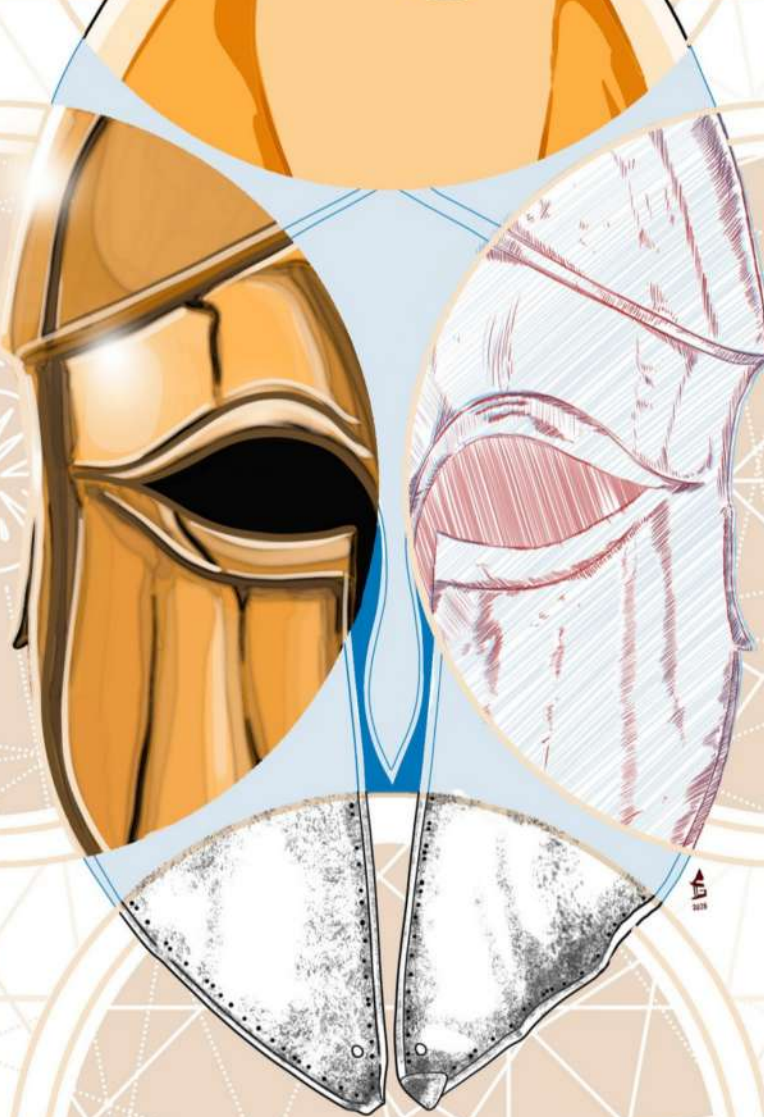


AI & ANTIQUITY



Volume 2 (2026) – Issue 2
Neurodiversity and Antiquity
Journal of Teaching and Technology in Ancient Studies

Edited by

CIAW

CENTER FOR
INNOVATION IN
ANCIENT WORLDS

With support from

UAB

Universitat Autònoma
de Barcelona

ABOUT THE JOURNAL

MISSION AND SCOPE

AI & Antiquity was founded in 2025 on the conviction that the field of Ancient Studies requires a dedicated forum for critical reflection on pedagogy, teaching practices, and the transformative role of digital technologies in education. The journal promotes inclusive, active, and innovative approaches to teaching and learning, with particular attention to historically overlooked voices and perspectives, especially those of women and other underrepresented groups, as well as the experiences of neurodivergent students and educators.

EDITORIAL INDEPENDENCE

The journal is published by the Center for Innovation in Ancient Worlds (CIAW), a non-profit academic initiative established to support innovation and foster new intersections between Ancient Studies, pedagogy, and digital technologies. The journal operates with full editorial independence while benefiting from CIAW's broader academic framework and international network.

OPEN ACCESS

AI & Antiquity is a fully open access journal. All published content is made available under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0).

AI & SCHOLARSHIP

This journal approaches artificial intelligence neither as a substitute for scholarship nor as a technology that should be rejected by default. We support its critical, transparent, verifiable, proportionate, and ethically responsible use, while recognising that scholars may also choose not to use AI. Human expertise, judgement, accountability, and engagement with evidence remain central to all research and teaching practice.

ACKNOWLEDGEMENTS

The editors acknowledge the invaluable contributions of the Editorial Board and the Advisory Board, whose expertise and commitment shape the scholarly direction of the journal. Special thanks are also extended to the anonymous reviewers. Original artwork by Arturo Galindo García (2026) · @trustmeiamahistorian_. This issue has received financial support from the Universitat Autònoma de Barcelona teaching-innovation project GI517492 (2025–2026), funded within the Faculty of Arts and Humanities' teaching-innovation programme.

This issue is dedicated to all neurodivergent people, whose experiences and perspectives enrich how we teach and understand the world.

EDITOR-IN-CHIEF

Carlos Heredia

Universitat Autònoma de Barcelona

ASSOCIATE EDITOR

Isaías Arrayás

Universitat Autònoma de Barcelona

ASSOCIATE EDITOR

Sílvia Swan

Universidad Europea de Madrid

Editorial Board

Valentina Arena

University of Oxford

Gerard Cabezas

Independent Researcher

Mirko Canevaro

University of Edinburgh

Loredana Cappelletti

Universität Wien

Jordi Cortadella

Universitat Autònoma de Barcelona

Christopher J. Dart

University of Melbourne

Alexandra Eckert

Georg-August-Universität Göttingen

Meritxell Ferrer

Universitat Pompeu Fabra

Agnès Garcia

Universitat Autònoma de Barcelona

Leif Isaken

University of Exeter

Edward A. S. Ross

University of Reading

Catherine Steel

University of Glasgow

Alexander Thein

University College Dublin

Catherine Wolff

Université d'Avignon

Antigoni Zournatzi

National Hellenic Research Foundation

Advisory Board

David Alegre

Universitat Autònoma de Barcelona

Patricia Bou

Universität Freiburg · Humboldt Postdoc Fellow

Diego Chapinal

Universidad Autónoma de Madrid

Alejandro Díaz

Universidad de Sevilla

Elena Duce

Universidad Autónoma de Madrid

M^a Cristina de la Escosura

Universidad de Alcalá

Lorenzo Gagliardi

Università degli Studi di Milano

Claire Holleran

University of Exeter

Mireia López

Universitat de València

Dominik Maschek

Leibniz-Zentrum für Archäologie

Marc Mendoza

Universitat Autònoma de Barcelona

Javier Moralejo

Universidad Autónoma de Madrid

Adrià Muñoz

Educator & Researcher

Joan Oller

Universitat Autònoma de Barcelona

Samandar Ro'ziboyev

Sapienza Università di Roma

Anna Rovira

Educator & AI Psychopedagogue

Caitlan Smith

Arkansas State University

Neurodiversity and Ancient Studies: From Accommodation to Inclusive Design

Carlos Heredia Chimeno

Editor-in-Chief
Universitat Autònoma de Barcelona
carlos.heredia@uab.cat
[0000-0003-2866-5883](https://doi.org/10.1017/S3081455300000003)

1. NOT EVERY DIFFERENCE IS A PROBLEM TO SOLVE

The cover of this issue, illustrated by Arturo Galindo, offers an appropriate point of departure. Rather than attempting to give neurodivergence a single visual form, it brings Antiquity into dialogue with multiplicity: different ways of seeing, connecting and organising information around the same object. That plurality is also where this issue begins. There is a recurring contradiction in the way universities talk about neurodiversity. We have become considerably better at recognising it, considerably more willing to discuss it, and increasingly capable of building institutional structures around it. Disability services identify reasonable adjustments, teaching centres produce recommendations for accessible learning, universities publish equality and inclusion strategies, and lecturers are more likely than they were twenty years ago to encounter students who openly describe themselves as autistic, dyslexic, dyspraxic, ADHD, or otherwise neurodivergent. All of this represents real progress. Yet beneath that progress lies an assumption that has proved remarkably difficult to dislodge: neurodiversity enters the classroom primarily when something goes wrong. A student cannot cope with a particular form of assessment, struggles with an oral presentation, becomes overwhelmed in a synchronous environment, needs instructions reorganised, requires more time, or asks for an alternative format. At that point, the system responds. Support is activated, the barrier is identified, and the student is helped to navigate an educational structure that was already there before their difference became visible. What remains less frequently asked is whether the structure itself deserves the same scrutiny as the student.

This distinction matters because the language of support can remain deficit-based even when the intentions behind it are entirely inclusive. We ask how an autistic student can be helped to participate in a seminar, how a dyslexic student can be helped to read a dense text, how an ADHD student can be helped to organise a long assignment, or how a dyspraxic student can be helped to function within an academic environment built around assumptions that were never designed with

them in mind. What we ask much less often is what these students and academics may already be bringing into the classroom that the conventional model fails to recognise: attention to detail, pattern recognition, unusual associative thinking, intellectual persistence, alternative forms of empathy, precision, resistance to implicit conventions, or an ability to notice contradictions that others have learned to ignore. The first formulation asks how neurodivergent people can survive the established system. The second asks what the established system might learn from them.

This issue of *AI & Antiquity* begins from that second question. It is not a volume about lowering expectations, replacing academic standards with individual preference, or assigning different intellectual tasks to different diagnostic groups. Indeed, one of the strongest threads connecting the contributions collected here is precisely the opposite. Again and again, these articles show that academic standards can remain intact while the conditions through which students encounter them change. A Roman History tutorial can still require interpretation, debate and evidence without obliging every participant to use a microphone or appear on camera. A Latin test can still assess morphology, syntax and translation while giving students an opportunity to experience its structure before the summative assessment begins. An Ancient History project can still require primary-source analysis, engagement with scholarship and evidence-based argument while allowing students to organise those operations through a guided sequence, a systematic comparison or a more synthetic and visual pathway. The intellectual demand does not disappear simply because the route becomes more transparent.

This may sound obvious, but it has substantial consequences. University education has historically bundled together knowledge, method, performance and convention so tightly that separating them can feel like weakening the task. If a seminar discussion is intended to evaluate a student's ability to analyse evidence, we may still assume that analysis should become visible through rapid spoken participation. If an essay is intended to assess historical reasoning, we may still confuse the continuous prose through which that reasoning is normally presented with the reasoning itself. If a test is intended to evaluate knowledge of Latin, we may still allow unfamiliarity with the structure and emotional environment of the test to become part of what is effectively being assessed. These conventions are not necessarily bad. Spoken discussion, essays and timed examinations all have legitimate academic purposes. The problem begins when their historical or pedagogical usefulness is taken for granted rather than articulated.

Neurodiversity makes that hidden architecture visible. This is one reason why the subject belongs so naturally within *AI & Antiquity*. Artificial intelligence has already forced us to distinguish more carefully between the products of academic

work and the intellectual operations behind them. A grammatically correct essay is no longer sufficient evidence that a student has reasoned independently; a polished bibliography is no longer sufficient evidence that every reference exists; a plausible historical reconstruction is not necessarily a reconstruction supported by sources. In the same way, neurodiversity forces us to distinguish the historical competence we want students to acquire from the particular route through which we have traditionally required them to display it. AI and neurodiversity may appear to belong to very different debates, but both confront educators with the same uncomfortable question: what, exactly, are we evaluating?

The answer cannot simply be 'whatever we have always evaluated'. If Ancient Studies wishes to maintain its claim to rigorous disciplinary training, then that rigour should survive changes in format. A student should still be able to contextualise an ancient source, distinguish evidence from interpretation, compare conflicting documentation, recognise anachronism, engage modern scholarship and construct an argument. Those expectations can remain demanding. What this volume asks is whether every organisational convention surrounding them must be equally immutable.

2. FROM ACCOMMODATION TO DESIGN

The difference between accommodation and design is not absolute, nor should it be. Individual reasonable adjustments remain essential, and no general pedagogical model can anticipate the circumstances of every student. Some barriers are personal, some medical, some temporary, and some sufficiently specific that only individual support can address them properly. The danger lies not in accommodation itself, but in treating accommodation as the only point at which inclusion begins. If a predictable barrier can be reduced before the student has to identify themselves, disclose a diagnosis, request permission and wait for an exception, then the alternative can often be incorporated into the design of the learning environment itself.

Several of the contributions in this issue illustrate how small that change can be. No one here proposes rebuilding the university from the ground up. A tutor can announce in advance that students will not be unexpectedly called upon. Slides can be made available before an online tutorial. A class can be told that webcams and microphones are optional. An assessment can be rehearsed once in conditions resembling the eventual test. A Virtual Learning Environment can provide deadlines and instructions in several accessible forms. A seminar can allow students to place an idea on a whiteboard before being asked to articulate it orally. These are not spectacular technological innovations. In fact, one of the most useful findings across the volume is that inclusive teaching often depends less on the acquisition of new technology than on removing hidden uncertainty.

This is particularly visible in relation to anxiety. Anxiety is sometimes discussed as though it were an external condition that students bring into the classroom, something the educator should acknowledge compassionately but which remains separate from course design. Yet educational environments can manufacture anxiety very effectively through unpredictability. 'You may be asked to speak without warning', 'you will enter an unknown breakout room', 'the examination will contain familiar content but you will discover its practical form only when the clock begins', or simply 'the rules of participation are obvious enough that they do not need to be stated' are all instructional decisions, even when nobody experiences them as decisions. Making those expectations explicit does not remove intellectual challenge; it removes the need to guess the rules before beginning the challenge.

Predictability should not, however, be confused with uniformity. This is where some well-intentioned approaches to neurodiversity become restrictive. There is an understandable temptation to turn research findings into profiles: autistic students prefer structure, ADHD students require movement, dyslexic students benefit from one form of presentation, neurotypical students can follow the conventional route. Yet every attempt to make neurodivergence more visible risks reconstructing it as a new set of homogeneous categories. The papers in this volume repeatedly complicate that assumption. A format designed around autistic needs may benefit students with chronic illness, caring responsibilities or simply a difficult day; the same text-chat system that reduces pressure for one student may create difficulty for someone with dyslexia; a student who benefits from highly structured guidance in one task may prefer much greater autonomy in another. Neurodiversity is not a timetable that tells the lecturer which method corresponds to which brain.

This is why choice appears so frequently in the contributions that follow. Not unrestricted choice, because unlimited choice can itself become cognitively demanding, but transparent and bounded alternatives. Conventional tutorials can coexist with relaxed ones. Different routes through the same historical project can coexist under common criteria. Students can experience a formative rehearsal before a summative Latin test without changing what the final examination assesses. In each case, the aim is not to identify the perfect format for a category of student but to reduce the number of situations in which one pedagogical convention unnecessarily becomes the gatekeeper for disciplinary competence.

There is also another perspective that deserves considerably more attention than it normally receives: neurodivergent educators themselves. Discussions of inclusion often place the lecturer in the position of the supposedly neutral designer and the neurodivergent student in the position of the person to be accommodated. The distinction does not survive contact with real universities. Neurodivergent

academics teach, supervise, assess, research and manage departments; they bring their own sensory, organisational and communicative needs to these environments and, as several contributions demonstrate, their lived experience can become a source of pedagogical insight. The person who has experienced cognitive overload is often especially alert to a slide that contains too much information. The person who has found an oral intervention difficult can recognise the difference between silence and disengagement. The person who has struggled to infer an unstated academic convention may be more likely to make that convention explicit for students.

This should not be romanticised. Neurodivergence does not automatically produce a better teacher any more than it automatically produces a better historian. Nor should lived experience exempt pedagogical claims from evaluation. What it does provide is another form of expertise that universities have often overlooked because the academic has historically been imagined as cognitively unmarked. The supposedly ‘normal’ lecturer did not need to explain how they processed information, organised work or coped with the sensory environment because the institution had been built around enough of their assumptions for those questions to remain invisible. When neurodivergent academics describe what they notice, the resulting insights may benefit the entire classroom precisely because they make the invisible visible.

A similar argument can be made about strengths. Academic inclusion has understandably concentrated on barriers because barriers produce immediate harm, but a model that sees only support needs can inadvertently reproduce the idea that neurodivergence is a collection of deficits compensated by institutional generosity. Ancient Studies should be particularly resistant to this simplification. Our disciplines depend upon unusual forms of attention. Philology rewards an ability to detect patterns across linguistic systems; epigraphy depends upon microscopic precision; archaeology requires the organisation of fragmented material evidence; historiography frequently advances because someone refuses to accept an inherited explanation that appears obvious to everyone else. These skills are not exclusively neurodivergent, and claims that archaeological or linguistic expertise can simply be mapped onto autism would be reductive. Yet neither should we pretend that cognitive differences have only negative educational consequences.

The question is therefore not how to create a university without difficulty. Intellectual difficulty is not a defect. Ancient Studies is demanding because the evidence is incomplete, the languages are complex, interpretations conflict and the distance between antiquity and the present cannot simply be wished away. The task of inclusive design is to protect that productive difficulty while reducing forms of difficulty that contribute nothing to the learning outcome. A dense passage of

Thucydides may need to remain difficult. Guessing whether the lecturer will suddenly require a student to turn on a camera does not.

3. HIGHLIGHTS OF THIS ISSUE

With this distinction in mind, the present issue has been structured as an itinerary rather than a collection of unrelated case studies. It moves deliberately from neurodivergence as intellectual contribution, through lived experience and access, towards specific interventions in learning and assessment, before concluding with a transferable framework that connects inclusive pedagogy to critical artificial-intelligence literacy. The order matters because we did not want the issue to begin with the assumption that neurodivergent students are problems waiting for solutions. It begins instead by asking what Ancient Studies may gain when difference is recognised as intellectually productive.

The issue therefore opens with Jenny Read-Heimerdinger's *'The Positive Contribution of Neurodivergence to Ancient Studies'*, a contribution that challenges what she describes as the persistent deficit-based framing of neurodivergence. Drawing on her own late autism diagnosis, decades of work in ancient languages and textual research, and experience teaching neurodivergent students, Read-Heimerdinger turns attention towards strengths that are often ignored when institutional discussion begins from disability and adjustment. Detail-focused thinking, clarity, empathy, pattern recognition, intellectual flexibility and willingness to challenge received assumptions emerge not as compensations for an underlying deficiency but as capacities that can contribute positively to the study of languages, texts and ancient cultures. The article is especially valuable because it does not idealise these characteristics. Extreme attention to detail, for example, can also make selection and communication difficult; a cognitive strength can require learned strategies before it becomes academically productive. Yet that complexity is precisely the point. A student or scholar is not reducible to a diagnostic category, and the contribution of a particular cognitive profile cannot be understood through a list of deficits alone. Read-Heimerdinger ultimately asks educators to recognise not simply what neurodivergent people need from Ancient Studies, but what Ancient Studies itself may receive from them.

That perspective leads naturally to Julia Tomas's *'The Neurodiverse Teaching the Neurodiverse: Case Studies and Reflections of a Dyspraxic Ancient History Lecturer'*, which shifts the focus from strengths in the abstract to the pedagogical knowledge produced through lived experience. Tomas begins with a question once put to her after explaining how dyspraxia and Scotopic Sensitivity Syndrome affected her studies: 'How do you do anything at all?' The article traces the long distance between that question and her own work as an Ancient History lecturer, showing how experiences of misunderstanding, insufficient adjustments and sensory

barriers subsequently shaped an approach to teaching centred upon empathy and access. Two case studies give the discussion particular force. The first concerns a student whose autism and anxiety created major barriers to seminar participation and oral presentation, and shows how relatively limited individual support and preparation could alter the student's confidence without changing the academic task. The second moves from individual support to general course design, examining a first-year Ancient History class with a substantial number of disclosed disabilities and describing the use of advance materials, accessible Virtual Learning Environments, structured breaks, altered visual presentation and kinaesthetic learning activities. In one seminar, replacing a conventional discussion with a simple whiteboard activity broadened participation from the same four or five habitual speakers to the entire class; in another, the unlikely teaching aid of a British Museum rubber duck became the entry point for learning how to interrogate material culture. The humour of the examples should not obscure the broader argument: accessibility often emerges from comparatively modest alterations to the learning environment, and those alterations may improve the experience of neurotypical students as well. Tomas's conclusion brings the opening section of the issue full circle by insisting that neurodivergent people should not be seen as problems to be solved, but as people capable of succeeding when environments cease to make unnecessary barriers part of the test.

The third contribution, *'Relaxed Tutorials: Adapting Front-of-House Practices to Accommodate Autistic Students in Distance Learning'*, moves the issue from personal and reflective accounts towards a more systematically evaluated intervention. Developed within Classical Studies at The Open University, the Relaxed Tutorial Project adapts principles already familiar in British theatre, cinema and heritage settings. A relaxed performance does not change the play; it changes the environment in which audiences encounter it. The project transfers that distinction to synchronous online teaching and identifies five recurrent sources of anxiety: webcams, microphones, being unexpectedly put on the spot, breakout rooms and uncertainty surrounding the demands of a session. Instead of treating these as individual problems to be negotiated privately, the project turned their removal into a clearly advertised package. Students knew in advance that cameras and microphones would not be required, that nobody would be singled out without warning, that breakout rooms would not be used, and that key materials and expectations would be communicated beforehand. The effect was substantial: attendance exceeded typical tutorial numbers, participation through text chat was very high, and students repeatedly reported reduced pressure and improved control over participation.

Perhaps even more important than the positive results, however, is the refusal to convert them into another universal prescription. Text-heavy chat was difficult for some dyslexic students, while others preferred spoken or camera-based

interaction; the relaxed format therefore works most effectively as an additional option rather than a replacement for all tutorials. This distinction is one of the intellectual hinges of the volume. Inclusion does not require discovering the one correct accessible environment and imposing it on everyone. It requires understanding that different forms of participation can preserve the same analytical work. For a discipline in which interpretation, debate and close reading are central, the Relaxed Tutorial Project demonstrates that reducing social and affective cost does not require reducing intellectual engagement.

The issue then turns from the tutorial environment to assessment with '*The Case Study of the Simulacrum in Latin Teaching*', developed in Latin-language courses at the Universidad de Costa Rica. The Simulacrum is deceptively simple: approximately one week before a graded assessment, students complete an ungraded formative exercise designed to reproduce the eventual test as closely as possible in structure, instructions, content and time. Its purpose is therefore not to reveal the answers in advance but to remove one form of uncertainty. Students can discover what the task feels like, identify where their declarative or procedural knowledge remains insecure, and plan accordingly before the summative assessment begins. The author connects the exercise with learning by doing, neurodidactics and inclusive instructional design, but its strongest contribution may lie in demonstrating how much of assessment anxiety can arise not from the disciplinary content itself but from the hidden curriculum surrounding assessment: what the task will look like, how time will feel, what forms of response will be expected, and which apparently obvious conventions students are expected to infer without practice.

The Simulacrum also broadens the geographical and disciplinary range of the issue. Inclusive practice is not presented as a model developed exclusively within one British or northern-European institutional culture, nor as something applicable only to historical discussion courses. Here the object is Latin grammar and translation, a domain whose learning outcomes can be defined with considerable precision. The formative rehearsal does not replace the final test and does not change the content students must know. It changes the relationship between preparation and evaluation. The article's conclusion is therefore particularly important for the volume as a whole: the challenge may lie less in choosing between 'traditional' and 'modern' pedagogy than in recognising the emotional and cognitive implications of how knowledge is taught and tested.

The final peer-reviewed contribution, '*Same Standards, Different Pathways: Forgotten Voices, Neurodiversity, and Critical AI Literacy in Ancient History Teaching*', draws many of these threads together and extends them towards artificial intelligence. Developed through the UAB teaching innovation project *Veus oblidades a l'Antiguitat*, the article examines two Ancient History implementations before

translating them into a transferable framework. The first combined evidence-bounded historical reconstruction with generative AI, requiring introductory students to construct fictional but historically situated actors in Hammurabi's Babylon and the Roman Republic during the Second Punic War and then determine which generated details were documented, plausible, unsupported or anachronistic. The second, developed in an advanced course on war and imperialism, moved from content to organisation by offering three possible learning pathways—guided and sequential, systematic and comparative, and synthetic and visual—without assigning them to diagnostic categories and while preserving identical historical expectations across all three.

The central argument deliberately returns to the question with which this editorial began. If a student must contextualise evidence, distinguish source from interpretation, engage scholarship, identify anachronism and construct an argument, those disciplinary requirements should remain common. It does not necessarily follow that every student must organise them through one identical sequence. The article describes this distinction as same standards, different pathways, but it also discovers a contradiction within its own implementation. The project had diversified the organisation of historical work while continuing to require all students to interact personally with generative AI. Student reactions made this inconsistency visible. The revised framework therefore separates critical AI literacy from compulsory AI adoption: a student may generate material directly, analyse a documented instructor-provided corpus, or compare several controlled outputs while being assessed through the same historical criteria. The aim is not to produce more users of AI, but historians capable of deciding when a technological tool contributes to historical reasoning, when it distorts that reasoning and when it is unnecessary.

The issue concludes with a Book Reviews section that broadens this pedagogical discussion beyond the peer-reviewed contributions. The three reviews engage with Santos, Pedro and Cabero-Almenara's *e-DigCompEdu: Marco de Competencias Digitales para la Educación Superior en Línea*, Olmos Rueda and Márquez Cebrián's *Prevenió de l'absentisme*, and Marvin Rees's *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹*. Together, they extend several of the concerns running through this issue—from digital competence and educational participation to the possibilities and limitations of digitally mediated learning.

4. WHAT WE MEAN WHEN WE SAY INCLUSION

The contributions in this volume differ considerably in method, voice and scale. Some begin from autobiographical reflection; others present structured teaching interventions or formal classroom projects. They range from online Roman History

tutorials to Greek and Latin language learning, introductory Ancient History, material culture, historiography and generative AI. Yet they repeatedly arrive at the same boundary. Inclusion becomes difficult when the university cannot distinguish the disciplinary challenge from the convention surrounding it.

This does not mean making everything easier. In fact, the language of ‘easier’ is often part of the problem. Turning off a webcam does not make Roman History easier. Knowing the structure of an examination one week earlier does not make Latin morphology easier. Allowing a student to prepare an argument through a comparative matrix rather than through linear notes does not make primary-source criticism easier. None of these alterations gives the student the answer. What they can do is stop unrelated cognitive, sensory or social demands from obscuring whether the student knows the answer and, more importantly in the Humanities, whether they can reason towards one. It is also worth recognising that the benefits need not remain confined to students with formal diagnoses. This is sometimes treated as an argument against neurodiversity-focused teaching: if everybody benefits from clear instructions, predictable tasks or varied routes of participation, why describe these as neurodiversity-aware practices at all? The answer is that universality of benefit does not imply equality of need. A ramp may be useful to someone carrying a suitcase without ceasing to be essential for a wheelchair user. In the same way, advance information may be convenient for one student and decisive for another. Neurodivergent experience helps us identify barriers whose removal can improve the environment more broadly.

At the same time, we should resist the comfortable idea that universal design removes every difference. It does not. Some students will require individual accommodations, some formats will remain inaccessible to particular people, and some academic competences genuinely depend upon a specific form of performance. A language course may reasonably assess oral language if oral production is one of its outcomes. A professional qualification may require a student to demonstrate a particular practical skill. Inclusion cannot mean pretending that all activities are interchangeable. The discipline must retain the right to define its competences. What it should lose is the habit of leaving those competences undefined. This is perhaps the most important contribution of the present issue. Neurodiversity-aware teaching requires us to become more precise about standards, not less. We cannot decide which parts of an activity may vary until we know what the activity is actually for. We cannot offer equivalent pathways unless we can say what makes them equivalent. We cannot distinguish accommodation from dilution unless the learning outcome is sufficiently clear to survive a change in form.

The same lesson applies to AI. At the time of writing, one could be forgiven for thinking that the most urgent question surrounding artificial intelligence was

whether there would still be universities left to educate anyone in. In September 2026, headlines reported warnings from current and former researchers at Anthropic that future superintelligent systems might pose an existential risk to humanity, with one researcher placing the probability of such an outcome at more than ten per cent within the following decade (Booth, 2026). The seriousness of such claims deserves scrutiny, as does the considerable uncertainty surrounding them. Yet between technological utopia and human extinction lies a rather more immediate educational question: what, exactly, do we want students to be able to do with these systems?

That question has acquired particular urgency with the publication of the PISA 2025 results in September 2026. Across OECD countries, reading performance has fallen sharply over the past decade, including precisely those skills that become more rather than less important in an AI-mediated environment: evaluating information, connecting evidence across sources and thinking critically about what we read. The findings on artificial intelligence are equally uncomfortable. Students who reported using AI to draft text for assignments tended to perform less well than those who did not, while students who had been explicitly taught to evaluate the quality of AI-generated information performed better than AI users who had received no such guidance (OECD, 2026). These associations do not demonstrate that AI itself causes educational decline, nor do they justify technological rejection. They do, however, make it increasingly difficult to imagine digital competence as a substitute for foundational competence. Reading, reasoning, sustained attention and the ability to evaluate evidence are not skills rendered obsolete by artificial intelligence. They are the skills on which any meaningful form of AI literacy depends.

For several years, debate around generative AI in education has oscillated between enthusiastic adoption and attempts to prohibit or detect it. Both positions can become technologically obsessed. The more useful educational question is the same one posed throughout this issue: what competence do we want the student to demonstrate? If the objective is the ability to evaluate generated material against historical evidence, then direct prompting may be one route but not necessarily the only one. If the objective is independent historical argument, then producing polished prose through an LLM is not equivalent to performing the reasoning that the prose is supposed to communicate. Technology changes the environment; it does not relieve us of the need to define the intellectual work.

This is why I would resist describing the articles collected here simply as contributions about ‘supporting neurodivergent students’. They are about something broader and, I think, more interesting. They are about making academic expectations visible. Sometimes that means listening to the experience of the person who has spent years negotiating an environment that others barely notice.

Sometimes it means asking a student to practise the test before the grade matters. Sometimes it means stating clearly that nobody will be forced onto camera. Sometimes it means allowing three routes towards one historical argument. None of these changes is revolutionary on its own. Taken together, however, they challenge a deeply rooted assumption: that equality requires everyone to encounter the same barriers in the same way.

Ancient Studies has never depended upon sameness. The evidence itself refuses it. We work with papyri and pottery, inscriptions and landscapes, fragments and literary texts, coins and skeletal remains, each requiring different forms of attention before they can contribute to a historical argument. We would find it absurd to insist that all evidence must be approached through one analytical method simply because uniformity looks rigorous. There is no particular reason to treat students with less methodological imagination. The objective remains what it has always been: to train people capable of reading difficult evidence, asking precise questions, recognising uncertainty, challenging easy narratives and constructing interpretations that can withstand criticism. The articles in this volume suggest that we may protect that objective most effectively not by requiring everyone to travel towards it in exactly the same way, but by becoming far clearer about what the destination actually is.

Bellaterra (Barcelona), September 2026

REFERENCES

- Booth, R.** (2026, Sept 9). AI could kill all humans in next decade, warn experts: but how seriously should we take them? *The Guardian*.
<https://www.theguardian.com/technology/2026/sep/09/ai-superintelligence-risks-warn-ings-scientists-politicians>
- OECD.** (2026). *PISA 2025 Results (Volume I): Future-Ready Students*. PISA, OECD Publishing, Paris. DOI: [10.1787/73451bc5-en](https://doi.org/10.1787/73451bc5-en)

The Positive Contribution of Neurodivergence to Ancient Studies

Jenny Read-Heimerdinger

Institut Catholique de Toulouse
jgheimerdinger@gmail.com

ABSTRACT — The recognition of natural differences in how the brain thinks, learns, and processes the world has been widely welcomed within education, but discussion has often concentrated on the difficulties neurodivergent students encounter and on strategies intended to compensate for them. Less attention has been paid to the strengths that neurodivergent learners and academics may bring to Ancient Studies, or to the ways those strengths can contribute to the learning of peers and the work of teachers. With particular reference to autism, this article examines the issue from three overlapping perspectives: student, tutor, and peer or colleague. Drawing on lived experience, teaching practice, ancient-language learning, and research in the ancient world, it considers the consequences of deficit-based framing and explores characteristics frequently identified by autistic people themselves, including attention to detail, clarity, empathy, flexibility of thought, creativity, honesty, and pattern recognition. The article also considers the difficulties that may accompany these characteristics, especially the challenge of selecting and communicating from a large field of perceived detail, and asks how teaching can support the development of such abilities without reducing individuals to diagnostic stereotypes. It argues that recognising neurodivergent strengths is not an alternative to accessibility or reasonable adjustment, but a necessary complement to them, and that those strengths can enrich Ancient Studies when they are valued within collaborative learning and research environments.

KEYWORDS — Neurodiversity, Autism, Ancient Studies, Strengths-based Pedagogy, Inclusive Education

A few words of introduction will be helpful to explain my interest and experience in neurodivergence and studies in the ancient world. I have been working in the field of Ancient Studies throughout my professional life, developing research into languages, alongside Jewish and Christian history around the turn of the era, principally through studying biblical manuscripts. My work has been in universities in the UK, as well as a guest lecturer in countries around the world – including Spain where I have a long-standing association with Catalan scholars and students going back over 30 years. While I no longer teach at a university, I continue to work in academic research into the ancient world, where languages, literature, history, culture and religion all intersect. I maintain teaching activity through public courses as well as private tuition especially, though not exclusively, to students who present some kind of neurodivergence. I was myself late diagnosed autistic, among other things, although I have worked for many years

with neurodivergent students and alongside neurodivergent colleagues, often advocating for them.

Figure 1 shows the image of a vibrating musical string, which is the logo of my website, Timeless Learning Support. The image has long been representative for me of contiguous diversity in many areas – specifically in relation to education, how we think, how we learn, how we relate to others and to our subject. The string vibrates when it makes a sound, and one musical note is made up of a whole range of frequencies, a collection of sounds, each corresponding to the reality experienced by different, individual people. If a steady image is preferred, to create a still picture, the string can be stopped from moving by placing a finger on it – but the result is silence.

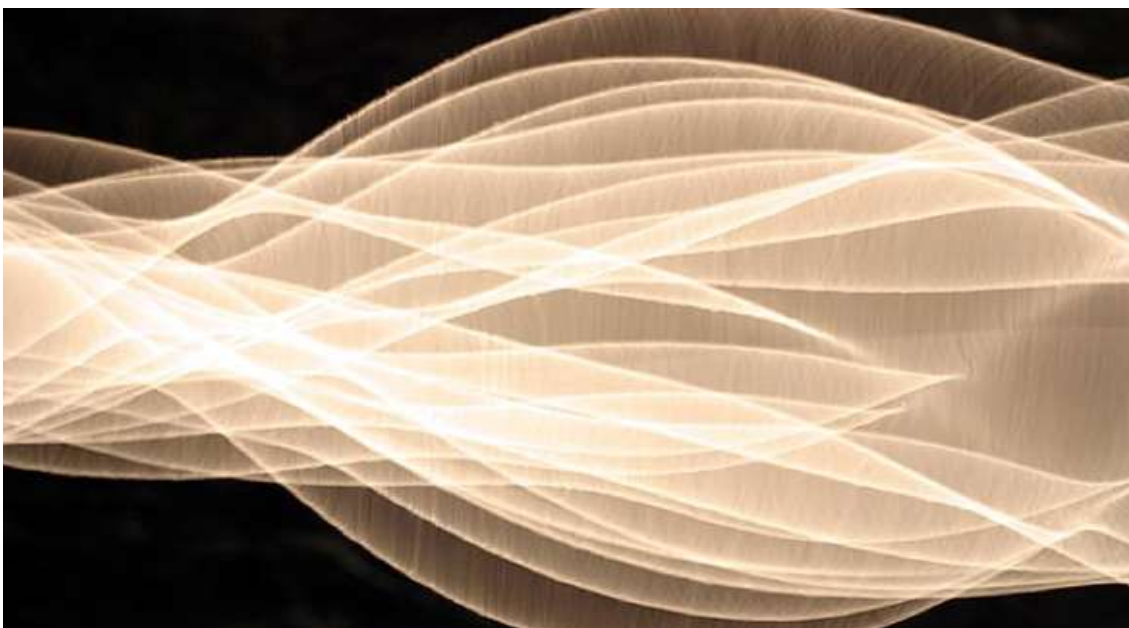


Figure 1. Vibrating string image, used in the Timeless Learning Support logo. Original source unknown.¹

In the context of my research, I was giving a talk at a meeting a few years ago where colleagues, past students and friends were present, and I mentioned that I tutored individual students with a range of neurodivergences. I talked afterwards to someone who I had taught Greek to some 30 years previously. He explained that his son had just been diagnosed with autism, and I shared that I had a recent diagnosis of autism. His immediate response was, “Oh that’s why...”. I asked him to explain, and he reminded me how, when he was an undergrad student, I had driven him in my car to a conference some distance away. And he said that he had never understood why I needed him to guide me through the road signs at all the junctions. He had not wanted to comment at the time, but he had found it incomprehensible that I could not find my way round road signs yet could be so proficient as a teacher of Greek. He was right – and yes, I do always end up with the

¹ Timeless Learning Support, www.timelesslearningsupport.co.uk

lorries in motorway service stations because I cannot process so much information while driving – but I did not feel he was criticizing me or disrespecting me in sharing his thoughts, because in the same breath he acknowledged my ability as a teacher.

I had received the autism diagnosis following the suggestion by a psychotherapist who I was seeing to manage issues of post-traumatic stress disorder (PTSD). When she gently pointed out what she saw as some indications of autism, I corrected her saying, “No, that’s PTSD”. She replied that she saw many people with PTSD, but no-one else insisted on being precise in the way I was, or became anxious that every small detail had to be clear and accurate. I set this out now to highlight that in whatever way any one person may be neurodivergent, there are liable to be a number of factors, not just in the divergence but in their context, their experience – just in who they are as a real person, like anyone else.

I particularly want to highlight some aspects that make an autistic person feel at ease in the presence of neurotypical people. It is, as much as anything, a matter of being valued. Professionals in the UK are no doubt familiar with the Equality Act of 2010, with its three distinct aspects:²

- Equality: providing equal opportunities in access and outcomes by recognizing different needs.
- Diversity: valuing and respecting differences in backgrounds, identities, experiences and perspectives.
- Inclusion: creating environments where everyone feels welcomed, respected and able to participate fully.

Societal attitudes to autism vary considerably from country to country, but even when the principles of equality, diversity and inclusion are enshrined in law, this does not prevent a great deal of injustice and mistaken thinking about autism, not least within education. In some ways the confusion is perhaps not surprising given that an article prepared by a large international team and published in the journal *Nature* in October 2025³ suggested that clinical research is indicating that the notion of “autistic”, and specifically of a ‘spectrum’, needs to be rethought. While there are certainly clinical difficulties with the definition, in the minds of a fair range of educators in different countries, there seems to be little doubt about certain features.

A recent experience at a conference on ancient manuscripts illustrates the point. A speaker introduced his talk by referring to his handout – a page filled with a complex-looking table of figures and letters – and saying: “When you see my handout, you might think I’m on the spectrum, but I’m not, I’m a mathematician”. I took his comment up with him afterwards and pointed out how his words could be

² Cameron *et al* (2019).

³ Zhang *et al* (2025).

offensive to people in the audience who are ‘on the spectrum’, and that at any academic conference there was liable to be at least one autistic person in the audience. His reply is wearily familiar: “Oh, I get lost in all this business about neurodivergence nowadays. And anyway, we’re all on the spectrum, aren’t we?” The comment may have been intended to minimise any sense an autistic person may have of feeling different. But this kind of response undermines autistic experience, authenticity and identity. From my angle, the speaker was himself displaying a ‘lack of empathy’ in not seeing the potential offence of his words – apart from the fact that his response was dishonest.

In January this year, the toy manufacturers Mattel introduced a new Barbie doll, the Autistic Barbie, to join the “Type 1 diabetes Barbie”, and the “Barbie with Down syndrome”, intended by the company to reflect their inclusive policy and to “expand what inclusion looks like in the toy aisle” (Mattel, 2026). While some have interpreted it as a positive social move, there has also been a fear of it causing a backlash about overdiagnosis.⁴ Complaints from other directions point out that the representation was stereotyping – with the headphones, the fidget toy and the tablet. In fact, it is difficult to know how an autistic person could be represented without stereotyping. The word ‘stigma’ is a recurring term in complaints, underlining the social harm and with all the negative implications of the literal Greek meaning of stigma of “branding”, putting a stamp on someone to mark them as a social outcast.

By the very way autism is referred to, the stigma is there: it is a “disorder”, implying a departure from order, or at least the usual or typical order. However much it may be fought against, dis-order implies an equivalence with dis-ability, with the idea of some kind of function or ability that is absent. The sound of the Latin prefix, in popular thought at least, echoes the Greek prefix dys- with all the various types of dysfunction that it is applied to: dyslexia, dyspraxia, dyscalculia, and so on. While dis- from Latin signifies ‘absence, without’ and dys- from Greek refers more to a function that is impaired or operates in a non-standard way, whatever the sense behind any kind of “dis/dys”, all mean that something is lacking or reduced, less than standard, an impairment. However, as a research psychologist and self-described autistic activist comments: “... disability results not from autism itself but instead from living in a society which tends to be physically, socially and emotionally inhospitable towards autistic people” (den Houting [2019]).

The language used to refer to neurodiversity points to a problem in the field of teaching, namely that in our desire to be supportive and not discriminate, to be inclusive, the focus tends to be on the weaknesses, even (or especially) in

⁴ Hare (2026).

university “disability support units”.⁵ The result is, in part, infantilisation; it is, in any case, frequently a matter of underestimating competence.

It is “deficit-based” framing that I am wanting to protest against. Such a challenge is not new. A survey well over a decade ago already proposed “a deficit-as-difference conception of autism wherein neurological conditions may represent equally valid pathways within human diversity”.⁶ The lumping together and confusion of non-standard functioning and absence of ability is demonstrated in France by all coming under the umbrella of the *Maison Départementale des Personnes Handicapées* (MDPH). An illustration: I have hyperacusis, which means my ears do not discriminate sounds very well, I hear too much all at once. So, at a concert of classical music, I hear a lot better if I can see all the instruments close up, when my eyes can support my ears in distinguishing the sounds.⁷ At the Concertgebouw in Amsterdam recently, without any further questions I was allowed to sit directly behind the orchestra, where I heard Mahler’s 5th in a way I had never heard it before. For a concert last year in France, though, they told me if I was autistic I had to apply for a ‘disability certificate’ from the MDPH. I am too uncomfortable at being classed as ‘handicapped’ to do that. My hyperacusis is in many ways an advantage, and the “handicapped” label takes that away from me.

I was working with an archaeology student who was struggling with issues around autism in order to comply with her course requirements. During one of our early meetings, I asked her what were her strengths. Her response was one of surprise, she was so used to everyone concentrating on what she could not do that she had never thought about her strengths. Even when she took time to think about them, she found it uncomfortable – “Doesn’t that look like showing off?” she said.

It is interesting to observe that even in settings where the strengths of neurodiversity are to the fore, discussion can gravitate back towards the need for support and accommodation. A contemporary institutional example where this kind of tension was demonstrated is the July 2026 Church of England Synod debate “All Kinds of Minds: Affirming Neurodiversity in the Life of the Church”. The official motion began from a strengths-based position, with an opening contribution by an autistic person (alongside ADHD and Tourette syndrome), who argued that the Church should “allow ourselves to be blessed by” people who think differently. Several contributions to the live debate followed, highlighting the strengths that neurodivergent members can bring to church congregations and their leadership. Subsequent speeches, however, focused on the need for tolerance and support to be shown, as specifically Christian values. The final motion retains the

⁵ The following welcome statement is typical of most higher education disability support units: “Disability Advisers work alongside you to identify how your disability or condition impacts your teaching, learning, assessment and access to physical and digital resources, and to help coordinate support and adjustments.” (University of Huddersfield, n.d.).

⁶ Kapp *et al* (2013).

⁷ Keane *et al* (2010) supports the general idea that an autistic person can use visual information to reinforce or interpret auditory information.

strengths-based language (“a blessing to the church and wider society”) but most of its practical provisions concern training, removing barriers and challenging discrimination.⁸

It is important to recognize, as much of the Synod debate underlined, that in society all have a responsibility to find harmony and positivity, and one important way to do that is to recognize the strengths of neurodivergent people.⁹ When I asked around a range of people who identify as “autistic”, these are the strengths that were mentioned repeatedly:

- Detail-focused;
- Clarity;
- Empathy;
- Thought flexibility;
- Creativity;
- Honesty.

Thinking back to the past student’s response to my disclosure that I am autistic, it is instructive to compare it with that of a family member when I told her about my diagnosis. The response was again, “Oh, that’s why...”, but her comment was: “That’s why you’re so good at languages”, which is true even though actually, I am only good at analysing grammar and remembering vocabulary.

I mentioned above that my psychotherapist had highlighted my attention to detail. It made me think back to an experience as a 6th form student, so age 16. With a gifted English teacher, I discovered I loved analysing literature, and exploring characters from all sides and angles. There was one lesson when I had been asking a lot of questions: “Why did they say that? How is it possible to...? Who did she mean? Is that because...?” until the teacher stopped me: “Oh, shut up, Jenny, we need to get on”. I pointed out to him afterwards that he had been rude. “I suppose I was”, he said, “but the thing is, I hate teaching you, because it’s only a matter of time before you’re better than I am.” I appreciated that I could talk to him openly, and the honesty of his answer.

The problem with being “detail-oriented” is that we see so much that it can be difficult to select the most relevant or the most useful information, or to put it in an order that can be communicated to someone else. There is a nice illustration for this mass of detail in the staging from a 2023 Greek theatre production of Euripides’ *The Trojan Women*, where a phone box on the stage was a visual device to make ancient tragedy feel urgent and relevant today (Figure 2).

⁸ Church of England (2026).

⁹ Similar strengths among others are identified by den Houting (2019); Grant & Kara (2021).



Figure 2. Still from *The Trojan Women* (Δημοτικό Περιφερειακό Θέατρο Καβάλας, 2023).

Initially, the audience is presented with a scattered assortment of women, seen from different angles, all heading in different directions, not related to one another, where the setting illustrates how responses to a situation might be multiple and diverse. This is the kind of multi-faceted detail an autistic person may see, and the problem then is how to give the details some kind of order to communicate them effectively, how to give them focus. Simone Weil, the early 20th c. French philosopher, identified something that lay behind the difficulty for many students, even professional scholars, in giving focus to their ideas. In this translation, I have slightly adjusted what she said in a 1942 essay:

“All faulty translations, all absurdities in solutions to geometry problems, all clumsiness of style and all disconnection of ideas in essays, are due to the fact that thought has rushed upon some idea too hastily and, being already satisfied, has no room left to grasp it properly” (Weil, 1942, my adaptation).¹⁰

A PhD student was working on a topic of textual criticism, comparing Greek manuscripts of a biblical book. As is typical in working with ancient texts, he had found a huge amount and variety of information and was thrilled with everything he had unearthed after months of intensive analysis. But he struggled with successive attempts at expressing it and I had a hard time understanding what he had written. So, he stopped and went back until he was sure that he had properly grasped everything; then, he was able to write not only clearly, with a logical line of reasoning, but also in a way that was engaging.

¹⁰ “Tous les contresens dans les versions, toutes les absurdités dans la solution des problèmes de géométrie, toutes les gaucheries du style et toutes les déficiences de l'enchaînement des idées dans les devoirs de français, tout cela vient de ce que la pensée s'est précipitée hâtivement sur quelque chose, et étant ainsi prématurément remplie n'a plus été disponible pour la vérité.” (Weil, 1942).

Going back to the stage set of *The Trojan Women*, it is interesting to compare this initial arrangement with the later staging, once the phone box fulfils its purpose as the visual instrument of communication and the action becomes focused upon it (**Figure 3**). The way the stage has been organised and transformed from a chaotic, random-looking display of people into a coherent and comprehensible scene by focusing on the phone-box illustrates how someone who sees a situation or a problem with an enormous amount of detail can learn to communicate their ideas and insights in a clear and logical way. For some, this may have to be a learnt compensatory skill, but once learned, clarity is liable to be a skill they excel at. In other words, compensation becomes a strength.



Figure 3. Still from *The Trojan Women* (Δημοτικό Περιφερειακό Θέατρο Καβάλας, 2023).

Much of the study of the ancient world is communicated through the written word which, within the education system, takes the form of an essay as a means of assessment. A lecturer may want to instruct the class that they have to adopt a certain structure for an essay, thinking to be helpful. It may well be helpful for some students, but the autistic person will often want to find their own organisation of ideas, and not be forced to conform to a pre-determined structure. Above all, in my experience – which may be no more than that – it is especially not helpful to suggest an autistic person makes use of AI to give focus or structure to their ideas. It is particularly crucial to allow them to maintain control both in the generation and the expression of their thought.

In terms of pre-conceptions, a lack of empathy has become so much a feature of the autistic stereotype that I want to bust the myth. As an autistic nurse explained it to me, he feels so much for/with another person that it is overwhelming and he

blocks the feeling, so it looks as if they do not feel; and that the numbing reaction can be in response to negative or positive emotions. The nurse related how, as a student, he had been sent one morning into a small ward of six beds to wake the patients up. He quietly went to the bedside of each one, taking their hand and gently speaking to them. When he came back to the work station, the charge nurse told him that was not the right way to wake patients up. "Watch me", she said, "this is how it's done!" and she marched into the room, flung open the curtains, calling, "Good morning, everyone, how are we today?" My nurse friend told me that he simply could not do that. Many people who have been in hospital would agree that they do not like it, either. It may seem quicker, but actually the patients take longer to fully wake up.

There is, in fact, a two-way issue, a double empathy problem. As long ago as 2012, Damian Milton¹¹ used this term to explain communication breakdowns between autistic and non-autistic people, claiming that they are not one-sided deficits but mutual failures in understanding due to differing worldviews and communication styles, making empathy difficult for both groups.

In the Belgian-produced TV series *Astrid et Raphaëlle*,¹² Astrid who is autistic – played convincingly by a non-autistic actress – works in criminal archives. The attitude of colleagues in the police department is generally uncomprehending, even hostile, except for the chief detective inspector, Raphaëlle, who befriends her. When Astrid is invited to Raphaëlle birthday party early on in the friendship, she asks her support group for advice as to what to take as a gift. One person suggests, "Something that represents your friend for you". She goes but does not stay long because she feels so uncomfortable. When the other colleagues see the present she has bought Raphaëlle, a silver thimble, they make fun of her tiny, apparently insignificant gift. The next day, Raphaëlle asks her, first, why did she go to the party since she does not like noisy crowded events, to which Astrid replied, "Because it's protocol" – note the effort she has made to fit in; and then Raphaëlle asked, "Why the thimble?", because she hates sewing. Astrid's answer was "Because you are my thimble, you protect me from getting hurt". Typically, autistics are not meant to understand figurative language. In fact, what that means is that we do not necessarily understand fixed expressions. On the other hand, autistic people often excel at creating new, powerful comparisons, especially visual metaphors, perhaps because of the rich, multi-faceted vision they have of reality.

I heard the other day about an autistic colleague who the office staff had been complaining about because he did not go into the office to chat with them. They thought he was being aloof and disrespectful. They omitted to acknowledge that if another colleague was sick, he was the first to visit them, quietly arrange to cover

¹¹ Milton (2012).

¹² Also developed for the UK by Channel 4 as *Astrid in Paris*.

their classes and keep them updated about any information they needed.¹³ It reminded me of a young autistic boy who is meant to not have empathy, he failed the ‘theory of mind’ test. His father pointed out that in a room full of people, he will instinctively know the one person who is struggling and go to sit beside them.

Focusing on strengths reframes autism as a different way of experiencing the world, a ‘different way of being’ instead of as a deficiency or disability. It highlights that both neurotypical and neurodivergent individuals struggle to grasp each other’s perspectives. Exploring the strengths and difficulties of young autistic people was the subject of a study published in February just this year. It was found that the most frequently endorsed strengths included interpersonal skills (e.g., kindness, empathy), cognitive traits (e.g., intelligence, creativity), and resilience, pointing to strengths in autistic individuals that are typically underrecognized.¹⁴

The characteristics of empathy and creativity in particular have implications for the studies in the ancient world, especially when coupled with an autistic person’s readiness (even preference) not to accept received opinion. Obviously, challenging received opinion is the hallmark of good scholarship, but it is something that usually has to be learnt. It was therefore striking when I asked a group of 1st year undergrads at a Catholic faculty to find out about the 4th c. Emperor Julian, known as the ‘Apostate’. When they reported back, the general opinion was that the Church’s ruling about him was entirely justified because he had been brought up as a Christian but had turned to paganism. An autistic student had thought outside the box and taken an analytic stance. Her conclusion was that the label was unjustified because until Julian, it was only used of Christians who had renounced their faith under duress and it was seen as a sign of weakness. The label was given to Julian after his death, he was a strong not a weak ruler, and he did not renounce his faith because of persecution but because of his intellectual curiosity.

You do not have to be autistic to arrive at that kind of conclusion – but it may help. The other students had gone along with the orthodox position of the Church, and they found this student’s observations not insightful but ‘odd’ (although it is a view common enough nowadays in the literature). Someone might want to point out that the other students’ conforming to received opinion was to be expected in a Catholic faculty, that it would not have happened in a secular university. And that, anyway, it is autistic people who are usually described as having “rigid” or “black and white” thinking. I would like to quote from a LinkedIn discussion thread, no longer accessible to the author, where autistic professionals were commenting on exactly those things that had been said about them:

¹³ A recent survey of autistic staff working in higher education (Kenny et al., 2026) confirmed how often their strengths, such as thoroughness and problem-solving, are undervalued through misunderstanding.

¹⁴ Ferraiolo *et al.*, 2026.

- Labels such as “rigid” can be quite misleading, and sometimes rooted in ableist assumptions.
- If you think about it... group opinions can be just as “rigid”.
- The difference is they’re often shaped by social pressure - wanting to fit in
- And sometimes those shared opinions rely on assumptions, stereotypes, or prejudice that go unchallenged.

These comments reflect how autism can feel threatening to others, and close down a response of wanting to learn from another perspective. I believe that if we work at identifying and encouraging the positive strengths of an autistic person, an environment that feels harmonious and safe can be fostered. Rather than underestimating their skills, we should be pushing them and at the same time, encouraging peers and colleagues not to feel daunted or threatened by them. The pay-back is that it is a lot easier to adjust to neurotypical ways of behaviour if we feel valued, if we are valued and treated with empathy.

Another powerful TV drama, this time originating in Korea, which draws attention to the position of an autistic professional in society, is *The Good Doctor*, re-worked for American TV (ABC). The lead character, Shaun, is an autistic medical student with remarkable skills of memorisation and making unusual but valid connections. His outstanding ability to link cause and effect allows him to visualise patterns and find solutions to complex problems.¹⁵ Watching Shaun at work reminded me of a class who had an assignment on the causes of the Fall of Rome. An autistic student was concerned that he only had fifteen minutes to explain his web of ideas, until he decided to create a visual representation of those relationships instead (Figure 4).

He produced a detailed flowchart connecting the factors leading to the fall of Rome. It initially looks complex and too intricate to be useful, and it is not perfect but, taking the separate aspects and looking at the connections between them, generated enthusiastic class discussion. The example illustrates how the facility to carry out systematic analysis and to unravel complex layers of data can be highly beneficial for academic studies.

¹⁵ The empirical evidence is supported by the theoretical study of Baron-Cohen (2008). He describes the detection of patterns by people with autism as ‘hypersystemitization’, and accounts for it as driven by a powerful need to find the ‘truth’, defined as ‘lawful patterns in data’.

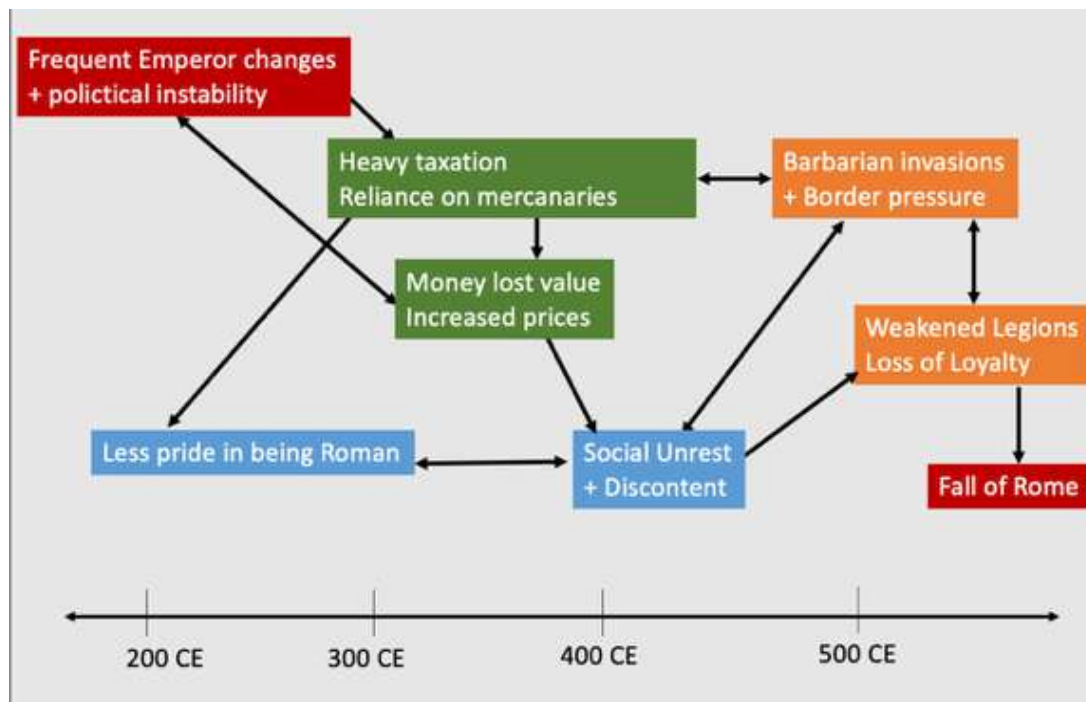


Figure 4. Concept map of the Fall of the Roman Empire (adapted by the author for illustrative purposes).

The student patently enjoyed constructing and discussing the chart, and his pleasure is very different from a sense of superiority, as it could have been construed; it is simply “I like being able to do this”. It is crucially important to allow the autistic person pleasure in doing what they are good at, not as some kind of sop to compensate for their weaknesses but as a genuine sharing in their ability, and a willingness to learn from it. The enjoyment might be why the autistic student sits at the front of the class – not because they want to be teacher’s pet, but it is easier at the front to engage, even mentally, with the lecturer. In any case, it is away from all the clicks and shuffles and sniffs and whisperings that can be so overwhelming when sitting in the middle of the class.

Within the field of ancient studies, the archaeologist Penny Spikins identifies the contribution made to cognitive and social evolution by hyper-precision and systematizing thinking, as seen in Palaeolithic material culture, thus reinforcing the benefits of autistic traits from the deep past into the academic present.¹⁶

The ready identification of patterns has a particular application to the study of languages, and notably to ancient Greek where the verb endings present a complex diversity that looks nothing short of bewildering in most student manuals. By noting similarities across the tenses and voices, it is possible to reduce the regular endings to a table that fits across one A4 page in landscape format. With the active voice at the top and the middle/passive voice underneath, a column is devoted to

¹⁶ Spikins (2009). Her interpretation is debated by Pickard et al (2011), especially the inference that particular archaeological evidence can be attributed to autistic cognition. However, in more recent interdisciplinary investigation, Spikins and colleagues develop the relationship between autism and material culture (Wright *et al.*, 2022).

each tense with specific markers noted next to the heading. Shared endings are grouped together (e.g. present and future; imperfect and 2nd aorist), and similar endings are placed in columns adjacent to each other. Thus, the indicative passive columns should be at the end of the top part of the chart, since its endings are more similar to active endings than the middle or other middle/passive endings and, in particular, follow a similar pattern to the pluperfect active. Additional rows can display the appropriate imperatival, participial and infinitival forms where they exist. Colour-coding can be applied to distinguish the voices and/or moods. In this way, a concise but complete visual chart is created that serves as a ready tool when deciphering a passage of ancient Greek. The greatest benefit is perhaps derived from the student compiling the chart themselves, after being given an initial organisational framework such as that shown in Table 1.

Indicative Active				Indicative Passive	
Present = Future + σ	Imperfect = 2 nd aorist	1 st aorist + σ	C ² + Perfect + κ	C ² + Pluperfect	1 st aorist = 2 nd aorist

Table 1. Initial headings for a chart of regular verb endings

Once the regular forms can be mastered simply by consulting their chart, a student is less likely to be overwhelmed by the intricacies of irregular forms, especially if a list of recurring phonological changes in contiguous consonants is also presented, because these account for many of the apparent irregularities.

On the topic of teaching ancient languages, some thoughts may be useful on how autistic strengths might be integrated positively into the teaching group, taking an example from my own experience again. It comes from a year-long Welsh class that I attended when I was living in Wales. We were a mixture of Welsh native speakers, who were fluent but had little knowledge of the grammar, and Welsh learners who already had a good grounding in Welsh but wanted to extend their vocabulary and develop their fluency. I remember an occasion when the tutor got us to work in pairs, and how he played to our strengths. He put me, with my strong mental grasp of grammar but poor ability to find the expressions to attach it to, with a very confident native speaker who could not get her head round grammar. Between us, we had to translate an English document into Welsh and then explain our translation. We were initially both terrified of each other, but as we worked together, I was able to produce the grammar for our sentences, and she refined the translation into elegant prose.

This approach is at its most workable when the tutor models the endorsement of strengths. It could well be applied to learning the classical languages of Latin and Greek, and indeed other languages of the ancient world.

In conclusion, the aim throughout this paper has been to highlight, on the one hand, a mis-placed focus, specifically in the academic world, on the ways in which neurodivergent people lack the capabilities of the neurotypical population, and the resultant attention that is directed to supporting what are perceived as weaknesses. On the other hand, the intention has been to underline some of the exceptional strengths, especially of autistic individuals, that both enrich and facilitate the study of the ancient world: the ability to capture detail, the recognition of intricate patterns, the willingness to challenge received opinion and to follow unexplored paths, the acute sensitivity to sharing the experience of another however distant in time and culture. The contention is that not only are such strengths a source of intellectual fulfilment for the individual but, just as importantly, they can make a powerful contribution to the work of neurotypical peers and colleagues when they are welcomed in a spirit of positive collaboration. Recent, in-depth investigations into the lived experience of autistic people are evidence of the attention that is increasingly being paid to the sound of the autistic voice. It can be hoped that educators in all sectors, and specifically in Ancient Studies, will welcome the findings, not only for the benefit of their students but also for themselves and their peers, as the reality and value of neurodiversity becomes increasingly accepted.

REFERENCES

- Baron-Cohen, S. (2008). Autism, hypersystemizing, and truth. *The Quarterly Journal of Experimental Psychology*, 61(1), 64–75. <https://doi.org/10.1080/17470210701508749>
- Cameron, H., Coleman, B., Herve, T. K., Rahman, S., & Rostant, P. (2019). Equality law obligations in higher education: Reasonable adjustments under the Equality Act 2010 in assessment of students with unseen disabilities. *Legal Studies*, 39(2), 204–229.
- Church of England. (2026). *All kinds of minds: Affirming neurodiversity in the life of the Church* (GS 2444). General Synod July 2026 papers.
- den Houting, J. (2019). Neurodiversity: An insider's perspective. *Autism*, 23(2), 271–273. <https://doi.org/10.1177/1362361318820762>.
- Δημοτικό Περιφερειακό Θέατρο Καβάλας. (2023, July 25). *The Trojan Women by Euripides*. <https://dipethekavalas.gr/en/latest-news/the-trojan-women-by-euripides/>
- Ferraiolo, J., Parenteau, C.I., Khaw, J., Herbert, G., Adams, R., Taylor, J., Bishop, S., & Zheng, S. (2026). Self-Reported Strengths and Difficulties by Autistic Young Adults. *Journal of Autism and Developmental Disord.* <https://link.springer.com/article/10.1007/s10803-026-07260-0>
- Grant, A., & Kara, H. (2021). Considering the Autistic advantage in qualitative research: the strengths of Autistic researchers. *Contemporary Social Science* 16(5), 589–603.
- Hare, J. (2026, January 15). Autistic Barbie is not enough: The future is darkening for autistic people in Britain. *New Statesman*. <https://www.newstatesman.com/politics/uk-politics/2026/01/autistic-barbie-is-not-enough>
- Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., & Hutman, T. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology*, 49(1), 59–71. <https://doi.org/10.1037/a0028353>

- Keane, B. P., Rosenthal, O., Chun, N. H., & Shams, L. (2010). Audiovisual integration in high functioning adults with autism. *Research in Autism Spectrum Disorders*, 4(2), 276–289. <https://doi.org/10.1016/j.rasd.2009.09.015>
- Kenny, N., Doyle, A., O'Neill, C., Doyle, J. K., O'Kelly, J., Earley, F., & Neilson, S. (2026). "Tell Me What My Job Is": A Qualitative Exploration of the Experiences of Autistic Academic Staff Working in Higher Education in Ireland. *Autism*, 30(7), 1724-1737. <https://doi.org/10.1177/13623613261440799>
- Mattel. (2026, January 11). *Barbie-introduces-the-first-autistic-barbie-doll-championing-representation-for-children-through-play*. <https://corporate.mattel.com/news/barbie-introduces-the-first-autistic-barbie-doll-championing-representation-for-children-through-play>
- Milton, D. E. M. (2012). On the ontological status of autism: The 'double empathy problem'. *Disability & Society*, 27(6), 883–887. <https://doi.org/10.1080/09687599.2012.710008>
- Pickard, C., Pickard, B., & Bonsall, C. (2011). Autistic spectrum disorder in prehistory. *Cambridge Archaeological Journal*, 21(3), 357–364. <https://doi.org/10.1017/S0959774311000412>
- Spikins, P. (2009). Autism, the integrations of 'difference' and the origins of modern human behaviour. *Cambridge Archaeological Journal*, 19(2), 179–201. <https://doi.org/10.1017/S0959774309000262>
- University of Huddersfield. (n.d.). *Disability support*. <https://students.hud.ac.uk/help/disability/>
- Weil, S. (1942). *Réflexions sur le bon usage des études scolaires en vue de l'amour de Dieu*. The Matheson Trust. https://www.themathesontrust.org/papers/christianity/Weil-Reflexions_sur_usage_des_etudes.pdf
- Wright, B., Pearson, H., Spikins, P., Scott, C., & Schofield, J. (2022). Autism and engagement with material culture. *Interdisciplinary Science Reviews*, 47(1), 18–39.
- Zhang, X., et al. (2025). Polygenic and developmental profiles of autism differ by age at diagnosis. *Nature*, 646, 1146–1155. <https://doi.org/10.1038/s41586-025-09542-6>

The Neurodiverse Teaching the Neurodiverse: Case Studies and Reflections of a Dyspraxic Ancient History Lecturer

Julia Tomas

The Open University
julia.tomas@open.ac.uk
[0009-0008-8911-3621](https://orcid.org/0009-0008-8911-3621)

ABSTRACT — “How do you do anything at all?” my brilliant, but by now very confused, MA supervisor asked me when I explained to them the effects that my neurodiversity had on my day-to-day life and ability to study. It was then, 18 months or so after my diagnosis, that I realised that neurodiversity and higher-level academia were not comfortable bedfellows. This became even more apparent during my doctorate when an appointment with a disability advisor resulted in me being told that they could do very little to help as there were not enough people like me to carry out research studies on, when I was told to hide my neurodiversity from future employers if I wanted to become an academic, and when I learned that there was no policy in place for reasonable adjustments for PhD Vivas. When I started teaching after completing my doctorate, by now a decade after my diagnosis, the increase in recognition and diagnosis of neurodiversity had become evident, yet the understanding of these students’ needs amongst the academic community was lagging behind this progress. This paper aims to provide some insights into three different areas. Firstly, I will discuss my experience as a neurodivergent student and academic. Secondly, I will show how my own neurodiversity has influenced my teaching practices and my approaches to student support, with a particular focus on creating empathetic and accessible learning environments. Finally, I hope to show how working with neurodiverse students within both classroom and virtual learning settings can and should inform overall teaching practice, improve students’ confidence in their own abilities, and ensure that students succeed in their studies and gain the qualifications that they deserve.

KEYWORDS — Dyspraxia, Scotopic Sensitivity Syndrome, accessible pedagogy, empathy, student support

INTRODUCTION

My name is Dr Julia Tomas, and I am a neurodiverse academic. My neurodiversity is something that, ten years ago, I was told to hide from prospective employers if I wanted an academic job. I invite you to take a moment to consider my opening statement.

An estimated one in seven people in the UK are neurodiverse (Central and North West London NHS Foundation Trust, 2025), and the growing awareness of, and support for, neurodiverse children in schools has led to more neurodiverse students entering higher education. Yet whilst provision in universities for

neurodiverse students has improved immensely in the 17 years since my own diagnoses, the understanding of these students' needs amongst the academic community has not always caught up with this progress. No longer (I hope) when faced with a neurodiverse student do academics ask, "How do you do anything at all?" as my brilliant, but very confused MA supervisor did when I plucked up the courage to explain to them the effects that neurodiversity had on my day-to-day life and studies and the support I needed. Yet, saying that, despite no longer being a rarity, I have never received compulsory training on supporting neurodiverse students where I have subsequently worked. This paper has three aims. The first is to present a personal account of what it is like to be a neurodiverse student, academic, and human being. The second is to show how my own neurodiversity has influenced my commitment to accessible teaching practices and my empathetic approach to student support. Finally, it will demonstrate how working with neurodiverse students within both classrooms and Virtual Learning Environments can and should inform overall teaching practice, improve students' confidence in their own abilities, and ensure that students succeed in their studies and gain the qualifications that they deserve. All case studies and testimonies are used with permission.

I was diagnosed with Dyspraxia, or Developmental Coordination Disorder, just before my 20th birthday, and with Scotopic Sensitivity Syndrome three months later. Dyspraxia is a complex neurological disorder which affects muscle co-ordination and perception (Dyspraxia UK, n.d.). It affects not only my movement and co-ordination, but also my ability to process information, regulate my emotions, avoid becoming overwhelmed, and plan, organise, and follow instructions or directions. Scotopic Sensitivity Syndrome, sometimes known as Irlen Syndrome after the psychologist Helen Irlen, who first identified it (The Irlen Institute, n.d.), and more recently as Visual Stress (Dyslexia UK, 2025), is a term used to describe visual perceptual difficulties that may affect reading and visual comfort. Symptoms vary, but my ability to concentrate, especially in unfavourable lighting, my ability to process visual contrasts such as black letters on a white background, and my speed and depth perception are all affected, as illustrated in Figure 1. These two conditions affect most aspects of my life and can be managed, but not cured.

extra-curricular conversations for which I remain grateful today. It was not until my MA year that I had the confidence to disclose the extent to which I needed support and my needs were taken seriously.

Later, having moved to Durham to start my doctorate, I realised that the support for neurodiverse students decreased as the level of the qualification increased. A disability advisor there told me that they could do little to help as their provisions were mostly tailored towards taught undergraduates, and there were not enough people like me to conduct research studies on to develop sufficient and effective support strategies. Furthermore, I learned only weeks before I was due to submit that there was no policy for reasonable adjustments for PhD Vivas and I had to arrange these with my examiners myself. More recently, requesting employers to purchase assistive software, and explaining to editors that I need my reviewers to take my neurodiversity into account when critiquing work for publication, have become familiar occurrences.

The remainder of this paper focuses on two main themes, empathy and access, which have not only shaped and defined my own experience as a neurodiverse student but also guided my own approach to teaching and student support as a neurodiverse academic. It aims to show how a little empathy can make all the difference to a neurodiverse student, and how teaching and learning practices can be used to not only improve access for neurodiverse students but also to benefit neurotypical students. It presents two case studies which particularly show how my experiences of being neurodiverse were used to create a safe and empathetic space for neurodiverse students to gain support, and to ensure that they learned in ways which are accessible to them whilst encouraging neurotypical students to think outside the box and consider new approaches to their learning.

CASE STUDY 1 - STUDENT E

Student E was a first-year Ancient History student at Durham who was in one of my seminar groups. I taught this class four times in the academic year, and unusually for the first seminar of their first year, the majority were chatty and highly engaged with the material and the discussions. Student E was not: they sat at the back of the class, looking terrified, in silence, for the entire hour. Student E was the only student absent from the second seminar, so I emailed them after the class, and they said that they were unwell.

It was when I emailed them after they had also missed the third class that Student E disclosed that they had been absent because they were autistic and the difficulties they had been facing since starting university had led them to also be diagnosed with an anxiety disorder. They said that the panic attacks they experienced were often severe enough that they were unable to leave the house. The reason that they gave for not attending the class, despite being interested in the course and wanting to engage, was the fact that the third seminar was a class

debate, and that speaking in public or to people they did not know for fear of not being able to say the right thing was something that triggered their anxiety. Whilst anxiety disorders are considered a disability under the Equality Act (2010), they are not usually considered forms of neurodivergence. However, recent research has shown that many neurodivergent people are affected by anxiety disorders and other mental health conditions alongside their neurodiversity (van der Meer et al., 2018; National Autistic Society, 2021; Kroll et al., 2025). When such comorbidities exist, the need from educators for empathy and measures to ensure accessibility and facilitate participation is only increased.

In the final seminar of the academic year, the students had to independently research then give a presentation on a Greek pot. Knowing how difficult this would be for Student E to participate in, I responded to them, asking whether they would like to meet for a conversation about how I could support them, which we arranged for later that week. When we met, Student E was visibly nervous, struggled to articulate what they were thinking under the pressure of a one-to-one situation and became overwhelmed and upset. It was at this point that I disclosed to Student E my own diagnoses and how I had overcome my own crippling fear of public speaking. Students who I disclose my diagnoses to often become more trusting, because they know that I can empathise with them and have had similar experiences, and this was the case with Student E. You, of course, do not have to be neurodiverse to be able to empathise with those who are, but showing an openness and a willingness to learn without judgement is the best thing you can do to support your neurodiverse students and colleagues. In my experience, neurodivergent people would rather be asked to explain more about ourselves than be ignored, or have assumptions made about us, so do not be afraid to ask what you can do to help.

At our initial meeting, Student E and I agreed that we would meet again the week before the final seminar so that they could practise delivering their presentation and obtain feedback. At this meeting they were still extremely nervous, but delivered the presentation and, having received guidance on how to improve and the sort of questions that their peers and I might ask them in the class, went away to make independent refinements. During the Greek pottery seminar, I ensured that Student E was not chosen first to present, nor left so long that their nervousness became overwhelming. After watching some of their peers present and answer questions, I called upon Student E to deliver their work, which they did clearly, fluently, and confidently, with no hint of any of the crippling nerves they had demonstrated on the two occasions we had met previously.

After the class, I emailed Student E to congratulate them on their presentation, though I received no reply. However, I would like to share a quote from Student E which was emailed to the department's Director of Undergraduate Studies eight months later, and then shared with me:

“She helped me prepare myself for how to speak in class but also reassured me that I wasn’t alone in how I was feeling; supporting me without judgement during what was a very lonely period. I was at a point in the year when I potentially would have left Durham, but after meeting with Julia, I attended the seminar and left feeling a little more confident in my ability to study the degree and carry on at Durham.”

I recently learned that Student E achieved a 2:1 and is now working for an educational charity providing long-term support to disadvantaged young people to access higher education. I spent less than an hour working one-to-one with Student E, but that hour of kindness and empathy, I truly believe, was enough for Student E to feel listened to, to gain confidence in their own abilities, and be able to go on and achieve the academic qualification that they were capable of and deserved.

CASE STUDY 2 - CLASS R

Class R was a first-year Introduction to Ancient History class at Roehampton University. In Class R, there were 20 students, of whom 7 had a disclosed disability. These included a range of neurodivergent conditions, including dyslexia, dyspraxia, ADHD, and autism. During a three-hour teaching slot both a lecture and a seminar were delivered. Before entering the classroom, I was given a list of reasonable adjustments for these students: rest breaks; handouts and lecture slides made available on the Virtual Learning Environment in advance; recording of lectures; a guaranteed two-week extension on all assignments. Whilst this information on the one hand was welcomed, and evidence of the huge strides that higher education had made in supporting neurodiverse students since I was an undergraduate, on the other hand it presented an immense challenge. How should I curate an ideal teaching environment where every student feels supported and confident, and thus able to challenge themselves to obtain the best outcome possible in the module, whilst working within my own capabilities as a neurodiverse academic? The following discussion elaborates on the techniques that were used within the Virtual Learning Environment and the classroom which proved particularly effective for this class and some reflections on why such techniques may be beneficial for both neurodiverse and neurotypical students.

Virtual Learning Environments are invaluable for all students, but particularly for neurodiverse students. You can tell from looking at my undergraduate transcript which modules used a Virtual Learning Environment effectively. Having all the resources available after the classes ensured I could catch up with my notes where I missed information, having struggled to listen and write at the same time, or fast enough to keep up, or when I had momentarily lost concentration. Several students in Class R required the learning materials in advance to prepare themselves and know what was coming up, so I ensured that they were made available at least a fortnight before each class. I ensured that key reading materials were available as E-books through the library, or I uploaded a copy to the Virtual Learning Environment. While I find it easier to read a “real” book and use a

coloured overlay, many neurodiverse students use assistive technology to help them read and process text. Read&Write, for example, is an excellent resource which allows users to tint their screens to a colour they find more comfortable, turn a printed text into an audiobook, and highlight and make notes on the text as they go along (Read&Write Software: © Everway UK). I also made essential information, such as deadlines or assessment guidelines, available in multiple formats, such as in print and in a short video on the Virtual Learning Environment, in addition to verbally in class, to cater for those who may have needed extra time to, or have different ways of, processing information.

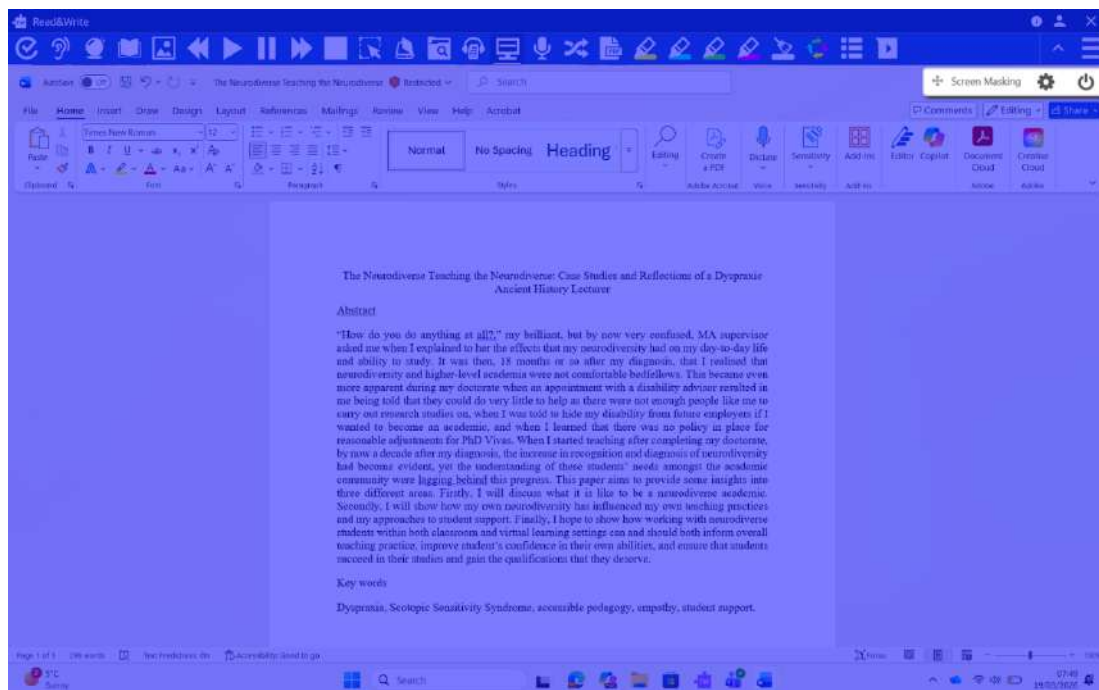


Figure 2. A screenshot of Read&Write's Screen Masking function, set at the ideal colour and opacity for the author to prevent eyestrain, fatigue, and visual distortions caused by Scotopic Sensitivity Syndrome (Image: Author's own, March 2026. Software: © Everway UK).

Within the classroom I was particularly able to teach in a way that accommodated the needs of neurodivergent students, benefitted and challenged the neurotypical students, and accommodated my own neurodiversity. Before I began delivering the first lecture, I disclosed my neurodiversity. It always works as an icebreaker and allows me to laugh at myself when I trip over my own feet or get my words tangled whilst lecturing. I then adjusted the lighting so it was suitable for everyone, me included, as incorrect lighting can affect concentration in some neurodivergent people. Similarly, I ensured that my PowerPoint slides did not feature white backgrounds, as contrasts can be difficult to process for some who are neurodiverse. I once attended a research presentation where the speaker's presentation featured black letters on an all-white background and halfway through, I had to close my eyes and breathe deeply to stop myself from vomiting, as focusing on such a high contrast for so long had given me visual distortions and

nausea akin to those experienced by migraine sufferers. This simple adaptation can make your teaching materials instantaneously more accessible to neurodiverse learners, without compromising on the experience of neurotypical learners.

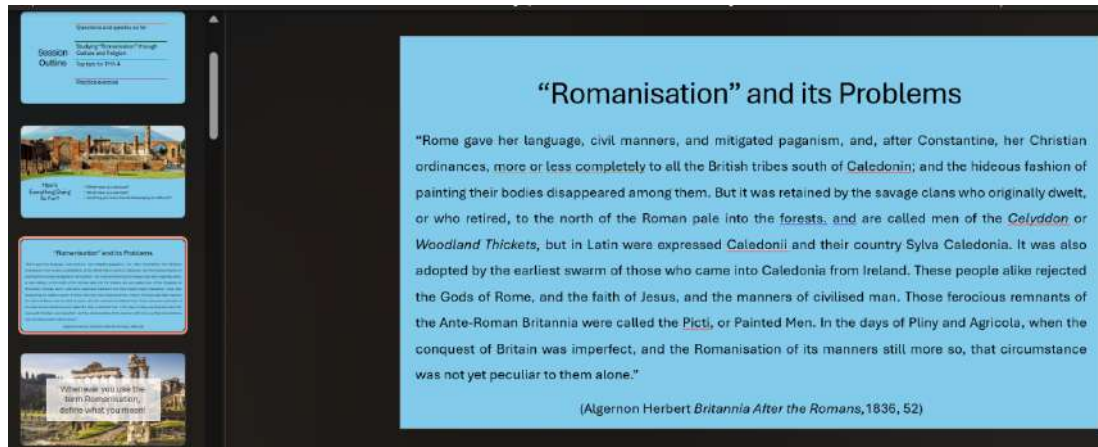


Figure 3. Screenshot of a teaching presentation for my current third year module *The Roman Empire*. The background colour is a compromise between my needs and those of a neurotypical viewer (Author's own, March 2026).

Breaks during classes or exams are a common reasonable adjustment for neurodiverse students, so I allowed time for breaks between high-attention sessions such as between the lecture and the seminar, and between activities within these sessions. For example, in one class, I gave a 1-hour 15-minute lecture, followed by a 30-minute break, followed by a 45-minute debate activity, followed by a 10-minute break, followed by a summary section to finish the class. This structure not only fulfilled the needs of the students who required rest breaks as part of their reasonable adjustments, but it also allowed me to keep the three-hour teaching slot focused and recharge my own energy levels between tasks so that I could deliver them to the best of my ability. Furthermore, it was clear that the whole group benefitted from structured breaks as even the most engaged neurotypical students' attention may wane by the end of a lecture.

The final technique was incorporating kinaesthetic learning activities into teaching sessions. Neurodivergent people may benefit from being taught in a range of ways and I, unusually for a Dyspraxic, learn far better from kinaesthetic methods of teaching, which use movement and practical tasks. For context, my MA Field Trip report scored about 15 marks higher than I had averaged for the rest of the degree. In one session I encouraged the students to write their first responses to, and any questions about, Lysias's *On the Murder of Eratosthenes* on the whiteboard. This approach to a difficult, challenging text had several benefits. It facilitated peer-to-peer learning, as everyone saw how, and on what level, the rest of the group interpreted and understood the text, and they could both ask and answer questions posed by me and the other students. It allowed those who became restless in class to move about, and enabled the students, neurodiverse or

neurotypical, who found it difficult or were reluctant to verbalise their ideas in the context of a seminar discussion the time and space to be able to gather their thoughts and articulate them. During this activity, the whole class wrote at least one statement or question on the board, whereas previous seminar discussions had been driven by the same 4-5 students. A simple change of the seminar's structure, needing only a whiteboard and some pens to facilitate, made the teaching session accessible to the whole group, and by working on the text together, the students' understanding of both the text, and how to analyse textual sources more broadly, increased.

A second kinaesthetic teaching activity I used with Class R was in a seminar on analysing material sources. Unable to bring real artefacts to the seminar to facilitate this activity, I used my favourite teaching aid, my rubber duck from the British Museum, Jupiter Optimus Quaximus, seen in Figure 4.

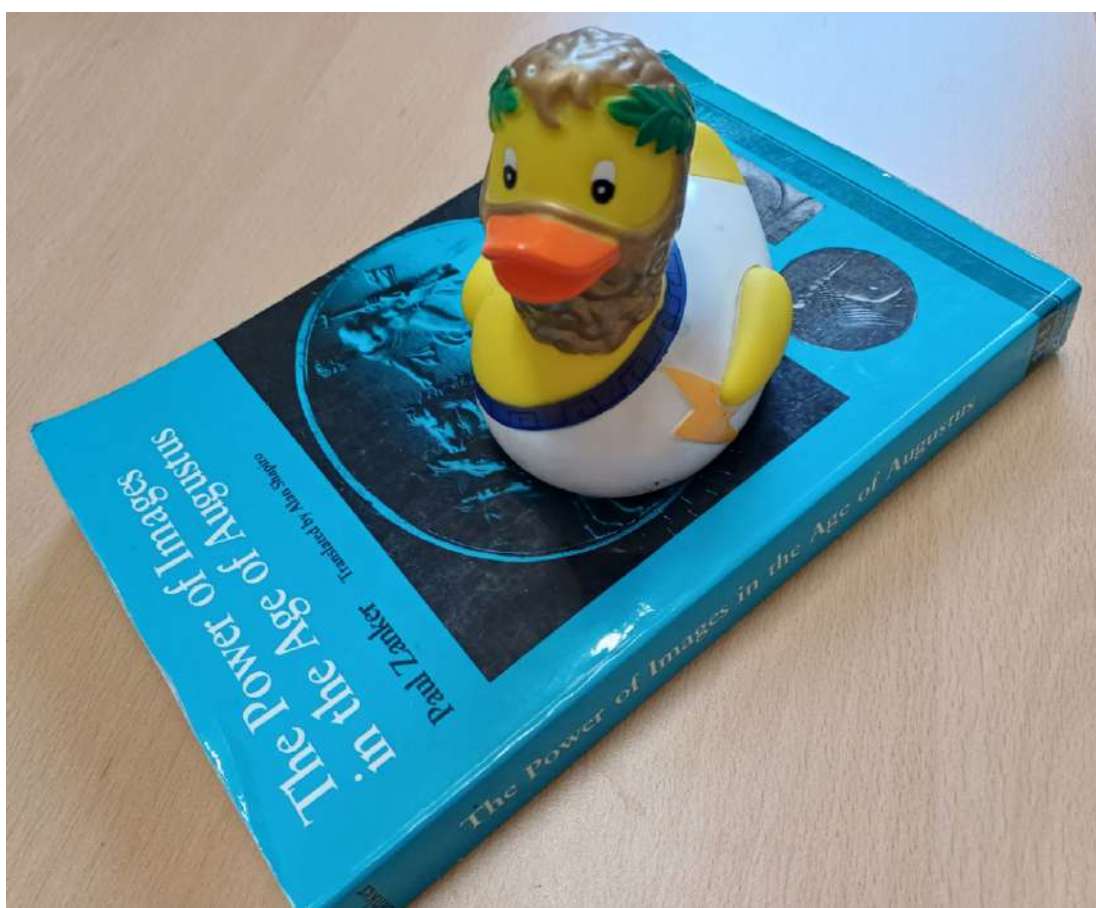


Figure 4. Jupiter Optimus Quaximus preparing for a Roman material culture seminar (Author's own, March 2024).

Presenting the students with a relatively familiar object, allowing them to handle it, and asking them to measure its dimensions, describe its form, what it was made of, what the decoration on it might mean, before asking them to suggest what it might tell a 31st-century archaeologist about life in 21st-century London if

it was found during an excavation of my office, enabled them to develop the skills needed to examine material culture in an engaging and practical way. They were then shown images of Roman material sources and asked to apply the same skills they had used to examine Jupiter Optimus Quaximus to them. It was immediately apparent from their responses that this kinaesthetic activity had been beneficial because we had discussed material sources in previous seminars and they had struggled to engage with them, having never had the opportunity to work with them previously. By the end of the class, they were confidently analysing sources including statues, coins, and public monuments. Furthermore, several students who attended that seminar chose to work with material sources over texts in their end-of-term assessment portfolios.

CONCLUSION

The provision of support for neurodiverse students in higher education has improved significantly since my own diagnoses. However, there is much work still to do, and in my opinion, working with and for neurodiverse students and colleagues with empathy and with improving accessibility in mind is the most effective way forward. I do not mind admitting that my biggest barrier as a student and now academic in higher education is worrying that people will not understand or empathise with me when I ask for help, but I have been able to achieve what I have thanks to understanding, empathic lecturers and colleagues. Highest amongst those ranks is my aforementioned MA supervisor, who after setting their confusion and inexperience of neurodiversity aside, worked to ensure I received the support I needed from the whole department, and even now rarely allows an email thread to pass by without telling me how proud they are of me for what I have achieved since. Students like me and Student E are testimonies to what neurodiverse students can achieve with the right amount of empathy and support. My experience of working with and designing learning materials for Class R showed that whilst improving access for neurodiverse students does involve some extra work and imagination, it does not have to be particularly ground-breaking or rely on innovative technology or complex training courses. Furthermore, it is clear from my experience that teaching methods which can improve access for neurodiverse students also benefit neurotypical students, so it is possible to create an accessible set of learning activities which neither compromises the learning of neurotypical students nor singles out neurodiverse students and treats them differently.

I would like to conclude by returning to the question I was asked all those years ago: “How do you do anything at all?” The answer I gave that day was a nervous laugh and something along the lines of “I am not really sure but I manage because I really want to do it, and by working really hard.” However, since that day I have realised that everything I have achieved has resulted from far more than my own stubborn determination. The gentle empathy of a hand on my shoulder after I had

trembled through a presentation showed me that I belonged right where I was and this security later allowed me to guide Student E through their own fears and feelings of inadequacy. Software which turns a computer screen dark blue allows me to be an academic without the fear of not being able to read everything I need to or becoming physically unwell in front of my peers. The understanding and trust of a Head of Faculty and the greater commitment in higher education to support neurodiverse staff and students allowed me to curate an accessible curriculum and experience for everyone in Class R's lecture room on those Tuesday afternoons. And perhaps, most importantly of all, I have achieved what I have today because the world is becoming a place where people will listen to—and read, as you have just done—the stories of neurodiverse people and see not a problem to solve, but a person capable of achieving anything that they want to.

REFERENCES

- Central and North West London NHS Foundation Trust. (2025). *Neurodiversity*. <https://www.keepingwellnw1.nhs.uk/self-help-resources/equality-diversity-and-inclusion/neurodiversity>
- Dyslexia UK. (2025). *Visual stress / Irlen's syndrome*. <https://www.dyslexiauk.co.uk/visual-stress-irlens-syndrome/>
- Dyspraxia UK. (n.d.). *Dyspraxia UK*. <https://dyspraxiauk.com/index.php>
- Equality Act 2010, c. 15. <https://www.legislation.gov.uk/ukpga/2010/15/contents>
- Everway UK. (2026). *Read&Write software*. <https://www.everway.com/en-gb/products/read-and-write-education/>
- Garcia, A. C. O., Momensohn-Santos, T. M., & de Araújo Vilhena, D. (2017). Effects of spectral overlays on reading performance of Brazilian elementary school children. *Folia Phoniatrica et Logopaedica*, 69, 219–225.
- The Irlen Institute. (n.d.). *What is Irlen Syndrome?* <https://irlen.com/what-is-irlen-syndrome/>
- Kroll, E., Lederman, M., Kohlemeier, J., Ballard, J., Zant, I., & Fenkel, C. (2025). Examining the mental health symptoms of neurodivergent individuals across demographic and identity factors: A quantitative analysis. *Frontiers in Psychology*, 16, 1–12.
- National Autistic Society. (2021). *Good practice guide: For professionals delivering talking therapies for autistic adults and children*. <https://s2.chorus-mk.thirdlight.com/file/24/asDKIN9as.klK7easFDsalAzTC/NAS-Good-Practice-Guide-A4.pdf>
- van der Meer, D., Hoekstra, P. J., van Rooij, D., Winkler, A. M., van Ewijk, H., Heslenfeld, D. J., Oosterlaan, J., Faraone, S. V., Franke, B., Buitelaar, J. K., & Hartman, C. A. (2018). Anxiety modulates the relation between attention-deficit/hyperactivity disorder severity and working memory-related brain activity. *The World Journal of Biological Psychiatry*, 19(6), 450–460. <https://doi.org/10.1080/15622975.2017.1287952>

Relaxed Tutorials: Adapting Front-of-House Practices to Accommodate Autistic Students in Distance Learning

Cora Beth Fraser

The Open University
corabeth.fraser@open.ac.uk
[0009-0001-7975-9719](https://orcid.org/0009-0001-7975-9719)

ABSTRACT — Autistic and otherwise neurodivergent students encounter persistent barriers in higher education, including sensory overload, social anxiety and uncertainty around interactional expectations. In this case study I report on the design, implementation and evaluation of the ‘Relaxed Tutorial Project’ in the Department of Classical Studies at The Open University, a UK-based distance learning university delivering primarily online teaching. Adapting ‘relaxed’ front-of-house practices from the Arts and Heritage sectors, our team translated five common anxiety triggers in synchronous online tutorials – webcams, microphones, being ‘put on the spot’, breakout rooms, and uncertainty – into a set of explicit commitments communicated to students prior to tutorial sessions. Across the two years of the project, attendance at our ‘relaxed tutorials’ substantially exceeded typical tutorial numbers; participation via text chat was unexpectedly high; and students reported reduced anxiety, improved comfort and better concentration. Benefits extended beyond autistic students, to learners managing long-term health conditions, caring responsibilities or employment constraints. This case study will cover design choices, limitations, and implications for inclusive digital pedagogy in the Humanities. I argue that relaxed tutorials constitute a feasible and low-cost addition to online provision that reframes ‘inclusivity’ as affective, sensory and social design rather than content modification. The project demonstrates that transparent choice architecture – advance slides, clear norms, and opt-in participation – can reduce anxiety-related barriers to attendance and retention without affecting academic standards; and that insights from autistic teachers can offer new ways of looking at educational inclusion.

KEYWORDS — neurodiversity, autism, anxiety, distance learning, inclusive pedagogy

1. INTRODUCTION

It has been recognised for a long time that social anxiety and related stress are common in autistic students and young people (Bellini, 2004; Freeth et al., 2013); but it is only recently that research has begun to highlight how these forms of autistic stress contribute to burnout and high rates of withdrawal (Cage & McManemy, 2022; Cage & Howes, 2020). Scholarship is finally beginning to explore the multiple barriers autistic students face in higher education; and in doing so it has also drawn attention to how inadequate institutional responses to those barriers have been (Horlin et al., 2024; McPeake et al., 2023).

The current situation is bleak for autistic students, both during and after their studies. Recent figures show that autistic students have the highest dropout rates of any disability group (North East Autism Society, 2023), while the Buckland Review in the UK has established that autistic graduates have the worst post-graduation outcomes of any disability group (Department for Work and Pensions, 2024), and far worse outcomes than non-disabled students.

As an autistic person in academia myself, and a ‘sea glass survivor’ (Shepherd et al., 2024) of an education system that was not built for autistic learners, I have a personal and professional insight into the problems encountered at university by autistic students. The role of autistic teacher insights in developing inclusive practices has only recently been acknowledged (StEvens, 2024); but early indications from studies all over the world (e.g., O’Neill & Kenny, 2023; Wood et al., 2025; Zaks, 2025) suggest that autistic educators have a valuable perspective to contribute. Specifically, we tend to notice accessibility gaps that other teachers might not observe.

The Relaxed Tutorial Project grew out of my own observations on one of those accessibility gaps. It became a Faculty project within the Department of Classical Studies at The Open University (OU), supported by an internal scholarship and innovation fund and involving a team of two tutors and two managers; and it ran for two years, from 2021 to 2023. Since then, ‘relaxed tutorials’ have become a standard feature of teaching within the Department of Classical Studies; have been the focus of research projects within Mental Health and Social Care modules; and have been rolled out by the OU’s Library Services to reach more than 200,000 people (staff and students) worldwide.

The goal of the Project was to investigate how synchronous online tutorials might be reconfigured for students to anticipate and meet neurodivergent (and particularly autistic) needs.

2. BACKGROUND AND RATIONALE

Online and distance learning, by definition, remove some of the main autistic campus-based stressors from university study; but I was keen to investigate whether there was more that could be done to make distance learning more accessible to autistic students, in order to move from ‘surviving’ to ‘thriving’ (Long, 2023). Certain areas of the autistic student experience – particularly the need for sensory adjustments – have been recognised as areas in which very few interventions have been trialled in a university setting (Anderson et al., 2019). So in designing this research project I looked for a model beyond academia, considering adjustments which have become standard in other settings.

‘Relaxed’ events are common in the UK Arts and Heritage sectors. They offer a variant experience which is suitable for autistic families. The relaxed principles were originally designed for theatre performances, so that autistic children with

sensory sensitivities or social communication barriers would not be excluded from seeing a play in the theatre. To make a performance ‘relaxed’, no change is made to the content. Instead, the theatre adjusts the environment, including lighting, sound levels, movement permissions and quiet spaces, focusing on the ‘front-of-house’ elements of the experience rather than on the play itself (Kempe, 2015, p. 60). Similar principles were soon adopted by cinemas; and relaxed showings of movies have now become common, offering a low-arousal and accepting environment in which families of autistic children are free to enjoy a movie without barriers.

Through the Relaxed Tutorial Project, the Project team set out to explore how similar ‘relaxed’ principles could map to the online classroom.

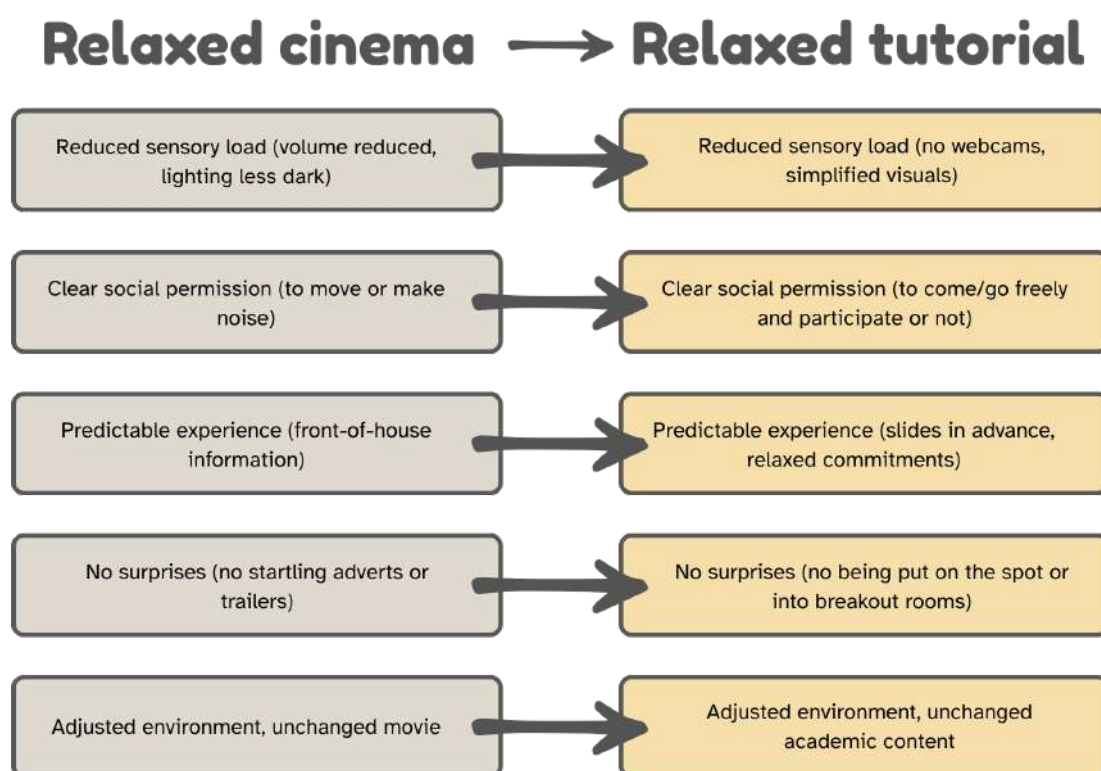


Figure 1. Front-of-house ‘relaxed’ cinema adjustments mapped to online tutorial adaptations.

Two design imperatives informed the Project’s approach: not expecting the student to fit the system; and removing both existing and perceived barriers (Krcmar, 2019). Drawing on my lived experience as an autistic academic, and on the literature on autistic and neurodivergent student experiences (Anderson et al., 2017; Schembri-Mutch et al., 2024), I identified five recurrent autistic anxiety triggers in synchronous online teaching: webcams, microphones, being put on the spot, breakout rooms, and uncertainty about session demands.

3. DESIGN AND METHODS

The Project team piloted the Relaxed Tutorial Project across two academic years on a Level 3 (final year undergraduate) Roman History module in the Department of

Classical Studies. In year one (2021–22), I delivered six relaxed tutorials to a cohort of 298 students. In year two (2022–23), I and another tutor offered twelve relaxed tutorials across afternoon and evening slots to a cohort of 336 students. Relaxed tutorials ran alongside standard provision as an additional option. Institutional ethics approval was granted (HREC/4330/Fear). Data sources included end-of-module surveys (constrained by institutional survey limits: 36/101 responses in Year One; 22/162 in Year Two) which were sent out to students at the end of each year (for our survey questions, see Fraser et al., 2025, Appendix); tutor notes from participating academics; qualitative feedback in the form of emails from students; and attendance figures. Alongside the formal feedback routes, each of the four project members attended relaxed sessions as observers, and our collective observations informed a process of continuous improvement and refinement.

The project addressed three research questions: (1) whether advertising a tutorial as ‘relaxed’ attracts students, and why; (2) how the set-up of a relaxed tutorial affects experience; and (3) whether attendees wanted more relaxed tutorials. We conducted thematic analysis of open comments aligned to these questions, focusing on mentions of anxiety, comfort and barrier removal.

4. IMPLEMENTATION: FIVE TRIGGERS AND ADJUSTMENTS

4.1 WEBCAMS

In line with disability practitioner guidance to minimise multi-modal overload (NADP, 2020), we told students that they would not be expected to switch on their webcams during a relaxed tutorial. Research with autistic adults links cameras to self-consciousness, a sense of judgement, and the disorienting ‘mirror’ effect of seeing one’s image (Zolyomi et al., 2019). Discomfort with cameras is found more generally (Kozar, 2016; Castelli & Sarvary, 2021) but appears particularly acute for autistic learners (Exceptional Individuals, 2020), who point to the concentration benefits of being able to learn without being visible (Saigot, 2023).

4.2 MICROPHONES

We also told students that they would not be asked to use their microphones during a relaxed tutorial. For many autistic students, speech can be unreliable or can require considerable effort (Zisk & Dalton, 2019), while some autistic students will be non-speakers. Instead, we offered a communication channel via a constantly monitored text chat facility. Written communication affords more processing time and control (Howard & Sedgewick, 2021), and it also comes with fewer hidden social barriers. Even for non-autistic cohorts, it can be more productive to enable multiple contribution routes than to insist on microphones (Chandler, 2022).

4.3 BEING ‘PUT ON THE SPOT’

We were very clear about our commitment to ‘not putting people on the spot’, by which we meant asking questions directed at named individuals; not because this

is a particularly common practice, but because it was highlighted by students as a particular worry. Our focus on the perceived as well as the existing barriers became important here, because sometimes a worry about something that might happen can also act as a barrier, even if it is unlikely to happen. Being singled out without warning (or the possibility that this might happen) is a major anxiety source for autistic and anxious students (Beardon, 2021). Making this into an explicit policy had the effect of attracting students who might otherwise have been reluctant to attend.

4.4 BREAKOUT ROOMS

We avoided breakout rooms entirely, throughout all of our trial relaxed tutorials; and this was probably the most popular of our adjustments. Students of all neurotypes frequently describe breakout rooms as socially awkward and anxiety-provoking (Radhakrishnan, 2020); while enforced collaborative working can adversely affect some learners (Macfarlane, 2017), particularly autistic learners (Drexler, 2024). Because small-group work was not a compulsory element of the assessment in this module, we were able to keep sessions whole-room without affecting student success.

4.5 ADVANCE NOTIFICATION AND ADVERTISING

Following common best-practice guidelines, we sent out slides in advance of each session. However, we were careful to state that students were not required or expected to look at the slides before the session, to reduce anxiety; and we limited the advance slides to key concepts and questions only, to reduce the risk of discouraging students from attending the live sessions.

The Project team thought about clarity and advertising in relation to ‘choice architecture’, a term coined by Thaler and Sunstein to describe the way people’s choices can be influenced by controlling the context in which the decision-making process happens (Thaler & Sunstein, 2008). Although no single one of our adjustments was innovative in itself, our real innovation was in advertising our relaxed commitments as a complete and transparent package of adjustments which was associated with the badge of ‘Relaxed Tutorial’. In addition we branded materials with a logo; we emailed slides beforehand to registered attendees; and we reiterated the relaxed tutorial parameters at the start of every session.

This helped students to self-select into a format aligned with their needs and reduced uncertainty. It also reframed accessibility adjustments as a free-to-choose option, without the emotional burden of asking for reasonable adjustments.



Figure 2. The logo of the *Relaxed Tutorial Project*, alongside the relaxed tutorial commitments which were repeated at the start of each session.

5. FINDINGS

5.1 ATTRACTIVENESS OF RELAXED TUTORIALS

Attendance at relaxed tutorials throughout the two years of the Project substantially exceeded typical tutorial numbers. In year one, 40–57 students (13–19% of a 298-student cohort) attended each relaxed session, compared to typical module tutorials of 12–18. In year two, across two relaxed streams, attendance ranged from 36 to 78 per session (11–23% of 336). Survey comments indicated that participants appreciated the reduced pressure and the increased control over participation levels.

5.2 EFFECTS ON EXPERIENCE

Students consistently welcomed the absence of breakout rooms and the explicit confirmation of expectations in advance. Receiving slides before the session and knowing they would not be put on the spot reduced anxiety and enabled selective engagement on low-energy days, including for students balancing health and caring responsibilities (see Table 1 for a selection of free-text comments from our student surveys).

"Since the slides were sent out in advance it was possible to have an idea of what the session would be about and if I didn't feel well enough to attend I still had most of the information available. The ability to use the chat box allowed interesting discussions to take place without feeling self-conscious and the presentations were informative and fun."

"Due to a stroke I had ten years ago, there are times I find it difficult to recall information I have studied immediately, when I am put on the spot. Relaxed tutorials took any anxiety regarding this prior to a tutorial away."

"There are times participation away from the chat box is helpful, although there are other times, depending on the day a student has been having where being put into a breakout room can be overwhelming. It was really useful knowing there was the option of both types of tutorial and I hope to continue to see the option of both."

"I am often disturbed when attending a tutorial so the relaxed option proved so much better. I am definitely not a fan of attending online 'anything' - so the relaxed tutorial option took a lot of pressure of 'having to perform' in the spot. Much prefer it."

"Anxiety, borderline personality disorder and depression often make me feel like I can't attend in case I have to participate and am not feeling up to it."

"I could not have asked for more. All of us had a voice in the relevant conversations and the tutor was attentive to all of our questions. If we had any additional questions which we did not feel comfortable sharing with the group, then they were very happy to answer via email as soon as the session ended."

"Knowing in advance that I could join the relaxed tutorials and not be called upon to interact was very comforting. I work full time, as many other students do. My time is stretched so I'm not always completely on top of my reading by the time the tutorials take place so I find it stressful to be called out for input during tutorials."

"I love that I didn't have to talk and could just use the chat box to communicate."

"The atmosphere was relaxed since there was no pressure to contribute if I didn't want to. A great amount of information was provided and I managed to concentrate and take it in because I wasn't worrying about being asked to answer a question I didn't know the answer to."

"I believe the relaxed tutorials promote inclusivity, as students who have disabilities or illness can listen to the tutorial without worrying if they are able to answer questions."

"I was having chemotherapy treatment at the time, the relaxed tutorial allowed me to receive relevant information for my course without worrying if I was well enough to interact and answer questions."

"Sometimes it is good to sit back and listen, other times it's great to have the opportunity to participate. The relaxed tutorials gave the opportunity for either. A relaxed tutorial takes the stress factor out of the session."

Table 1. Sample Feedback from Student Surveys

However, our survey responses also identified mismatches for some learners, including dyslexic students who found text-heavy chat challenging, and students with reduced mobility, including osteoarthritis. The adjustments which worked for autistic students and students with anxiety or illness did not meet the needs of all disability and learning difficulty groups.

5.3 DESIRE FOR CONTINUED ACCESS

Across both years, 80–90% of respondents indicated Yes or Maybe when asked if they were interested in future relaxed tutorials. Comments frequently requested the continued availability of both relaxed and conventional formats, highlighting the value of choice. Responses showed that students had already begun to self-select based on fluctuating levels of need, with some students commenting that they chose a relaxed tutorial whenever they had been having a bad day or a flare-up of chronic illness.

5.4 PARTICIPATION DYNAMICS

Contrary to concerns, both within and outside the Project team, that relaxed commitments could produce passive lectures, participation via chat was very high in every tutorial. In sessions where we measured active and visible involvement, more than 90% of attendees posted questions, answers or comments in the chat box; and many participated enthusiastically throughout the sessions. This pattern aligns with strong preferences for text-based communication in autistic adult groups (Howard & Sedgewick, 2021).

5.5 NEEDS BEYOND DIAGNOSIS

Focusing on developing a package of preference-based adjustments, rather than relying on diagnostic labels or a statement of requested adjustments, had the effect of accommodating the under-diagnosis and non-disclosure common in adult distance cohorts. It also enabled us to support a wide range of students, from students in full-time employment to students with chronic illness, consistent with universal-design approaches (Higbee, 2009; Udo & Fels, 2010).

6. DISCUSSION

Relaxed tutorials proved effective in reducing anxiety, increasing attendance, and sustaining engagement by re-channelling interaction into a lower-visibility, lower-immediacy mode that many students found less affectively costly. Explicit norms and predictable interactional demands appear central to these effects.

Feedback showed that the relaxed format does not suit everyone, because for some students the experience did not feel relaxing at all. Some students will always prefer mic/camera interaction; others find text chat difficult or unwelcome. The relaxed format should therefore be positioned as an additional option, not a replacement, within a plural provision where formats are clearly described so that students can self-select.

Limitations of our research project include self-selection into sessions and surveys, a single subject area (Classical Studies), and the absence of diagnostic categorisation by design. Future work could compare outcomes across disciplines, co-design accommodations for dyslexic students in chat-intensive sessions (e.g., paced chat, periodic mic-mediated summaries), and evaluate learning outcomes

alongside affective measures. Language is another potential area for exploration, because prioritising clear and unambiguous language, particularly in instructions, could support autistic students further.

For humanities pedagogy, including Classics, chat-mediated participation supports close reading, comparative analysis and historiographical debate without imposing mic/camera demands. Where synchronous spoken debate is pedagogically important, expectations should be explicit in advance and paired with parallel relaxed options.

7. IMPLICATIONS FOR ANCIENT-WORLD TEACHING AND DIGITAL PEDAGOGY

This project highlights the value to neurodivergent students of teaching tools being opt-in, sensory-conscious and clearly disclosed. More broadly, treating affective and sensory design as core online pedagogy principles can expand equitable participation without requiring extra teaching time, using additional resources or diluting disciplinary standards.

This is particularly important in Ancient-World teaching. Ours is a discipline in which learning is often mediated through discussion, debate and interpretation. We routinely ask our students to analyse literary and material evidence, evaluate competing viewpoints, and participate in collaborative exploration of complex questions for which there may be no single correct answer. Recent articles in the *Journal of Classics Teaching* emphasise the importance of deep analysis and interpretative engagement in Classics education (Markoglou, 2026) and highlight the role of the discipline in developing skills of debate and argumentation (McGuire, 2026). Such discussion-based approaches may present particular challenges for some autistic students, especially where participation requires rapid responses, interpretation of social cues or speaking in front of peers. Relaxed tutorials offer an alternative model that preserves opportunities for critical engagement while reducing social and communicative demands. By creating a more flexible environment in which students can contribute in ways that suit their individual preferences and needs, relaxed tutorials can support autistic students' participation in the analytical and dialogic practices that are central to the study of Antiquity.

If we think about three related areas – sensory, social and safety – when designing online environments for learning and teaching, we can make progress towards including and supporting the autistic students in our classes. Importantly, these adjustments do not require diagnosis or disclosure from the student, so they avoid possible areas of social stigma or worry.

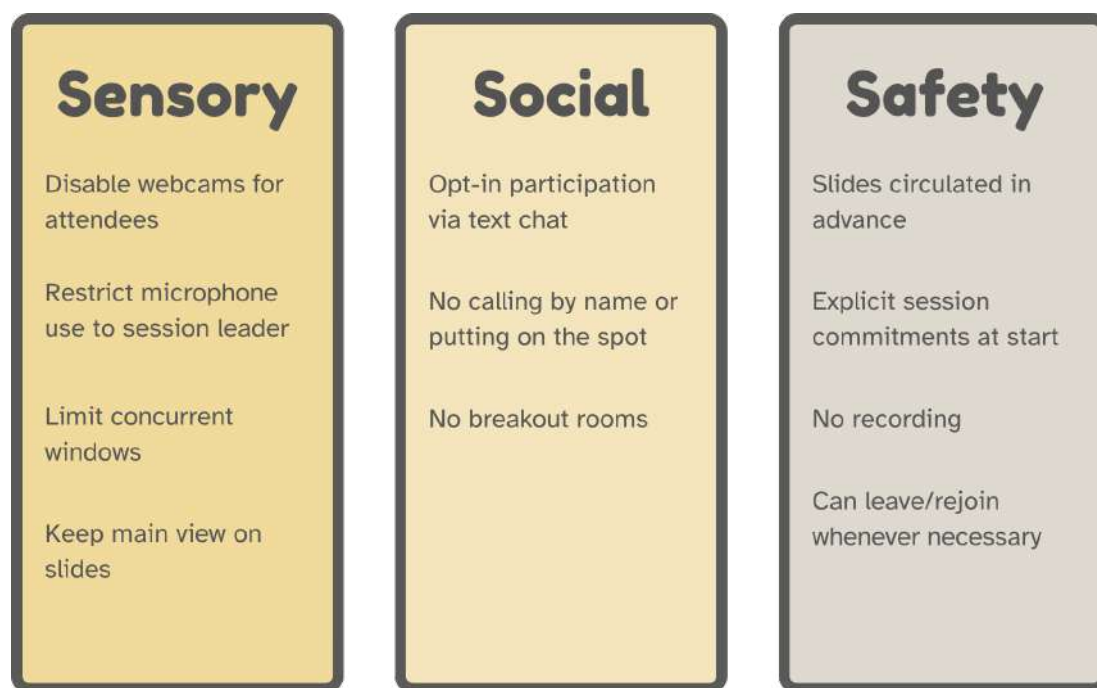


Figure 3. Schematic of sensory, social and safety adjustments.

It is also worth considering the implications of drawing on university staff's lived experience of neurodiversity. There have already been calls for such an approach in schools, on the basis that 'paying greater attention to autistic and other neurodivergent school staff will create a necessary shift in our perceptions of educational inclusion' (Wood, 2022, p. 25). Within universities, including both in-person and online learning environments, autistic staff can bring about a similar shift in the perception of educational inclusion, when institutions listen to – and act on – their insights.

8. CONCLUSION

Relaxed tutorials offer a low-cost and feasible addition to online provision. By centring affective, sensory and social design, we reduced anxiety-related barriers for autistic and otherwise neurodivergent students while observing broader benefits across the cohort. Because adjustments in a relaxed session are minimal (no recording, no webcams/mics, no breakout rooms, no calling on individuals, and advance clarity), implementation and scaling are straightforward, requiring no special expertise, equipment or training.

DECLARATION OF INTEREST

This work was supported by FASSTEST at The Open University. Ethical approval was obtained in advance in accordance with institutional procedures (reference HREC/4330/Fear). The author reports no competing interests.

REFERENCES

- Anderson, A. H., Stephenson, J., Carter, M., & Carlon, S. (2019). A systematic literature review of empirical research on postsecondary students with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(4), 1531–1558. <https://doi.org/10.1007/s10803-018-3840-2>
- Anderson, A. H., Stephenson, J., & Carter, M. (2017). A systematic literature review of the experiences and supports of students with autism spectrum disorder in post-secondary education. *Research in Autism Spectrum Disorders*, 39, 33–53. <https://doi.org/10.1016/j.rasd.2017.04.002>
- Beardon, L. (2021). *Avoiding anxiety in autistic adults*. Sheldon Press.
- Bellini, S. (2004). Social skill deficits and anxiety in high-functioning adolescents with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 19(2), 78–86. <https://doi.org/10.1177/10883576040190020201>
- Cage, E., & Howes, J. (2020). Dropping out and moving on: A qualitative study of autistic people's experiences of university. *Autism*, 24(7), 1664–1675. <https://doi.org/10.1177/1362361320918750>
- Cage, E., & McManemy, E. (2022). Burnt out and dropping out: A comparison of the experiences of autistic and non-autistic students during the COVID-19 pandemic. *Frontiers in Psychology*, 12, 792945. <https://doi.org/10.3389/fpsyg.2021.792945>
- Castelli, F. R., & Sarvary, M. A. (2021). Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. *Ecology and Evolution*, 11, 3565–3576. <https://doi.org/10.1002/ece3.7123>
- Chandler, K. (2022). Students' experiences of synchronous online tuition in health and social care. *Research in Learning Technology*, 30, 1–14. <https://doi.org/10.25304/rlt.v30.2713>
- Department for Work and Pensions. (2024). *The Buckland review of autism employment: Report and recommendations*. GOV.UK. <https://www.gov.uk/government/publications/the-buckland-review-of-autism-employment-report-and-recommendations>
- Drexler, S. (2024). *Autistic students' communication experiences in group work: A mixed methods study*. Dissertation; Bowling Green State University.
- Exceptional Individuals. (2020). Webcam anxiety from a neurodiversity perspective during Covid-19. <https://exceptionalindividuals.com/about-us/blog/webcam-anxiety-from-a-neurodiversity-perspective-during-covid-19/>
- Fraser, C. B., Yamagata, N., & Mac Mahon, A. (2025). The relaxed tutorial project: designing synchronous online tutorials for autistic students. *Open Learning: The Journal of Open, Distance and e-Learning*, 40(4), 425–438. <https://doi.org/10.1080/02680513.2025.2530595>
- Freeth, M., Bullock, T., & Milne, E. (2013). The distribution of and relationship between autistic traits and social anxiety in a UK student population. *Autism*, 17(5), 571–581. <https://doi.org/10.1177/1362361312445511>
- Higbee, J. L. (2009). Implementing universal instructional design in postsecondary courses and curricula. *Journal of College Teaching and Learning*, 6(8), 65–78. <https://doi.org/10.19030/tlc.v6i8.1116>
- Horlin, C., Almond, K., Bowen, A., & Robertson, A. (2024). Thriving... or just surviving? Autistic journeys in higher education. *Current Psychiatry Reports*, 26, 771–776. <https://doi.org/10.1007/s11920-024-01560-x>
- Howard, P. L., & Sedgewick, F. (2021). 'Anything but the phone!': Communication mode preferences in the autism community. *Autism*, 25(8), 2265–2278. <https://doi.org/10.1177/13623613211014995>
- Kempe, A. (2015). Widening participation in theatre through 'relaxed performances'. *New Theatre Quarterly*, 31(1), 59–69. <https://doi.org/10.1017/S0266464X15000068>

- Kozar, O. (2016). Perceptions of webcam use by experienced online teachers and learners: A seeming disconnect between research and practice. *Computer Assisted Language Learning*, 29(4), 779–789. <https://doi.org/10.1080/09588221.2015.1061021>
- Krcmar, K. (2019). Introduction. In K. Krcmar (Ed.), *The Inclusivity Gap. Inspired by Learning* (pp. 20–34).
- Long, M. (2023). From surviving to thriving: A study of autistic students and the online learning experience. The Open University. <https://oro.open.ac.uk/91890/>
- Macfarlane, B. (2017). *Freedom to learn: The threat to student academic freedom and why it needs to be reclaimed*. Routledge. <https://doi.org/10.4324/9781315529455>
- Markoglou, A. (2026). Cultivating students' critical thinking in the teaching of Ancient Greek in secondary education. *Journal of Classics Teaching*, pp. 1–10. <https://doi.org/10.1017/S2058631026101081>
- McGuire, I. (2026). Classics: consigned to the past, or the key to the future? In defence of a classical curriculum. *Journal of Classics Teaching*, pp. 1–3. <https://doi.org/10.1017/S2058631025100810>
- McPeake, E., Lamore, K., Boujut, E., El Khoury, J., Pellenq, C., Plumet, M.-H., & Cappe, E. (2023). 'I just need a little more support': A thematic analysis of autistic students' experience of university in France. *Research in Autism Spectrum Disorders*, 105, 102172. <https://doi.org/10.1016/j.rasd.2023.102172>
- NADP. (2020). Ensuring your online webinars are inclusive. <https://www.sparqs.ac.uk/upfiles/Ensuring-your-Webinars-are-Accessible-NADP.pdf>
- North East Autism Society. (2023). Autistic students most likely to drop out of university: investigation. <https://www.ne-as.org.uk/everyday-equality/everyday-equality-education/autistic-students-most-likely-to-drop-out-of-university-investigation/>
- O'Neill, C., & Kenny, N. (2023). "I saw things through a different lens...": An interpretative phenomenological study of the experiences of autistic teachers in the Irish education system. *Education Sciences*, 13(7), 670. <https://doi.org/10.3390/educsci13070670>
- Radhakrishnan, A. (2020, December 14). How breakout rooms are the blind dates of e-learning. *The Evanstonian*. <https://www.evanstonian.net/opinion/2020/12/14/how-breakout-rooms-are-the-blind-dates-of-e-learning>
- Saigot, M. (2023). Unveiling Technorelief: Enhancing Neurodiverse Collaboration with Media Capabilities. *arXiv preprint arXiv:2310.00949*. <https://doi.org/10.48550/arXiv.2310.00949>
- Schembri-Mutch, T. M., McCrimmon, A. W., & Zwiers, M. L. (2024). Understanding the needs of autistic post-secondary students. *Journal of Autism and Developmental Disorders*, 54(7), 2636–2650. <https://doi.org/10.1007/s10803-023-06010-w>
- Shepherd, J., Sutton, B., Smith, S., & Szlenkier, M. (2024). 'Sea-glass survivors': Autistic testimonies about education experiences. *British Journal of Special Education*, 51(2), 142–155. <https://doi.org/10.1111/1467-8578.12506>
- StEvens, C. (2024). The lived experience of autistic teachers: a review of the literature. *International Journal of Inclusive Education*, 28(9), 1871–1885. <https://doi.org/10.1080/13603116.2022.2041738>
- Thaler, R. H., & Sunstein, C. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven, CT: Yale University Press.
- Udo, J. P., & Fels, D. I. (2010). The rogue poster-children of universal design: Closed captioning and audio description. *Journal of Engineering Design*, 21(2–3), 207–221. <https://doi.org/10.1080/09544820903310691>
- Wood, R. (2022). Introduction. In Wood, R. with Crane, L., Happe, F., Morrison, A., & Moyse, R. (Ed.) *Learning From Autistic Teachers*. Jessica Kingsley Publishers.

- Wood, R., Gagat-Matula, A., Domagała-Zyśk, E., & Mazur vel Butynski, M. (2025). 'We are here and we deserve it': being an autistic teacher in Poland. *International Journal of Inclusive Education*, 1–16. <https://doi.org/10.1080/13603116.2025.2518393>
- Zaks, Z. (2025). Moving to a neurodiversity-affirming paradigm in the support system: Autistic professionals as paradigm change. *Neurodiversity*, 3. <https://doi.org/10.1177/27546330241294138>
- Zisk, A. H., & Dalton, E. (2019). Augmentative and alternative communication for speaking autistic adults: Overview and recommendations. *Autism in Adulthood*, 1(2), 93–100. <https://doi.org/10.1089/aut.2018.0007>
- Zolyomi, A., Begel, A., Waldern, J. F., Tang, J., Barnett, M., Cutrell, E., McDuff, D., Andrist, S., & Morris, M. R. (2019). Managing stress: The needs of autistic adults in video calling. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), Article 10. <https://doi.org/10.1145/3359236>

The Case Study of the Simulacrum in Latin Teaching

Sebastián Altamirano Pacheco

Universidad de Costa Rica
sebastian.altamirano@ucr.ac.cr
[0000-0002-7066-0130](https://doi.org/10.3081/0002-7066-0130)

ABSTRACT — This paper presents a case study of an exercise in the Latin language used as part of assessment in Latin courses at the Universidad de Costa Rica. The exercise is an ungraded test administered one week before the graded assessment for the course, so it is a formative evaluation that works as a practice tool for the summative evaluation. The main objective is to present the Simulacrum as a learning exercise for the process of learning Latin in a university environment. A second objective concerns executive-function skills and the anxiety associated with these kinds of assessments. Neurodivergent students also play an important role in this discussion, since traditional ways of evaluating knowledge may not take account of differences in information processing. Methodologically, I chose a case-study approach to present this tool. The framework considers learning by doing, neurodidactics for neurodiversity, and inclusive instructional design. Finally, the results are evaluated using the SMART methodology and the SWOT method.

KEYWORDS — Latin, Formative, Assignment, Neurodiversity, Simulacrum

1. INTRODUCTION

The topic of this paper is the case study of the Latin teaching tool called ‘Simulacrum’. The Simulacrum, in short, is a formative assessment that functions as a rehearsal and diagnostic test in the context of the teaching of Latin at the Universidad de Costa Rica (UCR). It was designed to be an exercise to be executed one week before the summative assessment. In this paper, I will expose the Simulacrum as a case study of the benefits that can be achieved in the process of learning Latin for neurodivergent students.

It is imperative to clarify first the way I’m using the concept of ‘case study’. I consider it important to make clear that I am using the ‘case study’ concept as the methodology that I will follow in this paper to accomplish my main objective: to present the Simulacrum as a learning tool for the process of learning Latin in a university environment. The purpose of the paper is to show an alternative resource that can be used in the design of assessments as a part of the general planning of a Latin subject at a university level. Although the main objective is to expose a resource, there is also a secondary objective based on the question of which elements can be added to the Simulacrum to improve its effectiveness as a diagnostic tool for the process of learning Latin language. To answer this question, I made a few modifications to the Simulacrum based on the comments from previous students and tested it recently in the 2026 edition of one of the Latin

courses. I will show some of the results in the fifth part of the paper; first, I will give the context of the Simulacrum, then refer to the framework used for the design of the tool, and then mention some testimonies gathered between 2023 and 2025.

It is also important to comment on the role of the neurodiversity factor in the design of this tool. The Simulacrum was originally a general resource for all the students that I had each year in the Latin courses. However, after learning in 2023 that a significant number of students had neurodivergent diagnoses, I began to focus my attention on how I could make this tool helpful for them. The neurodivergent diagnoses that were considered are autism, ADHD, and dyslexia. Even though the aim is focused on this population, the exercise can be useful for Latin students more generally in an academic environment. The Simulacrum is not intended to exclude the general student population; rather, it is a resource that can have particular significance for neurodivergent students based on their characteristics and needs. So, this tool is intended to make an important contribution to the inclusive learning of the Latin language.

2. THE CONTEXT

The origin of the topic of this paper is the situation of anxiety and preparation for assessments that the students face in the learning process of the Latin language. Back in 2019, the idea of preparing a practice test before the real one came to my mind. I was curious to see if this action could help students to be better prepared for a traditional written test in which they respond on paper to instructions concerning sentences or a brief text. The task mainly requires a morphological analysis of sentences followed by their translation. The students had to study the grammar and the vocabulary based on the teacher's previous explanations, together with the exercises completed in class and for homework. During the test, they could only use a Latin-Spanish dictionary as a help tool, nothing else. I realised that some of them experienced anxiety and fear before doing the test, even those who attended lessons regularly and had completed all the previous assignments responsibly.

Inspired by one of the survey questions in an evaluation of teaching performance at UCR, and Article 18 of the *Reglamento de Régimen Académico Estudiantil*¹, I decided to design a previous version of the test that was very similar in the instructions and the structure of the tasks. The question of the survey was, indeed, if the teacher, before a test, had previously practised the content with the students in other assignments. At that moment, I understood that the point was not to introduce a task for the first time in a test. It was necessary to do at least one rehearsal or exercise before it. Hoping for a good result without knowing the task was very difficult.

¹ It specifies the requirement to practise the course content with students before a summative assessment.

In addition, there was another factor: the test environment. I assigned exercises before the test, and these were the traditional method of doing the morphological analysis and then the translation of the Latin sentences to Spanish. Even if I request the students to do the same in the test, the factor that made a difference was that they did these exercises in the classroom or at home, but not in an actual test environment. To be more accurate, they did not feel the pressure of doing these tasks on an ordinary day of classes compared with the day of the test. The reason behind that perception is that the whole class session was devoted to the test, and there is a traditional protocol to follow, and the characteristic silence in the room because, since it is an individual assessment, they cannot talk with each other. They know they are by themselves, and this is the moment to determine how much they have learned of the content being assessed. This circumstance placed them in a different situation.

Based on that context, I came up with the idea of a formative assignment that I call 'Simulacrum' in the context of the Latin courses that I teach at UCR. These subjects are four courses of Latin, two at basic level and two at intermediate level. The Simulacrum started in the course *Latín Básico I* and then appeared in the following courses, called *Latín Básico II*, *Latín Intermedio I*, and *Latín Intermedio II*. The name was inspired by the Latin noun '*simulacrum*' and, as I mentioned before, it was conceived to accomplish one of the parameters used to evaluate teaching performance. So, thinking of a Latin noun, the name matched with the objective of providing at least one practice or demonstration of how to solve an exercise before doing the summative assessment.

2.1. THE LATIN TEACHING METHODOLOGY

In a case study of an exercise for testing the acquisition of Latin, it is important to have a reference to the traditional methods employed for this goal. For the present case study, the main reference is the grammar translation method. The reason is that in the contents of the four courses mentioned, there is no objective of practising at a conversational level. The communicative method is employed in another course called "*Latín Conversacional*", when the main aim is to be able to produce Latin sentences and expressions orally and in writing. Since I took this other course when I was a student, and comparing the different dynamics involved, I decided that the grammar translation method must be the basis for the Simulacrum.

The grammar translation method is usually known to be the 'traditional method'. This perception is based on the belief that studying Latin grammar and then doing a translation of a text in Latin are the most common activities to do. However, this is a pragmatic purpose: throughout history the student of Latin needs to understand the Latin grammar very well in order to be able to recognise it in a Latin text and then comprehend it. If the main goal is to comprehend the text that is originally written in Latin or to do a translation into another language, in

both scenarios it is necessary to have a good declarative knowledge. The activity of translation tends to be a more procedural knowledge that involves two languages, and this requires a lot of practice to achieve accuracy.

However, there is also another method of teaching Latin that is perceived to be more “modern”. This is sometimes called ‘modern methodology’ and is based on the communicative approach to the teaching of Latin. This approach is called ‘communicative method’ because it “emphasizes active language use through dialogues and oral exercises” (Maxmurova, 2025, p. 727). This communicative method focuses on the conversational level, believing that to learn Latin, it is necessary to practise in this language without employing another one. That’s why some teachers also perceive this method to be more natural.

Much more could be said about these and other methodologies. However, this is not the space for it since the main objective is to show the results of the Simulacrum. In order to at least give some context, and based on what was mentioned, it is important to summarise that the Simulacrum was initially based on the grammar-translation method. The reason for it was an academic and didactic one. Students in the Latin courses are usually between 18 and 23 years old, and most begin the first basic-level course in their first year at university. Since we already notice certain levels of anxiety and worry among students about taking a test in which they can use a dictionary as a resource and having a piece of paper with the instructions on it, taking an oral test without this tool and without written instructions to consult seems more difficult and likely to increase students’ concern.

The same can be said if the test is a written communicative one, because even if they can have the piece of paper with the instructions, they will need to write in Latin, and this requires a higher level of both declarative and procedural knowledge. From my perspective, this type of task can be useful at higher levels of Latin but not at the basic levels, when it is necessary to gain confidence by recognising words and their uses. Expecting production from a student in the first levels can be problematic and not recommended for the first stage.

2.2. THE NEURODIVERSITY FACTOR

In the process of acquiring languages, the neurodiversity factor can easily be overlooked. By ‘neurodiversity factor’, I mean consideration of the neurodivergent population when planning a lesson. ‘Neurodivergence’ is defined as “a range of cognitive differences, including dyslexia and autism, which can affect how the students process information, connect with people and adapt to new learning environments” (Calzada et al., 2025, p. 16). The teaching task involves different factors, but this one is not always taken into account. To achieve more inclusive education and offer tools that provide more equal opportunities to learn without making two different groups in the same classroom, the circumstances of

neurodivergent students have to be considered. This does not require changing everything or undertaking a complete transformation; small actions can be enough like preparing an instrument that can help them to reduce their difficulties, which usually are more emotional because of the traditional environment of a test.

The number of neurodivergent students in classrooms is increasing. A significant number of people may meet criteria associated with neurodivergence but remain undiagnosed. It is very common nowadays to hear that someone close to us has received a late diagnosis in adulthood. If these circumstances are considered in the planning of the lessons, it could help a larger number of people in the future. In some cases, the teachers will know about the diagnosis of certain students, but some students may remain undiagnosed and can still benefit from this inclusive planning.

Regarding the Latin language learning and teaching process, many of the difficulties are related to executive-function skills and not necessarily to the content of the Latin grammar. Of course, Latin, as an ancient language, has a different structure, and it recreates the '*imago mundi*' of the Roman world in different stages that can make the context of some texts challenging during the first months. However, similar circumstances also arise with modern languages. Students with diagnoses of autism, ADHD, or dyslexia can experience difficulties during a test that are more closely related to executive functioning than to declarative knowledge. "The traditional learning environment can be overwhelming and anxiety-provoking for neurodiverse learners who struggle to keep up with the pace or fit into the rigid expectations of the system" (Nwachukwu et al., 2024, p. 1007). For example, autistic students, although the classroom is silent, can experience a meltdown or shutdown when surrounded by many people; students with ADHD may experience anxiety about sitting for several hours without getting up; students with dyslexia can confuse some letters, even if they know the spelling of the words.

Executive-function challenges lie beyond the Latin language itself. Neurodivergent students can have strong declarative knowledge in general terms, but they can be confused or disturbed by the experience of being evaluated in front of many people, even if the evaluation is not oral. These students "struggle with executive functioning skills such as planning and organization" (Calzada et al., 2025, p. 16). For this population, knowing in advance what will be evaluated and how can make a big difference.

The Latin grammar is flexible and requires memorising or at least recognising some key endings in the words, and the two processes of how the words are created in Latin: composition and derivation. Since Latin is an inflected language, the student needs to understand very well that there are many changes in how the same word can function because, for example, the morphemes at the endings of the

nouns and adjectives that reflect the cases, or the morphemes in the middle of a verb that show the time and mood, such as the *-ba-* for the Imperfect.

3. THE ASSIGNMENT

The name of this assessment is “Simulacrum” because it is conceived to be very similar to the real one, regarding the instructions and the structure of the test. The design of the evaluation is intended to support both neurotypical and neurodivergent students in terms of anxiety and emotional preparation for a test. The original was conceived without specific consideration of neurodivergent students because I was not aware of this condition back in 2019 when the first Simulacrum was used. At that moment, the assignment was planned to help the whole classroom, and it is still considered in that way. The change is that after 2023, when I began to learn more about neurodiversity and some students recorded their diagnoses in their course files, I reinforced the tool to be clearer in its instructions and to consider the specific circumstances that a neurodivergent student may make errors, become confused, or be disturbed by, such as giving them many instructions, evaluating content for the first time or in a new task, and the time frame.

Regarding the problem or issue, I noticed that the students were very anxious about the test. This was mainly because they did not know what the structure and instructions would be. In response to this situation, the main goal was to give them the chance to take a very similar test with the same instructions and structure one week before. This was planned to help them because after doing the Simulacrum, they could reflect on how they felt and prepare better for the assessment, already knowing which areas require more attention. The decisive requirement for the assignment to be a useful tool is to be very similar to the real test and to cover the same topics that were previously announced to them.

In brief, the Simulacrum is developed as a rehearsal test for an upcoming summative assessment. It is important to understand that it is a formative evaluation that serves as an exercise that gathers information about the personal acquisition of declarative and procedural knowledge regarding the Latin language. The main premise is that there should be a close relationship between formative and summative assessments. The core element is to be very similar to the real one in contents, instructions, and time frame. For example, for autistic students, it can support procedural knowledge of how to identify grammatical features and translate into Spanish while reducing feelings of overwhelm; for students with ADHD, it can support time management and sustained focus; and for students with dyslexia, it can support reading fluency through clear and concise instructions. In addition, it is designed to improve accuracy in declarative knowledge, provide experience through practice, and reduce anxiety. These three elements are considered together because I think they can be a tool to assist the students in two

main areas: knowledge of Latin grammar and vocabulary; and the emotional experience of taking a test.

Currently, the Simulacrum works well and, based on the student testimonies, is helpful for its purpose. Nevertheless, I consider that there is scope to gain further insight and to add more elements that can improve its effectiveness. From this point of view, I formulated the question of which elements can be added to the Simulacrum to improve its effectiveness as a diagnostic tool for the process of learning the Latin language while maintaining a focus on neurodivergent students. To answer this inquiry, I plan to gather more information from the current students by asking them about the benefits of doing formative assessments before a summative one, and to add features designed to help neurodivergent students feel more at ease in a safe environment and with a clearer understanding of the task they are required to complete.

3.1. THEORETICAL FRAMEWORK

The theoretical framework for this case study is built from three pedagogical approaches: learning by doing, neurodidactics for neurodiversity, and inclusive instructional design. These three methods work together to offer an exercise that achieves the objective of exposing the student to the most realistic scenario of a summative assessment in the traditional format of a test through practical rehearsal of the evaluation of the acquisition of declarative and procedural knowledge for the Latin language.

John Dewey's learning-by-doing method is the fundamental principle for the Simulacrum. As the author mentioned, when the human being experiences something, "we act upon it, we do something; then we suffer or undergo the consequences" (Dewey, 1916, p. 104). The result is a highly personal basis for reflecting on the experience. The consequences can be a critical factor when the student understands what the task is and the implications of it. This personal reflection is pivotal for the acquisition of knowledge and acts as a preliminary diagnosis of the learning process. So, as it is usually defined, the learning by doing method is "learning from experiences resulting directly from one's own actions, as contrasted with learning from watching others perform" (Reese, 2011, p. 1). As I said before, my aim is for students to experience taking a very similar test to the official one. The best way to accomplish this is by asking them to undertake a trial run of the summative assessment in a formative mode.

I ensured that each student had the experience of doing the exercise. Hearing someone else describe an experience is not the same as having a personal one. The learning by doing method requires individual participation because "people learn best when they are personally involved in the learning experience" (Ord, 2012, p. 55). From this perspective, the Simulacrum is designed exclusively to be an individual assignment. In my methodology, the students can talk to one another in

other assignments and during lessons everyone participates in a collaborative dynamic, but this particular exercise has to be done alone because the outcome is to identify the areas to reinforce for the summative test and not all the students will have the same difficulties and the same reactions to those difficulties during the exercise.

I chose this approach because of its direct relationship with the principle of repetition. The personal experience needs repetition, because “when learning is based on experience, it is characterized by continuity and interaction” (Achkovska Leshkovska and Miovska Spaseva, 2016, p. 59). I believe that in learning a language, it is necessary to practise every day, and repeated activities such as studying the grammar in the textbook and then in the Latin text can be decisive. That continuity and interaction can make the difference. Also, the benefit of the translation requirement is to help the decision-making process when a student needs to choose between the meanings of words and their functions according to the syntax involved. In the learning by doing method, this repetition and exposure to context help to develop accuracy, and it is also related to another principle of the method: trial and error.

Ord (2012) refers to Kolb’s (1984, p. 21) four-stage model of learning by experience. This model consists of a concrete experience that leads to a second stage of observations and reflections, followed by a third stage involving the formation of abstract concepts and generalisations, until it reaches the testing of implications of concepts in new situations. These phases are covered by the Simulacrum: first, the student has a concrete experience of doing the assignment within the allotted time frame, then moves to reflection, or a *‘post mortem’* on how they felt and what observations can be made about their personal performance. After a few days, the student forms concepts and generalisations of the procedural knowledge and can plan a better way to do the test in the new situation of the summative test. As Ord (2012, p. 57) summarises, this cycle can be expressed simply as the steps ‘do, review, plan’.

The Simulacrum is designed with reference to another approach: the neurodidactics for neurodiversity. This approach is significant for my methodology because I typically have, on average, between five and ten neurodivergent students in each course. Neurodiversity is significant because “consequently, conventional or traditional teaching methods may not adequately support these learners, necessitating the implementation of adaptable teaching strategies and activities to foster inclusivity and support” (Calzada et al., 2025, p. 16). The neurodidactics approach encourages consideration of brain structure and function. It is an inclusive approach because different cognitive profiles are represented in the same classroom. If this area is considered in the Latin language learning process, the students would benefit from the fact that there are different perspectives to explain something.

A third approach is the inclusive instructional design. This approach aims to highlight the strengths of learners with additional needs, including neurodivergent students. Nwachukwu et al. (2024, p. 1004) explain that social and communication differences among neurodivergent students can make social interaction and learning challenging because they can affect their ability to focus and participate in classroom activities. Planning lessons with different activities can be helpful for neurodivergent students if consideration is given to which activities they can undertake without creating an anxiety-provoking environment. It is important to think about and prioritise the needs of the students since they are the ones involved directly in the learning process. For example, there can be alternatives for completing exercises in a quieter setting for autistic students, such as allowing them to listen to music through headphones, and alternatives involving more movement for students with ADHD.

The importance of these approaches is that they can work together to achieve inclusive learning. Based on the different populations represented in a classroom, the Simulacrum fits well with the needs of different groups of students. This strength can help students gain confidence in the learning process because “it is a natural variation in brain function, not a deficit” (Nwachukwu et al., 2024, p. 1004). So, by designing a test for the whole classroom, it becomes an inclusive exercise that all the students can participate in at the same time and under the same conditions. This is part of the inclusive instructional design because it “refers to all efforts aimed at achieving inclusion in the classroom by tailoring instruction to meet learners’ needs” (Nwachukwu et al., 2024, p. 1004).

3.2. THE PREDICTED BENEFITS FOR NEURODIVERGENT STUDENTS

There are some benefits that I anticipate for neurodivergent students regarding the Simulacrum. One of these is the opportunity for prior trial and error. This can be achieved by “creating an accessible, engaging, and supportive learning environment” (Nwachukwu et al., 2024, p. 1004). The students knew in previous versions of the Simulacrum that this was an exercise in which they could make mistakes without negative consequences because it was designed to be a diagnostic of the acquisition of content. Also, they can benefit from knowing their mistakes, since these show which areas they need to reinforce because “emphasizing strengths without adequately addressing weakness could lead to a neglect of necessary support mechanisms” (Bailey & Petty, 2025, p. 20). Indeed, the Simulacrum is predicted to reveal which areas require more focus or time to study.

It was necessary to give them at least one week to reinforce the weak points they identified. They also needed to be aware of the stressful situations they could face. Certainly, it requires flexibility at the beginning to understand how the students perceive the acquisition of the content by doing this type of exercise. For this purpose, the evaluation must be short and with clear instructions to follow. If

this happens, the predicted benefits for neurodivergent students will be greater confidence and better access to declarative and procedural knowledge.

4. TESTIMONIES BEFORE 2026

I gathered testimonies from the 2023–2025 versions of the Simulacra. In these versions, there were only four tasks to achieve: analysis of morphology, analysis of syntax, translation from Latin to Spanish, and identification of grammatical elements. It was designed to support declarative knowledge of grammar and vocabulary, as well as procedural knowledge through dictionary use and the steps required to translate an original Latin sentence into Spanish. I told the students about the case study, and they provided me with these testimonies.

I will call “Aemilia” the student of the first testimony. She was very active with the assessments and earned good grades in Latin. Aemilia did 12 Simulacra between 2023 and 2025, and her trouble was not the Latin grammar, it was the emotional anxiety and the fear of dealing with something that she had not practised. Aemilia mentioned: “An important tool to prepare ourselves emotionally prior to the exam, since it gives a clearer picture of how to feel about the real evaluation”. Aemilia mentions the emotional factor and the importance of having an idea of how they could feel in the real test. She adds: “I think it is important that these types of exercises are carried out in language and linguistics courses to be more familiar with what has been learned and its application in practice”. In this second quote, Aemilia highlights the familiarity factor: dealing with something students already know how to do, which is where practice becomes particularly relevant. If students do not have a similar prior experience, they can be affected by their emotions.

The second student will be “Fulvia”, a neurotypical student. She expressed an interest in giving feedback about the Simulacrum. Her opinion was that “on a psychological level, they helped me with stress management and time management”. These elements are part of the executive-function skills discussed above. Coming from a neurotypical student, this is a sign of the significance of the tool because a neurotypical student also benefited from doing the Simulacrum. Fulvia also remarked that “many students are unaware of a neurodiversity diagnosis” and she suggested using pictograms in future versions of the Simulacrum because “pictograms promote the understanding of neurodivergent people”. This was a particularly interesting suggestion.

The third case is “Marcia”, a student with no official diagnosis of autism but with some traits associated with it; at the time of the course, she was waiting for the appointment to confirm the diagnosis. Her testimony is important regarding the expectation for the real test: “The Simulacra in class were particularly useful to me because they allowed me to better understand what to expect in the real exam with the type of exercises, the pace, and, above all, the time pressure”. She mentioned an

important factor concerning the Simulacra II and III of each course; these were designed to be home drills because of the lack of lessons in the schedule. It was not possible to do the three Simulacra of each course in the classroom. Marcia said: "The home drills did not feel equally important, although they served as practice, the absence of a controlled environment meant that I took them more calmly and without the feeling of being in an authentic evaluation situation". Based on this testimony, I decided to pause the home version of the Simulacrum and focus more on the classroom version because this is the original version and the one that makes the greatest difference. Other students have told me that being at home does not feel the same, the environment changes, and they have more distractions.

The fourth case is "Cornelia", a student with autism and ADHD. She completed the Simulacrum at the basic level and said: "What I considered Professor Altamirano's most anti-stress dynamic was the 'Rehearsal Test'. The dynamic was that the week before the test, he would give us a mock test that was structured the same way as the real test would be". Cornelia notes that I aim to make the Simulacrum more difficult than the real test: "At the same, we also knew that the 'Rehearsal Test' tended to be more difficult than the real test, so that if you actually prepared for it and respond it with honesty, you could have a very good idea of how you would do in the real test and in which are you should reinforce, having a whole week for you to do exactly that". This strategy tends to develop greater confidence in the students because they first train with the harder challenge and in a formative way. If they did a good job in the Simulacrum, the test will be easier.

The insights from previous Simulacra have shown positive results based on the comments of the students. In some way, the Simulacrum is a drill, rehearsal test, or diagnostic test whose aim is to show each student which areas they need to bolster. One of the main observations concerns the psychological atmosphere because it reduces anxiety and decreases the confusion that can appear in the real test, since they already know how the test will be. An elemental point in this matter is to give them the instructions in advance. This action helps neurodivergent students to understand more accurately what is required of them and to avoid mistakes in the comprehension of the texts or sentences included.

It is important to add that they can ask questions as in the summative assessment. These questions can save them time the following week because they will face something very similar. The design of the Simulacrum is to be a formative assessment that strengthens the engagement of the students with the content by providing a more relaxed way of preparing for the summative assessment. Also, it works as a monitoring or diagnostic tool that encourages them to take greater responsibility for their own learning by finding solutions to the mistakes they make.

5. RESULTS OF THE 2026 VERSION

The 2026 version of the Simulacrum is the first to introduce reading comprehension as a fifth task. It is important to clarify that the design is also intended to avoid making the test too long. Because it is important to provide a text containing the main grammatical elements listed for assessment, the selected text contains relatively few complex sentences. So, this 2026 version adds reading comprehension. However, for the 2026 version, the aim was to go further and include reading comprehension in Latin. So, it is necessary to mention that the Simulacrum could also evolve into a reading comprehension assessment and a communicative assessment via conversation. We are talking about at least three different types of the Simulacrum: the traditional one, focused on the analysis and translation of the text; a second one for reading comprehension; and a third one for communication in Latin through oral and written tasks. Nevertheless, for the 2026 version, only the reading comprehension task was added. The communicative type of Simulacrum would be better tested in a conversational course.

I will refer to five cases related to the Simulacrum of the first course of the intermediate level. The results will be evaluated by applying the SMART methodology: Specific, Measurable, Achievable, Relevant, and Time-bound. Then I will consider the possibility of improving the tool based on the SWOT methodology: Strengths, Weaknesses, Opportunities, and Threats. First, the insights of the students.

The Simulacrum lasted 2 hours and 15 minutes. Student A was the first to finish, 25 minutes after the beginning of the assignment, and she said that the assessment helped her to realise that she needed to learn more vocabulary. Student B finished at 49 minutes and said the main difficulty for him was the translation part. Student C spent almost an hour and said he needed to study more deponent verbs. Student D spent 1 hour and 40 minutes and said she discovered that she remembered vocabulary she had not specifically studied for the test simply by completing the previous practice exercises. Finally, Student E realised the need to have a method for the test, so he decided to spend some minutes working on this method and use it the following week in the real test, the summative assessment.

If we apply the SMART methodology to the Simulacrum, the result is favourable. The goals are specific and clear for the teacher and the students; they understand their purpose; also, these goals are achievable and realistic because they will use the same instrument, the dictionary, as an aid. Regarding measurability, each of the students can measure their own progress after doing the assignment and checking their answers because they retain the sheet of instructions and the text. Regarding relevance, the objective is related to the long-term goal of acquiring more knowledge of how the Latin language functions. Finally, the time-bound criterion is also realistic because it is the same for the formative and the summative assessment.

As a result, the SWOT analysis produces the following observations. First, one threat is that students may become bored with the Simulacrum and believe it is no longer necessary once they lose their fear; however, if this happens, the goal is achieved because one of its aims is precisely to build confidence and a sense of control. So, we can say it gives students a sense that they are better prepared for the next assessment. Second, based on what they said days later, one weakness is the context of numerous assignments for other courses and the economic circumstances affecting some students, given that these are reasons why they did not show up to do the Simulacrum. Third, one strength is the assignment itself because the option of having an exercise designed to test their progress is a personal instrument designed for a specific course and a list of contents. Finally, opportunities are related to the teacher's job of implementing new features or types of tasks that match the goals of the course programme and applying it to the Simulacrum. As an example, for the next Simulacrum at the basic level of Latin, there will be some pictograms to help the students with the context of the text.

6. CONCLUSION

Since the Simulacrum is currently used in my approach to teaching Latin, I chose the case study method to present the Simulacrum. It is conceived as a descriptive case study of an assignment developed for the philology students (Classics and Spanish) to accomplish two main goals: one, to test their procedural and declarative knowledge of the contents; two, to reduce the anxiety that usually appears in the traditional format of the test.

The main conclusion is that the Latin learning process requires a flexible approach. It is not convenient to have high expectations for the student's process of acquiring knowledge if they do not have the appropriate resources to practice. The key factor is to use learning by doing as the basis for acquiring knowledge, both declarative and procedural. The matter is more about the how than the what. Repetition can increase expertise because the repetition of a procedure is essential for understanding a language. Having a practice very close to the summative test can help students recognise the importance of testing their abilities because it shows them which areas are their own strengths and weaknesses.

Another conclusion is that when students have completed at least two or three Simulacra, they are more likely to have greater confidence in their skills. As a result, they may skip doing the assignment. However, this circumstance is different if the student is in one of my courses for the first time because they tend to complete the Simulacrum so they can have at least one experience of being in the scenario of the summative assessment. It is also very important to add some practical conclusions they reach from doing the exercise, such as having a blank sheet for drafting, or taking notes, or writing some morphemes or declensions.

I would also like to address the concept of the 'hidden curriculum'. Alsubaie (2015, p. 125) defines this concept in terms of the life lessons and virtues that students learn that are not intended, such as implicit values, behaviours, procedures, and norms. Although the hidden curriculum is not part of the content of the course, it is a factor to be considered because it provides a learning experience not only for neurodivergent students. The whole classroom can benefit from the hidden curriculum, and the Simulacrum also works for this aim. Sulaimani and Gut (2019, p. 35) comment that "because hidden curriculum is contextually and culturally specific, aspects of it can vary across settings and communities". This idea opens an opportunity to test this tool in other environments or countries. As a recommendation, it would be interesting to gather information from different parts of the world to discover if the context of one community may differ from another. It is my conjecture that in different parts of the world we can get the same conclusion: the challenge is not about the Latin grammar; the real challenge is how we teach and test knowledge of it. The debate should not be about a traditional or modern method, but instead on a more human concern regarding the emotional implications of assessment and the need to consider the neurodidactics involved.

Finally, autistic students, students with ADHD, and students with dyslexia can benefit from that concern. If the teacher and the institution develop a supportive environment for designing their assessments with a similar structure, both formative and summative, the benefit is more than just the knowledge about the subject; it is the acquisition of skills that are useful for different disciplines as well. The role of the teacher is significant because "fostering an inclusive atmosphere requires educators to remain committed to ongoing professional development" (Calzada et al., 2025, p. 16). An inclusive atmosphere can be achieved by suggesting different types of exercises and dynamics, but these need to be designed for a community that shows variation in how people think and receive information.

REFERENCES

- Achkovska Leshkovska, E., & Miovska Spaseva, S. (2016). 'John Dewey's Educational Theory and Educational Implications of Howard Gardner's Multiple Intelligences Theory'. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)*, 4(2), 57–66. <https://doi.org/10.5937/IJCRSEE1602057A>
- Alsubaie, M. A. (2015). 'Hidden Curriculum as One of Current Issue of Curriculum'. *Journal of Education and Practice*, 6(33), 125–128.
- Bailey, C., & Petty, S. (2025). 'Neurodiversity in Classroom Dynamics: Inclusive Pedagogical Frameworks for Neurodivergent Student Engagement'. *Global Synthesis in Education Journal*, 3(1), 18–30. <https://doi.org/10.61667/xehj4936>
- Calzada Rito, M., Jiménez Medina, S. S., Preciado Cueto, D. V., & De la Luz Castillo, D. G. (2025). 'Innovative Models and Inclusion: How to Use Neurodidactics to Teach Languages to Neurodivergent Students'. *Creative and Innovative Language Activities for Language Teaching in Mexico*, pp. 16–24. Atena Editora. <https://doi.org/10.22533/at.ed.1452511022>
- Dewey, J. (1916). *Democracy and Education*. Teddington: Echo Library.

- Maxmurova, M. (2025). 'Latin Language Learning Methods and Their Effectiveness'. *Modern Science and Research*, 4(3), 725–733.
<https://doi.org/10.71337/inlibrary.uz.science-research.72380>
- Nwachukwu, E. L., Azuka, C. V., Wei, C. R., & Ikechukwu, U. L. (2024). 'Inclusive Instructional Design for Neurodiverse Learners'. *Journal of Digital Learning and Distance Education*, 3(3), 1001–1009. <https://doi.org/10.56778/jdlde.v3i3.324>
- Ord, J. (2012). 'John Dewey and Experiential Learning: Developing the Theory of Youth Work'. *Youth & Policy*, 108, 55–72.
- Reese, H. W. (2011). 'The Learning-by-Doing Principle'. *Behavioral Development Bulletin*, 11, 1–19. <https://doi.org/10.1037/h0100597>
- Sulaimani, M. F., & Gut, D. M. (2019). 'Hidden Curriculum in a Special Education Context: The Case of Individuals With Autism'. *Journal of Educational Research and Practice*, 9(1), 30–39. <https://doi.org/10.5590/JERAP.2019.09.1.03>

Same Standards, Different Pathways: Forgotten Voices, Neurodiversity, and Critical AI Literacy in Ancient History Teaching

Isaías Arrayás Morales

Universitat Autònoma de Barcelona
isaias.arrayas@uab.cat
[0000-0003-4079-0134](https://orcid.org/0000-0003-4079-0134)

Carlos Heredia Chimeno

Universitat Autònoma de Barcelona
carlos.heredia@uab.cat
[0000-0003-2866-5883](https://orcid.org/0000-0003-2866-5883)

ABSTRACT — Growing attention to neurodivergence in higher education and the rapid expansion of generative artificial intelligence have made visible a series of problems that extend beyond either diagnosis or technology: how students organise complex academic work, how disciplinary competences are distinguished from the conventions through which they are normally demonstrated, and how plausible reconstructions can be separated from interpretations that are actually supported by evidence. This article develops a transferable framework from a teaching innovation project in Ancient History implemented during the 2025–26 academic year. The project brought together three concerns: the incorporation of historically marginalised actors into teaching, neurodiversity-aware educational design, and the critical use of generative AI. Drawing primarily on two classroom experiences, one in an *Introductory Ancient History* course and another in an advanced course on *War and Imperialism in Antiquity*, within a broader teaching innovation project involving other courses in the Ancient History area, we gradually came to distinguish between disciplinary operations that should remain common and organisational forms that can legitimately vary. From this process we develop a three-pathway model—guided and sequential, systematic and comparative, and synthetic and visual—available to all students without diagnostic assignment and assessed through identical historical criteria. We further argue that critical AI literacy need not entail compulsory personal adoption of generative AI, since students may analyse documented instructor-provided outputs while demonstrating the same historical competence. Five transferable activity designs translate these principles into practical teaching models concerning evidence-bounded reconstruction, simulated historical voices, narratives of war and empire, visual representation, and source verification. The resulting framework does not seek to lower or relativise academic expectations. On the contrary, it depends upon defining more precisely what students must demonstrate in order for us to say that they have learned Ancient History.

KEYWORDS — Ancient History, artificial intelligence, neurodiversity, cognitive justice, inclusive teaching

1. INTRODUCTION: FORGOTTEN VOICES, DIVERSE LEARNERS, AND GENERATIVE NARRATIVES

The rapid incorporation of generative artificial intelligence into higher education has often been discussed primarily as a problem of technological adoption: whether students should use these systems, how their use should be declared, which forms of assistance constitute legitimate academic practice, and whether traditional modes of assessment remain viable when fluent written responses can be produced within seconds. These questions are unavoidable, but our experience in Ancient History suggests that generative AI is also valuable because it makes older pedagogical and historiographical problems unusually visible. Ancient History has always depended upon incomplete and unevenly preserved evidence, and historians have therefore always had to distinguish between what the sources allow us to establish, what can be proposed as a reasonable inference, and what remains beyond demonstration. Generative systems intensify this problem because they are particularly effective at suppressing the visible boundary between those categories: fragmentary documentation can rapidly become a fluent biography, an asymmetrical archive can become an apparently balanced first-person narrative, and uncertain or disputed evidence can be transformed into confident explanation. These risks are further compounded by algorithmic biases, which may reproduce or amplify patterns embedded in training data and model design, privileging particular perspectives, assumptions, and forms of representation while rendering others less visible. At the same time, increasing attention to neurodivergence and accessibility in universities has raised a parallel question about academic work itself. If the disciplinary objective is to contextualise evidence, compare interpretations, and construct an argument, to what extent must every student organise that process in an identical way? The encounter between these two issues—epistemic uncertainty in AI-generated historical narratives and cognitive diversity in the organisation of learning—became one of the central concerns of the teaching innovation project examined here.

The project emerged within an Ancient History teaching environment in which the question of historical visibility already possessed a substantial disciplinary genealogy. Within the Universitat Autònoma de Barcelona, scholarship since the 1980s has repeatedly questioned narratives excessively centred upon political institutions and dominant groups. Alberto Prieto Arciniega's analysis of the persistence of indigenous elements in Baetica challenged models in which Roman conquest was understood as the straightforward replacement of local societies, while the work of Encarna Sanahuja Yll and Prieto Arciniega on the *Bacchanalia* brought women into a broader analysis of social, economic, and political structures (Prieto, 1980, pp. 37–46; Sanahuja & Prieto, 1981, pp. 143–152). Subsequent research by Isafías Arrayás Morales or Joan Oller Guzmán continued to challenge

conventional narratives of Romanisation by examining the transformation of conquered territories while paying particular attention to the persistence and role of pre-Roman communities and structures within the processes generated by Roman conquest and provincial integration (Arrayás, 2005; Oller, 2016). The project extended that concern with visibility into teaching. Women, children, enslaved people, foreigners, subjected populations, and other actors conventionally marginalised within political and military narratives became not simply additional content to be inserted into existing courses, but a means of asking how historical narratives are constructed in the first place. The arrival of generative AI added a revealing new dimension: systems trained upon existing textual and visual cultures could reproduce precisely those hierarchies, stereotypes, and absences while presenting the resulting account as apparently neutral.

The project also developed in response to increasing attention to neurodivergence within higher education. Research on neurodivergent students has documented recurring challenges concerning disclosure, access to support, and the fit between institutional provision and individual needs, while also showing considerable diversity within and across diagnostic categories (Clouder et al., 2020). This diversity makes it difficult to translate diagnostic categories directly into predetermined pedagogical profiles. Yet recognition creates its own pedagogical danger when a diagnosis begins to operate as a ready-made learning profile. Neither neurodivergent nor neurotypical describes a pedagogically homogeneous population, and sharing a diagnostic category does not imply organising work, communicating, or processing information in the same way. The problem therefore became analogous to the historiographical problem at the centre of the project: categories can make previously neglected differences visible, but they can also become mechanisms through which diversity is simplified again. Our response gradually shifted from asking which activity might be appropriate for a particular student profile towards a different question: which disciplinary operations genuinely need to remain identical for every student, and which features of an assignment reflect conventions of organisation rather than the historical competence being evaluated?

This article reconstructs that development from classroom implementation to a transferable pedagogical framework. The broader teaching innovation project involved activities and adaptations across several courses in the Ancient History area during 2025–26, but the analysis developed here focuses primarily on two classroom experiences for which the implementation process and subsequent reflection can be reconstructed in greater detail. It also draws upon previous work on alternative Ancient History learning itineraries (Heredia, 2026), the broader research literature on neurodiversity, cognitive justice, and AI-supported teaching,

and Open Educational Resources produced during an earlier stage of the same project (Center for the Innovation in Ancient Worlds & Heredia, 2026). The first implementation involved introductory students constructing evidence-bounded fictional historical actors in Hammurabi's Babylon and the Roman Republic during the Second Punic War before critically examining AI-generated expansions of those reconstructions. The second applied the lessons of that experience to an advanced course on war and imperialism, where students were offered three organisational pathways while working with identical historical sources, scholarship, and assessment criteria. The two cases also exposed a contradiction in our own initial approach: while we had diversified the organisation of learning, we continued to require all students to participate directly in generative AI. The framework developed below therefore extends the same principle of choice to technological participation. Our argument is not that every aspect of learning should become negotiable, nor that diagnosis is irrelevant, nor that generative AI should be normalised as an obligatory component of higher education. Rather, we argue that inclusive teaching becomes academically defensible when it starts by defining the disciplinary core with unusual precision. Same academic standards do not necessarily require the same organisational pathway, and critical AI literacy does not necessarily require compulsory personal AI adoption.

2. FROM ADAPTATION TO DESIGN: NEURODIVERGENCE AND COGNITIVE JUSTICE

The concept of neurodiversity has become increasingly prominent in discussions of higher education, but its pedagogical use requires some precision. In its broadest sense, neurodiversity refers to variation in human cognitive functioning, whereas neurodivergent currently operates as an umbrella term associated with autism, ADHD, dyslexia, and other conditions and may also function as a personal or collective identity within a heterogeneous neurodiversity movement (Dwyer, 2022, pp. 73–92). The educational relevance of this distinction lies partly in resisting the assumption that diagnostic categories correspond neatly to preferred methods of learning. Research itself requires caution. Le Cunff et al. (2024, pp. 16–20), examining cognitive load in online learning, identified substantial overlap between difficulties reported by neurodivergent and neurotypical participants, even where particular forms of load appeared with different intensity. Howard and Sedgewick (2021, pp. 2265–2278) similarly found substantial variation in communication preferences among autistic adults across different communicative contexts, with written modes often preferred when interacting with unfamiliar people or organisations. Preferences for written communication, additional processing time, or greater task structure may therefore be relevant to some learners, but none can safely be treated as a diagnostic template. A diagnosis can alert the teacher to a

possible barrier; it cannot predict the learning behaviour of every person to whom it applies.

This becomes particularly important in course design. Our own earlier work illustrates the problem. Heredia (2026) proposed two routes under common historical expectations: a structured and linear pathway associated orientatively with autistic and dyslexic learners, and a more open, creative, and multimodal pathway associated with ADHD. The underlying principle—that equivalent disciplinary competence could be demonstrated through different routes—proved useful, but the diagnostic association was less defensible. Subsequent implementation persuaded us to preserve differentiated routes while removing diagnostic assignment. A structured pathway could be chosen by an autistic student, a student with ADHD, a neurotypical student unfamiliar with the topic, or anyone who simply worked better through explicit stages. The reason for the choice ceased to matter for assessment.

The institutional framework at the Universitat Autònoma de Barcelona reinforces rather than contradicts this move towards anticipatory design. UAB regulations allow curricular adjustments to affect teaching and learning methodologies, materials, and assessment while requiring that they do not reduce the academic level demanded (Universitat Autònoma de Barcelona, 2024). Individualised adjustments and specialist support therefore remain indispensable because no general framework can foresee every personal circumstance. This anticipatory logic is also compatible with Universal Design for Learning, which has been proposed as a framework for planning more accessible teaching and learning in higher education (Cumming & Rose, 2022). The framework developed here is narrower, however: it does not seek to reproduce UDL as a whole, but to distinguish disciplinary requirements from organisational features that may legitimately vary. The point is not to replace those mechanisms with a universal design that claims to eliminate the need for accommodations. It is to ask whether some predictable barriers can be reduced before students are required to demonstrate individually why they need an alternative. A complex assignment can contain explicit stages without requiring a formal accommodation; a comparative organiser can be available to everyone; a student can choose written rather than synchronous communication for an intermediate task where real-time participation is not itself a learning outcome. General accessibility and individual adjustment operate at different levels and should be complementary. This distinction also avoids treating neurodiversity as a reason to lower expectations: the question is how students reach and demonstrate a common disciplinary standard, not whether some students should be evaluated against a different intellectual threshold.

The concept of cognitive justice helps us articulate this distinction, although we use it analogically and in a deliberately restricted pedagogical sense. Visvanathan (1997) formulated cognitive justice in relation to inequalities between systems of knowledge and the power of dominant forms of knowledge to marginalise others; de Sousa Santos (2007) developed this concern within a broader critique of epistemic hierarchy. Leibowitz (2017, pp. 93–111) subsequently explored its possible implications for higher-education curricula while also acknowledging that further conceptual development is required to translate cognitive justice into teaching and learning. Our use therefore draws upon this literature rather than claiming equivalence with the historical and epistemic injustices it primarily addresses. In the narrower sense proposed here, the issue arises when a particular convention for producing or demonstrating academic knowledge becomes indistinguishable from the knowledge supposedly being evaluated. Ancient History provides a relatively clear test. The capacity to contextualise a source, distinguish evidence from interpretation, compare different forms of documentation, use scholarly literature, detect anachronism, and sustain an argument through evidence belongs to the disciplinary core. It is much less evident that every student must reach those objectives through exactly the same sequence, the same planning format, or the same relationship with a digital tool. One student may need to divide a research problem into explicitly delimited stages, another may make sense of it by comparison, while another may first establish relationships between evidence through diagrams or visual representation before converting those relationships into prose. None of those organisational differences determines the final academic level by itself.

The principle that emerged from this reflection is therefore more demanding than a generic appeal to flexibility. The first task of inclusive assessment is to identify what cannot vary because it constitutes the disciplinary competence; only then can we decide what may vary without changing the standard. This reverses a common sequence in which an existing activity is treated as the norm and alternatives are subsequently added for particular students. Instead, the activity is decomposed from the beginning into disciplinary constants and organisational variables. The distinction also creates a practical test for design: if changing a requirement would alter what the student is being asked to know or do historically, the requirement is likely to belong to the disciplinary core; if the historical operation remains intact, the requirement may be an inherited convention. Removing primary-source analysis from an assignment would alter its intellectual content. Allowing students to organise that source analysis through a linear worksheet, comparison table, or visual map need not (see Table 1).

Disciplinary constants	Organisational variables
Engagement with primary evidence	Order in which evidence is approached
Historical contextualisation	Planning method and intermediate structure
Distinction between evidence and interpretation	Linear, comparative, or visual organisation
Engagement with academic scholarship	Use of tables, maps, timelines, or diagrams
Identification of anachronism and unsupported reconstruction	Form of notes and working materials
Evidence-based argument	Route through which the argument is constructed
Critical analysis of AI-generated material where relevant	Direct generation or instructor-provided AI material
Transparency and academic integrity	Particular technological tools used in the process

Table 1. Disciplinary constants and organisational variables.

Methodologically, the article should be understood as a reflective pedagogical case study rather than as an experimental evaluation of effectiveness. The account draws upon aggregated assessment results, anonymous institutional student feedback, instructor observation during implementation, and the previously published report of the introductory activity (Arrayás & Heredia, 2026). These materials are used descriptively to reconstruct how the teaching design developed through and after the two implementations; they are not used to infer causal effects of generative AI use or pathway choice.

3. VEUS OBLIDADES A L'ANTIGUITAT: MAKING HISTORICAL WORK VISIBLE

The first implemented experience took place in *Introductory Ancient History*, a first-year Ancient History course intended to familiarise students not only with a very broad chronological and geographical range but also with some of the foundational operations of the discipline. The syllabus moved from the Ancient Near East and Egypt to the Greek and Roman worlds, while the course design emphasised the relationship between primary sources and modern historical interpretation and the idea that Ancient History should not be understood as a closed body of knowledge. This context mattered because first-year students were learning historical content while simultaneously learning how historical claims are constructed: how to locate an assertion within a source's context, how to distinguish an ancient text from a modern interpretation, and how to recognise that a historically plausible explanation is not necessarily an explanation that has been demonstrated. The continuous-assessment activity represented 30 per cent of the final grade and incorporated an ungraded intermediate submission before the final version, allowing the assignment to function as a process of revision rather than as a single terminal product. Two deliberately distant historical settings were selected: Hammurabi's Babylon and the Roman Republic during the

Second Punic War. Their documentary and cultural differences helped prevent the methodological lesson from becoming tied to one historical episode. Students were instead required to transfer the same operations of evidence assessment between different ancient societies.

The activity asked students to construct fictional but historically situated actors from primary evidence and academic scholarship. They had to define social, legal, economic, and personal variables that were plausible within the chosen society. The fact that the individual was fictional did not create unlimited imaginative freedom; in some respects, it created a stricter methodological demand. Since the person had never existed, no individual detail could be independently verified, and every aspect of the reconstruction therefore had to remain within the boundaries of what the sources allowed historians to infer about people occupying comparable positions. Only after this initial contextualisation did generative AI enter the activity. The system could expand the biography, suggest everyday experiences, explain relationships, or supply motivations, and its capacity to do so fluently was precisely what made it useful. The generated answer could combine documented information, reasonable inference, and entirely unsupported elements while projecting modern assumptions onto ancient societies or naturalising behaviour that the evidence could not establish. The exercise therefore began historically after generation rather than ending there. Students had to return to the documentation and decide what could be retained, what required qualification, and what should be rejected (Arrayás & Heredia, 2026, pp. 72–73).

This use of generative AI corresponded to a broader direction already visible in teaching within Ancient and Classical Studies. Díaz-Sánchez and Chapinal-Heras (2024, pp. 17–21), for example, introduced image generation after students had first worked with ancient textual evidence and then required them to assess the reliability and iconographic accuracy of the generated images against that evidence. De la Escosura Balbás and Duce Pastor (2025, pp. 28–32) explored guided integration of AI within epigraphic work, while Liu et al. (2026, pp. 28–30) combined assisted production with subsequent critical editing. In each case, the pedagogical value of the technology lies less in accelerating the arrival at a correct answer than in creating an object that can be interrogated. This distinction is particularly important for Ancient History because documentary incompleteness makes plausibility seductive. A coherent explanation may be compatible with everything we know while still exceeding everything we can demonstrate. Generative AI makes this gap extraordinarily visible because it has no inherent reason to stop speaking at the point at which the historian should begin to qualify.

The results of the first implementation were useful primarily because they exposed problems rather than because they demonstrated the effectiveness of the technology. Of 67 students enrolled, 55 submitted valid work and 48 passed the activity, with a mean of 6.46 and a median of 6.50 (Arrayás & Heredia, 2026, p. 74). These data are descriptive and cannot support a causal claim that AI or the activity improved performance. An earlier project infographic presented the proportion of passing submissions (48 of 55; 87.3 per cent) under the heading “success rate”. In the present article, the same figure is treated only as a descriptive pass proportion and not as evidence of causal effectiveness. This difference reflects the more cautious methodological interpretation adopted through subsequent reflection on the 2025–26 implementation.

More significant were the difficulties visible during the process. Some students began or completed the task too late to make effective use of formative feedback; others could identify a particular error in a generated answer but had greater difficulty transforming that detection into a historical argument; some weaker submissions delegated excessive analytical responsibility back to AI, asking the system itself to carry out part of the critique that was supposed to constitute the student’s work (Arrayás & Heredia, 2026, p. 75). Anonymous institutional feedback added another dimension. Students valued the emphasis placed on critical analysis of sources and academic rigour, but some also described difficulty following the structure of an extensive syllabus and noted the absence of textual organisers in presentations that relied heavily upon images. The apparently separate problems converged around organisation. Accurate historical content does not automatically make the relationships between pieces of information equally visible to every learner, just as identifying an AI mistake does not automatically make the reasoning needed to reject that mistake visible.

The most consequential lesson of this first experience was therefore less technological than initially expected. Detecting that an AI system is wrong is not equivalent to understanding why a statement is historically unsustainable, just as providing a sequence of support does not guarantee that the student can eventually transform that sequence into an argument. We needed to distinguish more explicitly between the operations every student had to perform—compare, contextualise, justify, revise—and the forms through which those operations could be organised. The question ceased to be which activity should be designed for which neurotype and became which elements of historical research must remain common because they constitute the competence being assessed. This shift would shape the second implementation much more directly.

4. FROM DIAGNOSTIC ASSOCIATION TO THREE LEARNING PATHWAYS

The second experience took place in *War and Imperialism in Antiquity*, an advanced course on war and imperialism for students already familiar with the principal periods, sources, and problems of Ancient History. Its academic context differed substantially from the introductory course. The course was not conceived as a narrative sequence of campaigns and battles. War was treated as a historical phenomenon affecting social structures, political relationships, and subjected populations, and the programme moved across the Near East, Egypt, Greece, and Rome while paying particular attention to imperial dynamics. The course design also explicitly incorporated what the project called “forgotten voices”—women, children, foreigners, enslaved people, and other groups conventionally marginalised within narratives of warfare and power. Interestingly, anonymous institutional feedback indicated that this orientation did not coincide with every student’s expectation of what a course on war should contain. Some respondents requested more battles, campaigns, units, and military development, while another perceived elements of the course as repetition of previously studied material. These comments were pedagogically useful because they showed that returning to a familiar historical process from a different historiographical question does not guarantee that students will automatically recognise the new intellectual operation being required.

The principal project, worth 40 per cent of the final grade, therefore combined the thematic concern with forgotten voices, critical use of AI, and a more explicit reconsideration of the architecture of assessment. Seven case studies were offered: power and inequality in Middle Kingdom Egypt; Neo-Assyrian violence and propaganda; Achaemenid imperial order and repression; Athenian imperialism and the contradictions of freedom discourse; war and social disintegration during the Peloponnesian War; conquest, resistance, and violence in Roman Hispania; and war, empire, and women in the Roman world. The chronological range was not intended to create a general history of ancient warfare. The common operation was instead to observe how the explanation of conflict changes when the position from which the narrative is organised changes. Students first worked with a narrative centred upon imperial power and examined how conquest or domination could be presented as necessary, beneficial, or inevitable. Attention then shifted towards territories, subjected communities, and civilian populations, and finally towards actors easily diluted within a narrative organised around power: women, children, enslaved people, defeated populations, and other poorly represented groups. Generated answers were never treated as sufficient interpretations. They had to be compared with ancient evidence and scholarship, with particular attention to moralising or teleological language, historiographical commonplaces, structures of

legitimation, and absences that persisted even when the prompt explicitly requested a change of perspective.

This sequence also clarified the historiographical meaning of “forgotten voices”. The objective was not to replace an imperial narrative with a supposedly authentic generated voice of the oppressed. Changing a prompt cannot recover evidence that ancient documentation has lost, and AI cannot legitimately manufacture absent experiences. The exercise was valuable precisely because it showed how easily narrative hierarchy could be mistaken for neutrality. A generated account could contain correct dates, persons, and events while still assuming without justification that the perspective of the conquering state constituted the natural centre of the story. Conversely, asking the system to foreground women, enslaved people, or defeated communities could produce narratives filled with unsupported psychological detail in an effort to satisfy the request. The methodological task therefore remained identical across perspectives: distinguish what the evidence makes visible from what the narrative machinery of the model has supplied.

The organisational innovation of the second course was more directly connected with neurodiversity. Instead of two routes carrying even an indirect diagnostic association, three possible forms of organisation were made available to the entire class. The first was guided and sequential, moving progressively through contextualisation, the imperial narrative, social consequences, relegated actors, and critical comparison. The second was systematic and comparative, allowing students to organise relationships among ancient sources, generated outputs, and modern historiography explicitly through tables or matrices. The third was synthetic and visual, enabling maps, timelines, conceptual schemes, or representations of power relationships to form part of the construction of the argument. None was identified as an autistic, ADHD, dyslexic, or neurotypical route, and no student had to justify the choice. What mattered was not why a student preferred a particular organisation but what all three routes shared: primary sources, academic scholarship, contextualisation, critical examination of generated responses, identification of mechanisms of legitimation and exclusion, distinction between evidence and argument, and production of an independent historical synthesis. The architecture changed; the historical standard did not.

The available data must again be interpreted descriptively. The register contained 52 students, of whom 45 had a numerical grade for the principal project at the point analysed. The mean was 7.50, the median 8, and the range 4–10, with 41 of 45 grades reaching or exceeding 5. No causal comparison with the introductory experience is possible because the courses differed in level, composition, content, and assessment weighting, and pathway choice was not

systematically recorded alongside each grade. For the reflective purpose of this study, instructor observation was more useful for identifying design issues than the aggregate numerical results. Most students continued to use structures close to conventional academic formats even where visual or more markedly multimodal possibilities existed. Rather than indicating that the innovation had failed, this result clarified what meaningful choice should look like. Providing several routes does not require those routes to be selected in equal proportions, and it should certainly not transform formal innovation into another requirement. For many students, the conventional format continued to work well; the difference was that it ceased to be the only legitimate route available.

5. CRITICAL AI LITERACY WITHOUT COMPULSORY AI ADOPTION

The second implementation also exposed an inconsistency that had survived our attempt to diversify the organisation of learning. Anonymous institutional survey responses revealed at least two divergent responses to AI: one student explicitly rejected assignments involving the technology, while another identified the combination of artificial intelligence and attention to historically marginalised groups as a positive feature of the course. The number of responses was far too small for generalisation, but the contrast was sufficient to prompt reconsideration of a design assumption. We had accepted that students might organise the same historical work differently, yet continued to require the same answer to another question: whether they would interact personally with a generative system. Students had to generate and document prompts, responses, dates, and models. Choice applied to the architecture of the assignment but not to technological participation.

Existing accounts of AI literacy commonly distinguish knowledge and understanding, use and application, evaluation and creation, and ethical dimensions (Ng et al., 2021). Our implementation suggests, however, that critical competence should not be equated with compulsory personal use. Critical knowledge of a technology and personal adoption of that technology are not the same thing. Direct interaction undoubtedly provides experiences that are difficult to communicate entirely through description, and generative systems already intervene in information retrieval, writing, research, visual production, and public representations of the past. A historian should therefore understand what such systems can do and where their outputs become methodologically problematic. Yet this does not mean that every student should be required to incorporate a commercial generative platform into their personal study practice. Objections may concern ethical, environmental, institutional, or personal considerations; alternatively, a student may simply not wish to use a chatbot for academic work.

Universities cannot remove curricular content whenever a student dislikes a topic or method, but they can distinguish between the competence of analysing a technology and the act of adopting it. This distinction is especially important in an inclusive framework because an otherwise flexible activity can become unnecessarily prescriptive at precisely the technological point where students may have legitimate and substantially different preferences.

For this reason, future implementation should allow several modes of participation while preserving a common analytical requirement. Students who wish to generate material directly can continue to do so, documenting prompt, tool, model or version, date, and relevant settings. Students who do not wish to generate material personally can receive a corpus prepared by the instructor, including the same metadata. A third possibility is a comparative corpus containing responses produced with different prompts or systems, which can make model variability itself part of the analysis. The instructor-provided corpus has an additional methodological benefit: when every student produces an independent response, differences in the final analysis are entangled with differences in prompt wording, model version, and generated output. Giving all students the same documented material controls part of that variation and makes it easier to distinguish differences in historical judgement from differences in what the machine happened to produce. Table 2 summarises these modes of participation.

Mode	Student activity	Material provided	Common competence
Direct interaction	Generate, document, and analyse an output	Student records prompt, model/version, and date	Evidence-based critical evaluation
Instructor-provided corpus	Analyse a documented generated output	Instructor supplies complete output and metadata	Evidence-based critical evaluation
Comparative corpus	Compare multiple generated responses	Instructor supplies controlled outputs with metadata	Evidence-based critical evaluation

Table 2. Models of participation in critical AI activities.

This distinction should not be transformed into a new hierarchy in which refusing AI becomes an automatic sign of academic authenticity or ethical superiority. Criticality is an operation, not a predetermined conclusion. A student may reasonably decide that a system is useful for a particular stage of work, another may decide that it adds little, and another may accept some uses but reject others. The academic competence lies in the capacity to justify that judgement. A student who chooses generative AI must verify and document it; a student who chooses not to use it personally remains responsible for understanding and analysing generated material where that analysis forms part of the course. Critical

AI literacy should therefore not be defined as the production of more AI users, but as the development of historians capable of deciding when a tool contributes to historical work, when it distorts that work, and when it is unnecessary.

6. FROM IMPLEMENTATION TO A TRANSFERABLE FRAMEWORK

The two experiences allow the project to be translated into a framework that can operate beyond the specific courses in which it was developed. Transferability does not mean reproducing the original assignment word for word. Hammurabi's Babylon, the Second Punic War, Athenian imperialism, or Middle Kingdom Egypt can all be replaced. What must survive is the historical operation that made the activity pedagogically useful. The same applies to AI. An exercise is not transferable merely because students can use a chatbot in another course. The transferable element lies in what students are required to do with a generated object: identify the evidentiary basis of a reconstruction, examine the narrative consequences of changing perspective, interrogate a visual representation, verify references, or distinguish evidence from plausible fabrication. Five activity designs can therefore be systematised from the implemented work and the broader project. The first and third were directly tested in the courses discussed above; the remaining designs develop activities already envisaged during the project and partially represented in its earlier Open Educational Resources (Center for the Innovation in Ancient Worlds & Heredia, 2026). Those resources document an intermediate stage of the project rather than the final framework presented here. Further analysis and reflection on the 2025–26 classroom implementations subsequently led us to revise several assumptions retained in those resources. Table 3 gives an overview of the five designs before they are discussed in turn.

Activity	Central historical operation	Possible AI role
Evidence-bounded historical reconstruction	Separate evidence, inference, and invention	Extend a historically constrained biography for subsequent audit
Simulated historical voices	Examine the limits of reconstructing poorly documented experience	Produce a fictional first-person voice to be interrogated
Reframing war and empire	Compare narrative perspective and structures of legitimization	Generate or provide alternative accounts from changing perspectives
Visual representation audit	Treat visual representation as a set of historical claims	Generate or provide historical images for evidence-based analysis
Source verification lab	Distinguish plausibility from traceability	Verify references and claims in generated material

Table 3. Five transferable activity designs.

6.1. EVIDENCE-BOUNDED HISTORICAL RECONSTRUCTION

The first model generalises the introductory activity. Students construct a fictional individual within a historical context using a restricted evidence base before encountering an AI-generated expansion. The key point is that the generated biography is not assessed for creativity or realism but decomposed into claims. Those claims can be classified as documented, plausible but inferential, unsupported, or anachronistic/contradicted. Students must then provide the relevant primary evidence or scholarship and explain why a detail is retained, qualified, or rejected. This activity is especially appropriate for societies in which surviving documentation creates strong asymmetries between what historians know about institutions or elites and what they can reconstruct about everyday experience. Its methodological strength lies in forcing students to recognise that possible and demonstrable are not synonyms. A vivid story can be historically weak; a restrained reconstruction may demonstrate far better control of evidence. The three pathways can all be used without changing this standard: a guided student may complete each claim in a fixed sequence, a comparative student may place every generated assertion beside its source and scholarly interpretation, and a synthetic student may map the actor's legal, economic, and social relationships before converting the visual structure into a written or oral argument.

6.2. SIMULATED HISTORICAL VOICES AND THE LIMITS OF RECOVERY

The role-playing activity developed within the project can be reframed more critically as an exercise in the limits of historical voice. Generative AI can produce a first-person account from a Babylonian merchant, Roman enslaved woman, child in wartime, or indigenous subject of imperial rule with remarkable fluency, but fluency risks giving documentary absence an artificial sense of recovery. Students should therefore begin by identifying what is known, what is reasonably inferable, and what remains inaccessible before the simulated interview is introduced. They can then classify elements of the generated answers as evidence-based information, plausible inference, unsupported interiority, modern stereotype, contradiction, or unverifiable detail. Particular attention should be directed towards emotion and motivation because these are precisely the elements a model supplies readily in order to make a narrative persuasive, even where historical evidence offers little access to an individual's internal experience. The purpose of the exercise is therefore deliberately contrary to the rhetoric of immersive simulation: AI does not allow the absent person to speak; it allows students to analyse how easily an apparently historical voice can be manufactured from the gaps in the archive. Students can further test whether explicit prompting to mark uncertainty actually changes the model's behaviour, thereby making prompt design

itself an object of historical-methodological critique rather than a technical skill rewarded in isolation.

6.3. REFRAMING WAR AND EMPIRE

The third model retains the structure already tested in the advanced course. The same conflict or imperial process is examined successively from the organising perspective of power, from the consequences for subjected communities, and from the position of actors traditionally marginalised within the narrative. Students compare how necessity, legitimacy, violence, resistance, and social disruption are framed in each version and then return to the sources to determine what has genuinely changed. The methodological safeguard is essential: shifting perspective does not automatically make a generated account more accurate. A narrative centred on conquered populations may be ethically attractive while remaining historically speculative. The exercise therefore teaches two things simultaneously: that conventional narratives frequently normalise the perspective of dominant actors, and that correcting this hierarchy cannot mean inventing evidence for those whose experiences are poorly preserved. Because the historical operation is comparative rather than merely generative, the activity can also be carried out entirely with an instructor-provided corpus, enabling students who prefer not to interact directly with an AI platform to demonstrate the same competence.

6.4. THE POWER OF REPRESENTATION

The fourth model turns generated images into historical arguments. A depiction of an ancient household, marketplace, battlefield, or ritual communicates propositions about architecture, clothing, gender, ethnicity, labour, hierarchy, bodily appearance, and spatial organisation before any explanatory text is read. Students receive a heterogeneous evidence dossier and either generate or analyse a small set of images, identifying the claims embedded in each one and classifying them as supported, possible, contradicted, unverifiable, or stereotyped. The exercise is particularly useful because visual plausibility is powerful: an image can make a modern convention feel materially present. Studies of text-to-image systems have documented the amplification of demographic stereotypes in generated images (Bianchi et al., 2023). In historical teaching, representational diversity must therefore remain an object of verification rather than being treated as a guarantee of historical adequacy. Asking explicitly for women, enslaved people, or ethnic diversity does not solve the problem automatically: the resulting representation must still be tested against the available ancient evidence. The objective is not necessarily to produce a final “accurate” image, since accuracy itself may imply certainty unavailable to the historian, but to produce an annotated reconstruction or visual brief in which uncertainty is made visible rather than

hidden. In this sense the activity extends the same method identified by Díaz-Sánchez and Chapinal-Heras (2024, pp. 17–21): the generated image becomes useful when it sends the student back to the sources rather than when it replaces them.

6.5. TRUST, VERIFY, AND CONTEXTUALISE

The fifth model extends the same disciplinary principle to source verification. Empirical research on ChatGPT-generated bibliographies has documented both wholly fabricated citations and substantive errors within citations to real works (Walters & Wilder, 2023). Students receive a generated passage containing a mixture of accurate statements, weakly supported claims, bibliographical distortions, and, where appropriate, nonexistent references. They divide the text into discrete claims and connect each one with a verification route: primary source, scholarly publication, library catalogue, journal platform, DOI record, or other reliable evidence. Each item can then be classified as verified, partially supported, misleading, false, or unverifiable. The exercise should not stop at locating an obviously fabricated citation. A real publication may fail to support the proposition attributed to it, while a bibliographical error does not automatically make the underlying historical claim false if independent evidence sustains it. What students learn is therefore a broader practice of evidentiary anchoring: formal plausibility must be converted into traceable support. Although generative AI makes the problem particularly visible, the underlying scholarly operation is not new. Historical method has always depended upon the distinction between something that sounds convincing and something that can be demonstrated. A further methodological distinction is important in educational settings: technical error, poor scholarly practice, and deliberate misconduct are not equivalent categories. The teaching principle required here is narrower and fundamental: conclusions about knowledge require evidence proportionate to the claim.

7. ASSESSMENT: EVALUATING HISTORICAL OPERATIONS RATHER THAN SURFACE FORM

A model based upon multiple pathways succeeds only if its assessment criteria genuinely remain common. Otherwise, flexibility becomes cosmetic. A lecturer may formally permit a visual synthesis while continuing to allocate most marks according to conventions of continuous prose, or may allow direct and indirect engagement with AI while implicitly rewarding sophisticated prompting rather than historical analysis. The assessment framework must therefore follow the disciplinary constants rather than the surface characteristics of a particular format. Historical contextualisation, primary-source analysis, engagement with scholarship, distinction between evidence and inference, critical evaluation of generated claims, argument, and transparency can all be demonstrated through

more than one organisational route, provided the required reasoning remains visible. This does not imply that every medium is automatically equivalent. If a visual representation conceals rather than explains the relationship between evidence and interpretation, supplementary commentary may be necessary. Equivalence refers to the learning outcome, not to the assumption that every form of expression reveals every competence equally well. Table 4 presents a common analytical assessment framework organised around these operations.

Criterion	Core question
Historical contextualisation	Are claims, actors, and sources accurately situated within the relevant context?
Primary evidence	Is appropriate ancient evidence used critically, with its limits recognised?
Academic scholarship	Are modern interpretations used accurately and distinguished from primary evidence?
Evidence and inference	Does the student distinguish what can be demonstrated from what is reconstructed?
Critical AI analysis	Is generated material verified and interpreted rather than merely accepted or rejected?
Historical argument	Does the final interpretation follow from evidence and critical reasoning?
Transparency	Are sources, AI involvement where applicable, and the student's own contribution traceable?

Table 4. Common analytical assessment framework

The experience of the introductory course makes the wording of such criteria especially important. An assessment criterion such as “identifies AI errors” risks making detection the endpoint of the task. The relevant historical operation is stronger: the student must demonstrate, through evidence and scholarship, why a generated claim should be retained, qualified, or rejected. Similarly, multimodality should not create hidden technical requirements unrelated to Ancient History. If video editing, graphic design, or audio production is not a learning outcome, a highly polished digital product should not receive additional academic credit merely for production quality. A plain comparative table may communicate historical judgement more effectively than an elaborate infographic. Inclusive assessment should broaden the routes through which competence can become visible without confusing novelty with quality. The use of AI should likewise attract neither positive nor negative marks by itself: what matters is the quality of verification, reasoning, and methodological transparency.

8. WHAT CHANGED THROUGH IMPLEMENTATION

The two cases did not produce a closed pedagogical model; rather, each forced the framework to change. The first implementation showed that the internal operations of historical criticism need to be made explicit. Students may recognise that an AI-generated statement looks wrong without knowing how to construct the evidentiary chain required to reject it. Future versions should therefore externalise that sequence: claim → evidence → comparison → evaluation → justified decision. The same implementation showed that a flexible final product does little to address difficulties in planning if the project itself remains temporally opaque. Milestones, intermediate submissions, planning sheets, and continuous low-pressure feedback can therefore function as accessibility measures independently of any diagnostic status. One of the project's earlier visual resources described this kind of process through a "learning backpack", a system in which progress, feedback, and incomplete stages remain visible during the activity rather than appearing only in final evaluation (Center for the Innovation in Ancient Worlds & Heredia, 2026). Although other aspects of those early resources were subsequently revised, this principle remained useful: complex assignments should show students where they are within the process, not merely where they must eventually arrive.

The second implementation changed a different assumption. Making alternative forms available did not lead most students to abandon traditional academic structures, and there is no pedagogical reason why it should. The purpose of inclusive design is not to maximise formal diversity but to remove the monopoly of a single route where that monopoly is unnecessary. A student who chooses a conventional essay should not be treated as having missed the innovation, just as a student who uses diagrams to plan an argument should not be regarded as completing an easier task. The meaningful outcome is that students can select among bounded, equivalent forms without having to justify the choice through diagnosis or deficit. This observation also cautions against assuming that the mere presence of multiple options demonstrates inclusion: alternatives must be intelligible, genuinely equivalent, and supported by assessment criteria that do not quietly privilege the conventional form.

Most importantly, technological participation emerged as another dimension of learner diversity. The project had initially treated critical use of AI as if direct interaction were inherently required, yet the students' divergent responses showed that this assumption deserved the same scrutiny as organisational uniformity. Once the competence is identified as the critical evaluation of generated historical material, an instructor-provided corpus becomes a legitimate alternative. This

insight is particularly useful because it prevents AI literacy from becoming technologically prescriptive. Universities have strong reasons to teach students how generative systems affect contemporary research and knowledge production, but the educational objective should remain judgement rather than compliance with a particular tool culture. A critical approach should allow a student to conclude that a tool is useful, unnecessary, or objectionable in a given context, provided that the conclusion is reasoned and the relevant disciplinary competence has been demonstrated.

Taken together, these changes suggest a broader conclusion about inclusion. Greater flexibility requires greater disciplinary precision. “Complete the task however you prefer” is not an inclusive methodology; it may create additional ambiguity and cognitive load. A stronger model tells students which operations are common, which standards will be applied, and where genuine choice exists. On the basis of these implementations, we therefore adopt bounded choice—a small number of clearly articulated alternatives under common criteria—as a design principle, rather than assuming that a larger number of options is intrinsically more inclusive. The same principle protects academic standards because variation occurs only after the instructor has determined what must remain stable. The framework consequently shifts attention away from the search for an ideal format and towards a more fundamental task: defining the evidence of learning with sufficient clarity that more than one route can reach it.

9. OPEN EDUCATIONAL RESOURCES AND ITERATIVE DESIGN

Open Educational Resources were produced during the project as part of its original commitment to transfer and remain openly available through Zenodo (Center for the Innovation in Ancient Worlds & Heredia, 2026). They should, however, be understood as documenting an earlier stage in the development of the pedagogical model rather than as a definitive visual representation of the framework presented in this article. This distinction became necessary because subsequent analysis and reflection on the 2025–26 implementations led us to revise some of the assumptions retained in the original resources.

Most importantly, some of the earlier visual materials retained an orientative association between particular learning pathways and diagnostic profiles, and presented direct interaction with generative AI more centrally than the model eventually developed. Subsequent analysis of the classroom experiences discussed above led us to revise both assumptions. The present framework makes all organisational pathways available to all students without diagnostic assignment, and distinguishes critical AI literacy from compulsory personal adoption of generative AI. The earlier resources therefore remain useful as records of the

project's development, but these aspects should not be treated as recommendations of the revised framework.

This discrepancy also reveals a broader problem in the transfer of teaching innovation. Educational resources can stabilise a model visually at a particular moment even while subsequent analysis and reflection continue to change the assumptions beneath it. Transferability should therefore concern the underlying disciplinary operation rather than the preservation of a fixed activity or diagram. "Interview an ancient person with AI" is technologically reproducible but pedagogically weak if the instructor does not explain why the simulation matters. "Use a simulated voice to teach the limits of reconstructing poorly preserved experience" is a transferable historical operation. Likewise, "generate a picture of antiquity" is not in itself an educational objective, whereas "identify and verify the historical propositions embedded in a visual reconstruction" can be adapted across periods and disciplines. What transfers is the distinction between disciplinary requirements and organisational conventions, and with it the sequence implementation → reflection → revision → adaptation.

10. DISCUSSION: INCLUSION AS DISCIPLINARY CLARITY

The framework developed through the project complicates the familiar opposition between academic rigour and educational flexibility. If rigour is identified with uniform procedure, alternative pathways inevitably appear to weaken standards. Yet a university assignment normally combines several different elements: genuine disciplinary requirements, institutional habits, practical preferences, and conventions inherited from earlier forms of teaching. Treating all of them as equally essential makes the standard appear clearer than it really is. Separating them requires instructors to articulate what their discipline actually demands. A historian should be able to explain why an interpretation follows from evidence; whether the student first saw that relationship in linear notes, a source matrix, or an annotated diagram is secondary unless mastery of a particular scholarly genre is itself an explicit learning outcome. A historian should distinguish plausible reconstruction from evidence; whether the material under criticism was generated personally through a chatbot or supplied by the instructor is secondary if the competence being evaluated is the historical analysis of that material. A historian studying marginalised ancient actors must recognise both their historical significance and the limitations of an archive that often preserves them unevenly; a fluent first-person simulation cannot solve that documentary problem, but it can make the problem unusually visible.

Generative AI has been particularly revealing because it acts as a stress test for these distinctions. Its fluency exposes the difference between plausibility and

evidence; its simulations expose the temptation to replace documentary absence with invented presence; its capacity to generate images exposes the historical claims hidden inside apparently immediate visual representation; its fabricated or distorted references expose the difference between bibliographical form and source traceability; and its uneven reception among students exposes the assumption that technological participation itself is neutral. These problems do not originate with AI. Historians have always dealt with fragmentary evidence, narrative hierarchy, visual convention, unreliable citation, and the need to justify methodological choices. What AI changes is the speed and persuasiveness with which the underlying problems can be reproduced. Its pedagogical value therefore depends upon resisting the temptation to turn the technology itself into the learning outcome. The strongest activities use AI to make disciplinary judgement necessary, not to make historical work disappear behind a technically impressive product.

The same argument applies to neurodiversity. The value of neurodiversity-aware teaching does not lie in constructing increasingly detailed typologies of what an autistic, ADHD, dyslexic, or neurotypical student supposedly needs. Such a project risks repeating the homogenisation that the concept of neurodiversity originally helped challenge. Its more productive contribution is to make instructors question unnecessary uniformity. If a predictable barrier can be removed without changing the disciplinary standard, there is little reason to wait until a student obtains permission to avoid it. If a particular convention is genuinely essential, the instructor should be able to explain why. Individual accommodations remain necessary because no general design can anticipate every circumstance, but a more accessible baseline can reduce the number of occasions on which students must convert difference into a formally documented deficit before accessing an alternative. This may be one of the most productive implications of neurodiversity-aware teaching: not the construction of increasingly precise categories of learner, but a more precise description of what the discipline itself requires.

This approach also helps avoid romanticising flexibility. The framework therefore does not treat a larger number of options as inherently more inclusive. An unrestricted menu can shift additional organisational decisions onto the learner, whereas bounded choice limits variation to alternatives whose relationship to the common learning outcomes has been established in advance. The three pathways are useful not because three is inherently optimal, but because each embodies a recognisable mode of organising complex historical work while keeping the core requirements stable. Instructors can adapt the number and form of routes, but the underlying sequence should remain the same: define the

competence first; identify unnecessary uniformity second; provide alternatives only where equivalence can be demonstrated. In this sense, inclusive design is best understood not as the relaxation of disciplinary expectations but as a method for separating those expectations from the habits that have accumulated around them.

11. CONCLUSION

The principal outcome of the project has become less technological as it has developed. Generative AI initially appeared to be one of the most conspicuous innovations because it offered a new way to produce narratives, simulations, and images concerning the ancient world. In practice, its greatest value was methodological. It generated coherent reconstructions where the evidence was incomplete, supplied certainty where historians should hesitate, reproduced narrative hierarchies while appearing neutral, and transformed bibliographical plausibility into apparent authority. Each of these behaviours returned students to an old historical question: what does the evidence actually allow us to say? The answer could not be delegated to the same system that had produced the problem. Students had to contextualise, compare, verify, justify, and revise. The attempt to make those operations more visible simultaneously changed our approach to inclusion. Once we identified which parts of the historical task genuinely constituted the competence, it became more difficult to defend the assumption that every student had to organise those operations through an identical sequence. Earlier learning itineraries therefore evolved into three pathways available without diagnostic assignment, and the same logic eventually extended to AI itself. If the academic objective is critical analysis of generated material, direct personal generation may be pedagogically valuable but cannot automatically be treated as the only legitimate way to demonstrate the competence. A documented common corpus can permit the same historical operation while respecting different relationships with technology.

The framework presented here should not be understood as a completed experimental model. The numerical data from the two implementations are descriptive, the courses are not directly comparable, and pathway choice was not systematically recorded alongside individual performance in the advanced course. Future implementation should therefore track pathway selection more carefully, examine whether students move between organisational routes during a semester, and assess how direct and corpus-based forms of AI participation affect both engagement and analytical performance. These limitations do not invalidate the design development described here, because the central claim is not that one pathway produces better grades than another. Rather, the project generated a design principle: same standards do not require the same pathway. This principle

does not relativise Ancient History teaching; it requires greater clarity about what Ancient History teaching is actually evaluating. Contextualising evidence, distinguishing source from interpretation, identifying anachronism, confronting generated claims with documentation, engaging scholarship, and constructing a defensible argument remain common expectations. The order in which those operations are organised, the intermediate structures through which students make them visible, and—in appropriate cases—the mode through which generated material is accessed need not always remain identical.

The same principle provides a useful definition of critical AI literacy. Its objective should not be measured by how frequently students use generative systems or by how sophisticated their prompts become. A historically trained student should be capable of interrogating a generated narrative, identifying what it assumes, tracing its claims to evidence, recognising unsupported certainty, understanding what the archive cannot recover, and deciding when technological assistance contributes to historical work, when it distorts that work, and when it is simply unnecessary. That judgement, rather than technological adoption itself, is the competence we seek to teach.

DECLARATIONS

Funding. This article forms part of the Universitat Autònoma de Barcelona Teaching Innovation Project GI517492, *Veus oblidades a l'Antiguitat: docència inclusiva i pensament crític en temps d'intel·ligència artificial*. Earlier Open Educational Resources produced within the same project remain available independently through Zenodo. The present article develops and revises that work through implementation evidence, five adaptable activity models, and a common analytical assessment framework. The project supported the development, implementation, evaluation, reflection, and transfer of these teaching resources.

REFERENCES

- Arrayás, I. (2005). *Morfología histórica del territorio de Tarraco (ss. III–I a.C.)*. Barcelona: Publicacions i Edicions de la Universitat de Barcelona.
- Arrayás, I., & Heredia, C. (2026). 'Repensar la Història Antiga: veus oblidades, docència inclusiva i intel·ligència artificial'. In J. L. Muñoz Moreno, C. Ruiz Bueno, & S. Sabaté Diaz (Eds.), *Innovació docent: de la idea a la pràctica en Educació Superior* (pp. 69–75). Servei de Publicacions de la Universitat Autònoma de Barcelona.
<https://doi.org/10.5565/lib/9791388031298>
- Bianchi, F., Kalluri, P., Durmus, E., Ladhak, F., Cheng, M., Nozza, D., Hashimoto, T., Jurafsky, D., Zou, J., & Caliskan, A. (2023). 'Easily accessible text-to-image generation amplifies demographic stereotypes at large scale'. In *AccT '23: Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency* (pp. 1493–1504). Association for Computing Machinery. <https://doi.org/10.1145/3593013.3594095>

- Center for the Innovation in Ancient Worlds, & Heredia, C. (2026). *CIAW Teaching Infographics: Inclusive Learning, Critical AI Literacy, and Responsible Knowledge Practices* [Open Educational Resources]. Zenodo. <https://doi.org/10.5281/zenodo.21763472>
- Clouder, D., Karakus, M., Cinotti, A., Ferreyra, M. V., Amador Fierros, G., & Rojo, P. (2020). 'Neurodiversity in higher education: A narrative synthesis'. *Higher Education*, 80(4), 757–778. <https://doi.org/10.1007/s10734-020-00513-6>
- Cumming, T. M., & Rose, M. C. (2022). 'Exploring universal design for learning as an accessibility tool in higher education: A review of the current literature'. *The Australian Educational Researcher*, 49, 1025–1043. <https://doi.org/10.1007/s13384-021-00471-7>
- De la Escosura Balbás, C., & Duce Pastor, E. (2025). 'Epigrafía digital e inteligencia artificial: preguntas y respuestas de una experiencia docente'. *AI & Antiquity: Journal of Teaching and Technology in Ancient Studies*, 1(1), 15–34. <https://doi.org/10.64946/aiantiquity.v1i1.001>
- de Sousa Santos, B. (Ed.). (2007). *Cognitive Justice in a Global World: Prudent Knowledges for a Decent Life*. Lexington Books.
- Díaz-Sánchez, C., & Chapinal-Heras, D. (2024). 'Use of open access AI in teaching Classical Antiquity: A methodological proposal'. *Journal of Classics Teaching*, 25(49), 17–21. <https://doi.org/10.1017/S2058631023000739>
- Dwyer, P. (2022). 'The neurodiversity approach(es): What are they and what do they mean for researchers?' *Human Development*, 66(2), 73–92. <https://doi.org/10.1159/000523723>
- Heredia, C. (2026). 'Flipped learning and AI-supported itineraries for neurodivergent learners: A case study in Ancient History'. *Journal of Classics Teaching*, 1–9. <https://doi.org/10.1017/S2058631026100956>
- Howard, P. L., & Sedgewick, F. (2021). '“Anything but the phone!": Communication mode preferences in the autism community'. *Autism*, 25(8), 2265–2278. <https://doi.org/10.1177/13623613211014995>
- Le Cunff, A.-L., Giampietro, V., & Dommett, E. J. (2024). 'Neurodiversity and cognitive load in online learning: A focus group study'. *PLoS ONE*, 19(4), e0301932. <https://doi.org/10.1371/journal.pone.0301932>
- Leibowitz, B. (2017). 'Cognitive justice and the higher education curriculum'. *Journal of Education*, 68, 93–111. <https://doi.org/10.17159/2520-9868/i68a03>
- Liu, Y., D'Elia, D., & Palermo, R. (2026). 'Let's chat about archaeology: Responsible and thoughtful use of AI tools in the classroom, a case study'. *AI & Antiquity: Journal of Teaching and Technology in Ancient Studies*, 2(1), 25–36. <https://doi.org/10.64946/aiantiquity.v2i1.002>
- Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). 'Conceptualizing AI literacy: An exploratory review'. *Computers and Education: Artificial Intelligence*, 2, 100041. <https://doi.org/10.1016/j.caeai.2021.100041>
- Oller, J. (2016). 'La Layetania interior en época augústea: un ejemplo de reordenación territorial en la Hispania Citerior Tarraconense'. *Dialogues d'histoire ancienne*, 42(1), 137–175. <https://doi.org/10.3917/dha.421.0137>
- Prieto, A. (1980). 'La pervivencia del elemento indígena en la Bética'. *Faventia*, 2(1), 37–46.
- Sanahuja, M. E., & Prieto, A. (1981). 'El papel de la mujer en las Bacanales romanas'. *Memorias de Historia Antigua*, 5, 143–152.
- Universitat Autònoma de Barcelona. (2024). *Protocol d'ajustos curriculars per a l'estudiantat amb necessitats específiques de suport educatiu* [Institutional protocol]. Approved by the Consell de Govern, 11 July 2024.
- Visvanathan, S. (1997). *A Carnival for Science: Essays on Science, Technology and Development*. Oxford University Press.
- Walters, W. H., & Wilder, E. I. (2023). 'Fabrication and errors in the bibliographic citations generated by ChatGPT'. *Scientific Reports*, 13, 14045. <https://doi.org/10.1038/s41598-023-41032-5>

BOOK REVIEWS

AI & Antiquity: Journal of Teaching and Technology in Ancient Studies

Volume 2, Issue 2, 2026, pp. 95–98.

ISSN: 3081–4553

Beyond Digitalising the Classroom: A Review of Cassio Santos, Neuza Pedro and Júlio Cabero-Almenara, *e-DigCompEdu*

Santos, Cassio, Neuza Pedro, and Júlio Cabero-Almenara. 2026. *e-DigCompEdu: Marco de Competencias Digitales para la Educación Superior en Línea*. Version 1.0. Editora EducaSimples. ISBN 978-65-01-84049-9.

Digital competence has become one of the most persistent concerns in higher education, particularly since the expansion of online and hybrid teaching and, more recently, the arrival of generative AI. Yet the term often remains imprecise. An academic may be an experienced user of learning-management systems, video-conferencing platforms and generative AI while reproducing online many of the assumptions of face-to-face teaching. Conversely, some practices that make online education effective are strikingly low-tech: clear instructions, predictable structures, accessible materials, intermediate deadlines and meaningful feedback.

This distinction between technological proficiency and digital pedagogy makes *e-DigCompEdu*, by Cassio Santos, Neuza Pedro and Júlio Cabero-Almenara, particularly valuable. The framework extends the European *Digital Competence Framework for Educators* (DigCompEdu) to the specific conditions of online higher education. Its opening discussion distinguishes digital education from online education: all online education is digital, but not all digital education is online, and fully online environments impose particular demands on mediation, interaction, support and student autonomy (pp. 6–14). Transferring an existing practice to a digital platform is not the same as designing it for online learning.

The framework is ambitious. The twenty-two competences of DigCompEdu are retained, twelve additional competences are introduced and the six original areas are expanded to eight. New competences include digital identity and security, online participation, digital curation, online assessment and literacy in digital learning environments. Two new areas address Scientific Digital Literacy and the Management of Online Teaching and Learning (pp. 19–22). The six A1–C2 proficiency levels are also retained. Development involved twenty-two higher-education teachers, documentary mapping and an international Delphi validation with twenty-nine experts in the first round and sixteen in the second (pp. 16–19).

This gives *e-DigCompEdu* more weight than a normative manifesto, although expert consensus about what educators should be able to do does not demonstrate that particular competences necessarily produce better learning outcomes. The framework is therefore strongest as a research-informed map of professional practice: a way of identifying neglected areas and asking better questions about online education.

From my own experience of designing and teaching Ancient History online, one of its strongest features is the refusal to equate student autonomy with the withdrawal of teacher support. Flexibility and self-regulated learning are genuine advantages of online education, especially for students combining study with employment, caring responsibilities or accessibility needs (pp. 7–9). Yet flexibility can also transfer organisational labour from institution to learner. Telling students that they may study “at their own pace” is of limited value if they are simultaneously expected to interpret lengthy instructions, divide assignments into manageable stages and recognise when they need help.

Autonomy is not the absence of structure. It is a capacity that good structure can enable. At the same time, autonomy entails responsibility: accessible instructions cannot substitute indefinitely for reading them, and opportunities for dialogue cannot function if students engage only once assessment has become contentious. This is

where the framework's treatment of self-regulated learning and digital learning environments becomes particularly useful (pp. 32–33, 40–43). In my own teaching, more inclusive assessment has increasingly involved making explicit structures that lecturers often expect students to construct for themselves: planning guides, sequenced instructions, visual summaries, intermediate submissions and tutorial formats that allow difficulties to be addressed before they become crises. A planning guide does not make an assignment intellectually easier; it reduces invisible organisational work surrounding the intellectual task. An intermediate submission similarly allows misunderstanding to be detected while it remains recoverable.

Such measures are especially important from a neurodiversity-informed perspective. Online assessment can easily be designed around an imagined “standard” student who reads linearly, estimates time accurately, initiates tasks without difficulty, tolerates uncertainty and seeks assistance comfortably. *e-DigCompEdu* does not offer a neurodiversity-informed theory of online education, but its emphasis on accessibility and inclusion helps move such questions from exceptional accommodation towards ordinary pedagogical design. Its treatment of assessment is similarly valuable. Area 4 distinguishes simply digitising assessment from designing assessment for online environments, incorporating competences relating to online assessment, security, privacy and ethical conduct (pp. 34–39). A face-to-face examination or assignment can easily be transferred into a virtual platform, but more developed practice requires reconsidering learning outcomes, technological access, instructions, feedback and opportunities for self- or peer assessment. Assessment architecture determines how students distribute effort, when misunderstanding becomes visible and whether there is still time to respond.

The emphasis on accessibility should not, however, encourage the assumption that every difficulty can be solved through better instructional design. Online teaching creates a persistent asymmetry between responsibilities assigned to lecturers and behaviours over which they have limited

control. Students may contest requirements already explained in instructions, interpret feedback differently after receiving a disappointing grade or dispute a correction before consulting the evidence supporting it. None of this removes the obligation to provide clear instructions and meaningful feedback, but neither should every instance of disengagement or dissatisfaction automatically be read as deficient teaching. A mature account of digital competence must preserve responsibility on both sides of the educational relationship.

Online education also generates largely invisible social environments. Students participate not only in institutional platforms but in WhatsApp, Telegram, Discord and other parallel communities in which assignments, feedback and lecturers are continuously interpreted. Such spaces provide valuable mutual support, yet they can also amplify misunderstandings and detach claims from their original context. *e-DigCompEdu*'s attention to online participation and digital identity is therefore welcome, although the framework could have engaged more explicitly with these informal digital publics and with the reputational and emotional labour they generate for teachers.

I would also have welcomed a stronger emphasis on temporality. My own experiments with intermediate submissions have reinforced how different feedback becomes when it arrives while work is still being constructed rather than after it has ceased to be changeable. Feedback on a final submission may explain a grade; feedback on an unfinished argument can alter the argument. It can also establish a pedagogical relationship before grading becomes the dominant lens through which the student interprets the lecturer.

This echoes work developed with Isaías Arrayás Morales in first-year Ancient History (UAB), where students used generative AI and then tested its historical reconstructions systematically against ancient evidence and modern scholarship. The most productive learning occurred when students had to expose an incomplete interpretation to scrutiny and revise it. Inclusive assessment is therefore also about when support

becomes available, not only what support exists.

Generative AI makes these questions more urgent. One strength of *e-DigCompEdu* is that it does not reduce AI to plagiarism or detection. AI appears within questions of security and academic integrity, but also as part of learning, personalised support and Scientific Digital Literacy, which includes AI-assisted academic writing, research, dissemination and data practices (pp. 38–39, 46–53).

In Ancient History teaching, the most useful applications of generative AI may involve making its limitations visible rather than asking it to replace research. A generated reconstruction can become an object of criticism: Which claims can be substantiated? Which modern assumptions have been projected backwards? Whose experiences are absent? What changes when the narrative is compared with ancient evidence and specialist scholarship? Errors can be pedagogically valuable because students must explain *why* they are errors. AI becomes less an oracle than an unstable object upon which disciplinary reasoning can operate.

Here, however, the framework reveals an important tension. Its interest in AI-supported personalisation, learning analytics and automated feedback sits uneasily beside its commitments to accessibility, privacy and ethical conduct (pp. 38–43). Personalisation sounds beneficial until we ask what data are collected, what model of successful participation is encoded and what happens to students whose behaviour diverges from it. From a neurodiversity-informed perspective, apparently anomalous patterns of attention, pacing or communication may have entirely ordinary explanations. Technologies intended to authenticate students or detect suspicious behaviour can therefore convert difference into suspicion.

Digital competence should sometimes consist of deciding not to use a technology. A more advanced teacher is not necessarily the one who collects more data or automates more feedback. Sometimes a clearer rubric, a better sequence of activities or a human conversation is the more competent digital decision.

The framework's new Area 7, Scientific Digital Literacy (pp. 46–53), is nevertheless one of its most distinctive contributions. It incorporates academic writing, management of scientific results, research and selection of scholarly information, dissemination and research-data practices. Area 8 addresses the design and administration of online courses (pp. 54–61). These additions matter because university educators move between overlapping roles as teachers and researchers.

For Ancient Studies, this broader understanding is especially relevant. The discipline already works across digitised texts, archaeological databases, GIS, virtual reconstructions, online museum collections, digital epigraphy and generative AI. Competence cannot simply mean knowing how to operate these resources. It must include understanding how their affordances, limitations and epistemic assumptions shape the questions historians and students are able to ask.

There is also a broader lesson about technological innovation. A sophisticated reconstruction can constitute poor pedagogy if students do not understand what they are meant to learn from it; a generative-AI exercise can remain intellectually empty if its outputs are simply produced and submitted; and an elaborate virtual environment can exclude students if navigation consumes cognitive resources intended for the subject itself. Conversely, modest interventions may have considerable value. A clearly structured visual summary may contribute more to accessibility than another interactive platform, while comparing an AI-generated reconstruction with a primary source may generate more historical reasoning than a technologically impressive immersive environment.

There are limits to what the framework can presently claim. Its development and international expert validation make it substantially more robust than an untested list of recommendations, but the decline from twenty-nine experts in the first Delphi round to sixteen in the second, together with uneven geographical representation, counsels against treating it as a universally settled description of online competence. More importantly, expert validation is not

student validation. Future work should examine how these competences operate in actual courses and how learners themselves evaluate them, particularly in relation to accessibility and AI. “Version 1.0” is therefore an appropriate designation for a framework operating in such a rapidly changing technological environment.

Ultimately, the contribution of *e-DigCompEdu* is not that it tells university teachers which technologies they ought to use. It expands what counts as digital competence. A digitally competent teacher is not simply someone who operates platforms efficiently. Competence involves creating structures through which students can exercise autonomy, designing assessment appropriate to digital environments, identifying barriers to participation, questioning AI, protecting students and data, and deciding whether a technological intervention serves a pedagogical purpose at all.

At the same time, a mature model of online education should resist locating every failure of participation, communication or assessment in the lecturer’s design choices. Digital pedagogy is relational: its success depends upon institutional structures, competent teaching and meaningful student engagement alike.

Perhaps the most useful lesson of *e-DigCompEdu* is therefore also the simplest: genuinely digital education begins not when teaching uses technology, but when educators ask what that technology changes for the learner. I would add one further question: what does the same environment change for the lecturer? Online education expands access and pedagogical possibility, but it also redistributes visibility, responsibility and emotional labour. A framework for online higher-education competence is strongest when it recognises both sides of that transformation.

Carlos Heredia Chimeno
Universitat Autònoma de Barcelona

AI & Antiquity: Journal of Teaching and Technology in Ancient Studies
Volume 2, Issue 2, 2026, pp. 98–102.
ISSN: 3081–4553

Attracting Attendance, Not Policing It: A Review of Patricia Olmos Rueda and Dolors Márquez Cebrián’s *Prevenió de l’absentisme*

Olmos Rueda, Patricia, and Dolors Márquez Cebrián. 2026. *Prevenió de l’absentisme. Claus per “atreure” l’assistència a la classe universitària i millorar la participació activa*. Claus Docents. Institut de Ciències de l’Educació, Universitat Autònoma de Barcelona. 57 pp. ISBN 979-13-992149-5-6.

University teachers tend to notice absenteeism first as an empty seat. It is therefore tempting to frame the problem in similarly visible terms: students attend or they do not, and the institutional response consists in recording, encouraging or requiring attendance. Patricia Olmos Rueda and Dolors Márquez Cebrián’s *Prevenió de l’absentisme*, the first volume in the Universitat Autònoma de Barcelona’s new *Claus Docents* series, begins from a more productive premise. Attendance is not simply something to be demanded from students but something teaching can make worthwhile. The authors distinguish occasional or structurally conditioned absence from habitual voluntary non-attendance and recognise that health, employment, family circumstances, transport and accessibility may lie beyond an individual lecturer’s control. They direct attention instead towards methodology, the organisation and communication of content, classroom dynamics, teaching materials, assessment and tutorial action. Their formulation is refreshingly clear: the objective is not to control attendance but to “attract” students towards the classroom by creating sessions in which they want to be present and participate actively (pp. 7–8). This changes the question from *How can we make students come?* to *What happens in our classes that makes being there educationally valuable?* It asks the teacher to examine the learning environment before converting absence into a moral diagnosis of the

student validation. Future work should examine how these competences operate in actual courses and how learners themselves evaluate them, particularly in relation to accessibility and AI. “Version 1.0” is therefore an appropriate designation for a framework operating in such a rapidly changing technological environment.

Ultimately, the contribution of *e-DigCompEdu* is not that it tells university teachers which technologies they ought to use. It expands what counts as digital competence. A digitally competent teacher is not simply someone who operates platforms efficiently. Competence involves creating structures through which students can exercise autonomy, designing assessment appropriate to digital environments, identifying barriers to participation, questioning AI, protecting students and data, and deciding whether a technological intervention serves a pedagogical purpose at all.

At the same time, a mature model of online education should resist locating every failure of participation, communication or assessment in the lecturer’s design choices. Digital pedagogy is relational: its success depends upon institutional structures, competent teaching and meaningful student engagement alike.

Perhaps the most useful lesson of *e-DigCompEdu* is therefore also the simplest: genuinely digital education begins not when teaching uses technology, but when educators ask what that technology changes for the learner. I would add one further question: what does the same environment change for the lecturer? Online education expands access and pedagogical possibility, but it also redistributes visibility, responsibility and emotional labour. A framework for online higher-education competence is strongest when it recognises both sides of that transformation.

Carlos Heredia Chimeno
Universitat Autònoma de Barcelona

AI & Antiquity: Journal of Teaching and Technology in Ancient Studies
Volume 2, Issue 2, 2026, pp. 98–102.
ISSN: 3081–4553

Attracting Attendance, Not Policing It: A Review of Patricia Olmos Rueda and Dolors Márquez Cebrián’s *Prevenió de l’absentisme*

Olmos Rueda, Patricia, and Dolors Márquez Cebrián. 2026. *Prevenió de l’absentisme. Claus per “atreure” l’assistència a la classe universitària i millorar la participació activa*. Claus Docents. Institut de Ciències de l’Educació, Universitat Autònoma de Barcelona. 57 pp. ISBN 979-13-992149-5-6.

University teachers tend to notice absenteeism first as an empty seat. It is therefore tempting to frame the problem in similarly visible terms: students attend or they do not, and the institutional response consists in recording, encouraging or requiring attendance. Patricia Olmos Rueda and Dolors Márquez Cebrián’s *Prevenió de l’absentisme*, the first volume in the Universitat Autònoma de Barcelona’s new *Claus Docents* series, begins from a more productive premise. Attendance is not simply something to be demanded from students but something teaching can make worthwhile. The authors distinguish occasional or structurally conditioned absence from habitual voluntary non-attendance and recognise that health, employment, family circumstances, transport and accessibility may lie beyond an individual lecturer’s control. They direct attention instead towards methodology, the organisation and communication of content, classroom dynamics, teaching materials, assessment and tutorial action. Their formulation is refreshingly clear: the objective is not to control attendance but to “attract” students towards the classroom by creating sessions in which they want to be present and participate actively (pp. 7–8). This changes the question from *How can we make students come?* to *What happens in our classes that makes being there educationally valuable?* It asks the teacher to examine the learning environment before converting absence into a moral diagnosis of the

learner. The guide reinforces this later by warning that coercive measures can produce little more than “presentisme” (p. 52).

The guide is deliberately practical. After establishing a vocabulary that includes accessibility, formative assessment, student engagement, Universal Design for Learning (UDL), generative AI and tutorial action (pp. 10–18), it asks lecturers to examine their own practice through a checklist organised around five dimensions: teaching methodology, assessment, teaching materials, relational climate and tutorial action (pp. 19–23). The questions are often disarmingly concrete: Are objectives and assessment criteria explicit? Are materials accessible and clearly organised? Is tutoring treated as part of teaching? Its strength is precisely that it does not insist on a single pedagogical model. Lectures are not declared obsolete, and active methodologies are not presented as inherently superior. Instead, the authors recommend selecting and combining methodologies according to learning outcomes, cohort characteristics, available resources and assessment (pp. 24–35). They explicitly acknowledge that the lecture remains useful for structuring complex conceptual material while emphasising that it can be made more interactive and combined with other practices (pp. 26–28). I find this pragmatism more convincing than accounts of “innovative teaching” in which innovation becomes an end in itself.

In Ancient History, a well-structured lecture can still be an extraordinarily effective way of constructing a chronological, conceptual or historiographical framework. Indeed, the proliferation of generative AI may paradoxically give this function renewed importance. Students now encounter not a scarcity of information but an unprecedented abundance of it: explanations, summaries and apparently authoritative answers can be generated almost instantaneously. In such an environment, the value of the lecturer lies increasingly not in being the primary source of information, but in selecting, hierarchising and connecting it. Expertise can provide a map through an otherwise overwhelming informational landscape, helping students to see both the larger structure and the pieces

of evidence that matter within it. A good lecture can therefore do something that becomes more, rather than less, necessary in the age of AI: reduce informational noise without reducing intellectual complexity.

This distinction became particularly tangible in teaching work that Isaías Arrayás Morales and I developed during the 2025–2026 academic year in first-year Ancient History at the UAB. Our project, *Veus oblidades a l'Antiguitat: docència inclusiva i pensament crític en temps d'intel·ligència artificial*, similarly sought to move beyond a predominantly transmissive model. In the principal continuous-assessment exercise, *Vida sota la Llei: de Babilònia a Roma*, students used generative AI to explore the lives of socially situated fictional individuals in Hammurabian Babylonia and Republican Rome before testing the resulting narratives against primary sources and specialist scholarship. The educational value lay precisely in the models' failures: students encountered legal and social simplifications, anachronisms and omissions ranging from religious practice to military logistics and the complexities of recruitment and citizenship. AI made historical information easier to generate, but historical reasoning no easier. Olmos and Márquez's insistence that classroom presence must provide something that materials alone cannot reproduce (pp. 42–43) is especially persuasive when that “something” is understood not as privileged access to information but as guided intellectual activity.

The same experience makes me particularly receptive to the guide's concern with accessibility and explicit structure. Olmos and Márquez define didactic accessibility broadly, encompassing physical, sensory, cognitive, emotional and communicative barriers, and connect it directly with UDL (pp. 10, 14). Their logic is anticipatory: teaching and assessment should be designed from the outset for learner diversity rather than requiring later adaptations whenever a student does not fit an assumed norm. Their recommendations for materials include clear organisation, explicit steps, estimated times and multiple formats (pp. 42–44). These can appear to be minor design decisions, but in my own

teaching they have become increasingly important. Much university assessment assumes invisible competences surrounding the disciplinary task itself: students must identify what matters in lengthy instructions, estimate time, divide work into manageable stages, recognise misunderstanding and know how to seek assistance. From a neurodiversity-informed perspective, I have become increasingly reluctant to treat these executive and communicative demands as if they were indistinguishable from academic rigour.

This principle also shaped the project with Arrayás. The activities were designed with flexibility of formats and rhythms and with explicit attention to neurodivergent profiles; our preliminary observations suggested greater continuity, tutorial interaction and sustained engagement. These observations do not demonstrate that flexibility caused the outcomes. They do, however, reinforce a point sometimes lost in discussions of academic standards: clarity and flexibility are not synonyms for reduced expectations. Students still had to document AI interactions, compare generated claims with primary and secondary evidence, identify bias and produce extended historical argument. Inclusion changed the structure around the difficulty; it did not remove the difficulty itself.

Assessment is perhaps the area where the convergence is strongest. *Prevençió de l'absentisme* defines formative assessment as a continuous process intended not simply to grade but to identify difficulties and allow students and teachers to adjust their strategies, with feedback, self-regulation and flexibility at its centre (p. 11). The authors advocate integrating assessment into course planning, aligning it with learning outcomes and methodology, making rubrics or assessment guides available from the outset and providing feedback during rather than solely after learning (pp. 36–40). This corresponds closely to changes I have been making in my own teaching: planning guides, intermediate submissions and opportunities to discuss work while it remains modifiable. Feedback delivered after final submission may explain a grade; it cannot improve the work already completed. In the Ancient History project, some

students left the assignment until the last moment and consequently failed to incorporate feedback, while others struggled to integrate primary and secondary evidence into sustained argument. When assessment is complex and analytical, the architecture surrounding the assignment matters almost as much as the final instructions.

The guide is equally persuasive in its treatment of relationships. Its section on classroom climate recommends creating spaces in which students can contribute without fear of humiliation, responding respectfully to incorrect interventions, showing genuine interest and combining proximity with academic expectations (pp. 45–47). Tutorial action is moved from the margins of university teaching towards its centre: tutoring is not merely a set of office hours awaiting students sufficiently confident to use them, and the authors even advocate proactive contact when a student stops attending (pp. 48–50). This matters from an inclusive perspective. A support system that depends entirely upon students independently recognising a problem, formulating it clearly and initiating contact already assumes particular executive and communicative capacities.

At the same time, relational teaching requires institutional conditions. Learning names, noticing disengagement, initiating contact and offering individualised feedback are desirable practices, but in large cohorts they consume labour. A sustainable culture of pedagogical care cannot depend solely upon lecturer goodwill. There is also a less frequently discussed cost to this increasingly demanding conception of good university teaching. Considerable time may be invested in redesigning activities, providing feedback, adapting materials and supporting students, while end-of-semester evaluation can compress that complex labour into numerical scores and short comments. Student feedback is indispensable, but it is not an unmediated measure of pedagogical quality, and reductive or strongly negative evaluations can be experienced as judgements on professional competence rather than as one form of evidence among others. The guide itself notes that difficult classroom relationships can contribute to teachers' emotional exhaustion (p. 45); its

concern with wellbeing might therefore be extended to the evaluative environment surrounding teaching. Caring for student participation cannot be sustained indefinitely if the emotional sustainability of those providing that care is ignored.

One of the guide's most stimulating claims also requires an inclusive qualification. In its treatment of teaching materials, the authors ask lecturers whether their class provides anything that the available materials cannot provide independently, arguing that presence should support experiences difficult to reproduce through materials and that materials should "prepare" and "complement", rather than duplicate, the classroom (pp. 42–43). I strongly agree with the underlying principle. Yet making attendance valuable should not mean making non-attendance punitive. There is a difference between creating a richer intellectual experience through participation and withholding essential learning from students who cannot participate synchronously. A student who misses a seminar inevitably misses the experience of participating in that seminar; this need not mean losing access to the conceptual foundations required to continue learning. The best interpretation of "value-added" attendance is therefore not scarcity but activity: shared time should be used for intellectual processes that genuinely benefit from dialogue, feedback, uncertainty and collaboration.

Generative AI provides a striking example. Although it occupies only a small part of *Prevençió de l'absentisme*, it is integrated into the guide rather than quarantined as an academic-integrity problem. The conceptual section presents generative AI as a possible didactic resource capable of supporting reflection, experimentation and content creation, while insisting upon honest and effective use (p. 15). The checklist asks whether AI-generated material is used so that students can assess its truth or quality (p. 21), while the section on teaching materials proposes asking AI for a summary and then validating it or analysing generated responses critically (pp. 43–44). This is remarkably close to the approach developed with Arrayás, where AI-generated narratives

became source-like objects requiring interrogation rather than answers to be accepted. If a generative system can produce a competent summary in seconds, the university classroom gains little by competing with it in the production of another summary. Its value lies in teaching students what to do with such answers: scrutinise them, compare them with difficult evidence, recognise silence and distortion, formulate better questions and defend alternative interpretations. The guide's emphasis on critical thinking, including the ability to distinguish rigorous information from misleading or manipulated content, is therefore particularly timely (p. 17).

There are nevertheless places where greater caution would improve the guide. Its treatment of "learning styles and/or learning patterns" draws primarily upon Vermunt and Donche's more sophisticated model of learning patterns, but the repeated language of adapting teaching to "styles" risks evoking a much less defensible tradition of fixed learner typologies (pp. 15, 19, 37). Universal Design is more useful when it encourages multiple routes into learning and removes unnecessary barriers than when teachers attempt to classify students into stable types. A similar caution applies to some of the guide's closing formulations. "Action generates motivation" is pedagogically suggestive, but absenteeism is too multicausal for motivational principles to become universal laws. To the authors' credit, the guide itself repeatedly acknowledges this complexity and concludes by reminding readers that there are no immediate or magical solutions (pp. 52–54).

Ultimately, the contribution of *Prevençió de l'absentisme* is that it transforms a complaint familiar in university corridors—"students no longer come to class"—into a question about teaching design. Its argument is strongest when attendance ceases to be treated as the outcome to be maximised and becomes one indication among others of whether students perceive meaning and possibility in the learning environment. The work that Arrayás and I conducted in Ancient History reinforced for me how productive that shift can be. Flexibility did not require intellectual simplification, and the use of AI did not

require abandoning historical method. What changed was where the difficulty was placed. Instead of making students spend unnecessary effort deciphering the structure of the task, the activity attempted to concentrate difficulty where a university History course ought to place it: in asking good questions, evaluating evidence and constructing defensible interpretations.

For teachers of Antiquity, that may be the guide's most productive lesson. Students do not need to attend university simply to receive information that exists elsewhere. They may have good reason to participate when teaching gives them opportunities to interrogate evidence, compare interpretations, expose uncertainty, revise their reasoning and receive feedback while there is still time to use it. Generative AI makes that distinction more urgent rather than less so. When plausible information and polished prose are increasingly abundant, the value of university teaching lies more clearly in what students learn to do with information, evidence, technologies and one another. Olmos and Márquez begin with absenteeism, but the larger question raised by their guide is more fundamental: what, in 2026, do we believe a university class is actually for?

Carlos Heredia Chimeno
Universitat Autònoma de Barcelona

AI & Antiquity: Journal of Teaching and Technology in Ancient Studies
Volume 2, Issue 2, 2026, pp. 102–106.
ISSN: 3081–4553

Learning Antiquity or Feeling Antiquity? A Review of Marvin Rees, *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹*

Rees, Marvin. 2026. *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹*. Traces. Public History and Heritage Studies 3. Berlin/Boston: De Gruyter Oldenbourg. 289 pp. ISBN 978-3-11-162505-8.

Historical video games invite an apparently simple educational expectation. If students can walk through a reconstruction of Athens, visit Delphi or listen to Leonidas describe Thermopylae, they should be able to learn about ancient Greece in ways unavailable through a textbook or lecture. Ubisoft's *Discovery Tour: Ancient Greece* (2019), developed from *Assassin's Creed Odyssey* (2018), seems almost designed to test this proposition.

Marvin Rees's *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹* does precisely that, but its importance lies in refusing to reduce the question to whether the game is historically "accurate". Rees reconstructs the production of the *Discovery Tour*, analyses the historical representation it offers and, most importantly, tests empirically what participants actually learn from it. The study therefore separates three propositions often collapsed in discussions of historical games: a digital environment can contain substantial historical information; it can create a persuasive sensation of encountering the past; and it can produce measurable historical learning. These things are related, but they are not the same.

This distinction gives the book an unusually effective structure. Rees examines

require abandoning historical method. What changed was where the difficulty was placed. Instead of making students spend unnecessary effort deciphering the structure of the task, the activity attempted to concentrate difficulty where a university History course ought to place it: in asking good questions, evaluating evidence and constructing defensible interpretations.

For teachers of Antiquity, that may be the guide's most productive lesson. Students do not need to attend university simply to receive information that exists elsewhere. They may have good reason to participate when teaching gives them opportunities to interrogate evidence, compare interpretations, expose uncertainty, revise their reasoning and receive feedback while there is still time to use it. Generative AI makes that distinction more urgent rather than less so. When plausible information and polished prose are increasingly abundant, the value of university teaching lies more clearly in what students learn to do with information, evidence, technologies and one another. Olmos and Márquez begin with absenteeism, but the larger question raised by their guide is more fundamental: what, in 2026, do we believe a university class is actually for?

Carlos Heredia Chimeno
Universitat Autònoma de Barcelona

AI & Antiquity: Journal of Teaching and Technology in Ancient Studies
Volume 2, Issue 2, 2026, pp. 102–106.
ISSN: 3081–4553

Learning Antiquity or Feeling Antiquity? A Review of Marvin Rees, *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹*

Rees, Marvin. 2026. *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹*. Traces. Public History and Heritage Studies 3. Berlin/Boston: De Gruyter Oldenbourg. 289 pp. ISBN 978-3-11-162505-8.

Historical video games invite an apparently simple educational expectation. If students can walk through a reconstruction of Athens, visit Delphi or listen to Leonidas describe Thermopylae, they should be able to learn about ancient Greece in ways unavailable through a textbook or lecture. Ubisoft's *Discovery Tour: Ancient Greece* (2019), developed from *Assassin's Creed Odyssey* (2018), seems almost designed to test this proposition.

Marvin Rees's *Entstehung, Angebot und bildungsrelevante Lerneffekte des Digitalen Spiels ›Discovery Tour: Ancient Greece‹* does precisely that, but its importance lies in refusing to reduce the question to whether the game is historically "accurate". Rees reconstructs the production of the *Discovery Tour*, analyses the historical representation it offers and, most importantly, tests empirically what participants actually learn from it. The study therefore separates three propositions often collapsed in discussions of historical games: a digital environment can contain substantial historical information; it can create a persuasive sensation of encountering the past; and it can produce measurable historical learning. These things are related, but they are not the same.

This distinction gives the book an unusually effective structure. Rees examines

how the *Discovery Tour* emerged from the *Assassin's Creed* franchise, what kind of past it constructs, and what happens when learners encounter that construction (pp. 7–8). The first part reconstructs Ubisoft's development of the franchise and the educational mode (pp. 33–72); the second analyses *Discovery Tour: Ancient Greece* through Adam Chapman's categories of simulation style, time, space, narrative and affordances (pp. 73–130); and the third tests its learning effects empirically (pp. 131–216).

This combination is the book's greatest methodological strength. Historical Game Studies has produced sophisticated analyses of how games represent the past, but the inference from representation to reception remains dangerous. Identifying a historical idea encoded in a game does not demonstrate that players notice it, understand it or assign it the significance scholars do. Rees places production, representation and reception within the same study, making it harder to assume that historical intention automatically becomes historical experience.

The discussion of authenticity is particularly productive. Rees distinguishes historical accuracy from the ability to generate a convincing *feeling* of the past and notes that players often judge historical environments by comparison not with archaeological evidence but with other popular representations (pp. 18–21). Drawing on Christian Rollinger and Dunstan Lowe, he emphasises that games may tell us less about ancient societies than about contemporary expectations of them: details can be factually wrong while still “feeling” right because they belong to an established visual vocabulary of antiquity (pp. 19–20).

This converges with a problem I have encountered repeatedly in work on games and popular antiquity. I have become less interested in asking simply whether a representation is “accurate” than in asking what kind of past a medium makes operational or emotionally legible. In *World of Warcraft*, archaeology becomes a system of recoverable fragments and rewards; in *Age of Empires II: Definitive Edition – Chronicles: Battle for Greece*, Athenian *phoros* becomes a playable resource while

preserving selected relationships between extraction and resistance. Games often reconstruct not antiquity itself, but the cultural memory of what antiquity is supposed to feel like. Rees's book provides unusually concrete evidence for taking that distinction seriously.

The production history makes the point clearly. Rees documents the tension between historians recruited by Ubisoft and the requirements of commercial game development. Historical accuracy matters, but playability and emotional narrative retain priority; one formulation cited in the book reduces the hierarchy to “Fun always wins!” (p. 63). Researchers provide evidence and expert texts, but developers retain final control, while educational materials are shortened to suit the rhythm of the experience (pp. 63–67). The *Discovery Tour* therefore does not escape the logic of the entertainment franchise from which it emerged.

The analysis of the virtual Greek world shows particularly well how historical accuracy and affective credibility diverge. *Discovery Tour* offers an environment of striking visual density: monuments occupy recognisable locations, NPCs perform everyday activities, musicians produce a diegetic soundscape and Greek speech sustains the impression of a living ancient world (pp. 96–99). Yet Rees repeatedly demonstrates that this *reality effect* depends as much upon expectation as reconstruction. Leonidas can guide players through a world nominally situated in 431 BCE, decades after his death, while fictional and historical characters coexist without necessarily disrupting immersion (pp. 98–100).

One example is especially revealing. Buildings and monuments were sometimes deliberately enlarged so that they would appear more “epic” or reproduce for modern players an emotional impact imagined for ancient observers. Rees discusses the Athena Promachos, whose scale was substantially increased so that it would dominate the Athenian landscape (p. 107). The objective was not exact reconstruction but affective equivalence. The game effectively asks what must be changed about the past so that modern players can feel what designers imagine the past should have felt like.

Generative AI makes the same phenomenon easier to recognise. Ask an image model for “ancient Rome” and it may produce monumental colonnades, immaculate marble and dramatic sunlight immediately legible as Roman. The result can be convincing while corresponding less to the heterogeneous and archaeologically uncertain city of antiquity than to a visual tradition accumulated through painting, cinema, television and games. The viewer encounters not Rome itself but a cultural imaginary of Rome.

The same distinction applies to *Discovery Tour*. Its power does not depend solely upon the amount of correct archaeological information it contains, but upon a negotiation between evidence and what twenty-first-century players already expect ancient Greece to look like. Particularly valuable are moments when Ubisoft challenges that expectation, such as the use of architectural and sculptural polychromy, where historically informed difference becomes educational precisely because it initially looks “wrong” to modern eyes (pp. 105–107).

At other points, however, the cultural imaginary dominates. Mythological material is embedded directly into the historical environment: the Argo, the palace of Odysseus and mythic creatures coexist with historical sites and personalities. Rees regards this as more problematic in an explicitly educational product because the distinction between mythical and historical material is not always sufficiently visible (pp. 109–110). Likewise, the Artemision bronze is multiplied and identified as Poseidon across several sanctuaries, converting an uncertain and unique archaeological object into a repeated element of environmental storytelling (p. 108).

These examples matter pedagogically not only because students might learn a false fact. They reveal how digital environments naturalise interpretations through presence. A text can qualify an identification with “possibly”; an object repeatedly placed in a three-dimensional environment simply appears to be there. Spatial confidence can therefore exceed evidential confidence.

The game’s temporal structure creates a similar tension. *Discovery Tour* appears to offer movement through 431 BCE in real time, yet its inhabitants perform endlessly recurring routines and events do not develop. Rees compares this to an animated museum diorama: apparently living activities are actually loops (pp. 100–102). The guided tours simultaneously range across centuries and are narrated retrospectively from a modern perspective. The illusion of time travel therefore coexists with an explanatory apparatus capable of moving from the Bronze Age to the Peloponnesian War and beyond (pp. 103–104). The issue is not whether the representation is simply right or wrong, but what grammar it uses to make antiquity intelligible.

Rees’s empirical section then presents the book’s most important challenge to easy claims about game-based historical learning. Ninety-four participants aged sixteen to twenty-one encountered closely matched Thermopylae content in one of three forms: by playing the *Discovery Tour*, reading an illustrated transcript, or watching a recording of the tour (pp. 162–176). Across all groups, learning clearly occurred. Mean scores increased from 38.7 to 58.51 per cent, and 81 of the 94 participants improved between pre- and post-test (pp. 177–179). Material derived from the *Discovery Tour* can therefore transmit historical knowledge even without teacher mediation.

But interactivity itself produced no clear advantage. The group that played the tour did not significantly outperform the group reading the illustrated transcript, nor was play superior to watching the recording. Indeed, the video group produced the strongest descriptive results, with a mean post-test score of 63.88 per cent compared with 55.59 for text and 54.82 for play (pp. 180–188). The game-versus-text effect was effectively zero, while the game-versus-video comparison pointed towards an advantage for video, although Rees rightly remains cautious about sample size and statistical limitations (pp. 184–189).

This is the book’s most valuable finding because it prevents us from treating interactivity itself as pedagogy. Rees argues

that the Thermopylae tour contains a strong framing narrative but relatively little meaningful historical ludonarrative. Players have few opportunities to affect events, solve historically significant problems or exercise the kinds of agency that distinguish games from linear media. Consequently, playing offers little detectable advantage over watching (pp. 201–205). In his final synthesis, players become closer to asynchronous tourists than historical actors: they may choose the order and quantity of information but cannot alter the narrative or exercise historically meaningful agency (pp. 219–221).

This conclusion also resonates with Alexander Vandewalle and Richard Cole's active-play study of Classics students playing *Assassin's Creed Odyssey*. Their decisions were shaped by ludic, prosthetic, narrative and referential interests rather than by historical considerations alone. History mattered, but it did not automatically organise play. A scholar may identify a rich historical structure while a player chooses an option because it produces better equipment, fits an imagined avatar or advances a preferred narrative. Encoded historical meaning and experienced historical significance are therefore different objects of study.

For teaching, the conclusion is not that historical games have failed. Rather, Rees provides a strong argument against using them as self-justifying educational technologies. Earlier classroom research discussed in the book reached a compatible conclusion: Karsenti and Parent found that effective uses of *Assassin's Creed* embedded game imagery and footage within source criticism and comparison with other representations, without necessarily requiring students to play the game themselves (pp. 26–27). The educational question is therefore not *Did students play a historical game?* but *What intellectual operation were they asked to perform with it?*

This is where *Discovery Tour* may become more valuable when treated critically rather than deferentially. Students can compare its coloured Acropolis with modern assumptions about white marble; investigate why Leonidas guides a tour set after his death; distinguish mythic from historical

spaces; compare the virtual Athena with archaeological reconstruction; or identify moments when uncertainty has been transformed into environmental certainty. Such activities use the game not as a virtual textbook but as a historical representation requiring criticism.

The same principle applies to generative AI. A synthetic reconstruction becomes educationally useful when students are asked why it looks convincing, what visual traditions it reproduces, what evidence it suppresses and what alternative pasts it makes difficult to imagine. In both cases, inaccuracies and compromises can become objects of historical reasoning rather than simply flaws to be corrected.

Rees is appropriately cautious about the limits of his experiment. The study tests one particularly coherent tour, Thermopylae, rather than all thirty tours and roughly ten hours of material (pp. 159–160). The playing group was also substantially smaller because hardware, installation and Ubisoft Connect created practical barriers; nine participants abandoned installation altogether (pp. 201–203, 212–214). Most importantly, Rees recognises that measurable acquisition of declarative knowledge is not equivalent to historical problem-solving, multiperspectivity or interpretative competence. The *Discovery Tour* can transmit knowledge independently, but more demanding forms of historical thinking still require contextualisation and guidance (pp. 212, 222–223).

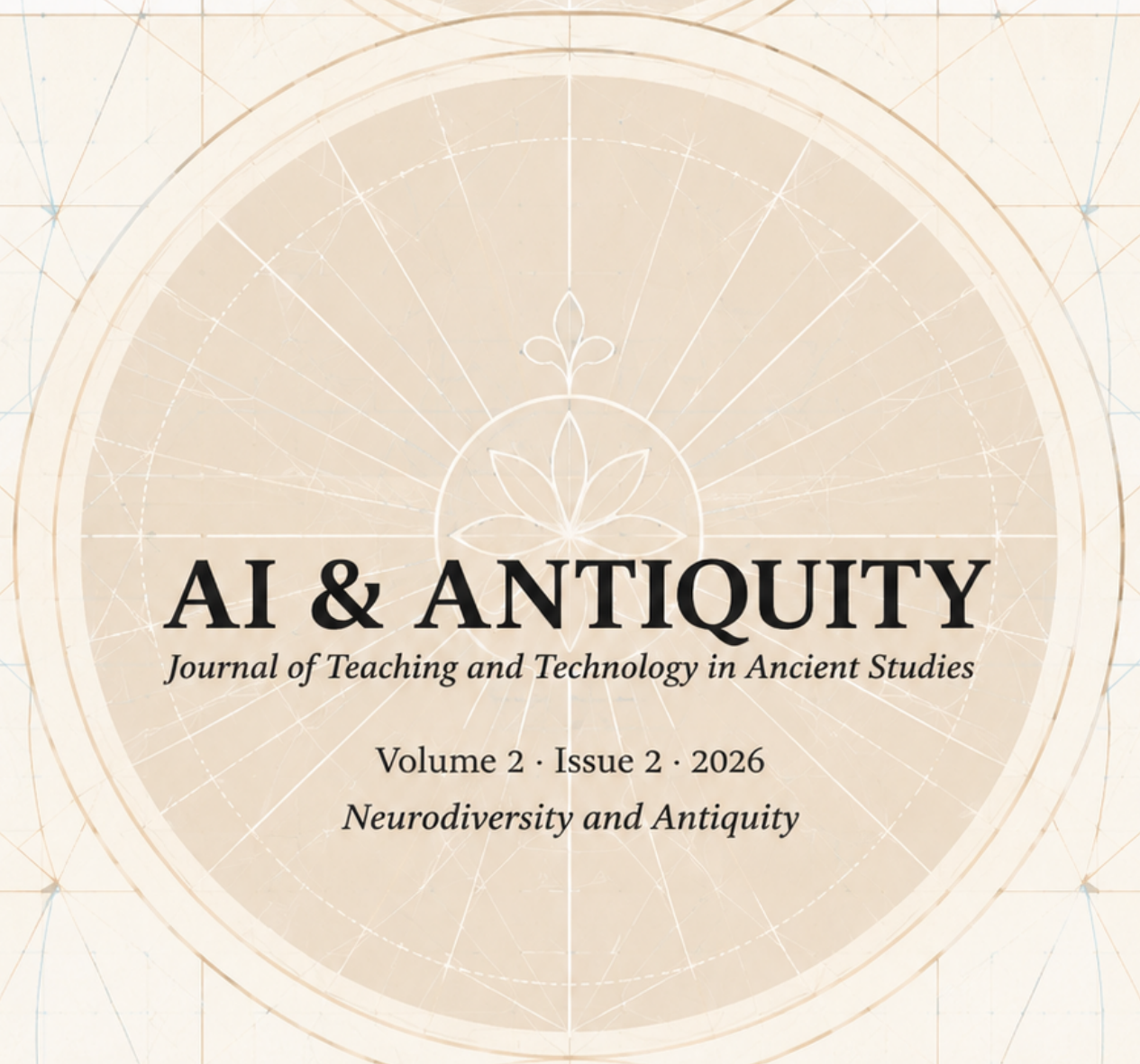
That distinction makes the book particularly valuable for *AI & Antiquity*. Digital historical environments are becoming more convincing just as generative systems are making persuasive synthetic pasts increasingly easy to produce. The educational challenge is therefore shifting away from access. Students do not lack representations of antiquity; they inhabit an excess of them. The task is to teach them to distinguish evidence from plausibility, reconstruction from reception, historical uncertainty from synthetic confidence, and the ancient past from the cultural imagery through which that past has become familiar.

Rees ultimately gives us strong reasons to resist both technological enthusiasm and technological dismissal. *Discovery Tour*:

Ancient Greece contains substantial historical knowledge, produces measurable learning and constructs one of the most elaborate popular environments of ancient Greece yet created. But none of this demonstrates that playing itself causes the learning, nor that the antiquity experienced by players is simply the antiquity reconstructed by historians.

Sometimes history recedes behind gameplay; sometimes the game recedes behind information; and sometimes what remains most powerful is the immediate recognition that tells us, before any evidence has been examined, that this *feels ancient*. Rees's achievement is to disentangle these effects. A historical game may contain the past, make us feel the past and help us learn about the past. The pedagogical mistake is to assume that these are three ways of saying the same thing.

Carlos Heredia Chimeno
Universitat Autònoma de Barcelona



AI & ANTIQUITY

Journal of Teaching and Technology in Ancient Studies

Volume 2 · Issue 2 · 2026

Neurodiversity and Antiquity

Published by the

CIAW

CENTER FOR
INNOVATION IN
ANCIENT WORLDS

ISSN 3081-4553
ai-antiquity.org

With support from

UAB

Universitat Autònoma
de Barcelona

Original artwork by Arturo Galindo García (2026)
@trustmeiamahistorian_