keen to take an evidence-based approach and also to ground the programmes' revisions in research through practitioner enquiry (Figure 1). Through a combination of focus group interviews with student teachers and staff on an opportunity sampling basis, together with a complement



Figure 1: The structure of the cycles of enquiry, cf. Timperley et al. (2014)

of individual interviews, the student teachers' and staff's experiences of our programmes' changes were explored.

In the 2023-24 academic year, two reflective exercises were introduced, which were non-assessed reflective written pieces of work, which related to the finding of 'artefacts' linked to the cultural identity of the areas of the first two placement schools. Artefacts, here, could be documents, objects, web pages, cultural practices, transcripts of conversations, or other forms of record of community activity. The skills developed in identifying these for their placement schools would then be used during the final placement of the year. This was as strategies for becoming familiar with the placement schools for the student teachers' own practitioner enquiries, forming their final assessments on the programmes. Findings were discussed in seminar groups across campus settings.

This initial cycle of enquiry revealed that the activity was beneficial for building confidence in ice-breaking in staffroom settings and for learning about the wider community in which the schools were situated. Student teachers also found that the concepts were helpful and could be applied to any educational setting, not just the Arctic. They disliked the fact that they had to write during placement and were still reluctant to produce work that was not formally assessed. It was difficult for some secondary student teachers to connect their chosen artefact with their subject specialism. Student teachers and staff fed back into this cycle of enquiry through focus groups and individual interviews.

Findings revealed both complementary and conflicting information, informing teaching practice and revisions for the second cycle. The feedback received from the student teachers in the two focus groups was generally consistent, despite the fact that the sessions were led by different lecturers and were composed of different student teachers. For instance, both groups could see the immediate relevance of the reflective exercises in rural educational settings, as they held these to align more easily with the five pillars. There was also a sense of the 'otherness' of the Arctic for a minority of the student teachers, with one in particular voicing that this had been a barrier for them in coming to terms with the concepts. In essence, this student teacher was experiencing cognitive dissonance in relation to their ability to see Arctic experience as relevant to urban experience in a small Scottish city. What this respondent revealed, however, was that they managed to master the concepts and see their utility when they realised that the concepts could be applied readily in *any* educational context, rather than just an Arctic or a rural one, as the terms have general application.

Some student teachers reported that the greatest benefit of the reflective exercises would be when they are new to an area or placed in a school outwith their immediate vicinity. In these instances, the reflective exercises would assist the student teachers to familiarise themselves with the placement school's locality and to integrate themselves into the context. Several respondents valued the exercises for 'breaking the ice' in staffrooms and boosting confidence when new. A number of student teachers advised that they found it helpful to look at Scottish Index of Multiple Deprivation data to inform their understanding of the placement school settings and stated that they would have been unlikely to do this if the exercises had not prompted them to do so. An example of a student teacher's learning from this process is someone who was placed in a small town's school, which stood beside a river. When

she got to the school, she found that the river was an anchor point in local dialogue. When the weather was spoken about, it was in reference to the river. When leisure activities were spoken about, they were in reference to the river. The river was the currency of conversation. By embracing the role and identity of the river into her teaching, the student teacher was able to engage and motivate her learners, and promote issues of social justice and sustainability through local frames of reference.

The principal area in which results differed was between the staff focus group and the student teacher focus groups. One member of the staff focus group voiced that the exercises had not gone well for secondary PGDE student teachers, as some struggled to see the relevance to their subject areas and to integrate an 'artefact' into their teaching practice. The term 'artefact' itself had been problematic, as some people saw this as a physical object, rather than a broader reading of the term to include anything created by someone. This prompted reflection: the flexible primary curriculum made it easier to integrate artefacts or design lessons around them. Part of this problem for secondary student teachers stemmed from choosing an artefact related to the area/locality rather than on a discipline-linked connection to the area. One secondary student teacher felt that he had done the activity incorrectly when he voiced that he had only talked about an employer for whom he had worked before starting Initial Teacher Education to give an example of where his subject's skills could be used vocationally. As it transpired, this was actually an excellent exemplar of what the activity was seeking to engender, as this comment ended up striking up a bond with a learner in the classroom who was able to say that their father worked for that same company, enabling the student teacher to connect with their learner on a human level and giving them common currency in conversation, helping to build rapport.

One secondary practitioner returned to the University to present a student's experience of the programmes at the secondary PGDE induction, where they identified the reflective exercises as one of their three favourite things on their programme. Indeed, the secondary student teachers participating in the student focus groups generally reported liking the exercises and finding them beneficial. Nonetheless, there is every possibility that this self-selecting group of volunteers included people who had enjoyed the activities and that this was part of their motivation for participation. This was born out in some of the reporting within the student focus groups when they mentioned the views of other student teachers. These included concerns about having to produce a written piece of work during the middle of a busy school placement and also a dislike of having to produce any written work that was not formally assessed. These views were shared as the views of other student teachers, and were contrasted with their own perspectives, stating that they enjoyed the written tasks and got something out of completing them.

Nine of the thirteen student teachers participating in the focus groups also volunteered to participate in individual interviews. These interviews provided the opportunity to check if the secondary practitioners genuinely felt excluded by the activity to any extent and also to discuss possible revisions to the programmes in light of this initial feedback.

While some student teachers voiced that they had enjoyed the written activities and found them beneficial, interviewees could see benefits to the student cohort as a whole in transforming the written

submissions into verbal feedback opportunities. Indeed, one secondary staff member suggested that it could be beneficial to give the student teachers an allotted five minutes of time to share a brief PowerPoint slide on their experience following one of the school placements. This element has been embraced for gaining feedback on how the student teachers have made connections with place during their second school placement.

The second cycle: from Arctic Pedagogy to Northern Pedagogy

In the second cycle of the enquiry, the notion of 'place' was embraced over the idea of locating an artefact owing to the confusion caused by the term and in wanting to ensure that we are creating activities that are fully inclusive of secondary student teachers. Instead of needing to find two artefacts related to their school community for the first reflective exercise, now they are to observe and record how their mentors, other teachers in the school and the school itself make connections with place during the first school placement. Then, instead of integrating an artefact into their teaching on their second school placement, they are now to seek to make connections to place in their teaching practice during the same. This shift in focus to the concept of 'place' has been as a result of another aspect of reflection on the first cycle of enquiry.

The module leader noted that he and his colleague Ali, who are responsible for the input on these elements of the PGDE programmes, had embraced Arctic Pedagogy with some force of enthusiasm, making it the lens through which we taught all about these exercises. In part, this was an issue of loyalty and academic integrity, as we were both keen to honour the creators of the concepts, the five pillars, that we had embraced and about which we were so enthusiastic. Nonetheless, we realised that the student teachers did not automatically share our enthusiasm, even if they were motivated by the same, and Mark determined that we needed a more contextually relevant approach to teach the merits of what we are doing, to show its instrumental value, and also to make some of the terminology more contextually familiar. This reframed Arctic Pedagogy as the foundation of Northern Pedagogy, grounding it in place pedagogy.

During the 2024-25 academic year, the content has been taught from the perspective of place pedagogy and a clear rationale for the approach has been shared. Arctic Pedagogy has been explained in terms of its influence on Northern Pedagogy. Tasks were amended to scaffold learning: a fact-finding activity on the first placement to explore how schools engage with place, followed by student teachers making their own connections with place during the second placement. Feedback would be solely through seminars, rather than written, although student teachers would be encouraged to note relevant observations in their reflections while on placement. This approach has made the experience more inclusive for the secondary student teachers. The module highlighted the benefits of familiar contexts, cognitive load theory, and engagement with place, including outdoor learning.

The 2024-25 academic year forms a second cycle of enquiry, and similarly student and staff feedback will be gathered at its end. The lecturers on the module have shared their work on these changes at academic conferences and have received an endorsement of the ideas from academics at other Teacher Education institutions internationally (Lindley-Highfield of Ballumbie Castle, 2024; Lindley-

Highfield of Ballumbie Castle and Hepburn, 2024; Lindley-Highfield of Ballumbie Castle and Hepburn, 2025). The second cycle of enquiry will offer a further opportunity to reflect on possible programme revisions as become necessary and apparent.

A colleague pointed out that, in making Arctic Pedagogy more contextually familiar through noting its place at the centre of Northern Pedagogy, we were employing our own values in terms of cognitive load theory by looking to break down the barriers between the unfamiliar and the familiar. This second cycle of enquiry provides us with the opportunity to learn from the most recent modifications to the PGDE programmes. It will also enable us to assess the gains student teachers have made in terms of their ability to make connections with place, to make use of the five pillars of Arctic Pedagogy as tools for becoming familiar with their placement school settings, and for planning learning that is contextually relevant.

Conclusions

The synergies between our student teachers' experiences of education in Scotland and the experience of education in the contexts of our colleagues in the Circumpolar North have become more apparent to our student teachers. We, like them, navigate complex landscapes to provide Initial Teacher Education. We seek to serve distant rural communities that are difficult to reach. We respect diverse linguistic communities and seek to produce teachers who will preserve these traditions. We also value the local, whether rural or urban, and see the value in gaining an understanding of place. These values are reinforced by this approach, and we look forward to working with our student teachers, in partnership, to see what sense these ideas make to them and the place they can hold in their future as practitioners in the Scottish education system.

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