Carreg Lam, Heol Yr Orsaf, Tre Griffith, Pont-y-Pŵl, Torfaen, NP4 5JH
01495 762581
carreg-lam@torfaen.gov.uk
www.carreg-lam.com
Arweinydd / Leader: Dr. Matthew James Williamson-Dicken, MA(Ed), PGCert, BA(Hons), CMgr FCMI
Dirprwy Arweinydd / Deputy Leader: Mrs. Carys Soper

Kintsugi as Pedagogical Philosophy

Repair, Imperfection, and Ethical Attention in the Classroom

Project Tokyo Case Study 5

Williamson-Dicken, M., Blackmore, R., Childs, D., Phillips, N., Powles, A., Soper, C. & Stokes, M. (2025)

Kintsugi (金継ぎ), the Japanese art of repairing broken ceramics with lacquer and powdered gold, offers a rich philosophical and practical frame for rethinking classroom practice. Rooted in wabi-sabi aesthetics, which value impermanence, imperfection, and incompleteness, Kintsugi reframes fracture as a visible and valuable part of an object's biography (Juniper, 2003; Koren, 1994). When translated into education, Kintsugi becomes both a metaphor and a method for shaping learning cultures that honour learning through mistakes, foreground repair, and cultivate relational care. This case study develops those connections and foregrounds concrete implications for teachers working on the classroom floor.

Aesthetic Foundations: Making Mistakes Visible and Valuable

The core aesthetic proposition of Kintsugi is deliberately counter-intuitive to educational cultures that prize seamless competence: the repaired object is not disguised; its fissures are gilded and thus become the place through which viewers access the object's history. For educators this offers a powerful reframing of mistakes. Instead of being private stigmas to be erased by corrective feedback or high-stakes assessment, errors become visible traces of cognitive work and are marks that can be read, discussed, and learned from.

Claxton's notion of building learning power and Boaler's research into the productive role of mathematical error support such a stance, demonstrating that learners who engage with uncertainty and difficulty develop persistence and deeper conceptual understanding (Claxton, 2002; Boaler, 2016). Recent classroom research indicates that teacher behaviours which model vulnerability and normalise revision increase learners' willingness to take intellectual risks and sustain effort (Kroeper, 2022; Slater, 2024). Translating Kintsugi into everyday practice therefore involves a shift in what is displayed, discussed, and assessed: teachers make the processes of error and repair legible by foregrounding draft work, annotating changes, and using formative tasks that require learners to explain how their thinking has changed over time. In this way, visible seams become pedagogical artefacts that support metacognition and collective norms around productive struggle for success.

Ethical Dimensions: Repair as Relational Practice

Kintsugi is not simply an aesthetic practice; it is an ethic of care. The craft requires patient alignment of fragments, attentive layering of adhesive, and time for cures to set. This highlights a moral stance against disposability. In school contexts, such an ethic resonates with trauma-informed and care-based pedagogies that prioritise relational safety and continuity (Van der Kolk, 2014; Noddings, 2012). Where punitive, exclusionary responses sever relational ties, repair-oriented practices preserve belonging and personal agency. Enacting Kintsugi ethically in classrooms therefore means reorienting disciplinary and pastoral responses around restoration. Restorative conversations, facilitated reconciliations (either by teacher or learners themselves), and structured routines for reparation after mistakes replace sanctions with processes that teach responsibility, empathy, and the labour of mending relationships. This orientation recognises that repair is not a

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single remedial act but an instructional strand that requires time, scaffolded practices, and institutional support; when sustained, it teaches learners how to attend to harm, accept responsibility, and co-construct trust.

Cultural Resonance: Everyday Artefacts and the Value of Use

Kintsugi's provenance in the tea ceremony illuminates a culture that values objects precisely because of their history of use and care. In chanoyu, repaired utensils are prized for the stories their scars tell; the marks are evidence of continuity between people, events, and everyday practices (Sen, 1979). Schools can adopt a similar valuation for the material traces of learning. Rather than treating notebooks, draft pieces of work, classroom displays and group artefacts as ephemeral outputs, teachers can build pedagogical routines that preserve these traces as communal memory and evidence of intellectual labour. Portfolios that retain annotated drafts, artefacts that document problem solving, and values process rather than glossy final products all operate from this logic. Doing so connects curriculum to learners' lived histories, allowing classroom knowledge to be read as part of an evolving communal biography and thereby strengthening belonging and stewardship (Hoque, 2023).

Growth Mindset and the Pedagogy of Mistakes

Kintsugi extends and complements Carol Dweck's growth mindset theory by supplying an aesthetic-ethical model for how classrooms can dignify struggles for success. Dweck's findings indicate that beliefs about the malleability of ability shape persistence and the interpretation of difficulty; when learners construe mistakes as informative stages of development rather than immutable signs of failure, they adopt adaptive strategies and sustain effort (Dweck, 2006; Yeager and Dweck, 2012). Kintsugi adds to this by showing how visible, communal repair itself can be an instructional mechanism that scaffold's learners' interpretive frames. Where simple growth-mindset statements risk becoming hollow if unaccompanied by practice, the Kintsugi metaphor demands visible artefacts and social practices that embody the message: errors are seen, narrated, and transformed into learning gains.

Empirical work clarifies how this combined approach should be operationalised. Praise and feedback that target process, strategy, and corrective action (rather than fixed traits) produce more resilient responses to setbacks (Kroeper, 2022; Yeager et al., 2022). Growth-oriented interventions have the greatest effect when embedded in classroom ecosystems where the language of struggle for success and the routines of revision are routine, when low-stakes cycles allow productive failure, and when institutional policies signal that revision and repair are valued (Yeager et al., 2019). Practically, this means teachers must weave multiple complementary practices into daily life: routinely modelling problem-solving that includes false starts and refinements; structuring tasks so that early attempts are explicitly formative and revision is required and rewarded; teaching learners to annotate errors with prompts that make the lesson explicit ("What did this attempt teach me? What will I try next?"); and designing peer feedback systems that privilege strategy and next steps rather than merely correctness. When these practices are combined with transparent lessons about neuroplasticity, which show how practice and corrective feedback change brain networks, learners receive both rationale and routine for embracing difficulty (Boaler, 2016).

Extending the Kintsugi-growth mindset nexus into equity work requires further nuance. Kintsugi's reframing of scars as testimony offers a particular resource for recognising the cultural and social resilience of marginalised learners. Toldson (2024) argues that educators should "celebrate the gold" by affirming knowledge gained through tough experiences and strategies learned from mistakes, trauma and perseverance rather than interpreting performance gaps as deficits. Practically, this involves designing tasks that allow learners to connect disciplinary inquiry to community literacies, providing revision pathways that value strategic attempts, and ensuring that messages about effort and growth are delivered within relationally safe contexts where learners' emotional histories are recognised (Van der Kolk, 2014; NEU, 2024). The evidence base cautions, however, that mindset work without contextual supports is limited: decontextualised messaging can produce little change, whereas integrated programmes (where feedback practices, assessment design, teacher talk and institutional signals align) yield measurable improvements in persistence and attainment (Yeager et al., 2019; Yeager

et al., 2022). Kintsugi methodologies help teachers avoid superficial growth talk by insisting on visible practices of repair and by making the social infrastructure of support explicit and observable to learners.

Epistemological Implications: Knowledge as Fractured and Repaired

Kintsugi prompts teachers to reconsider epistemology in the classroom. Rather than privileging smooth trajectories from ignorance to mastery, Kintsugi suggests that knowledge is often subject to change, negotiated, and reconstructed through episodes of breakdown and repair. Freire's dialogic model and contemporary constructivist perspectives foreground learning as praxis (action, reflection, and revised action) and Kintsugi provides a material metaphor for that cycle (Freire, 1970). In classroom design, this perspective supports inquiry units with built-in revision checkpoints, metacognitive routines that require learners to articulate how their thinking has changed, and collaborative problem solving that makes the process of conceptual repair public. When learners document their learning pathway with prompts such as "I used to think… now I think… because…", the classroom produces readable traces of epistemic repair that function both as assessment evidence and as cultural artefacts demonstrating that intellectual growth is messy, social and morally situated (Badenhorst, 2018; Keulemans, 2016).

Kintsugi as a Framework for Flourishing Classrooms

Kintsugi methodologies furnish teachers with an integrative philosophy combining aesthetic valuation of imperfection, ethical commitment to repair, and evidence-based strategies for supporting learning from error. When enacted thoughtfully and systemically, Kintsugi-informed practice makes visible the seams of learning, supports durable relational repair, and integrates growth-oriented feedback and assessment into everyday pedagogy. For teachers the practical messages are clear: treat errors as visible instructional data, design and protect routines for repair and revision, and sustain relational infrastructures that enable learners to revise, restore and flourish.

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