

Curriculum Development in Malaysia: Teacher Perspectives on Sustainability, Moral Education, and Assessment-Oriented Practice

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ABSTRACT

Malaysian curriculum policy is well documented at system level, but far less is known about how individual teachers interpret, mediate, and enact reform priorities in the daily work of a specific school. This paper reports an exploratory, instrumental single-case study of one in-service Mathematics teacher at a fully residential secondary school in Malaysia. The study is deliberately bounded: it does not survey the Malaysian teaching workforce, nor does it evaluate the effectiveness of any programme. Its purpose is to generate a detailed, theoretically informed account of how three concurrent reform agendas education for sustainable development (ESD), moral and values education, and assessment reform are understood and worked with by one teacher situated in one institutional setting. Data were generated through a single semi-structured interview of one hour and twelve minutes conducted via Microsoft Teams and analyzed using Braun and Clarke's six-phase reflexive thematic analysis. The analysis is framed by the literature on curriculum enactment, the ecological model of teacher agency, and assessment theory. Three themes were constructed. First, the participant framed sustainability learning as durable only when carried by routine institutional practice rather than by episodic events or subject content. Second, he positioned moral formation as a distributed responsibility that the school can model and reinforce but cannot secure alone. Third, he described working within, rather than against, an examination-oriented assessment regime, treating portfolios, presentations, and peer-teaching structures as complements to public examinations rather than substitutes for them. Across the three themes, the participant's reasoning is read as the exercise of bounded agency: reform is enacted where it can be attached to existing residential school routines and is deferred where syllabus coverage and examination requirements constrain it. These findings are specific to this participant and setting. They are offered not as generalisable claims about Malaysian schooling but as an analytically transferable account that may inform hypotheses for larger, multi-site research and that suggests questions curriculum designers may wish to test more widely.

Keywords: curriculum enactment; teacher agency; education for sustainable development; values education; assessment reform; Malaysia; single-case study

INTRODUCTION

A national curriculum is never a finished product. As the priorities of a society change, so too do the content, skills, and values that schools are expected to transmit (Ahmad, 1998). In Malaysia, the curriculum is coordinated centrally by the Ministry of Education (MOE) and delivered through the Kurikulum Standard Sekolah Rendah (KSSR) at primary level and the Kurikulum Standard Sekolah Menengah (KSSM) at secondary level. The Malaysia Education Blueprint 2013–2025 commits the system to balanced academic, social, and ethical outcomes rather than examination performance alone (Ministry of Education Malaysia, 2013).

Policy documents state curriculum intent; they do not, on their own, show what becomes that intent once it passes into a particular school. A substantial body of work distinguishes the curriculum-as-plan from the curriculum-as-enacted and locates teachers as the agents through whom that translation occurs (Snyder et al., 1992; Ball et al., 2012). Teachers do not simply receive policy; they make sense of it against their own beliefs, subject knowledge, and institutional conditions (Spillane et al., 2002), and the degree to which they can act on it is shaped by the resources and constraints of their setting (Priestley et al., 2015).

Research Gap

Malaysian research on curriculum reform is weighted toward policy analysis, large-sample survey work on teacher readiness, and implementation-gap reporting (Hazri Jamil et al., 2014; Arumugham, 2020; Rosli & Jamaludin, 2023). Two features of that body of work motivate the present study. First, the three reform agendas examined here ESD, values education, and assessment reform are typically studied in isolation from one another, even though a classroom teacher encounters them simultaneously and within a single finite allocation of time and attention. Second, survey-based work reports the existence and size of implementation gaps but is less well suited to showing the reasoning through which a teacher decides what to take up, what to adapt, and what to defer. There is comparatively little fine-grained, theoretically framed evidence of how the three agendas are reconciled in the situated judgement of an individual practitioner, and almost none set in Malaysia's fully residential schools, whose boarding structure offers unusually extensive non-instructional time in which reform priorities might be enacted.

Research Questions

Accordingly, this study asks:

- **RQ1.** How does one Mathematics teacher in a Malaysian fully residential secondary school understand and describe the enactment of ESD, moral and values education, and assessment reform in his own practice and institutional setting?
- **RQ2.** What constraints and enabling conditions does he identify as shaping what he is able to enact across these three agendas?
- **RQ3.** How does his reasoning about these three agendas relate to one another, and what does that relationship suggest about how the agendas are experienced at school level?

Contribution and scope The contribution claimed is deliberately modest and of three kinds. Empirically, the study provides a documented practitioner account from an under-researched institutional setting, the Malaysian fully residential school. Theoretically, it applies the ecological model of teacher agency (Priestley et al., 2015) to the simultaneous enactment of three reform agendas, rather than to one in isolation, and shows how the international, practical evaluative, and projective dimensions of agency appear in a single teacher's reasoning. Methodologically, it offers a worked single-case design that other researchers may extend. The study makes no claim to representativeness. Its findings describe one participant in one school at one point in time; where implications are drawn in the Discussion, they are framed as propositions for further testing rather than as recommendations warranted by the evidence presented here.

LITERATURE REVIEW

Curriculum enactment and the implementation gap

Research on curriculum change has long distinguished between three orientations to implementation: fidelity, mutual adaptation, and enactment (Snyder et al., 1992). Under a fidelity orientation, success is measured by how closely classroom practice reproduces the designers' intent; under mutual adaptation, the programme and the setting adjust to one another; under an enactment orientation, curriculum is understood as something jointly created by teachers and students in context, with the written document serving as one resource among several. The enactment orientation is adopted here because it treats variation between the policy text and classroom practice as an object of analysis rather than as a deficit to be corrected.

Ball et al. (2012) develop this position empirically, showing that schools do not implement policy so much as interpret and translate it, and that the same national policy is enacted differently across institutions with different histories, intakes, and resources. Their account foregrounds the material and situated conditions of enactment timetabling, staffing, physical space, accountability pressure that are precisely the conditions a single-site study is positioned to describe. Spillane et al. (2002) add the cognitive dimension: teachers implement their understanding of a policy, and that understanding is constructed from prior knowledge, so apparent non-compliance is frequently a sense-making outcome rather than a refusal. Lipsky's (2010) account of street-level

bureaucracy supplies the structural counterpart, describing how frontline public-service workers necessarily develop routines for rationing scarce time and attention, and how those routines effectively become the policy as citizens experience it.

Teacher agency

The ecological model of teacher agency (Priestley et al., 2015) treats agency not as a capacity individuals possess but as something achieved in and through a particular environment. It distinguishes three dimensions: an iterational dimension drawing on experience and professional biography; a practical evaluative dimension comprising the cultural, material, and structural conditions of the present; and a projective dimension oriented to short- and long-term aspirations. Biesta et al. (2015) show that teachers' beliefs matter for agency but are insufficient on their own, since weak collective vision and strong accountability structures can narrow the space in which beliefs are actionable. This framework is analytically useful in the present study because it allows a teacher's selective enactment doing more with sustainability than with assessment reform, for instance to be read as a situated achievement rather than as inconsistency or as a shortfall in commitment.

Education for sustainable development

UNESCO (2020) frames ESD as a whole-of-institution endeavour rather than a single-subject topic, requiring learners to acquire the values, competencies, and behaviours needed to act on sustainability challenges in their own context, and requiring institutions to align governance, operations, and community relations with what is taught. The competency framework set out in UNESCO (2017) makes the same point at the level of learning outcomes, specifying systems thinking, anticipatory, normative, and self-awareness competencies that are difficult to develop through transmission teaching alone. The whole-institution position has a direct bearing on this study: it predicts that ESD will be enacted more readily where a school's routine operations can carry it, which is an empirical question a residential setting is well placed to illuminate. Karim et al. (2025) offer a proximate Malaysian analogue from an organisational context, reporting that sustainability-oriented training shifts culture only when reinforced consistently rather than delivered as a one-off intervention.

Values and moral education

Values education is conventionally distinguished into explicit provision, delivered through a designated subject, and implicit provision, carried by the hidden curriculum, institutional ethos, and adult modelling (Halstead & Taylor, 2000). Character-education traditions emphasise the consistency of the whole moral environment, arguing that instruction contradicted by institutional practice is unlikely to be internalised (Lickona, 1991). In Malaysia, values are addressed both through the designated Pendidikan Moral and Pendidikan Islam subjects and through a cross-curricular expectation that all teachers integrate values into their subject teaching. Rosli and Jamaludin (2023) report that this cross-curricular expectation is difficult for teachers to honour in practice, as explicit values work competes with content coverage. Mohamed Ibrahim et al. (2025) find that peer, family, and institutional support each play distinct roles in students' capacity to cope with academic stress, which is consistent with a distributed rather than school-contained account of student formation.

Assessment theory and examination-oriented systems

Assessment scholarship distinguishes assessment *of* learning, which certifies attainment; assessment *for* learning, in which evidence is used to adapt teaching (Black & Wiliam, 1998); and assessment *as* learning, in which students exercise metacognitive regulation of their own learning (Earl, 2013). This tripartite distinction is embedded in Malaysian classroom-assessment policy (Pentaksiran Bilik Darjah) and is used by the participant in this study, making it an appropriate analytic reference point. The authentic-assessment literature

adds a design criterion: assessment should mirror the intellectual demands of real tasks and capture competencies that written examinations capture poorly (Quinlan, 2024; Vlachopoulos & Makri, 2024). Set against this, the washback literature explains why reform proves difficult: high-stakes examinations exert a strong and often narrowing influence on what is taught and how, though that influence is mediated by teachers rather than mechanical (Alderson & Wall, 1993). Arumugham (2020) documents the Malaysian expression of this tension,

reporting that classroom-based assessment is frequently implemented in ways that reproduce examination logic. Twining et al. (2020) argue more broadly that curriculum quality in a technological era depends on teachers' capacity to design authentic, learner-centred tasks rather than to deliver content for later recall.

Theoretical framework

These strands are combined into a single analytic frame. Curriculum enactment supplies the object of study: not whether policy was implemented faithfully, but what was made of it in a particular place. The ecological model of agency supplies the explanatory apparatus, directing attention to the biography the teacher brings (iterational), the institutional conditions within which he acts (practical–evaluative), and the future he projects for his students (projective). Assessment theory and the whole-institution conception of ESD supply domain-specific criteria against which the participant's described practice can be located. Figure 1 presents this frame. Two analytic expectations follow and are examined in the Findings: that enactment will be strongest where a reform agenda can be attached to existing institutional routine, and that the participant's reasoning across the three agendas will show a common underlying orientation rather than three unrelated positions.

METHODOLOGY

Research design and rationale

The study employs a qualitative, exploratory, instrumental single-case design (Stake, 1995; Yin, 2018). The case is bounded as one teacher's account of curriculum enactment within one fully residential secondary school during a single academic term. The design is instrumental in Stake's sense: the participant is of interest not in himself but as a means of examining how the three reform agendas are reconciled in situated practice. A single case was chosen because the research questions concern reasoning and meaning rather than distribution or prevalence; as Flyvbjerg (2006) argues, the value of such a case lies in the depth and context-dependence of the knowledge produced, not in statistical representativeness. The limits this imposes are stated in full in the Limitations section and are treated as a boundary on the claims made, not as a defect to be argued away.

Setting

The study was conducted with a teacher at a fully residential secondary school in Malaysia, of a type that is selective, administered separately from mainstream MOE day schools, carries a science and mathematics emphasis, and places students under school supervision outside instructional hours through a boarding structure. The specific institution is withheld to protect the participant's identity. This setting is analytically relevant because it offers both an unusually high degree of institutional control over the student day and an unusually strong examination orientation, making it a site in which the tension between routine-based enactment and examination pressure should be visible. It is also atypical of Malaysian schooling generally, which constrains transferability accordingly.

Participant selection

One participant was recruited through criterion-based purposive sampling (Patton, 2015). Four selection criteria were set in advance: (a) current in-service secondary teaching status; (b) at least five years of classroom experience, to ensure the participant could speak to curriculum change over time; (c) a subject specialism in an examination-intensive subject, so that assessment pressure would be part of his working reality; and (d) a pastoral or co-curricular responsibility, so that he could speak to enactment beyond the classroom as well as within it. The participants recruited met all four: approximately eight years of classroom

experience (since 2018), specialism in Mathematics and Additional Mathematics, and a Head-of-Residence pastoral leadership role within student residential life. Before entering teaching, he had spent several years in industry, and he completed his postgraduate teaching qualification part-time while already working as a teacher. He was identified through the researcher's professional network and approached directly; no incentive was offered. To protect his identity and that of his school, both are withheld throughout, and he is referred to only as "the Teacher."

Data generation

Data were generated in a single semi-structured interview. A researcher-developed protocol was organised into four sections: professional background; sustainability and ESD; moral and values education; and assessment-oriented practice. Within each thematic section, questions moved from the participant's conceptual understanding to perceived curricular impact, to concrete examples from his own school to his views on what would need to change. Question-asking within each thematic section was distributed across members of the research team, with each member responsible for a designated block of questions, and follow-up probes used throughout to pursue specifics; the participant was invited at the close of each section to add anything not asked about.

The interview was conducted in English via Microsoft Teams and lasted one hour and twelve minutes. It was recorded with the participant's prior consent, and the research team's written notes and recording were used as the basis for analysis, checked against the recording by the researcher. The interview was conducted as a panel: six people were present, comprising as the participants and a member of the research, of whom the researcher was one. This format was adopted for logistical reasons connected to the course within which the study originated. It is reported here explicitly because it carries methodological consequences a multi-interviewer setting may heighten social desirability effects and reduce a participant's willingness to discuss institutional shortcomings and these are revisited in the Limitations section.

Data analysis

The interview record was analyzed using reflexive thematic analysis following Braun and Clarke's (2006, 2021) six phases, conducted at a semantic level with a largely deductive orientation reflecting the three protocol domains, while remaining open to inductive codes. In phase one, the recording and the research team's session notes were reviewed in full without coding, and familiarization notes were kept. In phase two, the material was coded systematically by topic segment, generating an initial set of few codes. In phase three, codes were collated into candidate themes. In phase four, candidate themes were reviewed against the coded segments and the full interview record; one candidate theme ("teacher workload") was collapsed into the practical-evaluative conditions reported under each of the three main themes, and one cross-cutting theme concerning the role of the MOE was retained as a separate analytic thread rather than as a fourth theme, since it appeared as a condition on all three domains rather than as a domain in itself. In phase five, the three themes were defined and named. Phase six comprises the reporting below. Table 1 illustrates the audit trail from data extract to code to theme.

Table 1. Illustrative analytic audit trail from data extract to theme

Data extract (paraphrased)	Initial code	Candidate theme	Final theme
Sustainability programmes (Earth Day, 3R, One Student One Tree) recur annually and become routine rather than one-off events	Programmes repeated annually; internalised through repetition	Routine as vehicle for ESD	Sustainability as routine practice
Values are shaped at school but the Teacher stressed the family remains the primary source of a child's moral foundation	Values taught but school cannot substitute for family	Limits of school influence	Moral formation as distributed responsibility
IGCSE/SPM marking schemes credit only the expected method, so a valid alternative solution cannot be awarded full marks	Marking scheme restricts alternative methods	Examination constraint on pedagogy	Working within examination constraint

Trustworthiness and ethical considerations

Credibility was supported by using open-ended, non-leading questions and by grounding interpretation closely in the participant's own words and examples. Verbatim engagement with the transcript reduced the risk of

researcher over-interpretation. Ethically, the participant took part voluntarily, was informed of the purpose of the interview in advance and is reported here under a pseudonymized designation to protect personal identity; no student-identifying information was collected or reported.

FINDINGS

Three themes were constructed from the interview data, addressing RQ1 and RQ2; their relationship, addressing RQ3, is taken up in the Discussion. Table 2 summarises the themes and their supporting evidence. Because the findings rest on one participant, they are reported throughout as this participant account, reconstructed in reported (indirect) rather than verbatim speech, since a word-for-word transcript was not available for direct quotation.

Table 2. Themes, supporting evidence, and analytic reading

Theme	Participant's account	Conditions identified (RQ2)	Analytic reading
1. Sustainability as routine practice	Earth Day, a 3R scheme, and a “One Student, One Tree” initiative are described as the main vehicles through which students take up sustainable behaviour; classroom content alone is described as insufficient.	Enabled by the residential timetable and repeated scheduling; limited by the programmes’ dependence on specific staff and by uneven embedding in school culture.	Enactment succeeds where it attaches to existing institutional routine (Ball et al., 2012; UNESCO, 2020).
2. Moral formation as distributed responsibility	Values are described as carried jointly by the designated subject, cross-subject integration, teacher modelling, and programmes such as “Smile, Greet, Be Kind” and gotong-royong.	Enabled by boarding-hours contact and pastoral structures; limited by family and peer influence beyond the school’s reach.	Consistent with implicit-curriculum accounts of values (Halstead & Taylor, 2000; Lickona, 1991).
3. Working within examination constraint	Examinations are described as dominant; Guru Muda and Mentor–Mentee schemes are named as assessment as learning; portfolios and performance tasks are proposed as additions, not replacements.	Limited by syllabus pacing and by marking schemes that restrict credit for alternative solution methods.	Washback managed through supplementation rather than substitution (Alderson & Wall, 1993; Earl, 2013).

Theme 1: Sustainability is retained through routine rather than instruction

The Teacher defined sustainability and ESD as an educational approach that balances development, social wellbeing, and environmental protection, and he linked this explicitly to students’ emotional wellbeing, noting that as society develops, young people face rising psychological pressure that sustainability education should also address. He argued that this concept is best taught through practice rather than theory: students should experience sustainable behaviour in their daily lives rather than only learn about it, and this, in his view, is what allows the curriculum to be genuinely student-centred rather than content-delivery-oriented. As an illustration, he described asking students who had learned about pollution in a science lesson to design a sustainable city through project-based learning, so that the concept is applied rather than merely recalled. He located this learning in recurring school programmes rather than in lessons alone: an annual Earth Day event built around reducing single-use plastic bottles, a 3R (Reduce, Reuse, Recycle) scheme supported by recycling bins and project work that repurposes materials such as old tyres into planters, and a “One Student, One Tree” initiative in which each student is responsible for planting and maintaining a tree.

He was explicit that sustainability learning also depends on cross-curricular reinforcement rather than confinement to a single subject’s environmental content in Science, alongside creativity, communication, and collaboration developed through project work so that students come to see sustainability as a shared concern rather than one subject’s responsibility. His clearest claim, however, concerned durability: activities that are

repeated and built into the school's ordinary operation, such as the annual programmes above, were framed as producing lasting behaviour, whereas his recommendations were pointed at extending that same logic more sustained, culture-level practice (routine reuse of water bottles, habitual recycling, mindful electricity use) rather than treating sustainability as confined to special events.

Theme 2: Moral formation is a distributed responsibility

The Teacher described moral values education as foundational to national peace and stability, warning that its absence risks normalising unethical behaviour in society over time. He was explicit, however, that schools are not the sole platform for moral formation: students also learn values and behavioural norms through parental guidance and daily interaction at home, so that moral education is properly understood as a shared responsibility between schools and families rather than something a school can secure alone. Within the school, he distinguished a “vertical” approach of explicit instruction through designated subjects such as Pendidikan Islam and Pendidikan Moral from a “horizontal” approach in which the Ministry of Education encourages teachers to integrate values such as responsibility, patriotism, and perseverance across other subjects, for instance treating a demanding Mathematics problem as an exercise in perseverance and patience as well as calculation.

He placed particular weight on teacher modelling: because teachers are among the adults students interact with most, their own punctuality, responsibility, and consistency are read by students as evidence of whether the values being taught are actually lived, and school culture is shaped accordingly over time. He cited school-based programmes that operationalize this “Smile, Greet, Be Kind,” which promotes everyday courtesy and respect; gotong-royong activities, which build teamwork and shared responsibility for the school environment; and Corporate Social Responsibility initiatives such as distributing food to the homeless or donating to orphanages and nursing homes, which he linked to empathy and social responsibility. At the same time, his recommendations circled back to the boundary of school influence: he stressed that parents need to reinforce moral education at home, that schools, parents, and the wider community need to cooperate rather than treat values education as any one party's job, and that heavily theory-based, memorisation-oriented approaches to moral education should give way to hands-on, experiential activities such as collaborative anti-bullying initiatives.

Theme 3: Assessment reform is pursued within, not against, examination constraint

The Teacher argued that Malaysia's system remains substantially assessment-oriented, though he noted this is not unique to Malaysia and depends on how broadly “assessment” is defined. He distinguished formative assessment, used continuously to monitor understanding and give feedback, from summative assessment used to certify overall attainment, and mapped both onto the tripartite Assessment of / for / as Learning (AOL / AFL / AAL) framework. Assessment of Learning was associated with examinations; Assessment for Learning with ongoing classroom assessment that lets teachers adapt their approach; and Assessment as Learning with practices in which students take responsibility for their own learning through reflection and peer collaboration. As examples of Assessment as Learning in his own school, he cited the Guru Muda programme, in which students who have demonstrated strong understanding of a topic teach or guide their classmates, and the Mentor–Mentee scheme, in which more capable students support peers under teacher guidance, with tasks assigned according to ability.

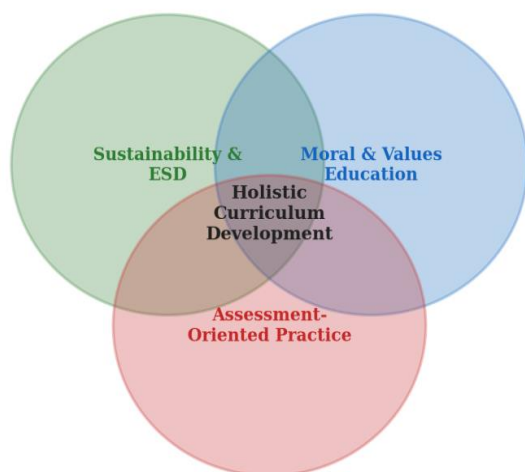
He was equally clear about the constraint operating in the other direction. Because schools of this also prepare students for internationally benchmarked examinations such as IGCSE alongside SPM, teaching, marking schemes, and instructional strategies must remain aligned to those examination requirements, which reduces teachers' latitude to depart from the prescribed syllabus. In Mathematics specifically, he described marking schemes that credit only a particular expected method, so that a student who reaches the correct answer by a different, mathematically valid route cannot always be awarded full marks a tension he framed as real but manageable, resolved by making students familiar with the official marking scheme while still using classroom discussion to explore alternative methods and develop higher-order thinking. Beyond Mathematics, he pointed to project-based learning, gallery walks, peer discussion, and inquiry-based tasks as ways to keep assessment two-way rather than purely examination-focused, and to co-curricular, competition-style work, citing students' involvement in co-curricular robotics, coding, and Python programming projects as extending this beyond the

regular curriculum altogether. His recommendations were consistently additive rather than substitutive: more student portfolios, presentations, and performance tasks alongside examinations, not instead of them.

Cross-cutting: the role of the Ministry of Education

Across all three domains the Teacher positioned the MOE as the source of the conditions within which he worked rather than as a direct actor in his classroom, and his suggestions for the MOE echoed the same practice-based logic he applied to his own teaching. He argued that curriculum policy should create more opportunities for learning beyond the classroom community service, project-based learning, environmental programmes, leadership camps so that life skills such as leadership and teamwork are developed in authentic contexts rather than only through formal instruction. On values, he pointed to Japan's practice of having students clean their own classrooms and toilets, rather than relying on cleaners, as an example of how a system can build responsibility and ownership into daily routine rather than confining it to lessons. On assessment, he suggested that the MOE continue recognising students' behaviour, leadership, and potential alongside academic results, and keep investing in Continuous Professional Development (CPD) so teachers can keep pace with curriculum reform and pedagogy. On technology, he advocated structured MOE training on the responsible use of AI tools such as ChatGPT and Google NotebookLM for lesson planning and assessment design, stressing that AI should support, not replace, teachers' professional judgement, alongside Professional Learning Communities (PLCs) where teachers share practice. Finally, he called for stronger partnership between schools, parents, the Parent–Teacher Association (PIBG), and school alumni, and for adequate infrastructure stable internet, projectors, and digital learning devices to support all of the above. This is reported here as an element of his account; its status as a recommendation, rather than an evaluated finding, is discussed separately below.

Figure 1. Conceptual relationship between the three reform agendas and holistic curriculum development



Note. The figure depicts the convergence the participant described across the three domains, as interpreted through the analytic frame set out in the Theoretical Framework section. It is a conceptual organising device, not a model derived from or tested by the data reported here.

DISCUSSION

Read through the framework set out above, the three themes are not three separate positions but one orientation expressed in three domains. In each, the Teacher located durable learning in repeated, participatory practice, and in each he described his scope for action as set by conditions he did not control. This addresses RQ3.

Enactment as attachment to routine

The pattern in Theme 1 is consistent with the enactment literature's central claim that policy is realised through

the situated resources of a particular institution (Snyder et al., 1992; Ball et al., 2012). Sustainability was enacted most fully where it could be attached to something the school already did regularly; it faded where it depended on a discrete event. This is also what the whole-institution conception of ESD predicts (UNESCO, 2020), and it parallels Karim et al.'s (2025) finding, in an organisational setting, that sustainability training changes culture only under consistent reinforcement. The residential structure of the school is material here: it supplies routine into which practice can be embedded. That condition is a feature of this setting, not of Malaysian schooling generally, and the relationship should be treated as a hypothesis for testing across school types rather than as an established finding.

Bounded agency across three simultaneous agendas

The ecological model helps explain the unevenness across the three domains. The Teacher's iterative resources eight years in an examination-intensive subject and a pastoral role equipped him well for enactment in the values and sustainability domains, where his practical evaluative conditions were permissive: the residential timetable, pastoral structures, and existing programmes all afforded action. In the assessment domain, the same projective orientation met markedly less permissive conditions, since marking schemes and syllabus pacing are determined elsewhere. The resulting position supplements examinations rather than challenges them is legible as bounded agency rather than as limited ambition (Priestley et al., 2015; Biesta et al., 2015), and it illustrates why teacher beliefs alone are a weak predictor of enacted practice.

Assessment: supplementation as a rational response to washback

The Teacher's account of marking schemes constraining alternative solution methods is a precise local instance of washback (Alderson & Wall, 1993), and his response retaining examinations while adding authentic tasks around them reflects the difficulty the literature reports in reconciling authentic assessment with high-stakes systems (Quinlan, 2024; Vlachopoulos & Makri, 2024), as well as Arumugham's (2020) observation that Malaysian classroom-based assessment tends to be absorbed into examination logic. His fluent use of the of / for / as distinction (Earl, 2013) indicates that the conceptual vocabulary of assessment reform has reached him; the constraints he describes indicate that vocabulary alone does not confer the latitude to act on it.

Distinguishing findings from recommendations

It is important to separate what this study found from what might be proposed on the strength of it. The findings are limited to the following: one teacher, in one fully residential school, described the three reform agendas in the terms reported above, identified the conditions summarised in Table 2, and reasoned about all three in a consistent, practice-oriented way. The study did not observe classroom practice, did not measure student outcomes, and did not evaluate whether any programme named actually produces the effects attributed to it. Statements about what "works" are therefore the participant's professional judgement, not findings of effectiveness.

Accordingly, what follows is offered as propositions warranting investigation, not as evidence-based recommendations for the system. First, the relationship between institutional routine and the durability of ESD enactment merits testing across residential and non-residential schools, where the availability of routine differs sharply. Second, the proposition that teachers in examination-intensive subjects manage assessment reform through supplementation rather than substitution is testable across subjects with differing examination stakes. Third, the perceived limits of school influence on values formation warrant research designs that include families and students, whose perspectives this study did not access. For curriculum designers, the account suggests a question worth asking of any reform: what existing institutional routine could carry it, and what happens in schools where no such routine exists?

LIMITATIONS

Five limitations bound these claims. First, the study rests on a single participant in a single, atypical institution; no generalisation to Malaysian teachers or schools is warranted, and transferability is for the reader to judge against the description provided. Second, the data are self-reported accounts of practice, not observations of it;

the gap between espoused and enacted practice is well documented and cannot be assessed here. Third, the interview was conducted with six people present, which may have inhibited candour about institutional weaknesses and may have produced a more positive account of school programmes than a one-to-one setting would have; this is a design constraint, not a feature, and a one-to-one format would be preferable in replication. Fourth, data were generated in a single interview, so the account is a snapshot rather than a record of change over time. Fifth, the analysis was conducted by a single researcher; although member checking, an audit trail, and reflexive memos were used, independent coding by a second analyst was not possible within the scope of the study.

CONCLUSION

This single-case study examined how one Mathematics teacher at a Malaysian fully residential secondary school understands and enacts three concurrent curriculum reform agendas. Within the bounds of the case, the participant located durable sustainability learning in recurring institutional routine rather than in subject content; treated moral formation as a responsibility distributed across school, family, and peer environments rather than one the school could discharge alone; and pursued assessment reform through supplementation of examinations rather than challenge to them. Read through the ecological model of teacher agency, these positions form a coherent pattern of bounded agency: reform was enacted where institutional routine could carry it and deferred where syllabus and examination structures were determined elsewhere.

The contribution is a detailed, theoretically framed account from an under-researched setting, and a demonstration that treating the three agendas together rather than separately, as the literature usually does, reveals a common logic that single-agenda studies would miss. The study makes no claim beyond its case. Multi-site research across residential and non-residential schools, combining interviews with classroom observation and documentary analysis, and incorporating the perspectives of students and families, would be required to establish whether the pattern identified here holds more widely.

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