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INSTITUTE

AUGMENTING INTELLIGENCE

BHUTAN
BACCALAUREATE

**LEARNING
PROCESS**

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PART I:

PHILOSOPHY

CHAPTER I: GENESIS OF THE VISION

Introduction

What if education could begin not with what learners lack, but with what they already possess? What if schools recognised each learner as carrying within them a unique constellation of capacities waiting to be discovered? And what if the purpose of education extended beyond individual achievement to include the flourishing of communities and the planet itself?

These questions are not new. Around the world, educational communities are grappling with how to recognise the wholeness of each learner while preparing them for an uncertain future. Many recognise that educational systems designed for the industrial age struggle to meet the demands of our interconnected, rapidly changing world.

The Bhutan Baccalaureate offers insights drawn from a specific place and people. Born in the Himalayan Kingdom of Bhutan, this approach to education is deeply rooted in the country's unique cultural and spiritual heritage. Yet the principles that guide it speak to questions relevant to learners and communities everywhere: How can individuals discover and actualise their unique potential? How does personal growth connect to the well-being of others? How can learning become a pathway to both self-understanding and meaningful contribution?

This chapter traces the genesis of the Bhutan Baccalaureate vision. It begins with the specific: the values, philosophies, and traditions that shaped this approach in its Bhutanese context. It then moves towards the universal: showing how these particular insights illuminate challenges faced by educational communities everywhere and point towards principles that transcend cultural boundaries.

The Bhutan Baccalaureate is not a model to be replicated uniformly. Rather, it is designed to be contextualised, adapted and reshaped by each community that engages with it. Just as the vision itself emerged from Bhutan's particular context while drawing on universal insights about human learning, so too must each school or educational community make this approach their own. The specificity of Bhutan's contribution lies not in providing a blueprint, but in demonstrating how deep cultural wisdom can inform educational design in ways that honour both local context and shared human needs—not just for Bhutan, but from Bhutan for the world.

The Bhutanese Foundation

The Bhutan Baccalaureate did not emerge in a vacuum. It grew from soil enriched by centuries of cultural practise, spiritual tradition, and a distinctive national philosophy. Understanding this foundation helps illuminate why the approach takes the shape it does, and why its insights may resonate far beyond Bhutan's borders.

The Vision of His Majesty the Fifth King

In 2011, His Majesty the Fifth King of Bhutan, Jigme Khesar Namgyel Wangchuck addressed the challenges of education in a rapidly modernizing world. Speaking to the tension between technological advancement and human connection, he observed: "In a technologically advanced world, the need to build small, genuine, human relationships is no longer strong. A global village we may have become, but with islands of individuals. And the solutions to these challenges must come from a real sense of concern and care for others, for all sentient beings and for future generations. We must care about what happens to this earth. That requires something more than leadership, science or technology—it requires values."

This articulation of values-based education set a direction that would shape Bhutanese educational reform. His Majesty the Fifth King's vision centred on preparing young people not merely for employment or economic productivity, but as constructive and contributory citizens of what he called "a just and harmonious society." The phrase carries weight: justice calls for fairness and the active redress of imbalance, while harmony evokes interconnection and the capacity to hold difference without fracture.

What does it mean to educate for such a society? It means cultivating individuals who can think critically and creatively, but also individuals who understand their choices ripple outward, affecting others and the natural world. It means developing technical competence alongside ethical discernment. It means recognising that human wholeness includes intellectual capacity but cannot be reduced to it alone.

His Majesty the Fifth King's vision reframes educational success not as individual achievement measured against others, but as the development of persons capable of contributing to collective well-being. This doesn't diminish individual flourishing; rather, it situates it within a larger web of relationships and responsibilities. The vision asks: What kind of people do we want to be? What kind of world do we want to create together?

Gross National Happiness

Bhutan's development philosophy provides crucial context for understanding its approach to education. Since the 1970s, Bhutan has measured progress not through Gross Domestic Product but through Gross National Happiness (GNH), a multidimensional framework that includes psychological well-being, health, education, time use, cultural diversity and resilience, good governance, community vitality, ecological diversity and resilience, and living standards.

GNH represents a fundamental reframing in which progress is understood as the increase of collective well-being, not merely economic growth. This significantly shifts the horizon of possibility. If well-being is the measure, then education must attend to the conditions that create it; not just material conditions, but also relational, psychological, spiritual, and ecological ones.

Consider the implications for learning. A GNH-informed education cannot focus solely on cognitive development or skill acquisition, essential as these are. It must also ask: Are learners developing emotional resilience? Are they forming meaningful relationships? Do they understand themselves as embedded in communities and ecosystems? Are they finding purpose and meaning? Can they balance striving with contentment?

GNH challenges the zero-sum thinking that pervades much of contemporary education, where one learner's success implies another's failure, where rankings and grades create hierarchies of worth. Instead, it invites a more integrated view in which individual and collective flourishing can coexist. Economic development can occur alongside environmental stewardship, and intellectual growth can deepen in harmony with spiritual development.

This philosophy doesn't romanticize or reject modernity. Bhutan engages with technology, global markets, and contemporary challenges. Rather, GNH insists that these engagements be guided by values and measured against their contribution to genuine well-being. Applied to education, this means asking not just "What can learners do?" but "Who are learners becoming?" and "What kind of world are they prepared to create?"

Buddhist Principles in Educational practise

Buddhism has been woven into Bhutanese culture for over a millennium, shaping not just religious practise but also everyday ethics, social organisation, and ways of understanding the world. Several core Buddhist principles carry particular relevance for educational design.

Interconnectedness lies at the heart of Buddhist philosophy. The Bhutanese term “tendrel” (རྟེན་འབྲེལ) expresses the idea that all phenomena arise interdependently—nothing exists in isolation, everything emerges through relationships and conditions. This isn't merely a philosophical abstraction; it describes the world that learners experience. A learner's growth depends on relationships with teachers, peers, family, and community. Their intellectual development intertwines with their emotional state, physical health, social environment, and sense of meaning. Learning itself is relational; new understanding emerges through the interaction between what learners already know and what they encounter.

Educational systems that fragment learning into disconnected subjects, that isolate learners from their communities, or that treat development in one area as independent from others, work against this fundamental interconnectedness. The Bhutan Baccalaureate's emphasis on wholistic development reflects an attempt to honour these natural connections rather than sever them.

Compassion (nyingje - རྟེན་ཇེ) provides the ethical foundation for education in this tradition. Compassion here means more than sympathy or kindness, though it includes these. It refers to the capacity to perceive the suffering or struggle of others and respond with the

genuine wish to alleviate it. In educational terms, compassion shapes both the learning environment and the purpose of learning itself. Teachers approach learners with compassion, recognising that behind every behaviour lies a whole person navigating their unique challenges. Learners develop compassion through learning experiences that bring them into authentic relationship with others. And the ultimate purpose of developing one's capacities is not self-aggrandizement but the ability to be of benefit to one's community, to future generations, and to all beings.

The concept of Yeshey (ཡེ་ཤེས་), often translated as primordial wisdom, offers a radically different starting point for thinking about learners. In Buddhist understanding, this wisdom is not something created or constructed through education. Rather, it is innate to all beings, obscured by confusion and afflictive patterns but fundamentally present. Education, then, becomes a process of uncovering rather than construction, creating conditions for this innate potential to manifest.

This principle invites a profound shift in how educators see learners. Not as empty vessels to be filled, not as raw material to be shaped, but as already possessing fundamental capacities for wisdom, creativity, and goodness. The question becomes: What conditions allow these capacities to emerge? What obscures them? How can learning experiences help learners recognise and actualise their own innate potential?

This doesn't mean educators have nothing to offer or that all knowledge is already present within learners. Rather, it suggests that learning happens most powerfully when it connects with something the learner recognises as already their own; when external knowledge resonates with internal understanding, when skills develop in response to genuine need, when inner growth is experienced as becoming more fully oneself rather than becoming someone else.

Padmasambhava's Teaching Legacy

In the eighth century, the Buddhist master Padmasambhava brought Buddhism to Tibet and the Himalayan region. Known in Bhutan as Guru Rinpoche (Precious Teacher), his influence on Bhutanese culture cannot be overstated. But beyond his spiritual

significance, Padmasambhava's approach to teaching offers insights that remain remarkably relevant to contemporary educational challenges.

Padmasambhava was known for his ability to contextualise his teaching to meet each student exactly where they were. He understood that the same teaching delivered to different people might enlighten one and confuse another. What mattered was not the teaching in the abstract, but the meeting between teaching and learner. This required him to know his students deeply: their background, their capacity, their current struggles, their readiness to receive particular insights.

The principle of readiness is crucial here. Certain understandings cannot be forced or rushed. They emerge when conditions ripen; when a learner has developed the necessary foundation, when life experience has created the right questions, when the learner is open and receptive. A skilled teacher, in this view, must discern readiness and offer teachings accordingly.

This principle finds expression in the Terma tradition (terma - ཁཏེར་མཁའ་), one of Padmasambhava's most distinctive contributions. According to tradition, Padmasambhava concealed certain teachings, by burying them physically in the landscape or planting them in the minds of disciples, to be discovered later by treasure discoverers (tertön - ཁཏེར་སྟོན་) when the time was right. These treasures (ter - ཁཏེར་) would remain hidden until conditions were suitable: until people needed them, until someone capable of revealing them appeared, and until the community was ready to receive and use them.

As a metaphor for education, the Terma tradition offers a powerful reframing. Each learner is like a treasure discoverer, carrying within them hidden capacities, insights, and potential waiting to be discovered. The treasures already exist: the innate wisdom (Yeshey) discussed above, along with unique strengths, talents, and ways of understanding. Education becomes the process through which learners discover and actualise these inner treasures, revealing them to themselves and sharing them with their communities.

This is profoundly different from transmission models of teaching, where knowledge flows from teacher to learner. Here, while teachers play a crucial role in creating conditions for discovery—asking the right questions, offering experiences that catalyze insight, providing support and guidance—the learner is the active agent of discovery. The teacher cannot uncover the learner's treasures for them; they can only help create the circumstances in which the learner becomes capable of discovering what has been hidden within.

Timing is an essential element of this process. Just as Padmasambhava's treasures were meant to be discovered when conditions were right, learners reveal different capacities at different moments in their journey. What cannot be discovered at one point in development may become accessible later. This requires patience from both teachers and learners, trust in the process, and attention to readiness rather than rigid timelines.

This treasure-revealing is not a solitary endeavor. It unfolds through relationships with teachers who guide, peers who mirror and challenge, and community members who offer their own wisdom. The role of the mentor in the Bhutan Baccalaureate reflects this understanding: not to transmit all knowledge, but to accompany learners as they discover their own.

This understanding of learning as treasure discovery when conditions are right has profound implications for how we think about assessment. If learners discover different capacities at different moments depending on their readiness, then assessment cannot be a single snapshot measuring everyone at the same time against identical standards. Rather, assessment must attend to individual readiness and growth over time, recognising that what a learner cannot demonstrate today may become accessible tomorrow when conditions ripen. It must also look for what is emergent in each learner rather than only measuring against predetermined expectations, creating space for unexpected treasures to be recognised and celebrated when they surface.

Finally, Padmasambhava's tradition emphasises Bodhicitta (བྱང་ཆུབ་སེམས་)—the awakened heart or mind of enlightenment—as the proper motivation for learning. Bodhicitta means the aspiration to develop one's capacities not for narrow self-interest but for the benefit of all beings. In contemporary terms, it suggests that learning finds its highest purpose in

service, using what we develop in ourselves to contribute to something larger than ourselves.

This doesn't mean every learning activity must have obvious utilitarian benefit. Rather, it suggests that the overall arc of education should help learners understand themselves as part of an interconnected whole, with the ability and responsibility to contribute to collective flourishing. The question shifts from "What can we get from education?" to "What can we offer through what we learn?"

From Bhutan to the World

These foundations—His Majesty the Fifth King's vision of a just and harmonious society, the GNH framework of collective well-being, Buddhist principles of interconnectedness and innate potential, and Padmasambhava's approach—emerged from Bhutan's particular cultural and spiritual context. Yet the educational challenges they address, and the insights they offer, resonate far beyond Bhutan's borders.

Universal Educational Challenges

Around the world, educational communities are grappling with similar questions and tensions. These challenges manifest differently in different contexts, but their underlying patterns are recognisable across cultures.

Many education systems struggle with standardisation, the pressure to treat all learners as if they develop at the same pace, in the same way, and towards the same ends. While standards can provide important benchmarks, rigid standardisation can obscure the reality that each learner brings a unique constellation of strengths, interests, and ways of understanding.

Educational experiences often become fragmented, with subjects taught in isolation from one another, learning disconnected from lived experience, and schools separated from the communities they serve. Knowledge gets divided into discrete units, assessed separately, rarely integrated. Yet learners don't experience life in fragments. They need to

draw connections, see patterns across contexts, understand how different kinds of knowledge relate to one another and to the challenges they face.

Many learners experience education as primarily competitive, a zero-sum game where success means outperforming others, where grades and rankings create hierarchies of worth. This competition can motivate, but it can also undermine collaboration, and teach learners to see peers as rivals rather than fellow learners. The question arises: How can education cultivate both individual excellence and collaborative capacity? How can learners strive for growth without it requiring others to fall behind?

In many contexts, education has become increasingly instrumental, valued primarily for its economic utility, its ability to prepare workers, its contribution to national competitiveness. While employment and economic opportunity matter deeply, education that reduces to job training alone struggles to help learners find meaning and purpose.

Finally, many learners feel disconnected from nature, from community, from tradition, from a sense of belonging to something larger than themselves. This disconnection shows up in mental health struggles, in difficulty finding purpose, in alienation from the natural world at a moment when ecological challenges demand urgent engagement.

These challenges are not failures of particular systems or individuals. They often emerge from historical circumstances, from rapid social and technological change, from well-intentioned efforts to expand access or increase accountability. But they point to the need for approaches that can address them holistically rather than symptomatically.

Addressing Global Needs

The Bhutanese foundations outlined above offer responses to these challenges not as solutions to be applied mechanically, but as principles that can guide thinking and design.

The concept of innate potential (Yeshey) provides an alternative to deficit-based thinking. Rather than starting with what learners lack or need to acquire, it begins with recognition

of what they already possess. This shifts the fundamental question from "How do we fill students with knowledge?" to "How do we create conditions for learners to discover and actualise their capacities?" It suggests that assessment should focus on growth and uncovering rather than only measuring against external standards. It implies that personalisation is not merely a pedagogical technique but a recognition of reality: each learner is truly unique, with different treasures to discover.

The principle of interconnectedness addresses fragmentation directly. If all phenomena arise interdependently, then learning cannot be genuinely understood in isolation. The Bhutan Baccalaureate's Five Areas of Development—Cerebral, Emotional, Physical, Social, and Spiritual—reflect this interconnection: growth in one area affects and is affected by growth in others. Learning experiences that deliberately connect multiple domains (what the Bhutan Baccalaureate calls "cross-pollination") honour this reality. So do approaches that integrate schools more fully with their communities, recognising that learning happens everywhere, not just in classrooms.

The GNH framework reframes success in ways that move beyond competition. If the goal is collective well-being rather than individual achievement measured against others, then learners' growth doesn't require others' diminishment. Multiple learners can flourish simultaneously. The framework also provides a richer definition of what flourishing means, including but not limited to cognitive development, embracing emotional resilience, physical health, social connection, and spiritual grounding.

The principle of contextualised learning drawn from Padmasambhava's practise of adapting his teaching to the learner's readiness addresses the limitations of standardisation. It doesn't reject the possibility of common goals or shared standards, but insists these must be pursued through pathways that recognise individual context. The Backstory and Roadmap system in the Bhutan Baccalaureate operationalizes this principle: understanding where each learner comes from and where they want to go, then designing learning experiences accordingly.

The emphasis on service orientation (Bodhicitta) restores purpose beyond instrumentalism. It suggests that education should help learners understand themselves as part of something larger: communities, ecosystems, and humanity at large. This doesn't eliminate practical concerns about employment and economic opportunity, but situates them within a broader frame: developing capacities so one can contribute meaningfully. The question becomes not just "What job will I get?" but "How can I be of benefit?"

A Quantum Perspective on Learning

The Bhutanese foundations described above are not alone in recognising learning as non-linear, context-dependent, and wholistic. Contemporary scientific frameworks have independently arrived at similar understandings. The Bhutan Baccalaureate integrates what can be called a quantum-like perspective, borrowing sophisticated models of probability and context-dependence from contemporary physics to describe how learning actually unfolds. This framework treats learning not as a straight line but as an emergent process where understanding firms up differently for different people depending on the moment, the question asked, the emotional climate, and the wider context. A learner's mind often holds multiple possibilities simultaneously in what can be called a "superposition of states," and which possibility becomes manifest depends on how questions are framed, the sequence of experiences, and the conditions surrounding them.

This perspective explains why timing and readiness matter so profoundly, why insight often emerges after periods of incubation when conscious attention has shifted elsewhere, and why the three strands of learning (knowledge, metacognition, and unconscious processing) must align for deep understanding to occur. It affirms that these dimensions are deeply interconnected, that emotion and contemplative awareness act as conductors helping them synchronise, and that learning cannot be standardised through rigid sequencing but must be supported through environments that honour context, wholeness, and emergence. The quantum perspective thus reinforces

the insights drawn from Bhutanese tradition while providing a contemporary scientific language for articulating why personalised, wholistic, relationship-based education is not merely culturally preferred but reflects the fundamental nature of how human beings learn.

Towards Universal Principles

These insights, drawn from Bhutanese tradition and reinforced by contemporary scientific frameworks, point towards principles that can guide educational design in any context. They are not prescriptions to be followed rigidly, but orientations that can inform thinking and practise.

The next chapter articulates these principles in universal terms, eventually showing how they translate into the architecture and practises of the Bhutan Baccalaureate in parts II and III of this document. These core principles form the theoretical foundation for the Learning Process, answering the question: What fundamental beliefs about learners, learning, and the purpose of education guide this approach?

The principles are both aspirational and practical; they describe an ideal while also providing concrete guidance for educational design. They emerged from Bhutan but speak to needs that transcend any particular cultural context. They invite not replication but contextualisation; each educational community taking up these principles and asking: What would they look like here, in our context, with our learners, given our aspirations?

CHAPTER 2: CORE PRINCIPLES

Introduction

Every educational system rests on assumptions about learners and learning, whether these assumptions are explicitly articulated or not. These assumptions matter because they shape everything that follows: curriculum design, pedagogical approaches, assessment practises, the relationships within learning communities, and the very architecture of schools.

The Bhutan Baccalaureate rests on five foundational assumptions or core principles. These principles provide the theoretical foundation of the Learning Process, answering essential questions: What do we believe about learners? What is the nature of learning? What is education's deeper purpose?

These principles are both aspirational and actionable. They describe an ideal, the kind of learning environment and educational experience the Bhutan Baccalaureate seeks to create. They also provide concrete guidance for design decisions. When faced with choices about curriculum, assessment, technology, or school structure, these principles offer criteria: Does this approach honour learners' innate potential? Does it address the whole person? Does it strengthen relationships? Does it respond to context? Does it connect individual growth to collective well-being?

The five principles reinforce and illuminate one another. They form not a list but a constellation, where each principle gains meaning through its relationship to the others. Together, they describe a coherent educational philosophy that can guide practise in any context.

The principles are:

1. Every Learner Possesses Innate Potential: Learning systems must be designed to recognise and nurture individual strengths rather than imposing standardised expectations, leading to personalised pathways for each learner.
2. Human Development Is Wholistic and Interconnected: Cerebral, emotional, physical, social, and spiritual growth are inseparable aspects of human development, requiring curricula that connect all areas rather than fragment them.

3. **Learning Emerges Through Relationship:** Knowledge and wisdom develop through meaningful connections between individuals and communities, requiring educational systems that prioritise relationships and collaborative growth over individual achievement.
4. **Learning Must Be Context-Responsive and Ever-Evolving:** Effective learning responds to the specific context of each learner and community, requiring flexible systems that continuously adapt rather than static approaches.
5. **Individual Flourishing In Service of Collective Well-being:** Personal development should find its highest expression in contributing to community and planetary health, requiring learning experiences that connect individual growth to service and ethical action.

Each principle in this chapter follows a three-part structure. Each section first articulates the core principle itself, the fundamental belief about learners, learning, or educational purpose. It then explores the implications of this principle for how educational systems should be designed, before tracing the logical pathway from principle to practise, showing how this foundational belief shapes the specific structures and approaches detailed in Part II of this document.

These principles are offered not as dogma but as orientations, ways of thinking about education that can be taken up, adapted, and contextualised by any educational community. They invite conversation and reflection: What do we believe about learners? What assumptions guide our current practise? Where might we need to shift our thinking to better serve learning communities?

Principle 1: Every Learner Possesses Innate Potential

At the heart of the Bhutan Baccalaureate lies a fundamental belief: every individual arrives in the world already carrying within them a unique constellation of capabilities, insights, and ways of understanding. This potential is not something that education creates from nothing. Rather, it is already present, waiting to be discovered, nurtured, and actualised into full expression.

This principle represents a profound shift from deficit-based thinking. Many educational approaches begin by identifying what learners lack, what they do not yet know, what skills they have not yet mastered. Assessment often measures the gap between where learners are and where they are expected to be. While understanding areas for growth matters, beginning from

deficit shapes everything that follows. It positions learners as fundamentally lacking, education as filling those lacks, and success as the elimination of gaps.

Beginning with innate potential inverts this orientation. It asks not "What is missing?" but "What is already here?" Not "What needs to be added?" but "What wants to emerge?" This doesn't mean ignoring areas where learners need support or development. Rather, it suggests that growth happens most powerfully when it builds from strength, when learners recognise and cultivate what is already vital within them.

This potential is not fixed or predetermined. It is dynamic, unfolding through engagement with the world, through relationships, through challenges and opportunities. A learner might possess innate musical sensitivity that remains dormant until they encounter the right instrument, the right mentor, the right moment of readiness. Another might carry spatial reasoning capabilities that only become apparent when they engage with particular kinds of problems. Potential exists as possibility, actualised through experience and practise.

Crucially, this potential is unique to each individual. While learners share common human capacities, the particular combination of strengths, interests, ways of perceiving and processing the world differs from person to person. One learner might excel at seeing patterns in numbers while another perceives patterns in human behaviour. One might learn best through movement and touch while another through visual representation. One might be drawn to abstract concepts while another to concrete applications. This diversity is not a problem to be managed but a reality to be honoured.

The principle of innate potential also implies something about the purpose of education. If potential already exists within learners, then education's role shifts. It becomes less about transmission and more about uncovering. Less about filling empty vessels and more about creating conditions in which treasures can be discovered. The question changes from "How do we get this knowledge into students?" to "How do we help learners recognise and develop what is already within them?"

Implications for Educational Systems

This principle has far-reaching implications for how learning systems are designed.

First, it requires assessment that focuses on growth and discovery rather than merely measuring against external standards. If every learner possesses unique potential, then assessment must attend to individual trajectories of development. The relevant questions become: Where was this learner three months ago, and where are they now? What capacities have become visible that weren't visible before? What areas of strength are emerging? This doesn't eliminate standards or benchmarks, but it situates them within a larger frame of individual growth.

Second, it demands personalised pathways to learning. If each learner's potential is unique, then educational experiences cannot be genuinely identical for everyone. personalisation here means more than simply adjusting difficulty level or pacing. It means understanding each learner's context, strengths, interests, and aspirations, then designing learning experiences that connect with and build from these. It means giving learners meaningful choice in what they study, how they study it, and how they demonstrate their learning.

Third, it requires systems for understanding learners deeply. Uncovering and nurturing potential demands knowledge of who each learner is: their background, their experiences, their current capacities, their dreams and aspirations. This understanding cannot be superficial or formulaic. It must be built over time, through relationship, through careful observation and conversation. Educational systems must create structures that enable and prioritise this deep knowing.

Finally, it shifts the role of educators within the system. Rather than primarily transmitting knowledge, educators become guides in a process of discovery. They create experiences that allow potential to surface. They ask questions that help learners recognise their own capabilities. They provide challenges that direct learners towards new capacities. They celebrate growth and help learners see how far they've come.

From Principle to Structure

This principle shapes several key elements of the Bhutan Baccalaureate Learning Process. Backstories provide the foundation for understanding each learner's unique context, strengths, and aspirations. Roadmaps give learners agency in designing their own learning journeys and determining what success looks like for them. Personalised learning experiences honour the diversity of how potential manifests in different individuals. Assessment practises focus on documenting individual growth over time. The mentorship system creates the sustained relationships through which potential can be recognised and nurtured. These structures, detailed in Part II, all follow from the commitment to seeing and developing what is already present within each learner.

Principle 2: Human Development Is Wholistic and Interconnected

Human beings do not develop in fragments. When a child learns to read, they are not only acquiring a cerebral skill. They are also building confidence (emotional), engaging with others through shared stories (social), sitting in certain postures (physical), and potentially encountering questions about meaning and values (spiritual). When a learner discovers a passion for environmental science, it can simultaneously deepen their understanding of natural systems, connect them to communities of practice, inspire ethical commitments, and give them a sense of meaning. When an athlete trains for a competition, they develop not only physical capabilities but also mental discipline, emotional resilience, and often a deeper understanding of commitment and purpose.

The Bhutan Baccalaureate's second core principle recognises this fundamental reality: cerebral, emotional, physical, social, and spiritual growth are not separate processes occurring in parallel. They are dimensions of a single, integrated process of human development. Each dimension influences and is influenced by the others. Growth in one area creates conditions for growth in others. Development in one dimension ripples across the whole person.

This interconnectedness is not merely theoretical. It describes how learners actually experience their lives. A learner doesn't leave their emotions at the door when they enter a mathematics class. An athlete's performance depends not only on physical conditioning but also on mental focus, emotional regulation, and sometimes a sense of connection to something larger than themselves. A meaningful conversation with a peer can simultaneously deepen social bonds, clarify thinking, and open questions about values and purpose.

Yet many educational systems organise themselves around separate subjects, each with its own curriculum, assessment, and faculty. Academic achievement often receives the most attention and resources, while emotional, physical, social, and spiritual development are treated as supplementary or relegated to specific times and spaces.

The principle of wholistic interconnection invites a different approach, one that honours how learners actually experience their development. It asks: How can learning experiences engage the whole person? How can schools support development across all dimensions, not just cognitive growth? How can assessment recognise the full spectrum of human flourishing? When learning honours these natural connections, it becomes more meaningful, more engaging, and more likely to support genuine human flourishing. Learners develop not as collections of separate capabilities but as integrated persons capable of bringing their full selves to whatever they encounter.

Implications for Educational Systems

Recognising that human development is wholistic and interconnected requires fundamental shifts in how educational systems are designed.

First, it demands curricula that deliberately connect multiple areas of development. Rather than treating subjects as isolated domains, curriculum design must ask: How does this learning experience engage not only cognitive capacities but also emotional awareness, physical engagement, social connection, and questions of meaning? This doesn't mean every lesson must explicitly address all five areas, but the overall design of learning should ensure that all dimensions receive sustained attention and that learners regularly encounter experiences where multiple dimensions converge.

Second, it requires assessment practises that look across domains. If development is interconnected, then assessment cannot focus solely on academic achievement. Schools must also attend to learners' emotional well-being, their capacity for healthy relationships, their physical health and body awareness, their sense of purpose and ethical development.

Third, it necessitates collaborative structures among educators. If no single dimension of development happens in isolation, then educators cannot work in isolation either. Those supporting cerebral development need to be in conversation with those attending to emotional, physical, social, and spiritual growth. Schools need structures that enable this collaboration, where insights about learners can be shared across different contexts and perspectives, where responses to learners' needs can be coordinated and wholistic.

Finally, it demands that educators themselves attend to their own wholistic development. Educators who cultivate their own emotional awareness, physical health, relational capacities, and sense of purpose create environments where learners can do the same. Professional development must support educators not just as instructors but as whole persons engaged in their own ongoing growth.

From Principle to Structure

This principle directly informs the Five Areas of Development that structure the entire Bhutan Baccalaureate Learning Process: Cerebral, Emotional, Physical, Social, and Spiritual. Rather than treating these as separate tracks, the system emphasises their interconnection. Learning experiences are designed using the principle of Cross-pollination, deliberately connecting multiple areas and content domains. Assessment looks at growth across all five areas, not just academic achievement. Roadmaps help learners set goals that span multiple dimensions of their development. The mentorship system enables educators to know and support learners as whole persons rather than only as students of particular subjects. These structures, explored in Part II, all follow from the recognition that human beings develop as integrated wholes, not as collections of separate parts.

Principle 3: Learning Emerges Through Relationship

Learning is not a solitary act. It happens in conversation, in collaboration, in the space between people. A child learns language by interacting with caregivers who respond to their attempts at communication. A musician develops their craft through lessons with mentors, rehearsals with ensembles, and performances for audiences. A scientist advances understanding through dialogue with colleagues, building on others' work, testing ideas in community. Even reading, which appears as a solitary activity, is fundamentally relational: a conversation across time with an author, often enriched by discussion with others who have read the same text.

The Bhutan Baccalaureate's third core principle recognises that knowledge and wisdom develop through meaningful connections between individuals and communities. This is not merely a claim about effective learning approaches. It is a statement about the nature of learning itself. Understanding deepens when we articulate it to others. Skills develop through observation, practise, and feedback. Values form through witnessing how others live and through conversations about what matters.

Relationships enable learning in multiple ways. They provide models: we learn by watching others, by seeing possibilities embodied in actual people. They offer support: encouragement when we struggle, celebration when we succeed, accountability to keep us engaged. They create challenge: others push us beyond what we would attempt alone, offer perspectives we hadn't considered, question our assumptions. Finally, they generate meaning: learning feels purposeful when it connects us to others, when we can use what we learn in service of relationships and communities we care about.

This principle applies at multiple scales. At the most intimate level, the mentor-mentee relationship provides sustained support and guidance. Peer relationships offer collaboration, friendly challenge, and the experience of learning with and from equals. Relationships with family and community members connect learning to contexts beyond the school and provide resources, wisdom, and purpose. Even the learner's relationship with themselves—self-awareness, self-compassion, the capacity for self-reflection—emerges through and is shaped by external relationships.

Importantly, this principle doesn't suggest that all learning must happen in groups or that individual work has no place. Rather, it recognises that even individual learning is enabled and enriched by relationships. A learner working independently draws on the internalized voices of mentors, applies skills learned from others, pursues goals shaped by relationships, and often intends to share what they discover with their community.

Implications for Educational Systems

Recognising that learning emerges through relationship requires rethinking how educational systems are structured.

First, it demands that relationship-building be prioritised rather than treated as incidental. Educational systems must create structures that enable deep, sustained relationships to form. This means engaging learners with mentors over extended periods, creating time and space for meaningful conversation, and designing learning experiences that bring people together in authentic ways.

Second, it requires collaborative rather than competitive structures. If learning happens through relationship, then peers are resources for one another, not rivals. Systems must emphasise collaboration, peer learning and teaching, and collective achievement alongside individual growth. This doesn't eliminate the value of individual work or personal excellence, but it situates them within a context of mutual support and shared purpose.

Third, it demands engagement with communities beyond school boundaries. If learning happens through relationship, then schools cannot be isolated from the communities they serve. Community members become mentors, learning sites extend beyond campus, learners engage with real issues affecting their communities. This permeability enriches learning by connecting it to meaningful contexts and diverse perspectives.

Finally, it means educators must develop their own relational capacities. The ability to build trust, to listen deeply, to hold space for others' growth, to facilitate productive collaboration; these are not innate traits but developed skills. Professional development must support educators in cultivating these capacities.

From Principle to Structure

This principle shapes the mentorship system at the heart of the Bhutan Baccalaureate, where sustained relationships between mentors and mentees provide the foundation for personalised learning. It informs the mentor group structure, where learners of different ages learn together and from one another. It drives community-engaged learning experiences, where learners work with and learn from people beyond school. It shapes assessment practises that include peer feedback and collaborative review. The Roadmap process itself is fundamentally relational, created through dialogue between learners, mentors, and families. These structures, detailed in Part II, all follow from the recognition that learning flourishes in the context of authentic, caring relationships.

Principle 4: Learning Must Be Context-Responsive and Ever-Evolving

No two learners are identical. They can come from different families, communities, and cultural backgrounds. They can carry different experiences, speak different languages, hold different values. They can face different challenges and different opportunities. What makes sense in one context may not in another. A learning experience designed in an urban context may not serve rural communities. Curriculum developed for one cultural context may not resonate in another. Learning approaches effective with one group of learners may need adaptation for others.

The Bhutan Baccalaureate's fourth core principle recognises that effective learning responds to the specific context in which it occurs. This applies at multiple levels. At the level of the individual learner, it means understanding their unique background, strengths, interests, and current needs. At the level of the learning community, it means attending to local culture, available resources, community priorities, and environmental conditions. At the level of time, it means recognising that what was effective last year may not be this year, that learners change, communities evolve, and the world transforms.

This principle challenges the notion that education can or should be standardised across all contexts. While certain principles may be universal—the recognition of innate potential, the interconnectedness of development, the importance of relationship—how these principles

manifest in practise must be contextualised. A school in a mountain village and a school in a capital city may both honour innate potential, but the learning experiences through which potential is discovered will differ. Both may emphasise relationship, but the forms those relationships take will reflect local culture and community structures.

Equally important is the principle that learning must be ever-evolving. Knowledge itself changes as new discoveries are made, new technologies emerge, and new challenges arise. The skills needed in the world shift as societies transform. Educational systems that remain static, that continue doing what they have always done simply because it is familiar, fail to serve learners who will live in a future different from the present.

This constant evolution happens at multiple timescales. Within a single year, educators learn from observing their learners and adjust their approaches. Over years, as communities change and new insights emerge, educational systems must transform more fundamentally. This evolution is not directionless. It is guided by core principles and informed by careful reflection on experience. But it requires systems to be designed for adaptation rather than rigidity.

Implications for Educational Systems

Recognising that learning must be context-responsive and ever-evolving requires building flexibility into educational design.

First, it demands curricula that can be contextualised. Rather than prescribing every detail of what should be taught and how, curriculum frameworks provide principles, core concepts, and areas of development while leaving space for local adaptation. Schools must have the authority and capacity to shape curriculum to their specific context: their learners, their community, their environment, and their aspirations. This doesn't mean abandoning standards or shared goals, but it means achieving them through locally meaningful ways.

Second, it requires assessment systems that can adapt to different contexts and individual learners. If what matters varies by context, then assessment cannot be identical everywhere. More fundamentally, if learners are pursuing different pathways towards their potential, then assessment must be personalised, attending to individual

goals and growth rather than only measuring everyone against the same benchmarks at the same time.

Third, it necessitates structures for regular reflection and adaptation. Schools need processes through which they examine their practises, learn from their experience, and make adjustments. This includes reflecting on individual learners' progress and needs, but also examining the effectiveness of the learning system as a whole itself.

Fourth, it demands that educators themselves be learners, continuously developing their craft. If educational systems must continuously evolve, then those who work within them must also. Professional learning becomes an expected and ongoing practise.

Finally, it requires partnership with communities. Context-responsiveness is impossible without understanding context, which means schools must be in genuine dialogue with the communities they serve. Community members must have a voice in shaping educational goals and approaches. Their knowledge, priorities, and aspirations must inform how learning is designed and what it seeks to accomplish.

From Principle to Structure

This principle explains why the Bhutan Baccalaureate provides a Curriculum Framework rather than a fixed curriculum, giving schools the responsibility to contextualise it to their setting. It drives the Roadmap process, where plans are regularly reviewed and adjusted based on learners' evolving needs and goals. It informs school-specific vision documents that are created annually, allowing schools to reflect on their journey and set a direction that is responsive to their current reality. It shapes the emphasis on dynamic learning experiences that can adapt to what learners need in the moment rather than rigidly following predetermined plans. The entire system is designed for ongoing evolution, with regular cycles of reflection and adjustment built in at individual, classroom, and school levels. These structures, explored in Part II, all follow from the recognition that effective learning cannot be static or one-size-fits-all but must continuously respond to the living reality of learners and communities.

Principle 5: Individual Flourishing In Service of Collective Wellbeing

Human beings are not isolated individuals. We are born into families, raised in communities, and shaped by cultures. We depend on others for our physical survival, our emotional well-being, our intellectual development, and our sense of meaning. The air we breathe, the food we eat, the knowledge we inherit, the language we speak; these all come to us through relationships and communities.

The Bhutan Baccalaureate's fifth core principle recognises this fundamental interdependence: personal development and collective well-being are not opposed but deeply connected. Individual flourishing finds its fullest expression not in accumulation or achievement for its own sake, but in contributing to something larger than oneself: to family, community, society, the natural world, and future generations.

This principle does not diminish the importance of individual growth. Each person's unique potential deserves to be discovered and developed. Personal well-being, individual joy, and self-actualisation matter deeply. The principle suggests, rather, that individual and collective flourishing enhance one another. When individuals develop their capacities, communities benefit from their contributions. When communities thrive, they create conditions in which individuals can flourish.

This understanding shifts how we think about success and purpose. Success becomes not just personal achievement but the ability to contribute meaningfully. Purpose emerges not only from individual passion but from understanding how one's gifts can serve others. Excellence is still cultivated, but it is excellence in service of something beyond the self.

This principle also addresses questions of ethics and responsibility. If we are fundamentally interconnected, then our choices ripple outward, affecting others and the world we share. Education must therefore help learners understand the consequences of their actions, develop ethical discernment, and cultivate a sense of responsibility for the well-being of the whole.

Importantly, the natural world is an essential dimension of this collective well-being. Humans exist within and depend upon ecosystems that sustain all life. The health of communities and the flourishing of individuals both rest on the health of the planet. Education must help learners

understand themselves as part of nature, not separate from it, and develop both the knowledge and care that enable them to live in balance with the natural world.

The Bhutan Baccalaureate describes this orientation towards interconnectedness and ethical action as cultivating an Aesthetic Mindset. Aesthetics here means more than the study of beauty; it signifies a vital engagement with ethics and an expansive awareness of our interdependence with all life. An Aesthetic Mindset emerges as learners come to viscerally understand that their actions matter, that they are linked through cause and effect to everything and everyone around them. This awareness becomes a wellspring of ethical sensibility and values, transforming responsibility from obligation into recognition. When learners develop an Aesthetic Mindset, they find meaning and joy in their relationships with all beings and their fundamental unity with nature. Connection with natural spaces where ecosystems flourish becomes particularly potent for cultivating this awareness, as learners observe nature's patterns and recognise their own growth and relationships reflected in these processes. Over time, the Aesthetic Mindset shapes how learners engage with knowledge, technology, and community, ensuring that their development and contributions are guided by appreciation for interdependence and commitment to the wellbeing of the whole.

Implications for Educational Systems

Recognising that individual flourishing and collective well-being are interdependent requires educational systems to cultivate both personal growth and social consciousness.

First, it demands learning experiences that connect individual growth to service. As learners develop their capacities, they should have opportunities to use them in ways that benefit others. This doesn't mean every activity must be explicitly service-oriented, but the overall arc of education should help learners understand their development as connected to contribution. Community-engaged projects, service learning, collaborative problem-solving around real issues; these all become central to the learning process.

Second, it demands curricula that explore interconnection and responsibility. Learners need opportunities to understand how human communities and natural systems are interrelated, how choices affect others, how individual actions carry collective impact. This includes both knowledge (understanding ecological systems, social structures, global interconnections) and practise (making decisions with others in mind, taking responsibility for one's impact, contributing to shared goals).

Third, it requires engagement with real community needs. If education aims to develop capacity for contribution, then learners must engage with actual challenges that their communities face. This grounds learning in meaningful context, connects it to purpose, and helps learners see themselves as capable of making a difference. Schools become not isolated from their communities but deeply embedded in them.

Finally, it means cultivating qualities that enable contribution: empathy, ethical reasoning, collaboration, and the capacity for leadership that inspires and coordinates collective action. Understanding how one's choices affect others, developing integrity and respect for differing perspectives, and taking responsibility for one's impact on communities and the natural world become essential aspects of education. These are not supplements to academic learning but essential dimensions of human development that educational systems must deliberately nurture.

From Principle to Structure

This principle shapes service-based learning experiences throughout the Bhutan Baccalaureate, where learners engage with community needs and use their developing capacities in service of others. It informs community partnerships that connect schools deeply with the contexts they serve. It drives assessment practises that look at contribution and collaborative capacity alongside individual achievement. It influences the Roadmap process, which helps learners connect personal goals to larger purposes and collective aspirations. The integration of collective well-being throughout the Five Areas of Development ensures this principle permeates all dimensions of learning. These structures, detailed in Part II, all follow from the recognition that individual and collective flourishing are inseparable and that education must cultivate both. The cultivation of an Aesthetic Mindset, detailed in Part II, provides the foundation for this integration, guiding

how learners engage with knowledge, nature, technology, and community in ways that honor interconnectedness and serve collective wellbeing.

Conclusion: Principles to Practise

These five principles form not a list but an integrated whole. Each principle illuminates and reinforces the others. Recognising innate potential requires understanding that development is wholistic and interconnected. Wholistic development happens through relationship, which in turn must be context-responsive, adapting to the unique realities of each learner and community. And all of this finds its purpose in connecting individual flourishing to collective well-being.

Together, these principles provide the theoretical foundation for everything that follows. They answer the fundamental question: Why does the Bhutan Baccalaureate Learning Process take the shape it does? Every structure, every practise, every design decision flows from these core beliefs about learners, learning, and educational purpose. The Backstory and Roadmap system follows from the principle of innate potential. The Five Areas of Development reflect the wholistic, interconnected nature of human growth. The mentorship system embodies the principle that learning emerges through relationship. The emphasis on contextualisation and ongoing evolution recognises that learning must be responsive and adaptive. The integration of service and community engagement expresses the commitment to collective well-being alongside individual flourishing.

These principles also provide criteria for ongoing decision-making. As schools implement the Bhutan Baccalaureate, they face countless choices about curriculum, learning approaches, assessment, and practise. The five principles offer guidance: Does this choice honour learners' innate potential? Does it address the whole person? Does it strengthen relationships? Does it respond to our specific context? Does it connect individual growth to collective well-being?

Part II explores how these principles translate into the architecture of the Bhutan Baccalaureate: the Five Areas of Development, Backstories and Roadmaps, the mentorship system, learning experience design, and Skills, Processes and Watermarks. These structures work together to support learners in becoming what the Bhutan Baccalaureate calls Persons of Substance: individuals who are constructive, contributory, and equipped to promote justice and harmony in their communities. While the structures themselves provide the framework for the Learning Process, how they are practised and implemented must be contextualised to each school and community. Fundamentally, what remains constant across all contexts are these five core principles. They provide the foundation upon which any educational community can build, adapting practises to serve their learners, honour their culture, and realise their aspirations.

PART II:

THE ARCHITECTURE

A note on terminology: In the Bhutan Baccalaureate, ‘learner’ is used to reference any person who is participating in the Learning Process. This includes students, teachers, and other members of a school.

The Bhutan Baccalaureate Learning Process provides an architecture for schooling derived from its core principles. This architecture indicates the common, structural elements of all Bhutan Baccalaureate schools, which together bend the school towards its learning purpose. When schools embrace these architectural elements, they come to share a meaningful and recognisable aesthetic.

The elements described in this section – the Five Areas of Development and Domains, the structures for personalised learning, and the aspirations that guide growth – together define the design, organisation, and functional structure of a Bhutan Baccalaureate education. They exist to shape how people interact with one another. This is the purpose of the architecture: to give rise to a set of relationships that are conducive to wholistic learning and development.

The architecture of the Learning Process is living and dynamic, designed to be responsive to context, and will take shape differently in different settings. All elements are, however, integral to the whole system, and Bhutan Baccalaureate schools should incorporate each part described below. This section is written with educators and school leadership in mind, and intends to provide a high-level blueprint for a Bhutan Baccalaureate school. The question prompts should help leaders and educators begin imagining how each element could be contextualised to their community. Readers are invited to hold these questions in mind: How might the architectural components be understood in my context? What metaphors and stories could I use to convey these concepts and relationships in my community?

The Five Areas of Development

The Bhutan Baccalaureate recognises that learning is a dynamic, integrative process that involves a person's whole being and unfolds through their relationships. Capabilities are interconnected—growth in one area supports growth in other areas. With this understanding, the Bhutan Baccalaureate's curriculum is anchored in a system called The Five Areas of Development.

The Five Areas of Development is a view of human development and an approach to learning that informs the whole Learning Process. As the name suggests, it points to five broad, interconnected aspects of human growth: cerebral, emotional, physical, social, and spiritual. These aspects are fundamentally inseparable, but describing them as distinct helps us attend to the multidimensionality of human development. When used as the basis for curriculum, the Five Areas of Development ensures that learning addresses all aspects simultaneously.

As each area is described below, cross-linkages and overlaps will be apparent. Physical development, for instance, requires emotional capabilities and exercises cerebral strength. Aspects of spiritual development could equally be understood as social development. The Five Areas of Development should be used as a heuristic for designing curriculum and assessing growth in a rounded, balanced way.

Within each Area of Development, there is a constellation of abilities and qualities that help a person to flourish in community in a way that promotes greater justice and harmony. The descriptions below should convey the intention and directionality of each Area of Development, but the particular abilities and qualities themselves are indefinite – these must be articulated by communities. Schools should develop a common understanding of how each Area of Development can be cultivated and how growth can be observed. To support contextualisation, the Bhutan Baccalaureate suggests aspects of each Area of Development to explore, and offers a few questions to spark conversations in school communities. Where appropriate, example articulations and reflections have been provided by The Royal Academy in Bhutan; these rich descriptions have been used by The Royal Academy to design learning experiences and personalised assessments of growth.

This section closes with a discussion of Domains of learning and the Bhutan Baccalaureate's conceptualization of Aesthetics, Nature, and Technology. Together with the Five Areas of Development, these interlinked ideas create a foundation for the Bhutan Baccalaureate curriculum.

Social Area of Development

Social development enables a person to live in harmonious and meaningful relationship with their whole self and with others. As these internal and external relationships clarify and deepen, a person can actively maintain inner peacefulness, and live more harmoniously within diverse groups while pursuing common good.

Social development involves cultural competency, communication, collaboration, and civic engagement. These abilities have observable, interpersonal aspects, but they are born of clear perception and compassionate understanding. To apply them in relationships, a person must recognise the inherent qualities and resources within all people. As with all Areas of Development, social development requires a balanced cultivation of inner and outer skills.

As social capabilities mature, a person is able to be generous, ethical, and effective in communities. They hold a clear understanding of themselves in relation to others and society, and are able to shape the roles they play and wisely navigate their responsibilities.

A school should provide an environment rich with opportunities for constructive interaction with peers, other generations, different communities, and to the extent possible, the natural environment. Just as important, a school should provide opportunities for individual and group reflection on these interactions and relationships. Active and broad participation in communities is at the heart of the Bhutan Baccalaureate curriculum because learning is an inherently social process.

In a school, a learner's social development may be observed along three axes which are interdependent and mutually supportive: how the learner understands their own self and others; how the learner works with others towards a common goal; how the learner becomes part of their communities. A diverse group of learners and leadership at The Royal Academy in Bhutan articulated these aspects of social development in their own words:

When learning to understand oneself and others, we should seek not just to comprehend but also to appreciate and engage diverse perspectives. Compassion and connection enable the exchange of ideas and views, and support the realisation of shared humanity.

When working with others towards a common goal, we may grapple with inner and interpersonal conflict, and we must cooperate with others to reconcile dissonant values and priorities. Often, this work begins with the work of discerning diverse needs and forging a common aspiration. The skills for navigating conflict are indivisible from the skills for problem-solving and for forging solidarity with others.

As we become part of their communities, we come to appreciate our roles in society and develop an organic sense of responsibility and respect. We participate in such a way that sustains their personal wellbeing and promotes the wellbeing of the whole, responding to changing needs and strengths in themselves and across the community. We will become skilled at perceiving different cultures and social expectations, and develop the ability to adapt to different contexts while preserving integrity.

To develop a common understanding of social development and tools for observing growth in this area, school communities may find it helpful to consider together:

- *What capabilities and experiences help us engage and appreciate diverse perspectives in our community?*
- *What skills and qualities of character help us hold complexity, and manage internal contradictions, plurality, and possibility?*

- *What does solidarity mean in our community? How do we gather, how do we celebrate, and how do we respond collectively to challenge? What individual and group capabilities do these require?*
- *How do each of us come to understand and shape our roles in our communities, and how do we learn our responsibilities?*
- *How do we express need, and what qualities and skills enable us to perceive and respond to others' needs?*
- *How do we cultivate and share joy?*

Emotional Area of Development

Emotional development is a gradual, integrative process that helps a person maintain equanimity and connect with others, even in challenging circumstances. Emotional maturity requires cultivating awareness of internal emotional states and building skills to work with them mindfully. With skillful regulation and a wholesome attitude, a person can nurture positive mind states and, by expressing emotions wisely, support others in doing the same. Emotional maturation brings self-confidence and increases a person's capacity for empathy, and enables them to form bonds of trust.

A key part of emotional development is recognising emotions as formations of mind that impact our perception of the world, and learning how they can be regulated. With sufficient internal awareness, a person can observe how emotions arise and pass. When a person engages with an emotion, it is strengthened and arises more frequently; when they disengage from an emotion and view it with equanimity, it diminishes and arises less frequently. In such a way, a person can incline their mind towards wholesome states.

Empathy is a natural capacity. It is also a skill that can be cultivated through listening, sensing with openness, and responding with care. Empathy is essential to emotional development because it helps a person connect with others and form wholesome relationships. Wholesome relationships also foster positive emotions and support mutual regulation, which further supports emotional development.

In school, a learner can pursue emotional development by focusing on four mutually-supportive capabilities: recognising emotions, regulating emotions, empathizing, and building relationships. Learners at The Royal Academy in Bhutan formulated the following reflection on emotional development in their community:

Recognising emotions involves attending to and interpreting one's internal state and sensations. Learners will formulate a strong emotional vocabulary, and describe their thoughts and feelings to others in a clear, appropriate, and timely way. They will also develop a nuanced understanding of their own internal landscape and how it changes: they will detect patterns in their emotional reactions to thoughts and stimuli, and see how those emotions impact their experiences and relationships. This clear understanding helps the learner to take responsibility for their emotions and consequent actions.

Regulating emotions requires emotional awareness and understanding. Emotional regulation involves a person's relationship with their emotions: their ability to manage and respond skillfully to emotions as they continually arise. Healthy emotional regulation allows a person to stay connected to their values and make sound decisions, even in the midst of strong emotions. It also allows them to maintain a broad perspective and feel empathy for oneself and others in situations of conflict. Emotional regulation increases a person's inner stability, resilience, capacity for connection, and generosity. It is a key foundation for ethical action.

Skillful emotional regulation opens space for empathy. Although empathy is an innate capacity, it can be intentionally cultivated and practised to promote connection and build relationships. Empathy is a doorway to social insights and deeper understanding of others, and fosters qualities such as cultural sensitivity, respect for differences, and sense of belonging. The most generative learning about people, cultures, and societies springs from a foundation of empathy.

Emotional development and relationship-building are mutualistic processes. Forming and sustaining healthy relationships requires continuous awareness, understanding, management, and communication of emotions, and empathetic learning. In school, a learner's emotional development is evidenced in their ability to manage and resolve conflict, collaborate across differences, take decisions that promote group wellbeing, and advocate effectively for their own and others' needs. These capabilities integrate all Areas of Development and require emotional maturity.

To develop a common understanding of emotional development and tools for observing growth in this area, school communities may find it helpful to consider together:

- *What practises help us attend to and describe our internal states and sensations?*
- *What conditions and capabilities support steady, kind inner attention to strong emotions?*
- *What group practises enable us to pursue ethical action and maintain integrity to values?*

Physical Area of Development

Physical development concerns the maintenance of physical wellbeing and a wholesome relationship to the body, such that a person may utilise their energies, senses, and capabilities to flourish in their environment. The body is an instrument for attuning to and connecting with one's own self and the world, and it is central to the process of learning. Learning is active, social, and embodied, and knowledge is integrated through the body, mind, and interactions with the environment. The body is itself a source of knowledge and insight, and mindfulness of the body is central to wholistic development. Physical development also involves cultivating respect for all bodies, and from this foundation, tending to one's own and helping others do the same.

In developing their curricular framework for cultivating the Physical Area of Development, learners at The Royal Academy in Bhutan reflected:

We understand that maintaining physical health requires a dynamic balance of rest, bodily hygiene, movement, fitness, nourishment, and sensory attunement. In our school, learners develop routines that help them maintain their health and develop their natural strengths. Mindfulness of the body, knowledge-building, and feedback from others help the learner continually adjust personal goals and the accompanying routines to ensure sustainability and the learner's overall wellbeing. A wholesome relationship to one's body is necessary for physical health, and this is strongly supported by emotional and spiritual development.

Physical development, like all Areas of Development, is driven by integrative learning processes that are best enacted in communities. In our school, sports and collective arts (dances, team-based games, group musical performances, etc.) are important means for physical development as they integrate its social, emotional, spiritual, and cerebral aspects and provide opportunities to explore cooperation and harmonization towards a physical and aesthetic ideal.

Physical safety and protection are fundamental conditions for overall flourishing, and are critical conditions for learning and development. Our approach to physical development includes attention to the community conditions which promote everyone's safety and protection and support collective health and wellbeing. The health of one's mind and the health of one's community are often evidenced in a person's body, and so physical health is an important indicator of broader wellbeing.

To develop a common understanding of physical development and tools for observing growth in this area, school communities may find it helpful to consider together:

- *How do we engage our bodies to explore and connect with the world? What does learning feel like in the body?*
- *What practises of speech and thought support a clear and compassionate relationship with the body?*
- *What practises help learners at different developmental stages stay connected with their bodies across settings and activities?*

- *In what ways does the health of our community and natural environment affect the health of our bodies? How can our community support safety and flourishing?*

Cerebral Area of Development

Through cerebral development, a person *learns how to learn*. They become aware of their own perception, memory, language, attentional capacity, decision-making, and the profound impact of context upon these functions. They see how their environment, history, beliefs, expectations, aspirations all shape their cognition, and simultaneously, they develop the skills to manage these influences constructively. Through cerebral development, a person becomes capable of directing and improving their own processes of growth.

The Learning Process nurtures cerebral development by helping all learners - teachers and students - investigate *how* they are learning, up close and from a larger view, so that they see micro and macro patterns in their personal growth. As these patterns of growth become visible, learners gain insights that are encouraging and empowering. With greater awareness and agency in their own learning, learners take ownership of this fundamental capacity and develop consciously towards their aspirations.

Cerebral Area of Development can be understood in terms of four aspects: cognitive processes, critical thinking, creative thinking, and metacognition. Faculty at the Royal Academy in Bhutan articulated the four aspects of development suggested above in their own words, based on their observations and understandings of cerebral growth:

Cognitive processes shape how a learner perceives, processes, and responds to information across different contexts. Sustained attention enables learners to stay focused on tasks and work steadily towards long-term goals without distraction. This focus strengthens memory functions, so that learners retain, recall, and reason with information to make informed decisions. Cognitive growth involves the interpretation of information, both consciously and unconsciously, which allows learners to form thoughts, opinions, and emotional responses with

appropriateness. The ability to evaluate and regulate one's learning strategies and thought patterns also influences how a learner engages with knowledge.

Critical thinking enables learners to analyse complex information and abstract ideas systematically, encouraging them to question assumptions, explore multiple perspectives, and construct well-reasoned conclusions. In evaluating arguments or claims against their logical or ethical criteria, learners enhance their ability to discern the validity, relevance, and strength of evidence presented to them. Moreover, critical thinking enables the synthesis of new ideas by connecting prior knowledge with new information. This process helps learners come up with new ideas or ways of adapting in a constantly changing world. Applying this synthesised knowledge to real-life tasks allows learners to make informed, responsible decisions and navigate the complexities of a community effectively. In doing so, they not only develop cognitive flexibility but also strengthen their metacognitive skills, becoming aware of how they think, learn, and make decisions.

Creative thinking enhances the ability to imagine, innovate, and generate original solutions in varied contexts. It encourages learners to go beyond conventional boundaries, using a wide range of unique and original ideas to communicate concepts or shape these ideas into meaningful and tangible representations. Through this process, learners develop curiosity, open-mindedness, and a willingness to experiment with new possibilities. They come to recognise that creativity is not a one-time event but a cyclical, long-term process filled with experimentation, small breakthroughs, and learning from frequent mistakes. This mindset helps them build resilience and flexibility as they reflect on their experiences and draw meaningful insights from them.

Metacognition is the ability to think about thinking. It involves recognising one's cognitive strengths and areas that need improvement, engaging in reflection to emerge with a deeper awareness of how one learns, processes information, and approaches any situation. Through metacognitive awareness, learners gain insight into factors such as environment, motivation, prior knowledge, and

mindset that influence their learning. Through the Learning Process, learners constantly introspect about the choices available and make informed decisions about the strategies that best support their learning and growth. As they progress, they are able to navigate complex tasks, monitor their progress, and reflect on the effectiveness of different approaches.

To develop a common understanding of cerebral development and tools for observing growth in this area, school communities may find it helpful to consider together:

- *How do we engage our bodies to explore and connect with the world? What does learning feel like in the body?*
- *What practises of speech and thought support a clear and compassionate relationship with the body?*
- *What practises help learners at different developmental stages stay connected with their bodies across settings and activities?*
- *In what ways does the health of our community and natural environment affect the health of our bodies? How can our community support safety and flourishing?*

Spiritual Area of Development

Spiritual development connects a person with a deep sense of purpose, and provides a means of discerning ultimate priorities and ascribing significance to experiences. Although religiosity and cultural traditions may shape a person's spiritual development, spirituality is independent from these structures and belief systems. Spiritual development deepens a person's connection with Nature, reveals the inherent goodness and potentiality in all people, and motivates benevolence and generosity towards all life. When mature, spirituality supports ethical reasoning and inner stability required to meet challenges with kindness, wisdom, and equanimity.

Spiritual development emerges from insights into the interconnectedness and conditionality of all phenomena, the recognition of universal and continuous change, and the discovery of one's innate altruism and capacity for self-actualisation. Sustained observation of causes and effects becomes the basis for ethical reasoning and the

formation of values. Continued mindfulness, guided by compassion, enables a person to come into right relationship with themselves, their communities, and their environment.

Spiritual maturation brings clear ethical discernment, integrity to values and confidence in action, and the inner resources of stability, resolve, patience, and resilience. It also produces a profound sense of belonging to nature and society as a whole, and motivates the pursuit of justice and harmony. Eventually, these qualities of character and perspectives inhere within a person's identity and worldview, and become foundational to their way of living and notion of citizenship. Spirituality becomes an active state of awareness and a way of being in the world that is guided by morality and purpose. Culture and tradition can be conduits and supports for spiritual development; spiritual development also fosters identity and becomes a social foundation.

In school, learners can support spiritual development by practising skills of inner awareness, mindfulness of cause and effect, connecting with community and with Nature, and reflecting on relationships and choices, deriving values and a sense of purpose.

To develop a common understanding of the Spiritual Area of Development and tools for supporting spiritual growth, communities may ponder together:

- *What conditions help us access our inherent compassion for ourselves and others?*
- *When do we have the clearest perception of the causes and effects of our actions, speech, and states of mind? What clouds our self-perception and understanding? How can we help one another notice and understand these causes and effects?*
- *When do we feel most connected with our communities and with Nature? What does that connection feel like, and what reflections or insights arise?*
- *What individual and interpersonal practises help us find a deep sense of purpose?*

Spiritual development is intertwined with the cultivation of an *Aesthetic Mindset*. The Bhutan Baccalaureate has a distinctive understanding of *Aesthetics* which undergirds its curriculum.

Aesthetics, Nature, Technology and the Domains of Learning

In the Bhutan Baccalaureate, *Aesthetics* has deeper meaning than the study of beauty—it is a vital engagement with ethics and an active awareness of our interconnectedness with the universe of life. An Aesthetic Mindset is an outlook on life informed by this expansive awareness and appreciation of interdependence. With an Aesthetic Mindset, people find meaning and joy in their relationships with all beings and their unity with Nature.

The Learning Process helps people grow in their Five Areas of Development, and with balanced progress, it becomes easier for a person to act ethically and with integrity to their values. Aesthetics is the wellspring of these ethical sensibilities and values. Learners develop an Aesthetic Mindset as they live in community and understand that their actions matter, that they are linked through cause and effect to everything and everyone around them. The Learning Process is designed to help learners derive support and cultivate joy in this interconnectivity, and tap into the enormous potential that it allows.

The Bhutan Baccalaureate recognises that connection with Nature is a potent source for these realisations, and so the Learning Process emphasises the importance of immersion in wilder spaces where humanity is less dominant and ecosystems flourish. Nature is respected as a teacher and a vehicle for learning, and natural processes are held up as guides for human development. By studying Nature's patterns, learners better understand their own growth and relationships. Over time, learners also recognise their fundamental unity with nature and understand the primordial state of all life as pure, joyful, wholesome, creative, and ever-evolving.

Aesthetic Mindset, cultivated through connection with Nature, drives a learner's engagement with technology. The Bhutan Baccalaureate embraces technology as an instrument for *augmenting intelligence*, for supporting a person's wholistic development. Crucially, the Learning Process does not apply technology in replacement of a human capacity or to eliminate a developmental need; technologies should extend and

enhance, not replace, human capability. In the Learning Process, nature provides inspiration as people develop and utilise technologies, and an Aesthetic Mindset ensures that applications are responsible and contribute to the broader good.

At the Royal Academy in Bhutan, Aesthetics and Technology have been framed as *Domains* of learning, alongside English, Dzongkha, Mathematics, Sports, and Life Science. Domains are dynamic constellations of knowledge, ideas, and fields of experience, constructed by schools to give a meaningful order to their curriculum. Domains are not absolute, nor do they indicate “real” distinctions between kinds of knowledge, but they show how a community makes sense of its vast and ever-evolving landscape of knowledge. Other schools have delineated Domains otherwise, and addressed Aesthetics and Technology across Domains. These approaches are equally valid. Aesthetics and Technology are essential to all Bhutan Baccalaureate curricula, but they do not need to be framed as Domains.

This flexibility points to a key feature of the Bhutan Baccalaureate curriculum: it can adapt to any pre-existing curriculum structure, and embrace required content. Rather than prescribing material, the Bhutan Baccalaureate promotes a methodology of engagement and integration that enables higher-order learning and wholistic development. This approach makes the Bhutan Baccalaureate agnostic to educational board standards, such that it can be contextualised across different regions.

Personalised Learning

The Five Areas of Development, and the understandings of Aesthetics, Nature, and Technology, together provide a united conceptual system for the whole Bhutan Baccalaureate curriculum. This system ensures that learning remains wholistic and interconnected; it actively counters fragmentation and disciplinary siloing, and embeds learning in community life. Learners engage with the curriculum through structures for personalised learning: Backstories, Roadmaps, Mentorship, teachers as learners, Cross-Pollination, and Assessment.

Backstories and Roadmaps are dual parts of a living architecture of the Learning Process. Backstories prompt reflection for self-understanding and wise discernment; Roadmaps prompt forward planning in alignment with one's needs, ethics, and greater aspirations. Mentorship is the relational practise which harmonizes individual needs with community wisdom. When teachers are engaged as learners, and learning experiences are created through the method of Cross-pollination, the Learning Process generates curriculum and gains forward propulsion. Assessment keeps the whole living architecture tuned to the community's aspirations and ideals.

Backstories

A person's Backstory is an expansive, integrated account of the social, cultural, historical and personal factors that influence how a person is learning and making meaning of their experiences. In the Bhutan Baccalaureate Learning Process, a Backstory reveals the unique assets and strengths that a learner can utilise for their own development and in their formation as citizens. A Backstory is neither fixed nor definitive; it is a dynamic interpretation of the histories and contexts that are informing a person's path of growth. It is also not predictive; a person's context and conditioning do not determine their trajectory. The Backstory provides a medium for exploring, integrating, and analysing a person's infinite contexts and histories in a positive way, for the purpose of wholistic development and building a more inclusive society.

The Bhutan Baccalaureate sees each learner's unique inheritance of social and cultural practises, skills, values, and experiences as forms of knowledge and sources of strength. The Learning Process encourages all learners to engage these assets constructively and

creatively as they develop themselves and forge authentic roles in their communities. Citizenship centres on the processes of recognising commonalities and forming relationships of care across differences to promote greater unity. A just and harmonious society radiates with diversity and cohesion, and citizenship is fostered through the wholistic and inclusive education of each learner.

In the Bhutan Baccalaureate Learning Process, learners continually develop their Backstory in collaboration with their families, mentors, teachers, and community members. This activity involves gathering and reflecting upon the layers of experience and meaning which have given shape to the person's life. It invites the learner to strengthen relationships of familial and cultural significance, and to integrate parts of themselves. In school, learners are supported by adult mentors who can help them engage constructively in this relational work, with compassion for themselves and others, towards the goal of understanding their strengths and inner resources. Furthermore, the Backstory encourages the learner to construct an identity and form a sense of purpose that is grounded in appreciation for their social and cultural connections.

A Backstory situates a learner's development in its contexts, but it does not determine or predict a learner's onward journey. By providing insight into a learner's patterns of growth and by revealing their assets, a Backstory helps a learner plan wisely and marshall the available resources – within themselves and in their communities – to move themselves forward. It allows a learner to study the causes and effects of their choices, and thereby to cultivate wise intention and improve decision-making. By surfacing a learner's familial, cultural, and social connections, a Backstory helps a learner to (re)imagine their roles, and helps them derive a sense of social purpose. It is an essential tool for building learners' agency.

A well-developed Backstory also helps a school understand each learner's strengths, resources, challenges, and aspirations, and provides essential information for the individualization of the Learning Process. Such information may include learners' motivations, knowledge and skills from their lives beyond school, self-perceptions,

literacies, and so on. With this larger understanding of the learner, teachers are better prepared to create individualized assessments and learning experiences that challenge the learner appropriately and engage their existing knowledge and skills. The Learning Process produces rich information that is incorporated into learners' Backstories, creating a dialectical loop of learning and reflection.

Roadmaps

A Roadmap is a dynamic and continually-evolving plan for a learner's wholistic development. It is rooted in a learner's Backstory, and oriented towards the learner's goals spanning the Five Areas of Development. The Roadmap enables the learner, their family, and their mentors to collaborate in shaping the learner's educational journey.

Roadmaps and Backstories live in a dialectical relationship, and together they form the core of the Learning Process architecture. Backstories foster self-understanding, criticality, and a rooted sense of purpose, and Roadmaps help a learner translate these insights into wise intention and action. As Backstories enable learners to study the causes and effects of their choices, Roadmaps support learners in their choice-making.

Roadmaps prompt the learner to articulate what "success" means to them in light of their deepest goals for personal development and aspirations as citizens. Through ongoing practise of maintaining a Roadmap, learners learn how to recognise the evidence and qualities of success in their lived experience. Success has a resonant goodness when it is ethically sound and aligns with the learner's aspirations and the wellbeing of the larger community. Through the Learning Process, the pursuit of authentic success – a true excellence – becomes instinctual and part of one's character. Roadmaps facilitate this habitual orientation towards deeper purpose and integrity in daily life.

As they define what success means to them, learners become able to set their own learning goals and map out pathways to attain them. Based on their own authentic notion of success, learners articulate 'indicators of growth' so that they can better observe their development and adjust their learning accordingly. Roadmaps are a tool to support a learner's agency and autonomy; over time, learners develop the skills to engage

resources and pursue experiences they need for their own learning. A working Roadmap includes specific goals, plans for achieving those goals along a timeline, and indicators of growth that can be used to track their progress.

While the Roadmap centres the learner's perspective and goals, it also incorporates the input of their school and community. Students develop their Roadmaps in collaboration with their primary mentor in school with input from their family and other key members of the school. Younger students receive stronger guidance from their mentor and family, but as they develop greater self-understanding and discernment, their planning becomes increasingly collaborative. This collaboration requires great care: through the mentor-student relationship, students learn to take responsibility for their learning while responding skillfully to critical input. Because a mentor understands the student's Backstory, they can help the student assess the Roadmaps' alignment to their longer-term needs and aspirations and deeper priorities.

In a Bhutan Baccalaureate school, Roadmaps are used to plan development at multiple scales. Groups of students with a shared teacher mentor (see mentor groups, described in the section below) create common group Roadmaps that reflect the needs of their small learning community. This type of Roadmap mimics a Roadmap for a family, and helps learners consider their own needs and goals in the context of a group that exists for the purpose of mutual care and educational support. This kind of Roadmap emerges from the individual Roadmaps of all members, and then develops plans based on their shared needs and aspirations. Responsibilities are allocated based on individuals' strengths and resources.

In a similar fashion, Roadmaps are developed for the large aspects of the school's curriculum, including each Area of Development. These curricular Roadmaps take into account insights from the mentor group Roadmaps, and they guide the development of learning experiences. The school also has a Roadmap that considers the Five Areas of Development of the collective and guides the development of the organisation.

Roadmaps at these higher orders are more than simply a composite or average of the needs and aspirations of their constituency; rather, they reflect the *purpose* of the unit. For instance, a schools' Roadmap answers the question, "How can this school become the best that it can be?" and considers how the organisation should serve individuals, the local community, and the nation.

Mentorship

Backstories and Roadmaps locate a learner at the centre of their educational planning, and together these tools help the learner direct their own path of development from a place of rich self-understanding and wholeness. Mentorship brings community wisdom into this planning process through deep and sustained dialogue and relationship. Mentorship provides beneficial provocation and feedback to clarify the learner's discernment, and provides a broader perspective to aid their choice-making. Although there are many opportunities for community input in a learner's Backstory and Roadmap, Mentorship creates a direct and immediate link between the individual and their communities. It is the relational force that gently steers a learner towards roles that promote greater justice and harmony in society.

The relationship between mentors and mentees is characterized by mutual trust and a shared commitment to personal growth through learning. The practise of mentorship emerges from this quality and purpose, and from a genuine personal connection: both mentor and mentee listen, question, and support one another with patience, care, and generosity. The differences in their experience, in life and in this mode of relationship, become points of departure for mutual reflection and discovery. Mentors and mentees are not distinguished by their relative age, nor their formal positions in school, nor even by the content of their exchange; rather, they support one another in different ways, while both pursuing self-development.

A mentor helps their mentee see the interconnections amongst the mentee's Five Areas of Development and Backstory, and helps them recognise who they are becoming, what they care about, and how they can contribute to their communities. In the Learning Process, the mentor's first responsibility is to help elucidate the mentee's Backstory. Through deep listening and compassionate inquiry, the mentor helps the mentee

understand themselves in the context of their communities and relationships. With young mentees, the mentor may also gather the perspectives of parents and caregivers to build a rounded picture of the child. The mentor also helps their mentee see the causes and effects of their decisions, and recognise opportunities for choice-making. As the mentee develops, the mentor helps the mentee recognise and reflect upon changes in their Backstory. With this rich understanding of their mentee, the mentor helps the mentee to articulate a vision for their lives and then design a Roadmap towards that vision.

The role of a mentor is multivalent and exceeds that of a teacher, but a mentor should not become an authority figure. Mentors should help their mentees cultivate intention, resolve, and discipline, and help them expand their connections across communities. They should hold space for their mentees during times of difficulty and witness their growth. Crucially, mentors should approach their mentees with humility, curiosity, and respect, and should be continually learning with and alongside their mentee.

Mentees, in return, should approach their mentor with respect, openness, and a willingness to be transformed. They are active participants in the practise of mentorship, introducing questions for collaborative exploration, seeking feedback, and probing their mentor's experience. Their learning is social and embodied; mentees absorb how their mentor pursues their own development in relationship with others. As trust develops between mentees and mentors, trust also develops in the process of mentorship itself, so that it deepens and unfolds in an intuitive way. Through this dynamic relationship, mentees develop self-belief, resilience, and clarity about their path.

It is this reciprocity that distinguishes the practise of mentorship. Mentorship is marked by mutual respect and a shared commitment to personal development, rooted in a recognition of the fundamental equality of the mentor and mentee. As mentors embody and enact their own wisdom, discipline, and compassion, they gradually awaken the innate wisdom in their mentee.

In a Bhutan Baccalaureate school, mentorship is the relational foundation for all learning. Mentorship in the Learning Process is more than a structure for student support. It is a transformative and reciprocal relationship built upon trust, which helps learners on both

sides of the equation formulate their identity and develop confidence.

Teachers as Learners

Teachers are understood and respected as *learners* in the Bhutan Baccalaureate, and their role in the Learning Process follows from this view. In order for students to be learning, so too do teachers; the respective roles are distinct but mutualistic. At its heart, teaching is understood to be a process of mutual learning and discovery, in which both help one another uncover their ever-growing capabilities and apply them for community benefit.

The roles of students and teachers are not equivalent: a teacher's focus is on supporting and nurturing their students. Teachers attend closely to students' growth, seek to understand their unique backgrounds, and carefully open opportunities for them to make new connections and realise greater capacities. Teachers also help shape group dynamics to enable trust and safety, inclining students towards kinder, stronger, more generous relationships. To fulfil these responsibilities, a teacher must be continuously learning and responding to their students.

A teacher must also be attending to their own development and wellbeing. To support this, teachers participate in the Learning Process as actively as students, doing many of the same things: constructing their Backstory, updating their personal Roadmap, reflecting on their assessments and progress with a mentor. As more mature learners, teachers are more autonomous, and they hold each other accountable through

friendship and collegial support. But students play a crucial role in supporting teacher development: through their care, observation, inquiry, and reflection, students help their teachers discover greater capacity for curiosity, patience, generosity, and resolve.

In the Bhutan Baccalaureate, teachers and students are both referred to as *learners*. They are called teachers and students respectively only when the circumstance requires the distinction.

Cross-pollination

Cross-pollination is an approach to learning that makes visible the ever-changing and interconnected nature of all phenomena. It requires deliberately connecting multiple Areas of Development and contexts of personal and community experience, with the intention of exploring cause and effect and revealing potential. In the Learning Process, Cross-pollination guides the design of all learning experiences and the curriculum as a whole.

Cross-pollination helps learners come to understand the world and themselves in terms of dynamic processes and relationships. It is a practise of intentionally making connections, seeking and interpreting patterns, and assessing probabilities that helps learners perceive the interconnected and contingent nature of all phenomena. Cross-pollination nurtures a worldview that emphasises the indeterminacy of outcomes and honors the infinite potential in living beings and communities. In a world of continuous becoming, inner conditions affect outer conditions, and so learning experiences are designed to centre the learner's intentions, qualities of mind, and ethical conduct.

Cross-pollination is happening when, for instance, a learner relates their study of human organ systems to the parts of their city, and considers how they might assess and promote the equilibrium and health of the body politic. It is also happening when a learner recognises that their habit of reading works of fiction has made them more curious about the inner lives of people of different ages and backgrounds, and they notice a deepening in their own relationships. Cross-pollination is happening when a learner is touched by a teammate's camaraderie during a sports game, and then remembers to offer

encouragement and support to a classmate who is struggling in a group project. In all of these examples, what's important is the learner's *knowing*: they are aware of the links they are making, and are reflecting on their own development as a whole person. Over time, learners realise the inseparability of their Five Areas of Development and the embodied, interpersonal, environmental and communal aspects of their development.

As it becomes a habit of mind, Cross-pollination feeds a person's ability to analyse dynamic systems and understand complexity. It teaches learners to think in terms of probability and possibility, across scales and over time. Learners become alert to relationships that span fields – from individual experiences, to community structures, to cultural practises, to patterns in human history and environmental trends – as they learn to telescope and magnify their focus. They learn to integrate micro and macro perspectives, and to shift their frames of reference with agility. They learn to see a phenomenon in its manifold contexts, and also master particular methods of analysis. As they gain these skills, they are increasingly able to transfer their skills to new settings, and meet unfamiliar challenges with criticality and creativity.

Cross-pollination imparts a distinctive perspective on the nature of knowledge. It rejects boundaries and hierarchies that often organise knowledge and learning, and asserts that all people and communities produce knowledge. It draws in diverse subjectivities and ways of knowing, and asserts their worth. Cross-pollination creates the possibility of mutual exchange amongst individuals and organisations, and a fluidity in the roles: students teach and teachers learn; peers and organisations learn from one another. Cross-pollination encourages a positive and creative engagement with knowledge from other communities, contexts, and traditions.

With Cross-pollination as its organising principle, the Bhutan Baccalaureate curriculum helps learners develop fluency with many ways of knowing, and value the diverse and rich experiences that everyone brings from their homes, communities, and cultures. It brings into conversation community issues, technological developments, global awareness, spiritual insights, and environmental interdependence.

Cross-pollination aligns the whole Learning Process with the principles of interdependence and impermanence, and ultimately drives the evolution of all Bhutan Baccalaureate schools. Cross-pollination of ideas, knowledge and people amongst various institutions and communities is part of the design of the Bhutan Baccalaureate and essential to its functioning.

The Royal Academy in Bhutan offers the following description of a school enlivened by Cross-pollination:

The synergy between the students, teachers, and the community provides the energy that fuels learning and growth. We draw an analogy of a natural ecosystem with a vibrant river flowing through rich natural landscapes. Students embody the river, bringing energy, curiosity, and willingness to try new things to their learning journey. Much like a river shapes the land it traverses, students shape their journey through the creation of their own Roadmaps, questioning, and exploring new ideas. Teachers act as the steady banks that guide and support this flow, providing structure, mentorship, and encouragement. They help channel students' energy, helping them navigate challenges, while also providing the space for the river to shape the formation of the bank.

Surrounding the students and teachers is the community, akin to the landscape that influences and supports the course of the river. The community provides real-world relevance, practical applications, and resources that enrich the learning experiences. It offers opportunities for students and teachers to understand their roles within society. For this energy to flow across all aspects of the Learning Process, distinctive boundaries between the roles of teachers and students must become more permeable.

Cross-pollination in learning experiences reflects the insight that learning is a *quantum-like* process — that it is non-linear, wholistic, and profoundly context-dependent. A quantum perspective on learning draws attention to conditionality and emergence: the potential for realisations, understandings, and growth exist as dynamic possibilities within a learner until conditions align. Deep understandings and insights precipitate when the learner's pre-existing knowledge, metacognitive awareness, and unconscious processing synchronize in a conducive environment. Far from being a step-wise, incremental progression, learning unfolds differently for different people depending on the moment, the prompt, the emotional climate, and myriad contextual factors.

Cross-pollination increases the likelihood for learning to unfold. By deliberately connecting Areas of Development, engaging learners' funds of knowledge, fostering conducive emotions and steady self-awareness through relationships, and encouraging integration, Cross-pollination creates conditions for insight.

Assessment

Assessment is the engine that drives the Learning Process. The purpose of assessment is to help learners see and understand their journey of development, so that they can better direct their own learning. Like all elements of the Learning Process, assessment practises call learners' attention to dynamic, interrelated processes of change, and they cultivate learners' reflexivity, engagement with community, and connection to a larger purpose. Assessment of learning is conducted by the learner themselves, and all those who are supporting them – their teachers, their peers, their mentors, and even their community members. Assessment should surface the patterns and dynamics of their growth, and provide constructive feedback to help the learner continue more effectively.

Effective assessment must increase a learner's self-understanding, so that they become more skilled at learning and better able to progress. For instance, a teacher may help a learner recognise that they are skilled at diagnosing issues in their own writing, but then have trouble tackling structural edits; peers may observe that the learner is skilled at discerning priorities in complex team projects; and a mentor could help the learner see that they could apply their skills in group projects to help manage their writing process. The mentor may also point the learner towards strong writers in the community who can help them practise developing editing plans. This combination of multi-perspectival feedback and guidance – identifying areas of struggle, identifying strengths, and helping the learning marshal their resources to address their needs – characterizes assessment in the Bhutan Baccalaureate.

A learner can propel themselves forward when they have insight into their learning process, and can connect to their inner and outer resources. Assessment provides this insight and perspective; it also provides concrete information about a learner's abilities. Levels of ability are measured against the learner's own path of progress, not against others' performance of the same capability at the same time. Since learners are each pursuing their own pathway towards their personal goals, demonstrating their growth in different ways, then assessment must be fully individualized. This encourages learners to compete only with themselves, and to support one another towards individual and collective growth.

Practically, this leads to a qualitative and wholistic assessment system, in which learners assess their own growth and receive feedback from other members of the school. Their abilities are formally measured in authentic, personal ways that highlight Cross-pollination, inviting learners to express skills and concepts across contexts and through different Areas of Development. In these ways, assessment systems are fully attuned to the individual learner – their unique goals, their modes of expression, their full personality and context. This approach to assessment uplifts the learner’s strengths, and offers the possibility of profound insight into their learning.

In Bhutan Baccalaureate schools, students, faculty, and staff regularly participate in assessment to ensure that all members of the community are continuously developing themselves and supporting one another’s development. The school as a whole also participates in assessment, ensuring that it is developing as an organisation and contributing to society.

Becoming a Person of Substance

The Learning Process helps individuals learn how to learn, and fosters communities that support them in becoming constructive, contributing citizens. When the Learning Process is well integrated into a school, its community strives for justice and harmony, and learners help one another become Persons of Substance.

The following sections describe the aspirational qualities of a Person of Substance and the attributes of an ideal Bhutan Baccalaureate school. These represent the fruits of the Learning Process.

Skills, Processes, and Watermarks

Importantly, the Bhutan Baccalaureate's curriculum does not outline *what* a person should learn. Instead, the curriculum is a means through which people learn *how* to learn, and the Bhutan Baccalaureate proposes a set of enabling capabilities and supportive qualities of character. These Skills, Processes, and Watermarks carry learners forward in their journey of growth, and help them actualise their inner potential. The curriculum provides learners with opportunities to develop Skills, Processes, and Watermarks through Cross-pollination and balanced growth in the Five Areas of Development.

Skills are the core capabilities used by learners to acquire, interpret, analyse, and synthesise information. Skills are functional, applied to achieve particular results, and are nested and interlinked. The Bhutan Baccalaureate emphasises critical thinking, collaboration, and decision making as essential Skills.

Processes are the means by which learners develop Skills and create new knowledge. Processes help the learner construct connections between their existing knowledge and their experiences to generate new insights. Processes also help the learner apply what they learn in collaborative and community settings. Examples of Processes include reflection, exploration, and consistency.

Watermarks are the beneficial inner qualities, character traits, and attitudes that manifest in a learner in specific situations or conditions. Watermarks are intentionally cultivated through the Learning Process: learners are aware of the Watermarks they want to develop and intentionally centre them in their learning, and the curriculum is designed to invite their practise. Examples of Watermarks include dependability, self-awareness, and resilience.

These three concepts are distinguished by their role in learning and how they are engaged by learners. For example, a learner may apply reading as a Skill to absorb information about political process, and then may use reading as a Process with a group to introduce varied perspectives and generate dialogue around a new policy. A learner may call upon patience as a Process to help a group move through a difficult, protracted discussion; over time, with repeated practise, patience may become a Watermark that manifests in that learner when needed.

Through learning experiences, learners engage informational content in service of developing Skills, Processes, and Watermarks. Amassing that information isn't the point of the curriculum — however, as learners explore different Domains and become skilled at analysing and characterizing knowledge constructs, they will grasp big ideas that resonate across contexts. For example, 'density' can be observed as a visual effect, can be expressed mathematically as a probability, and can be understood as a physical property of molecules in biochemistry. When a learner gains the ability to transfer a big idea to new contexts, they have grasped the *Concept*. Through Cross-pollination, the Learning Process helps learners grasp Concepts and utilise them to develop Skills, Processes, and Watermarks.

Like with the Five Areas of Development, Skills, Processes and Watermarks constitute a framework for interpreting the dynamic experience of learning; they do not create a taxonomy of capabilities. The practise of noting Skills, Processes, and Watermarks should help learners perceive the relationships among emerging abilities and traits, and understand how learners engage their manifest strengths to draw out other nascent capabilities. The Skills, Processes, and Watermarks framework reinforces a *quantum*

perspective on learning: that it is emergent, non-linear, wholistic, and deeply context-dependent. Rather than gaining abilities in a step-wise, incremental fashion, learners expand their potential for insight and growth with Skills, Processes, and Watermarks, and they experience breakthroughs when they are ready and supported by conducive emotions and external conditions.

Skills, Processes, and Watermarks are thus deeply interconnected and mutable, and they are practically infinite. Schools and learners – students and teachers – will identify for themselves the particular Skills, Processes, and Watermarks that are most beneficial to their development and aligned to their aspirations. Through the system of Roadmaps, these will be incorporated into the design of the curriculum.

To help a school shape its curriculum and guide learners, the Bhutan Baccalaureate also outlines a core set of Skills, Processes, and Watermarks that are essential for becoming a constructive, contributing citizen. These are captured in the contours of a Person of Substance.

Persons of Substance

The capabilities and qualities of a Person of Substance are the ideal outcomes of the Learning Process for a learner. They help a learner actualise their innate potential towards becoming constructive, contributing citizens. The aspirational end of the Learning Process, in other words, is not quantifiable achievements — it is a certain caliber of relationships that brings the larger environment into harmony and justice.

This list of Skills, Processes, and Watermarks is dynamic and ever-evolving, but it conserves its fundamental balance and intention over time and across contexts. Communities are invited to articulate the capabilities and qualities of a Person of Substance in terms that are meaningful to their communities.

Through the Bhutan Baccalaureate Learning Process, every learner should develop the following qualities:

- **Adaptability:** a learner's ability to remain open and responsive to change, both within themselves and in their surroundings. It reflects a mindset of fluidity where learners embrace evolving contexts, uncertainties, and new experiences as opportunities for growth and redefinition.
- **Resilience:** the learner's inner strength and capacity to navigate emotional, spiritual, and social challenges with endurance and composure. It emphasises not only bouncing back from setbacks but growing through them, anchored in self-awareness and purpose. At the same time, resilience is also necessary to remain grounded in awareness in times of success.
- **Leadership:** the capacity to take initiative with humility, lead by example, and act in service of a shared vision. In the Learning Process, it is not positional but personal and ethical, marked by responsibility, contribution to the community, and the ability to build trust.
- **Ethics:** the grounding values and moral compass that guide a learner's thoughts, choices, and actions. It is guided by a sense of fairness, compassion, integrity, and accountability, shaping individuals who act with conscience in any situation.
- **Decision Making:** is driven by intentionality and clarity in setting goals, evaluating options, and making choices aligned with one's values and aspirations. It reflects the learner's growing capacity to take ownership of their learning journey and exercise thoughtful judgement.
- **Ability to Inspire:** the learner's ability to communicate vision, uplift others, and create emotional resonance through words, actions, or expression. It connects personal authenticity with social influence, enabling learners to become catalysts for meaningful change in self and the community.
- **Creativity:** the learner's ability to generate ideas, perspectives, and expressions that are both original and meaningful, reflecting not only innovation but also a deep connection to context, purpose, and personal insight.
- **Collaboration:** the learner's ability to engage with others respectfully and constructively towards a shared goal. It includes openness to diverse viewpoints, co-creation of knowledge, and an appreciation of interdependence within learning and community contexts.

- **Computational Thinking:** a structured way of processing information, solving problems, and making sense of complexity. It combines logic, sequencing, and abstraction, helping learners analyse situations systematically and approach their learning journey with strategic clarity.

Attributes of School Excellence

When the Learning Process is well contextualised and integrated in a Bhutan Baccalaureate school, the school should manifest the Attributes of School Excellence. These features are the outcome of the Learning Process at the organisational level.

Schools may use the Attributes of School Excellence as an aspirational vision, to help them continuously evaluate their implementation of the Learning Process and steer their growth as a community.

Through the Bhutan Baccalaureate Learning Process, every school should strive to embody these principles:

- **Nurture Individualism:** The school should cultivate each learner's individual talents, capabilities, and qualities, providing space for their unique growth and equipping them with the skills for lifelong development. A successful school produces a diverse, dynamic, and multifaceted community of graduates who pursue a range of fields with a commitment to goodness, efficacy, and integrity. Achieving this requires that students practise self-determination by shaping their own developmental paths, while the school actively supports differentiation and embraces diversity among its learners.
- **Develop Mastery:** The school should equip learners with the skills and qualities necessary to achieve mastery in their chosen fields. In the Bhutan Baccalaureate, mastery is not a fixed endpoint but a state of effective action guided by wisdom. Through the Learning Process, learners must understand the concept of mastery, confront challenges, and experience the satisfaction of uncovering their inner potential while building their competencies.
- **Develop a Sense of Purpose:** The school should design the Learning Process to instill a sense of purpose in learners, guiding their decisions and actions towards meaningful contributions. This process must align with societal aspirations and adapt to its evolving demands. Learners should remain

attentive to the needs of their communities, both human and environmental, and apply their skills and knowledge thoughtfully to address these challenges. Through genuine collaboration and a shared commitment to collective well-being, individuals can contribute to creating a just and harmonious society.

- **Build Leadership:** The school should empower learners to become leaders who drive positive change in their communities through social engagement. Leadership does not require holding prominent positions but entails recognising challenges and opportunities, taking initiative, and coordinating effective action. To cultivate these qualities, schools must offer opportunities for learners to collaborate, take responsibility, and contribute meaningfully to community improvement.
- **Teachers must be Learners:** Within the school, teachers must also be active learners, engaged in their own growth as both educators and individuals. They should continuously generate insights into teaching and learning, applying these to their practise to ensure the education system evolves. Teachers must recognise students as valuable contributors, offering knowledge and perspectives that enhance the Learning Process. Self-development should be a priority for teachers, with students viewed as key resources in this ongoing journey.
- **Students must be Teachers:** Students must also act as teachers, both for themselves and others. By sharing their knowledge and skills with peers, teachers, and the broader community, they come to recognise and value their own internal resources as well as the potential in others. Knowledge evolves and deepens when applied in new contexts and viewed through diverse perspectives, enriching the learning experience for all participants. Schools should therefore provide platforms that enable students to teach both themselves and others, encouraging them to actively contribute to the creation and delivery of the curriculum.
- **Engage with the Community:** The school should actively engage with its surrounding community to enhance the Learning Process for all stakeholders, both within and beyond its boundaries. A Learning Process aligned with the needs and aspirations of the wider community naturally inspires motivation and purpose among all learners - students and teachers. The school's boundaries should be permeable, enabling a dynamic exchange of ideas,

resources, and activities with local residents and institutions. Community involvement should be integral to curriculum development, allowing learners to leverage local expertise while applying their skills and knowledge for the benefit of the community.

- **Enable Risk-taking:** The school should encourage and enable risk-taking amongst its members and take risks as an organisation. Learners should have the freedom and social support to initiate experiments, learn from their outcomes, and demonstrate resilience as they encounter difficulty. The school must uphold its core values while judiciously and courageously incorporating new ideas and practises into its system, similarly, demonstrating resilience when difficulty arises.
- **Joy Pervades the School:** Joy should permeate the school environment, energising and driving the Learning Process. Schools should enable learners to appreciate the pleasures of life and the beauty of the natural world. While contact with nature is essential, it must be accompanied by an awareness of the beauty inherent in all life, including oneself. This understanding fosters a natural joy in learning, self-care, and caring for others.

PART III:

LEARNING IN PRACTISE

Introduction to Part III

Part I introduced the fundamental principles that undergird the Bhutan Baccalaureate. These principles are reflected in Buddhist philosophy, and they can be derived from common experience. Irrespective of a person's relationship to Buddhism, these principles can be understood in a direct way. Being universal and timeless, they provide an enduring rationale for the Bhutan Baccalaureate. While the Bhutan Baccalaureate is deeply relevant to contemporary educational needs, Part I showed that it is rooted in deeper convictions about the purpose and nature of education.

Part II showed how the principles are applied to education. The architecture gives shape to the Bhutan Baccalaureate, and provides a framework for the procedural governance of schools. Part III shows how the Learning Process may be practised in schools.

Part III draws out three overarching themes regarding implementation of the Learning Process:

- A school's curriculum serves the wider community and is shaped by its needs and aspirations (Chapter 6);
- Learning experiences help learners practise skills to address multiple areas of their development (Chapter 7); and
- Learning unfolds in developmental stages (Chapter 8).

Chapters 6 and 7 provide anecdotes from The Royal Academy in Bhutan, the flagship school of the Bhutan Baccalaureate, to highlight ways that this school tailors the Learning Process to its own context – its learners, its location, its surrounding community. The anecdotes are shared to help other educators imagine how the Learning Process could be enacted in their own school.

In addition to school leaders and educators as the intended audience, Part III is written with surrounding community members in mind. As school actors contextualise and implement the Learning Process, and as community members participate in these efforts, the Bhutan Baccalaureate's principles offer criteria for evaluating the alignment of educational practises to the core philosophy:

Does this approach honor learners' innate potential?

Does it address the whole person?

Does it strengthen relationships?

Does it respond to context?

Does it connect individual growth to collective wellbeing?

Contextualising the Learning Process is not easy, nor is it a one-time effort. Contextualisation demands continuous community self-reflection, deliberation, experimentation, compromise, adjustment and adaptation. It will pose deep questions about what makes a successful life and a good society, and will surface different purposes of education and schooling. It will help communities examine who has the permission, space, and confidence to respond to these questions, and challenge communities to enable greater participation. Contextualisation is a transformative process that builds relationships and fosters inclusion.

Chapter 6: Community-centred Learning

This chapter describes the many ways that the Learning Process nurtures and fosters community.

Community as Classroom describes how people and groups outside of the school engage in the curriculum as learners alongside students. This section shows the intentional porousness of the school, and highlights the importance of mutual benefit and growth. It is illustrated with anecdotes from The Royal Academy, describing learners' regular engagement with two different kinds of community: their natural environment, and the people who raised them.

Service as Learning explores these community relationships from a different perspective. How do learners come to see the rippling effects of their personal growth? What kinds of experiences help them understand that their own development is inseparable from their community's development? *Service as Learning* shows how the broader community is an extension of the school and a source of essential learning, feedback, and guidance for learners. This is illustrated through The Royal Academy's part in *Lab-Tsap*, a tradition of community work exchange, and through the paired practises of Driglam Namzha and daily reflection, which create the conditions in individuals for beneficent social conduct.

How does a school environment support the full spectrum of needs and aspirations contained by its members, honoring the complexity, intersectionality, mutuality, and contradictions therein? *School as Community* sketches the decision-making processes that shape the school as a whole, highlighting the interplay of needs and aspirations, the spaces for forging commonalities, and structures for participation. These are illustrated with coupled accounts of making the school Roadmap and vision, which connect and harmonize the aspirations and needs of young learners and their wider society.

Community as classroom: Learning with and from the community

The Bhutan Baccalaureate understands that learning emerges through relationships, and wholistic development requires community. This insight informs all aspects of the Learning Process – from the mentorship system, to Roadmapping, to assessments – and it gives a distinctive shape to the curriculum. The Learning Process deliberately extends

learning *beyond* the school, helping learners develop relationships with communities that provide resources, wisdom, and purpose for their learning.

A school's curriculum should help students form relationships of mutual learning with their broader communities — their families, local people and organisations, partner schools, the natural environment, school alumni, networks spanning nation and globe. Online networks, spaces, and platforms dramatically increase the possibilities for connection and dialogue. These relationships may arise from a joint inquiry, a mutual concern, or a common motivation— a shared interest that invites mutual engagement. In these relationships, students participate as learners with an intention to contribute constructively, while respectfully engaging the knowledge and wisdom of their community collaborators. The inevitable complexity of real-world situations and relationships opens opportunities for Cross-pollination and growth in the Five Areas of Development, through ethical deliberation, emotional maturation, physical development, alongside social and intellectual expansion.

When collaboration and inquiry becomes the vehicle for learning, teachers play an essential role in facilitating interactions with outside people and groups. Teachers help others take up mentorship roles with students, and help ensure learning experiences remain safe and constructive. This requires that teachers continue to apply their full range of capabilities and knowledge of the field to help students connect with needed resources and take appropriate steps in their individual learning. As masters of the larger curricular goals, teachers shape particular learning experiences, ensuring that learning is happening as it should.

The Learning Process is designed to support long-term, sustained collaborations, so that exchange of knowledge between a school and its communities is substantive and deep. Curricular Roadmaps provide teachers with needed structure and flexibility: the Roadmaps focus and define learning goals while widening the available means for learning. With this flexibility, teachers can follow the interests and concerns of students to find rich settings and opportunities for their growth. Curricular Roadmaps also factor in the interests of communities: teachers and school leadership, in their dialogue with community stakeholders and collaborators, take into account their needs, learning, and

desired growth. Collaborators are invited to contribute to learners' assessments, and learners may likewise offer feedback to communities to enhance the mutual engagement.

The practise of learning with and from community emerges from the intent to root learning in authentic, meaningful, purposeful work that contributes to the health and flourishing of communities. This cooperative, experiential approach reflects proven pedagogy, integrates all Areas of Development, and ensures that learning tracks needs and interests of both learners and the broader society. Through these curricular collaborations, the school aligns its curriculum to local and broader development goals, and learners have opportunities to gently steer their communities' aspirations.

The approach itself reinforces the Bhutan Baccalaureate's fundamental beliefs. When a curriculum is transacted through community engagement, it dispels any illusion that classrooms circumscribe learning, and it helps learners see that their growth is fundamentally connected to community outcomes. Through these engagements, learners come to recognise the profound resources embodied in all people and living environments. This enlightened perception supports their growth as citizens.

The following anecdotes describe how The Royal Academy helps learners engage with two different communities: their natural environment, and the people who were part of their upbringing. *Nature Retreat* is a week-long immersive group experience that connects learners to Nature as a source of wisdom for living in harmony. *The Seven Gifts* is an ongoing engagement through which learners gather and document their diverse aesthetic traditions, and then fold them into the school's curriculum.

Nature Retreat

The Bhutan Baccalaureate views nature as the ultimate source of inspiration for community development.

At The Royal Academy, every fall and spring, each adult mentor and their student mentees organise a week-long Nature Retreat. Together they choose a destination and plan their journey, and make all of their preparations as a team. Most groups choose to backpack in the wilderness or hike between rural communities. The primary aim of these retreats is to learn in and from nature, and explore the ways people live respectfully and harmoniously within nature. When groups visit rural communities, they engage locals to learn the history, culture, flora, and fauna of the area, as well as their needs and experiences of change. These are rich opportunities for contemplating ecosystems and appreciating how humans can live harmoniously among other species. Groups also receive hospitality, and practise the etiquette of being a respectful guest – both in human communities and in the natural ecosystem.

Especially when groups venture far from human settlements, they learn to care for one another and practise resourcefulness, collective self-reliance, and group decision-making. Learners enhance their skills for sustaining and nourishing one another, and develop an awareness of their strengths and weaknesses as individuals and as a group. They take turns leading and following, exercising agency and experiencing the impact of their decisions with the support of peers and mentors. Nature Retreats offer potent opportunities for learners to practise and observe their Skills, Processes and Watermarks, and learners should use the opportunity to reflect upon their Roadmaps and Backstories.

Reflection questions:

- *What opportunities do your learners have to immerse in nature?*
 - *Are there communities in your region who are living harmoniously with nature, and who may be willing to host groups of learners?*
-

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- *What opportunities do learners have to experiment with living together, managing themselves and their resources?*
 - *How can these opportunities be built into the curriculum?*
-

A positive sense of cultural identity and cultural competence are essential outcomes of the Learning Process. Students and teachers should learn to be ambassadors of their rich cultural backgrounds and bring their diverse experiences into the school community. Through sharing and exchanges, listening and dialogue, learners should develop an appreciation for the rich diversity of cultures, identities, and livelihoods in the school and in societies the world over. Beyond school, learners should be able to participate in any community as more awakened and generous individuals. At The Royal Academy in Bhutan, learners build these competencies through the Seven Gifts.

Seven Gifts

The Bhutan Baccalaureate recognises the importance of community in the process of growing up. The Learning Process helps learners draw knowledge and inner fortitude from the communities that raised them, and helps learners form healthy relationships with their homes. Through this process, learners develop respect for cultures other than their own, and the cultures and traditions themselves are enriched, shared, and integrated with new knowledge practises.

The Royal Academy is a residential school, and learners come from communities spanning every district in Bhutan. Over 20 languages are spoken across the nation, and localities have distinctive customs and aesthetics. When learners return home for school breaks, they are encouraged to gather Seven Gifts from their communities to share with their school. These gifts include songs, dances, stories, patterns, recipes, games, and languages. This task is a prompt to inquire and listen to with the intent to learn and appreciate cultural knowledge. It is also an opportunity to form or deepen connections with elders, relatives, and others who hold unique knowledge.

When learners return to school, each gift is carefully documented by the learner and shared with an adult who helps incorporate the gift into the school curriculum. Learners share their learnings with their mentor groups, and often update their Backstory with learnings about their families. The Seven Gifts are preserved both in physical and digital formats. Since 2021, learners at The Royal Academy have been publishing digital books dedicated to each type of gift, selecting an example gift from each district in Bhutan to ensure even representation. Learners illustrate, explain, and contextualise each example, creating a sharable educational resource.

The Seven Gifts find space in the Learning Process in myriad ways. Learners teach their traditional dishes to the school cooks, and the recipes are put in rotation. Learners teach their songs and dances to fellow learners, and these are

performed to mark significant occasions in the school. Patterns (typically visual designs in textiles, architecture, and other art forms) furnish the school. Samples of a particular language are recorded and translated, and their distinctive structures and vocabularies are compared with languages from other parts of the country. Traditional games are included in sports education. Stories of communities and places are woven into the history curriculum, which foregrounds and honors a community's own historical narratives. In effect, the school's curriculum should consist of knowledge and experience from the learners' own backgrounds. Learners should see themselves and their communities' as knowledge-makers, and should respect and value the extraordinary diversity of knowledge and perspectives in the world.

Reflection questions:

- *What kinds of cultural knowledge could learners readily draw out from their home communities, and share in your school?*
 - *Are there issues of safety or past trauma which could negatively impact learners as they engage members of their home communities, or as they share cultural knowledge in school?*
 - *How can your school receive any gifts in such a way that all contributions are honored?*
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Service as learning: Orienting towards community needs

As learners pursue personal growth through engagement with other people and environments, they come to see how their own wholesome development in turn feeds the development of these communities. Over time, these mutualistic relationships reveal the insight that personal development finds its highest expression in contributing to community and planetary health.

Service to communities is a fundamental mode of learning in Bhutan Baccalaureate curricula. In learning experiences, service can take innumerable forms – from practical design work on a communal problem, to study and conservation of heritage, to support and care for peers, to participation in school decision-making, to ecological research for better stewardship.

A school's curriculum should provide learners with opportunities to encounter and investigate various kinds of needs in myriad contexts, and use their acquired skills to create positive change. The more porous and connected the school, the more ample these opportunities. Equally important, learning experiences should explicitly connect service-oriented activities to learners' growth in all aspects - as ethical thinkers, as effective communicators, sensitive and broad-minded partners, strong and patient caregivers.

In learning experiences, teachers should help their students explore interconnection and responsibility in their own lives. Together they may trace their personal choices and discuss how they affect others, and consider the systemic and collective impacts of individual actions. Learning experiences should help learners build a wholistic understanding of natural systems, social structures, global interconnectivity, and kinds of power. They should help learners apply this knowledge to make well-reasoned decisions, take responsibility for their impact and support others in doing the same, and forge solidarity and collaboration around shared goals.

Service begins as an embodiment of generous intention, a posture of respect and goodwill. It is rooted in compassion, and guided by ethical sensibilities. To foster wholesome intentions, learning experiences should encourage learners to reflect on their aims and the expression of these intentions through service. Just as important is the solicitation of genuine feedback from communities, and reflections upon real impact, and the sincere redress of any harm – including unintentional. With progressive learning, practise, and reflection, learners will see the positive reciprocity between their personal growth, their commitment to service and ethical conduct, and the flourishing of their communities. Over time, learners understand service as a practise for inner and outer wellbeing.

The deeper benefits of service are articulated and reinforced through the process of Roadmapping and through sustained dialogue with mentors. Learners apply their learning through service towards their motivation and sense of purpose. When learners connect their individual growth with collective wellbeing, their notion of success becomes their capability to contribute meaningfully to communities.

The following anecdotes describe two routine practises at The Royal Academy which, through very different kinds of service, help learners realise how individual and collective flourishing enhance one another.

Lab-Tsap: Participating in Community Agriculture

Farming communities across Bhutan have supported themselves through the practise of Lab-Tsap, a system of labour exchange without monetary compensation. The large majority of farms in Bhutan are family-run. In the times for planting and harvesting, when a great amount of swift and coordinated work is required, each family farm in turn gets the benefit of the community's skilled workforce. The family hosting provides a mid-day meal, and everyone gathers to eat together, exchange news, share helpful knowledge, and enjoy one another's company. Lab-Tsap is not only an economic but a social and cultural foundation for community life. Today, as Bhutanese youth move away from their farming families and pursue other professions, there is less village labour available for exchange, and family farmers are starting to hire laborers from further afield.

The Royal Academy is located in a small agricultural village, surrounded by family farms. The history of this village and its communal practises, including Lab-Tsap, are part of The Royal Academy's Backstory, and the school is conscious of its place in these structures. The schools' kitchens buy vegetables, grains, and dairy products directly from these farms, and learners help school staff work directly with the farmers to negotiate market prices and manage the budget and supplies. And when it's time for planting or harvesting, all learners - students and teachers together - participate in the community labour exchange. They fall in step behind skilled farmers, who offer mentorship as needed. Everyone joins together for a shared mid-day meal, and school members have a chance to learn about local happenings and changes, and the needs and concerns of the farming community. These insights are factored into the school's Roadmap, which shapes the overarching curriculum and operations – so the school as a whole responds to local needs and aspirations. Lab-Tsap is a crucial point of connection between the school and its community, and is an expression of mutual respect that teaches generosity, reciprocity, and cooperation.

Reflection questions:

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- *Consider your school's Backstory: what practises create the social fabric of your locality, and what is its economic history?*
 - *How does the school impact those practises, and how is it tied into the local economy? How could your school participate in exchanges that promote mutual learning, respect, and cooperation?*
 - *What structures need to be in place so that the school sustains these relationships responsibly?*
 - *How do these learning experiences become well integrated into the curriculum, and aligned to the school's learning objectives?*
-

Driglam Namzha and daily reflection: Discipline and clarity for purposeful living

Since the nation of Bhutan was unified in the early 17th century under the leadership of the Drukpa Buddhist monk, Zhabdrung Ngawang Namgyal, its citizenry has practised a code of personal and social etiquette called Driglam Namzha. Driglam Namzha provides guidance for cultivating one's body, thought, and mind so that the nation as a whole can live in harmony, unity, and sovereignty. The inner practises prescribed by Driglam Namzha refine a person's interactions within a community, fostering relationships of solidarity and moral integrity.

At The Royal Academy, Driglam Namzha is continuously learned and practised by all members of a school. There are dedicated learning experiences for students, and the practises are woven into learning experiences, so that learners develop coherence in their thoughts, actions, and speech. These practises should simultaneously support the wellbeing of each individual and the wellbeing of the society. Through continued practise, Driglam Namzha helps people understand their place in the natural world and their role in nature's processes.

The interpersonal expression of Driglam Namzha emerges from a clear mind and intentions. To support these inner conditions for practise, The Royal Academy holds 20 minutes of noble silence throughout campus every morning after breakfast and before learning experiences begin. During this time, all teachers and students pause their activities, adopt a posture of stillness, gather their attention, and heighten their awareness. The whole campus calms, listens, and reflects upon the larger purpose of their collective work. No particular meditation or reflection techniques are prescribed, but students and teachers are invited to cultivate their intentions for the day, and prepare their inner being for learning.

School as community: Participatory practises

Genuine communities are characterized by mutual reliance and support among all participants. Harmony and justice can be forged when compassion, unity, cooperation, and the celebration of diversity are collectively pursued by all members of a community. The Learning Process is designed to help all participants learn how to live in any community in a way that promotes justice and harmony, and so it fosters these values and the skills to enact them.

The Learning Process ensures that learners participate in decisions that affect their learning and school life, and also regularly solicits community input on the educational goals of the school. This invites plenty of opportunities for debate, negotiation, and conflict resolution. The Learning Process is designed to approach these opportunities as learning experiences, part of the curriculum and inherent to community development and individual growth.

The structures described below show a school's participatory practises for decision-making are structured into the Learning Process, and approached through dialogue and collaborative problem-solving. Through its design, the Learning Process also creates conditions that enable compassion, unity, cooperation, and the celebration of diversity, so that the system bends towards harmony.

Leadership roles in a Bhutan Baccalaureate school

The Learning Process generates specific responsibilities for students, parents, and teachers in school, and creates the need for distinctive leadership roles. All Bhutan Baccalaureate schools have Domain Heads, Coordinators for each of the Five Areas of Development, and a Head of School. These roles are often held by faculty and staff who are also actively teaching and/or serving the school in other capacities.

Domain Heads are responsible for designing and updating the Roadmap for their aspect of the curriculum in collaboration with relevant teaching faculty. They should have a comprehensive sense of the school's learning in the Domain, and may initiate activities and collaborations to enrich this aspect of the curriculum. They support the Head of School in developing the School Roadmap and

contribute to school-level decision-making, and they collaborate with the Coordinators of the Five Areas of Development in implementing the curriculum.

Coordinators are responsible for deepening community understanding of their designated Area of Development, and designing and updating the Area of Development Roadmap. They may lead initiatives to explore, expand, and coalesce knowledge of the Area of Development, including through partnerships and community collaboration, and should themselves be resources for learners seeking to deepen their understanding of this aspect of their growth. They are responsible for overseeing assessment of the community's growth in the Area of Development. Coordinators also support the Head of School in setting and implementing the school's vision, and participate in the highest levels of decision-making.

The Head of School is responsible for drawing together a coherent vision for the school that reflects the interests and input of all its constituent members as well as important members of the broader community. The Head of School liaises with the Bhutan Baccalaureate oversight body and external stakeholders including parents, institutional partners, government agencies, and ensures that the school is developing as a whole in alignment with its own highest aspirations.

In order to fulfil the responsibilities outlined for their role, the Domain Heads, Coordinators for the Areas of Development, and Head of School must collaborate closely with one another and must continuously build constructive relationships with all learners in the school. This requires that they be perpetually learning and growing wholistically, and that they proactively create trust with fellow learners. The processes described below are vehicles for learning and trust-building in the school in support of participatory governance.

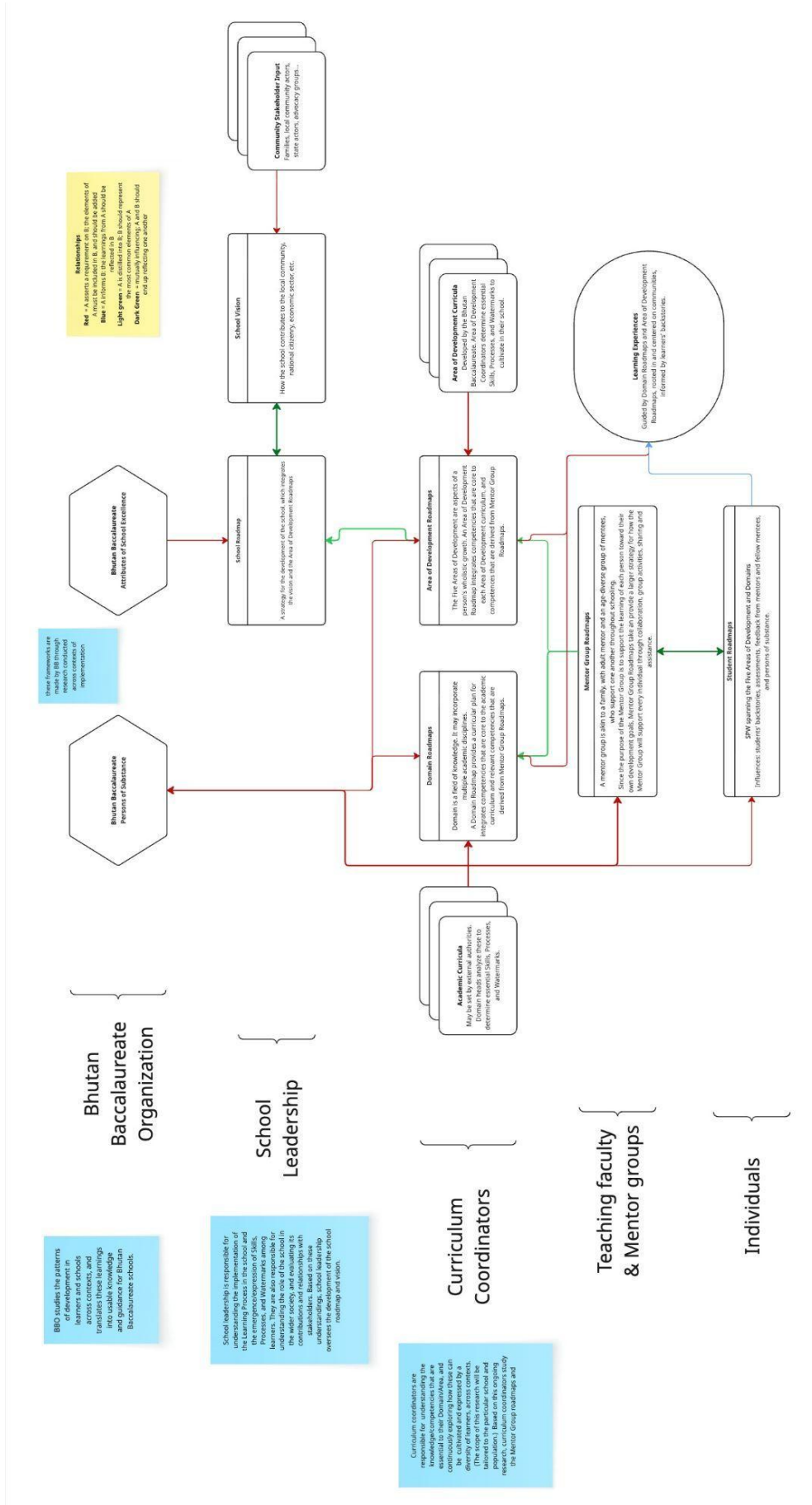
Synthesizing needs and aspirations through Roadmaps

Just like any flourishing community, a school depends on the engagement and participation of all of its members. Students should have a voice in decisions that impact their learning and life at school, just as teachers should have a voice in

decisions that affect their professional practise. This requires that people in different roles across the school understand the different needs and aspirations of others, and have the skills to evaluate the consequences of potential actions with compassion and wisdom. It also requires space for forging consensus around shared values. The primary means for forging mutual understanding and making decisions is direct relationship; no formal process or tool can replace the work of compassionate understanding and thoughtful consideration of consequences and shared values. This however can be buttressed by structures which ensure consistency and transparency, and adherence to standards of fairness.

The school's system for building higher-order Roadmaps – for mentor groups, Domains and Areas of Development, and the school as a whole – supports and facilitates decision-making in a school, first by prompting constructive interactions among those who should be involved, and then by holding and concretizing shared understandings and agreements while they are active. The most essential function of higher-order Roadmaps is to uplift the needs and aspirations of students and harmonize them with collective priorities, while providing opportunities for mentors and school leadership to provide input.

The relationships among Roadmaps are represented in the following map:



The different levels of Roadmaps can be understood in terms of their purposes and inputs:

- **Students' Roadmaps** address the student's wholistic growth in the Five Areas of Development. They emerge from the students' Backstories, which are enriched with assessments and concrete feedback from teachers. Mentors help the student translate insights from their Backstory into their Roadmaps, and incorporate any additional recommendations from their family and Mentor Group. The Mentor provides rounded guidance, helps the student consider the ideals of a Person of Substance, and ensures that the student honors their self-assessment.
- **Mentor Group Roadmaps** address the development of individual mentees and the collective learning goals of the group. Mentors help the group assess their collective needs, which may include skills for supporting one another.
- **Curricular (Domain and Area of Development) Roadmaps** address all learners' development of Skills, Processes, Watermarks, and Concepts that are essential to the respective field. These Roadmaps should each incorporate relevant elements of the School Roadmap; they will overlap and together create an expansive, weighted map of the whole curriculum. Curricular Roadmaps are informed by Mentor Group Roadmaps, and so that students' individual and shared interests are reflected in the school-wide curriculum. Domain Heads and Coordinators of each Area of Development consider the requirements of external standards and use their professional judgement to integrate these with the priorities of their learners.
- **A School Roadmap** addresses the wholistic development of all learners in the school, individually and collectively, and the school as an organisation. It is informed by curricular Roadmaps, the ideal of a Person of Substance, the Attributes of School Excellence, and the school Vision. The school vision considers the needs and aspirations of the wider society and represents school leadership's aspirations for the school's contributions in the national sphere. This input is balanced with the needs

and aspirations of the learners within the school, which are channeled through the curricular Roadmaps.

This web of intentions and influences ensures that all learners, from the youngest to the eldest, have a say in what they learn and how they develop. The system of Roadmapping also ensures that the school remains responsive to the ever-changing needs of the learners and the wider society. The system positions learners to direct their own learning journey, while providing them with robust input and wise guidance, as well as crucial opportunities for reflection and dialogue.

The school Roadmap draws together the input of all members of the school and its stakeholders. The work of harmonizing these perspectives rests with school leaders and the Coordinators of the Five Areas of Development, who may choose to engage other learners - students and teachers - as well as staff to provide additional counsel. As it is updated annually, it opens up a forum for debates about the school's purpose and its implementation of the Learning Process. These conversations are essential for the school's success as an organisation, and they also serve the personal development of all participants in the school.

School vision: the school in the national sphere

A school is continuously balancing the educational demands of external stakeholders – district leaders, employers, state agencies, and so on – with the educational desires and aspirations of its own learners. A school's Roadmap connects and integrates these inputs, aligns them to the Attributes of School Excellence, and sets out a wholistic strategy for the school's development as an organisation so that it serves all interests.

The leadership of a school, which includes the school principal and the Coordinators of the Five Areas of Development, is responsible for understanding

the needs and interests of the wider society, and interpreting the expectations and requirements of external stakeholders. For example, the leaders of The Royal Academy interface with Dzongkhag Education Officers who implement national education policies, manage the flow of resources to schools, and oversee teacher and staff evaluation. They keep in touch with their learners' families, to understand their expectations and needs with respect to the wholistic care of their children. The leaders maintain a continuous dialogue with primary and tertiary school leaders, to ensure alignment of goals and continuity in learners' educational journeys.

Throughout the year, school leadership also interfaces with other kinds of stakeholders who may influence the school's overall curriculum and programming. For example, leaders may discuss new areas of research in Bhutanese history, culture, and economics with scholars from the Centre for Bhutan & GNH Studies and the nation's needs from social scientists. They may coordinate with the Royal Monastic Body to organise the school's contribution to religious rituals and public ceremonies, and seek out the social and educational missives from its senior teachers. They may meet with local industry leaders to understand the requirements of potential employers, such as the need for skilled woodworkers and material scientists for the construction of new buildings in traditional styles. They may exchange data on youth civic participation and media literacy with the Bhutan Centre for Media and Democracy, and discuss reports on gender equity across sectors from Bhutan's National Commission for Women and Children. All of these dialogues would inform the broader understanding of the school's position and function within Bhutan's social fabric.

With all of this input, each year The Royal Academy's leadership updates the school's Backstory, and then articulates a vision for the school as an organisation. The school's Backstory provides a longitudinal view of the school's situatedness in communities, its learning and evolution, and its character as an institution. The vision considers how effectively the school is enacting the Learning Process of the Bhutan Baccalaureate, and how the school hopes to be contributing to society. It helps contextualise the school to the distinctive attributes of its society and nation.

Importantly – the school vision is not directly translated into the school's governing strategy. As it is largely shaped by the interests of external actors and the perspectives of the school's leaders, it is certainly important, but it lacks input from the school's students and teachers. The school Roadmap is shaped by the Roadmaps of all its constituents, so that all learners have a voice in the school's development as a whole. The vision informs, but does not dictate, the Roadmap for a school. The two living documents evolve dialectically. The Attributes of School Excellence help the school evaluate its operations and set its sights on sound goals.

The school as a learning organisation

The necessity of context-responsive learning means that schools must continually examine their practises, learn from their experience, and make adjustments towards their purposes. This requires reflecting on individual learners' growth and needs and evolving the curriculum. It also requires examining the effectiveness of the learning systems themselves, and the ideals they uphold.

All of the systems described above work together to keep a school's curriculum evolving in step with the changing needs and aspirations of its learners and the surrounding society. The curriculum's dynamism keeps a school connected to knowledge discoveries, technological advances, and common challenges that inspire learners' wonder, creativity, and compassion. The Learning Process is finely tuned to learners' curiosities and responsive to their interests, and creates space for learners to exercise initiative in areas that matter to them. This feeds a culture of openness and experimentation. The rapid cycles of reflection and realignment support innovation: supported by rich assessment and feedback and communal deliberations about the common good, learners can take risks, and new ideas can be rapidly shared and refined within the school.

The mechanisms for contextualisation that run through the Learning Process make use of the inherent curiosity, compassion, imagination, and forward-

looking bent of learners to keep the school evolving in a good direction, towards the fulfilment of its purpose. However, this organic movement may not necessarily prompt needed reform of the Learning Process itself. Periodic evaluation of the systems themselves provide opportunities for the school to realign to learners' and the broader community's priorities.

Year to year, the school assesses the efficacy of its own Learning Process. Through careful reflection, school leaders, staff, faculty, and students take up the question, "How well is our school addressing the goals of its learners? How can we better enact our Learning Process, and how might the Learning Process itself be improved?" In these deliberations, the Portraits of all learners are the most important sources of information and insight. Portraits provide a longitudinal perspective of a learner's development and evidence of their lived achievements, and place these within the context of the learner's own goals and aspirations and the expectations of their community. Taken together, the Portraits of a whole body of learners convey how well the school enables learners to progress towards goals that are meaningful to them and valued in their communities.

All members of a school participate in conversations about the school's growth. Mentor Groups, faculty groups, school Leadership and Coordinators of the Five Areas of Development convene annually to review and discuss the school's development. To ground these conversations, the school looks to two fundamental documents: the Attributes of School Excellence, and the Qualities of a Person of Substance, both of which are developed by the overarching Bhutan Baccalaureate Organisation. These documents help hold discussions within common understandings of a school's responsibilities towards individuals and society. Through these deliberations, the school may decide to make adjustments to its systems and practises.

Over time, the ideals represented by a Person of Substance and School Excellence also evolve, tracking deeper shifts in the larger culture and broader social transformations. These two frameworks draw together insights from the Bhutan Baccalaureate Organisation's study of education systems worldwide.

The philosophical foundation of the Bhutan Baccalaureate, however, provides ballast as schools navigate complex decisions in their myriad cycles of recontextualisation and realignment. Bhutan Baccalaureate schools are designed for continuous adaptation in all dimensions — they resist standardisation in all forms, and counteract rigidity in their systems. As they make choices large and small, the underlying principles keep schools upright and oriented towards their core values.

Chapter 7: Learning Experiences

Learning experiences are the fundamental unit of the curriculum. They directly manifest all five principles of the Bhutan Baccalaureate and contain its whole philosophy. This chapter explores how learning experiences are developed, transacted, and assessed.

Teachers are primarily responsible for creating learning experiences that enable students to learn the Skills, Processes, Watermarks, and Concepts that are shared across the curricular Roadmap and their personal Roadmaps. Teachers have a deep understanding of these capabilities and how they manifest, and they help students actualise them through practise, in ways that are personally meaningful and onward-leading to the student. In the process, teachers also help students understand their own learning, so they can better direct their own development. Teachers also engage as learners alongside the students, infusing the learning environment with their own curiosity, engagement, discovery, and realisation.

As mentioned in Part I, the Learning Process wraps itself around other curricular standards. The Bhutan Baccalaureate curriculum does not dictate any specific content, but rather provides a method for curating learning experiences such that all learners develop wholistically and build constructive relationships. In this way, learning experiences can include any content or material that is required by governing or examination bodies. It is this intrinsic adaptability that enables the Bhutan Baccalaureate to be contextualised to any region.

Learning Experience design

Learning happens when an individual recognises inner potential that is ready to emerge, and builds upon their existing strengths to manifest new capabilities. Learning experiences are designed to create opportunities for this discovery and practise to unfold, and to support the risk-taking and resilience required of each learner. They are the fundamental unit of the Bhutan Baccalaureate curriculum.

Learning experiences must connect with and build upon each individual's unique context, strengths, interests, and aspirations. They should offer learners opportunities to make connections between existing knowledge with new information, and encourage them to transfer

skills to new contexts. They must engage learners' unique ways of seeing and processing the world, and recognise the myriad ways learners demonstrate their capabilities.

Learning experiences must also nourish learners' identities. They do so by enriching and extending their cultural knowledge and practises, and by honoring their choices and self-determination. And because strengths and capabilities emerge when they have genuine reason to emerge, learning experiences should be tied to real community needs and the learner's own aspirations.

Cross-pollination in practise

The Learning Process makes and nurtures visible the organic interconnection of Domains and Areas of Development. Following this principle, Cross-pollination governs the design of the curriculum and all constituent learning experiences. Learning experiences do not attempt to silo any one Area or Domain; instead, learning experiences deliberately connect multiple Areas and Domains. Teachers reinforce the practise of crosspollination by helping students notice the simultaneity and interconnectivity of their growth and development.

Cross-pollination aligns learning practises with the nature of human development. When learning experiences respect the natural connections across learning, they become more meaningful, more engaging, and more likely to support genuine human flourishing. When learners are wholly engaged, they are also more capacious: better able to bring their full selves, in their fullest total capacities, to meet whatever situation they encounter.

Designing learning experiences is a practise of curation rather than choreography. Teachers bring students into environments that are conducive to their learning, and introduce situations that invite the students to connect and construct knowledge. Teachers draw upon their own subject expertise and understanding of the students to make available content that is helpful to those students — information, methods, and resources that are meaningful to students, and that they can use to develop the needed capabilities. The teacher is a facilitator and supporter, not the source of knowledge nor the manager of students' learning.

In order to do this, teachers should understand the nature of the Skills, Processes, Watermarks, and Concepts that they hope to see manifest. They use this understanding to help develop the Domain or Area curricular Roadmap, which should indicate potent opportunities and methods for cultivating the desired capabilities. They also use this foundational understanding to help students develop personal learning plans for each capability, along with personal indicators of growth. Students and their mentor incorporate these plans into the students' overall Roadmap, which enables everyone to see how Domain-specific learning connects the students' growth across multiple Areas of Development.

Teachers should also be familiar with students' Backstories. Backstories generate deep understanding of a learner's unique context – their ways of knowing, their past experiences, their beliefs and inclinations, their capacities and motivations. When teachers have a broader sense of students' unique backgrounds and paths of development, they can introduce students to meaningful challenges, and select content that is relevant to students' lives. They can help students make connections between their existing knowledge and new experiences, and see the rippling effects of learning across multiple Areas of Development.

Through its cycles of enriching and updating Roadmaps and Backstories, the Learning Process makes available the understandings and resources required for designing learning experiences that connect multiple Areas of Development. The built-in structures for collaboration among students, mentors, and teachers ensure that the curriculum responds to students' needs in a wholistic manner, and that all dimensions of development receive sustained attention.

Furthermore, the whole curricular design process is geared to enable personalisation. There can be no standard rubric for developing a Skill, Process, Watermark, or Concept; teachers' design learning experiences that provide opportunities for a diversity of learners to each connect their current knowledge with new situations, and draw upon their whole being to construct new understandings. This is possible when learning experiences emerge from settings and activities that have real significance to learners.

With this in mind, learning experiences should address issues that are relevant to students' lives, and engage communities beyond the school in substantive and purposeful ways.

Exploring responsibility through computer science

At The Royal Academy, Grade 10 learning experiences in the computer science Domain prepare learners with the competencies set out in the school's Domain Roadmap, and those required to pass the Advanced Placement (AP) Computer Science Principles exam. Advanced Placement exams test the skills and understandings that would be covered in a US college introductory course in the given subject.

The Royal Academy computer science learning experiences build the requisite AP competencies in students, but do so using content and activities that are relevant to the students and their communities. Students can choose to learn the programming language that is most common in their field or industry of interest, and they come up with collaborative programming tasks that address practical needs in their school or locality. Teachers ensure that students are taking on appropriate tasks and applying their effort well, provide them with support and instruction, and help them build awareness of their own learning process. These authentic learning experiences, because they are integrated within the students' lives in community, open up greater possibilities for engagement of the Five Areas of Development.

The Royal Academy's computer science curriculum explicitly engages Spiritual Development. The Spiritual Development Roadmap for The Royal Academy includes ethical thinking skills, and so computer science teachers collaborated with philosophy teachers to design learning experiences that would prompt students to think about the ethical implications of their choices as programmers.

In one instance, teachers invited a group of students to design code for an English-language "spellchecker" program. This challenge would build upon students' knowledge of strings and arrays in coding, and would prompt students to learn how to iterate over arrays and modify them. From these students' Backstories and Roadmaps, teachers understood that English was their third or

fourth language, and spelling was a common challenge. The students embraced the challenge.

The task required that these students consider their assumptions about what “correct” or “normal” English would be, and teachers helped students reflect upon the ethical implications of their choices. Students unpacked their associations with the wavy red line under an “incorrect” word, and noted that the spellcheckers on the school computers always marked their names and common language as “wrong”. They discussed how spellcheckers can sometimes exclude linguistic communities, and debated the value of having official linguistic standards in various circumstances. Through ongoing conversations, students expressed personal views on inclusion, power, social cohesion, and unity, and articulated reasons why they considered different designs to be more or less beneficial, depending on the values and goals.

Students had the opportunity to redraft their program code after having reflected upon the ethical implications of its design (or the impacts of the program execution upon potential users). They then wrote a short reflection paper discussing:

- who the spellchecker would be for and limitations for its use;
- why they made certain design choices (eg. selected their input data set) and how these choices would influence or impact different users;
- their responsibility as coders and innovators.

By the end of the challenge, students demonstrated their ability to:

- Manipulate strings, iterate through arrays and perform various operations on arrays (e.g. finding a min/max), and read data from an outside file;
- Evaluate how their choice of data impacts the functioning of their program;
- Anticipate how the different factors of input data sets will impact the users of their code differently; and

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- Discuss how different groups of people are impacted by their choice of data set.

Broadly, the learning experience engaged students' critical thinking and ethical thinking skills, and helped students conceptualize innovation as inherently ethical – not simply a novel advance in engineering. This larger idea is linked to The Royal Academy's goal of fostering innovators in STEM fields who are capable of enacting the nation's social values and cooperatively navigating complex ethical questions. The learning experience simultaneously addressed the learning goals of School Roadmap and Vision, Computer Science Domain Roadmap, AP Computer Science Principles framework, Spiritual Development Roadmap, and students' personal Roadmaps.

Note: This learning experience was inspired by an [activity](#) created by the Ethic{CS} Project, a community of technical educators who help one another incorporate ethical thinking meaningfully into their coding and other classroom projects.

Reflection questions:

- *What kind of coordination and planning processes would enable teachers to align their Domain curriculum to the overarching competencies?*
 - *How can institutions create an environment where teachers remain involved with their passions and work in the community?*
 - *What would enable teachers to become familiar with their students' Backstories before they need to firm their curricular plan?*
-

Grasping algorithms

Learners at The Royal Academy are typically introduced to the skill of applying an algorithm in the mathematics Domain and over years they are offered varied opportunities for practise, feedback, and assessment across the whole curriculum. As they practise applying algorithms in different contexts and across multiple Domains, they build a conceptual understanding of an algorithm. As they gain skill proficiency, they begin to create and apply algorithms to solve new problems, and apply the concept to make sense of new information. They grasp algorithms as a process, which they use to generate new knowledge. Gradually and over time, algorithmic thinking may become a watermark – a capability that arises automatically when needed.

An algorithm is a process or a set of rules to be followed in problem-solving operations. In the mathematics Domain, algorithms are applied in calculations like division, to solve a quadratic equation (e.g. through factorization), and to find the area of shapes – the examples are endless. In biology, natural selection and Mendelian genetics are described as algorithmic processes, and this stretches the concept. When learning languages, students may recognise that they are using algorithms to conjugate verbs, or derive a translation, to systematically assess context and eliminate options. In the Emotional Area of Development, students may apply a personal algorithm to assist with emotional regulation: recognising thoughts and feelings, allowing complexity and accepting discomfort, investigating bodily sensations, and nurturing oneself with compassion and support.

The system of Roadmaps and assessments ensures that students have opportunities for repeated practise, feedback, and cross-contextual transfer. When algorithms are included in a Domain Roadmap, students have multiple opportunities to practise applying algorithms in that Domain throughout a Learning Cycle. At the end of the Learning Cycle, students who are focusing on learning algorithms are assessed based on their Roadmaps. Because algorithms

are included in multiple Domain Roadmaps, students have opportunities to practise this learning outcome across contexts and from multiple perspectives. Teachers are aware of the commonalities across Roadmaps, and encourage students to connect their learning. Students have opportunities to demonstrate their facility with algorithms and their broader understanding, as well as innovative applications, in Cross-pollination reviews.

As students learn to apply algorithms as a skill and concept across contexts, their understanding deepens. First they are able to describe and apply algorithms in specific, straightforward activities towards familiar problems. Later, they recognise how and when to use it in diverse scenarios to address complex problems. Eventually, they are able to use algorithms effectively and creatively to address complex challenges in unexpected ways. Cross-pollination enables these leaps in understanding.

Elevating the choices and voices of learners

Learners must have meaningful choice in what they study, how they study, and how they demonstrate their learning— this principle permeates every level of school operations. As a whole, schools have the authority and capacity to shape their curriculum to their learners' backgrounds, needs, and aspirations. Curricular Roadmaps do not prescribe content or teaching procedures; instead, they provide a guiding framework that supports teachers and learners. This allows learning experiences themselves to privilege learners' agency, elevating their voices and choices.

Within a solid shared understanding of individual goals and curricular aims, students and teachers can engage together in learning experiences that are dynamic and open-ended. Students can pursue the learning they need with the support of their teachers. They can be given ample opportunities to choose how they want to explore, discover, or practise emerging capabilities. Similarly, they can be given choice in how they demonstrate or communicate their learning.

The Learning Process prepares learners to seize these opportunities and use them constructively. Through their ongoing work with mentors developing their Backstories and Roadmaps, learners develop a robust awareness of their own learning and understanding of their growth patterns. They enter learning experiences with their learning goals in mind, prepared to pursue the action plans outlined in their Roadmap, propelled by a sense of purpose. This is not a solitary stance of individual responsibility—teachers are ready to help them connect with the inner and outer resources they need.

When learning experiences become a platform for learners' exploration and discovery, teachers can also engage more wholly. Relieved from the mandate to prescribe and control learning, teachers can approach their students' growth with curiosity and appreciation, provide students with guidance and advocacy, and join them as learners.

A collaborative approach

Since learning emerges through relationships, learning experiences encourage students to learn with and from their peers, teachers, mentors, and community members. As students work together on complex, shared tasks, the process of collaboration draws out individual and group potential. Collaboration is itself an essential capability, and the Learning Process helps students and teachers alike become adept at enabling this constructive mode of engagement.

Collaboration encourages an enlightened perception: participants learn to recognise the capabilities and knowledge that each person has to offer, and connect with their own capacity to contribute. Together, they help one another access and apply these resources constructively. They also learn to sense and nurture the higher-order capabilities that emerge in a team. Learners practise listening and communication, mutual appreciation and accountability, encouragement and feedback, leading and following — and in so doing, they promote inclusion, find alignment, and coordinate their efforts towards a shared goal. Collaboration is foundational to the practise of community and citizenship; through this practise, everyone's strengths contribute to the development of the collective.

Collaboration follows from the recognition of a common aspiration or need. Teachers set the stage by introducing students to a challenge or issue that is meaningful to them, and explicitly connecting it to their shared learning goals. From this premise, competition doesn't make sense; students' motivations are aligned, and mutual support brings mutual benefit.

As the learning experience unfolds, teachers engage as collaborators who help create the conditions for individual and collective learning. Teachers reflect on students' personal strengths, help each person marshal their existing knowledge to develop new abilities, and make visible what is emerging in individuals and in the group as a whole. They help students connect with potential resources in one another, in their communities, in their environments, and they contribute their own expertise to support group learning. Through their participation and contribution, teachers show up as attentive, curious learners who are engaged in the matter at hand and the study of the group's development.

Teachers' learning journeys

The Bhutan Baccalaureate understands the learning of teachers to be crucial to the learning of students, and also to the positive evolution of the education system as a whole. The interconnectivity that defines wholistic development, and the relational nature of learning, together imply that teachers must attend to their own wholistic development in order to support students in doing the same. Furthermore, to remain relevant and effective, schools must develop and adapt to their changing population and context – and so too, therefore, must teachers continually develop their craft. This mandate opens up liberating possibilities in the profession of teaching.

Every teacher maintains a Roadmap for their ongoing growth as a whole person, including in their role as an educator. The professional aspirations are part of the larger horizon of wholistic growth. Through their Roadmaps, teachers chart pathways for expanding their knowledge and expertise, and for building relational capacities that support their work with students. For example, teachers may aim to learn a new application of their disciplinary skills, or explore a new frontier of research in their area; at the same time, they may seek to develop their capacities for building trust, listening deeply, holding

space for others' growth, facilitating productive collaboration. These aims, while contributing directly to their work as educators, also benefit their lives outside school. The professional growth should be aligned to their aspirations for development as a family member, a community member, a citizen.

Professional development is part of the Learning Process, not separated from the learning of students. While learning experiences in the school's curriculum are largely focused on students' aims, the most fertile experiences are those in which teachers are learning alongside students. Students, after all, learn from teachers' learning: students see their teachers build upon strengths, apply Processes to create new knowledge, demonstrate their Watermarks, pursue their curiosities, and seek feedback from fellow learners including the students themselves. Students have opportunities to provide insight and perspective to their teachers, drawing upon their own backgrounds and experiences. Teachers have opportunities to appreciate their students' knowledge and strengths, and hold them as teachers.

In Mentor Groups, teachers in their capacity as mentors share their personal Roadmaps with their mentees. In this forum, all are learners, and adults and children at all stages of their development provide perspective and support to one another. As students and teachers help one another learn, students come to see their own possibilities embodied in their teachers and mentors, and understand that learning is a lifelong process.

Peer learning and mentorship is as important for adults as it is for children. The inner resources within a body of faculty are abundant, and teachers are given space to share these with one another within professional mentoring groups. Typically, teachers from different Domains are encouraged to mentor one another. This both encourages Cross-pollination across the curriculum and helps teachers reach into their full body of experiences and knowledge as they chart their way forward.

Assessment as learning support

Understanding and documenting growth

The assessment system follows from the belief that every person to be actualises unique potential through experience and practise. Because potential is dynamic and emergent, the assessment system focuses on documenting growth and revelation over time. Standards and benchmarks are only meaningful within an individual's personal trajectory, and must be created with a rich understanding of how the individual develops.

The assessment system is designed to make capabilities visible as they emerge, expand, and strengthen. It also provides insight into how an individual learns by illuminating the relationships among capabilities – how learners use one capability to draw out and enhance others (i.e. as processes). Over time, it also illuminates learners' dispositions, their resourcefulness, their effort, their creativity (i.e. their Watermarks). Over time the assessment system conveys the larger 'how' of a learner's development. These insights allow learners and educators to set expectations for future growth.

The Bhutan Baccalaureate's approach to assessment reflects all five core principles. First, it recognises that individuals' potential is dynamic and will emerge in varying ways and forms. Second, it values the full spectrum of human flourishing and looks across Domains to see interconnected, multidimensional growth. Third, it builds upon and further enhances a learners' relationships by including peer feedback and collaborative review. Fourth, it is personalised and adaptive to different contexts, attending to individual goals and growth. And finally, it looks at contribution and collaborative capacity alongside individual achievement, affirming the links between personal growth, service, and ethical action.

Measuring what matters

The Bhutan Baccalaureate Learning Process uses assessments to promote learners' continued growth in the Five Areas of Development. Assessments are always focused on the Skills, Processes, and Watermarks that are valued by the learner and essential for their development, which are represented in the learners' Roadmaps. Assessments do

not test learners' retention of Domain-specific content, because this is understood to be an ancillary goal. Content should be used to help learners develop more fundamental capacities — transferrable skills, ways of learning, and beneficial inner qualities that contribute to becoming a Person of Substance.

Assessment in the Learning Process is frequent, formative, and multivalent. A student's self-assessment of their own wholistic growth, along with the thoughtful observations of their mentor, teachers, and peers, are the most weighty and valued perspectives. The mentor also brings in the perspectives of the student's family, with whom the mentor maintains close contact. The student, mentor, teachers, and peers provide feedback on the students' emergent Skills, Processes, and Watermarks, considering the specific goals and indicators set out by the student in their own Roadmap. In this way, the student receives constructive feedback from people with different viewpoints on the areas of growth that are most important to the student.

These assessments are learning experiences in themselves, all incorporating recognition of strengths and opportunities to receive constructive feedback on areas needing improvement. All of these assessment opportunities help learners see their own growth in a larger perspective, and help them recognise and appreciate the interconnections in their knowledge.

This circle of views are supported by three types of formal assessments:

- **Individualised reviews** are focused on the Skills, Processes, and Watermarks that are cultivated within specific Domains. They are created by Domain teachers and tailored to each student, offering the student opportunities to demonstrate their strengths, and challenging them to grapple with concepts and skills that they are still learning. These assessments help students appreciate and gain confidence in their knowledge, and help them sense the territory for learning. There is flexibility in the format and the design of these individualized reviews.
- **Cross-pollination reviews** offer students opportunities to connect their experiences, abilities, and knowledge across Domains and illuminate the relationships between different areas of study. Students set the stage for these

reviews by proposing to teachers a unique combination of concepts, Skills, Processes, Watermarks, the Five Areas of Development, and a Domain for their expression. Based on these combinations, teachers design question/problem prompts that emulate real-world scenarios, and the students in turn compose responses. These Cross-pollination reviews underscore the interconnectedness of knowledge, and intentionally disrupt the illusory borders between fields. Teachers provide feedback on students' demonstrated ability to think holistically, integrate their learning across various Domains, and transfer their knowledge to unfamiliar contexts.

- Students **showcase** their learning in a format of their choice, during an open school event. For example, students may share an essay, make a presentation, display a digital model, or put on a performance. Students can communicate in the mode that they are most comfortable with, and share a learning they're proud of. The showcase is open to all, and the experience lends itself to peer and self-assessment, and opens space for community learning.

All of these assessments – the learner's self-reflection, to the descriptive feedback from educators and fellow learners, to the evaluative information from formal reviews – elevate the learners' strengths and provide them with opportunities to receive generous, constructive feedback from different people who know them well. Assessments help learners to see their own growth in a larger perspective and to appreciate the interconnectedness of their knowledge. And assessments encourage learners to express their learning in ways that are authentic and meaningful to them, which exercises their critical thinking and communication and enriches the texture of community knowledge.

External assessments, such as national exams, may contribute additional information about the learner's skills or knowledge – but these inputs should be carefully understood and contextualised, lest they be mistaken as proxy measurements of a learner's deeper capabilities or potential.

Assessments become potent when they embrace learners' creativity, critical thinking, and authentic self expression. When feedback and support for individuals' growth is

invited from all members of the school, the community develops a collective sense of accountability, and everyone invests in everyone's growth. As assessments uplift individual learners and prepare them for their next steps, so should assessments nourish the community as a whole, showing the development and interconnectedness of its collective knowledge.

Assessments continually deepen the school's understanding of the Skills, Processes, Watermarks, and concepts that thread through Roadmaps.

Rooting assessments in common understandings

Because learning unfolds in ways and forms that are unique to the learner and to their setting, there can be no single rubric for the development of a capability that applies to a general population. Although learners share common human capacities and share many learning goals, they will reach these by unique means. So how do students, teachers, and all those participating in the Learning Process recognise and assess the unique emergence of a capability?

The Bhutan Baccalaureate Learning Process helps a community develop robust understandings of capabilities that they value, which enables them to create meaningful and concrete benchmarks for each learner. The assessment system helps learners and educators make connections between these understandings and the emerging evidence of growth in learners.

Mentorship is at the crux of this integrative work: mentors help their mentees grasp relevant Skills, Processes, Watermarks, and Concepts and then make concrete plans for exploration, discovery, and practise. Capabilities do not exist in silos, and so neither do the learning plans: a Roadmap provides an integrated and wholistic approach to development. To accompany the learning plans, the mentor and mentee construct precise, observable indicators of growth in the texture and terms of the learner's life. The planning and indicators for Skills, Processes, Watermarks, and Concepts are documented in the learner's Roadmap. Because mentors hold a long and broad view of their mentee's development, they are able to help ensure assessments are well balanced and helpful to their mentee in their larger journey.

The Roadmap system creates a structure for collaboration among learners and educators within a school, through which the community constructs shared understandings of Skills, Processes, Watermarks, and Concepts. Common understandings permit the individualization of learning and assessment practises and ensure cohesion across the assessment system. Grounded in a shared notion of how a skill develops and works in the world, learners can pursue individualized learning pathways that can be addressed through varied learning experiences across Domains and Areas of Development. In order to reliably assess the emergence of this skill in each person and across these varied experiences and contexts, and to provide coherent feedback to learners, common understandings are essential. Collaborative practises keep the assessment system true and useful to all.

School leadership, Area of Development Coordinators, and Domain Heads all help build and coalesce the community's shared understanding of cross-cutting Skills, Processes, Watermarks, and Concepts. They should promote understanding of how a capacity can be developed in depth and sophistication and through Cross-pollination, so that students' individual learning can be well observed and analysed. Although School leadership, Area of Development Coordinators, and Domain Heads should have a developed understanding of these capacities, they do not dictate definitions; as they themselves continuously learn about these capacities from the community's explorations and revelations, they help fold new insights into the curriculum and assessment practises.

Common understandings are consolidated and disseminated through the tiers of Roadmaps:

The school Roadmap encompasses Skills, Processes, Watermarks, and Concepts that are important for the whole school community, and that are connected to the ideal of a Person of Substance (see Chapter 6: School as Community). These capacities transcend Domains and Areas of Development, and the school Roadmap provides a common blueprint for their cultivation and assessment. School leadership are responsible for updating this Roadmap annually, in connection with the School Vision. The school Roadmap specifically

enables Cross-pollination reviews.

Curricular Roadmaps for each Domain and Area of Development include relevant elements of the school Roadmap, and additionally provide blueprints for the cultivation and assessment of other capabilities that are essential to the particular Domain or Area. The respective Coordinators and Domain Heads are responsible for updating these Roadmaps annually, and ensuring that teachers are prepared to create effective learning experiences across a variety of contexts. These Roadmaps enable students' individualized reviews.

Students' Roadmaps always incorporate the Skills, Processes, and Watermarks set out in the school Roadmap, and include a selection of skills and concepts that are appropriate to their learning goals in specific Domains and Areas of Development. Teachers and mentors work together to help students identify these goals and their personal indicators of growth, and these form the basis for students' assessment and feedback.

The Learning Process promotes transparency and consistency across assessment practises, and keeps the focus on capabilities that matter to the learners and their communities. Assessments are not imposed by external authorities; learners and their closest supporters and advocates together set the terms. Learners should be empowered and propelled through assessments, not defined or directed.

The focus on essential Skills, Processes, and Watermarks deepens the work of teachers. Teachers remain subject experts, but they are relieved of evaluating swaths of content knowledge. Instead, they draw upon their expertise and apply their skills as educators to help learners engage with the subject to learn the higher-order capabilities. Untethered from rigid content requirements, the teacher can freely share their specialized knowledge and explore alongside students. Teachers also work together to create opportunities for cross-discipline practise, preventing siloed teaching practise. A more effective, humane assessment system helps restore the creativity and professionalism of teaching.

Domain Heads and Coordinators of the Five Areas of Development help ensure that the curriculum and assessment practises work as an integrated system, so that teachers can

collectively focus on authentic learning. With this wholistic approach to assessment, curriculum becomes a living body of interconnected learning experiences that support one another and foster progressive learning.

The motherboard (Part IV) assists with the technical demands of assessment, and helps learners track their progress in learning outcomes over time.

Interpreting and reporting growth

Like all elements of the Learning Process, the assessment system is designed to create and deepen relationships that promote collaborative growth. Assessments alone can't chart a learner's pathway; rather, they enrich the conversations among learners and their teachers, mentors, and parents. Assessments ensure that decisions about learning are grounded in sound information about an individual's capabilities and unique patterns of growth. They should highlight a learner's strengths and point to areas for further attention and practise. The assessment system should build learners' confidence and autonomy, deepen their self-understanding and knowledge of the desired capabilities, and foster trust and shared responsibility among learners, teachers, and mentors.

The mentor's role in the assessment system deserves special note. Mentors are crucial in the design, interpretation, and constructive application of assessment practises. After a round of reviews, mentors help their mentees gather their assessment data – the descriptive feedback of teachers, parents, and peers, the evaluative information provided through individualized and Cross-pollination reviews – and bring these into conversation with the student's own self-assessment. The student reflects upon their indicators of growth across all Domains and Areas of Development, and seeks to understand and describe their own learning and progress towards their larger aspirations. The mentor helps their mentee to analyse the assessments as a whole and make meaning from them. With their deep perspective on the learners' background and rich understanding of their trajectory, the mentor can help the learner connect with their identity and larger purposes. From this greater vantage, the student adjusts their Roadmap.

Mentors also disseminate periodic reports on their mentees' wholistic growth and development to the students themselves, their families, teachers, and others as needed. These reports include rich description and analysis of learners' progress, evidenced with assessment data. Mentors help produce five reports per year, one after each learning cycle (described below).

After the first, second, and fourth learning cycles, these reports take the form of a progress letter written by the mentor. These letters are addressed to students' families, and provide brief updates on the learners' progress in each Domain and Area of Development. The mentor includes assessment data and the student's own reflections on their progress. After the third and fifth cycles, mentors produce a more comprehensive report which provides a deeper analysis of learners growth and improvement with respect to their Roadmaps. In these comprehensive reports, the student contributes a personal reflection on their learning journey.

Creating a Portrait of a Learner

A student's Portrait is designed to convey their journey of development and their present capabilities to audiences who may not necessarily know them. The Portrait is a rich description and analysis of a student's growth, drawn from a wide variety of assessments and observations from teachers, mentors, peers, and the student themselves. The diversity of data and human perspectives strengthen the rendering. The student curates this Portrait, and their understanding of their own growth shapes the overall narrative.

The analysis of a student's dynamic and evolving journey of growth is succinct and constructive. It highlights the Skills, Processes, Watermarks, and Concepts the student has developed, and points to those that are still emerging. In addition to conveying the student's progress, the Portrait indicates the student's future direction. It helps students locate themselves in the larger story of their development, and offers insights to parents, teachers, and others who are interested in the student's trajectory.

At The Royal Academy, students create Portraits at the ends of Grades 10 and 12. Each of these Portraits captures students' growth over the preceding four years. These Portraits mark and facilitate students' transitions into young adulthood. As students

author their own Portraits, they take in the fullness of their educational journeys, and decide how they want to tell their own story and describe their future outlook.

Assessment of teachers

It is essential that teachers remain consciously engaged in their own learning journey and attentive to their own wholistic development. Only by nurturing their whole personality and pursuing balanced growth will teachers be able to show up fully in their relationships with students. To promote this mindset and encourage continuous learning, teachers conduct assessment practises much as students do. Teachers maintain a Roadmap, self-reflect, and have regular conversations with colleagues across the school about the teacher's personal development. Fellow teachers, Domain Heads and Coordinators of the Five Areas of Development, the Head of School, community collaborators, and even students when appropriate may provide feedback and support to teachers. Assessment helps keep teachers connected to their personal aspirations and engaged in learning, and helps them notice links between their own development and the development of the learners around them.

Learning cycles and rhythms

Bhutan Baccalaureate schools are designed for continuous evolution. There are regular cycles of reflection and adjustment built in at individual, classroom, and school levels. These ensure that learning is continuously responding to the living reality of learners and communities.

The Learning Process flows through cycles that prompt a learner to reflect on their learning and development, and adjust their Roadmaps. Some cycles are short and allow the learner to make small refinements to their approach to learning experiences, such as the weekly cycles punctuated by mentor-mentee meetings. Other cycles are longer, spanning months or years, allowing the learner to re-set their larger goals as their aspirations evolve and they discover new

capacities. The layering and continuity of these cycles, even if they may align with the turning of a year, deemphasise the calendar as a timekeeper for development; learners progress continually and at their own pace, supported with frequent input from their community.

These cycles also help a learner take ownership over their development. A learner's journey unfolds as they actualise their innate potential, which is dynamic and forged in relationships. The way cannot be prescribed and should not be predetermined; learners should become a student of their own learning and chart their own path.

All the cycles within the Bhutan Baccalaureate Learning Process begin and end with an opportunity to revisit one's Backstory. As discussed in Part II, Backstories are the layered and contextual, data-rich narratives of a journey of development. For students, the pre-eminent cycles in school are Learning Cycles of about 6-8 weeks. Each of these cycles takes the same shape.



Learning Cycles open with dedicated time for students to reset their intentions and adjust their Roadmaps. With the support of their mentor, students reflect on their updated Backstories, analyse insights from the previous learning cycle, and adjust their plans for the forthcoming learning cycle. The mentor helps each student see how they can utilise their strengths to address areas needing improvement, and helps them connect with their larger aims and purpose. (During this phase, teachers have access to students' updated Roadmaps, and they lay out plans for learning experiences in the upcoming cycle.)

The central and largest phase of the Learning Cycle is dedicated to learning experiences. Students plunge into a weekly rotation of learning experiences focused on various Domains and Areas of Development, on and off campus, indoors and outside in nature. Throughout this period, students continue to meet with the mentors and fellow mentees during Mentor Group time, and reflect on their learning and progress with respect to their Roadmaps. In this forum, students provide support to one another, and mentors may offer guidance. This period for learning experiences may vary in duration; at The Royal Academy, students each have a total of 108 learning experiences spanning the Domains and Areas of Development.

At the close of a learning cycle, students have various opportunities to demonstrate their strengths and gather helpful information about the capacities they are trying to improve. Individualized reviews, Cross-pollination reviews, and a showcase at the end of the cycle provide opportunities for celebration and multivalent assessments. These experiences inform the feedback of teachers, mentors, as well as the student's self-reflection on their learning and growth. Together, the student and mentor incorporate these inputs into the student's Backstory, readying them to begin a new Learning Cycle.

Mentorship in practise

The Learning Process is designed to uncover and nurture individual strengths through personalised pathways, and its system of mentorship makes this possible. Mentorship creates sustained relationships through which individual potential can be recognised and cultivated. In the harbor of trust and deep understanding between mentors and mentees, a learners' capacities can become visible and surface. Mentorship follows from the Bhutan Baccalaureate's primary commitment to nurturing what is already vital within a learner.

The mentorship system also creates a crucial structure for cooperation across the school, enabling educators to act from a wholistic view of learners. Insights about learners' wholistic development are shared across contexts, so that responses to learners' needs are coordinated and balanced. As teachers develop a rounder understanding of their students, they can better facilitate learning experiences that connect multiple Areas of Development. Mentorship ensures that learning remains integrative and personalised.

Because learning emerges through relationship, mentorship opens potent spaces for growth. Learners see their own possibilities embodied in their mentors and fellow mentees, and share inspiration and support, accountability and companionship, challenge and celebration. Most importantly, the mentorship system creates a web of deep, caring relationships that helps learners generate meaning from their learning. Mentorship, by continually orienting towards the broader and universal aims of education, helps learners connect with their own purpose.

The mentor is an equal beneficiary in these exchanges; the care and learning in the mentor-mentee relationship is mutual. Mentors share their own learning journeys with mentees, and gain knowledge, perspective, and inspiration from these fellow learners.

Mentors and mentees

As described in Part II, the mentor gets to know each of their mentees deeply in the process of developing the mentee's Backstory. The mentor also maintains a warm, collaborative relationship with the mentee's family. With this relational foundation, the mentor provides guidance for the mentee's wholistic development. Together, the mentor and mentee design the mentee's Roadmap and update it regularly throughout the mentee's educational journey.

In the space between the close of each learning cycle and the beginning of the next, mentors and mentees update the student's Backstory and Roadmap. Both mentor and mentee would have received the assessment results from the latest cycle, and they will take time to analyse and interpret the new information in the broader context of the student's life. Together they will reflect on the students' intentions and efforts, discuss patterns of growth, and appreciate the emergence of new Skills, Processes, and Watermarks. Teachers will have identified areas for the student to focus on in the upcoming learning cycles, and the mentor and mentee may nuance these and add additional focus areas. These focus areas are incorporated into the updated Roadmap.

The student should take the lead in these deliberations and decisions, but the mentor's voice is no less important: the mentor ensures that the student's Roadmap is well rounded in the Five Areas of Development, that plans are elucidated and well aligned to

goals, and that the overall strategy is feasible. The mentor also verifies that the Roadmap responds to teachers' feedback, while remaining cohesive. The mentor provides a longitudinal view of the student's development, and brings judiciousness into the planning process.

During learning cycles, mentors may coordinate with teachers to support their individual mentees' learning and wellbeing. With their perspective on the students' long-term and wholistic growth, mentors are uniquely positioned to advocate for their mentees within the school. In addition to this direct support, the mentor also helps their group of mentees form a community in which they support one another.

Mentor groups

Mentor Groups are essential structures within the Bhutan Baccalaureate Learning Process. When a student enters school and is matched with their mentor, they join the mentor's community of mentees. The Mentor Group becomes composed of students of all ages, at various stages in their educational journeys. The group functions like a family; mentees build trust and friendship and help one another grow. In addition to supporting each individual mentee, the mentor nurtures the Mentor Group as a whole.

Mentor Groups have dedicated time together each week. The adult mentor helps the group create a space that is comfortable and inclusive of each individual, so that the group can hold vulnerability as it arises. Learners share reflections from the week, successes and challenges, joys and difficulties. They look together at the school calendar and locate themselves in the learning cycles, and anticipate events to come. They celebrate one another, help one another through times of difficulty, and take on collective learning tasks.

The diversity of the group, with learners of different ages and backgrounds, means that its resources are great. Students come to appreciate the strengths and knowledge of their peers – older and younger – as they advise and teach one another. The mentor observes the social dynamics of the group and helps students address issues as they emerge, but does not position themselves as the teacher; the Mentor Group is a space for children and young adults to help one another learn.

In addition to supporting the goals of individual mentees, the Mentor Group sets some collective learning goals. These goals might come from shared interests within the group, or might be aimed at something the group wants to do together. For instance, a Mentor Group may decide that they want to practise traditional forms of oratory, so they could organise speech and storytelling events. They may decide that they want to learn how generative AI tools work, and could seek out an expert from the local university for conversation and further resources. They may decide they want to become better cooks, and may arrange for lessons from the school's kitchen staff.

All of these collective learning goals and plans are elaborated in a Mentor Group Roadmap. This Roadmap represents all of the learning that the group pursues together, including the group's support of individual mentees towards their personal goals. As children teach and learn from one another, they build confidence in their inner resources, trust in each other, and enduring qualities such as sensitivity, patience, generosity, and resourcefulness. The collective pursuits also provide opportunities for learners to practise determining and mobilizing towards a collective goal. These learning processes are at the heart of the Mentor Group's purpose and function.

Chapter 8: Learning Process at Different Development Stages

Introduction

Learning looks different at different ages. A five-year-old discovers through play, sensory exploration, and the security of consistent routines. A twelve-year-old grapples with identity, seeks peer connection, and begins to think abstractly about systems and ideas. A seventeen-year-old pursues deep inquiries, takes initiative on projects they care about, and thinks strategically about their future. These differences are not merely logistical considerations for schools to accommodate. They reflect fundamental truths about how human beings develop.

The fourth core principle of the Bhutan Baccalaureate recognises that learning must be context-responsive and ever-evolving. Context includes not only culture and community, but also developmental stage. What constitutes appropriate challenge, meaningful autonomy, or effective support shifts as learners mature. A Roadmap that empowers a sixteen-year-old might overwhelm a seven-year-old. Assessment practises that engage adolescents in productive self-reflection might confuse young children still developing metacognitive capacity.

The structures described in previous chapters remain constant: the Five Areas of Development, Skills and Processes and Watermarks, Domains, mentor groups, Backstories and Roadmaps, learning experiences, and assessment. What changes is how these elements are implemented, the balance of responsibility between adults and learners, the complexity of goals, and the forms of support that enable growth.

This chapter traces how the Learning Process manifests across six development stages, from early childhood through secondary education. A crucial pattern emerges: the gradual shift from adult-led to learner-led learning. In early stages, adults design experiences, set structures, and guide reflection. As learners mature, they increasingly take ownership, co-designing experiences, setting goals, directing inquiries, and ultimately leading their own development with adults as mentors and thought partners. This progression reflects the principle of innate potential: young learners possess immense capacity but need support to discover it; as they grow, education shifts from scaffolding discovery to facilitating independent exploration.

The stage descriptions that follow are not rigid prescriptions. Individual learners develop at different rates and in different ways. Some may exhibit characteristics of multiple stages simultaneously. Cultural contexts shape what constitutes age-appropriate autonomy or challenge. Schools must use these descriptions as guides while remaining responsive to the actual learners before them, adjusting approaches based on observation and relationship rather than age alone.

Development Stage I & II [ECCD to Grade 3]

Development Stage I corresponds to learners aged 5 to 8 years. During this stage, learners build on their prior knowledge, progressing from familiar to unfamiliar concepts and from concrete to abstract thinking. This period marks rapid development across all Five Areas of Development. Educators play a crucial role in creating a nurturing environment that supports wholistic development and facilitates the construction of knowledge through hands-on practice, curiosity-driven learning experiences, and community interactions.

Learning experiences are intentionally designed to integrate the Five Areas of Development, enabling learners to acquire essential skills such as communication, awareness and collaboration. Educators create diverse, interactive, and engaging learning experiences that encourage curiosity, inquiry, and reflection. To make learning meaningful and relevant, educators consider each learner's background, including their values, expectations, and prior experiences at home, in early learning centres, or within their communities.

At this stage, learning is centred around play, exploration, and inquiry, allowing learners to make meaningful choices, develop critical thinking, and solve problems. Educators employ various strategies to motivate learners, focusing on collaborative and inquiry-based learning methods. These include setting routines, providing clear instructions, organising small group activities, creating exploration centres, guided reading, integrating technology, and balancing indoor and outdoor activities. Additionally, reflection time for social-emotional-spiritual learning, purposeful play, field trips, and organised games enrich the learning experience. Such practices encourage the development of skills in context and contribute to the wholistic growth of the learner.

Tracking learner growth is an ongoing process that involves gathering, interpreting, and documenting evidence of progress. Educators observe and record learners' activities, maintaining assessment and anecdotal records while engaging in regular communication with parents. Parents are integral to the Learning Process, contributing ideas, supporting activities, and helping learners develop habits such as managing to-do lists or tracking their progress using visual aids like charts, journals, or audio recordings.

Mentors collaborate with educators to guide learners in creating personalised Roadmaps for their goals. For younger learners, these goals might include simple tasks, such as maintaining cleanliness or healthy eating habits. Over time, these Roadmaps evolve to include indicators of success and timelines, helping learners develop autonomy in managing their progress by the end of Grade 3.

By the end of Grade 3, learners should have developed an awareness of their inner capabilities and begun to explore, appreciate, and question the social and natural worlds around them.

Development Stage III - Grades 4 to 6

Grades 4 to 6 encompass learners aged 8 to 11 years, a period marked by significant developmental changes across all five key areas of growth. During this stage, learners deepen their engagement with structured learning environments, building on the foundational knowledge and skills acquired earlier. They also begin to internalize the norms and expectations of the school community, contributing to the strengthening of the Learning Process.

At this stage, the Learning Process still remains driven by the adults, encouraging learners to go through reflective practises supported by the adult. Educators design cross-pollinated learning experiences that integrate the Five Areas of Development, enabling learners to acquire new Skills, Processes, and Watermarks alongside content knowledge. As learners mature, they develop greater self-awareness, recognising which goals they have achieved and which require further effort. Goals set within their Roadmaps become more complex and challenging, reflecting short-term objectives that align with their growth.

Learners are guided to actively track their progress, with educators and mentors supporting this process through observation, reflection, and assessment. Tools such as rubrics, portfolios, and

reflective journals provide evidence of growth, highlighting strengths and areas for improvement. As they get involved in their assessment process, they gain a nuanced understanding of their progress and develop the ability to set and adjust goals independently.

Mentoring sessions and tailored learning experiences further refine the learner's understanding of Skills, Processes, and Watermarks, enabling them to explore and understand their potential. Educators adapt the learning experiences to meet the evolving needs of learners, slowly allowing them to be independent and preparing them to take ownership of their learning journey. Common assessment methods for this stage include observations, self and peer assessments, interviews, graphic organisers, mind maps, illustrations, portfolios, and reflective exercises.

By the end of Grade 6, learners are expected to demonstrate increased self-reliance, decision-making skills, and the ability to function effectively within the norms of their community. They should also develop exam-taking skills to succeed in diverse contexts.

Development Stage IV - Grades 7 and 8

In Development Stage IV, learners enter early adolescence, a time marked by profound personal, emotional, social and cerebral transformation. This stage marks a critical shift in the Learning Process: from adult-led learning to allowing the learners to take more control, with adults now acting more as facilitators, mentors, and thought partners. Learners begin to make deeper connections between their growth and the content they encounter, increasingly using Cross-pollination to make sense of the world.

Learning experiences are co-designed with learners, ensuring they remain contextually relevant and intrinsically motivating. Learners explore more complex problems, integrating their understanding across Domains and Areas of Development. For instance, a study of urbanization may combine geographical analysis, ethical implications, emotional awareness, and civic responsibility. Through such a process, learners practise switching between the big picture (societal impact) and detailed perspectives (urban planning tools or environmental data).

As learners refine their capacity to set and monitor their growth, Roadmaps become more detailed and forward-looking, often linked to long-term aspirations. Mentors play a vital role in supporting learners to recognise their evolving identities and develop personalised strategies for

growth. Reflection becomes more rigorous, with learners drawing on a range of tools such as journals, portfolios, peer dialogue, and formative assessment rubrics to articulate their progress and learning strategies.

Assessment practises in this stage support both skill development and conceptual mastery. Learners participate actively in designing success criteria, peer and self-assessment activities, and reflecting on Watermarks such as collaboration, empathy, or resilience. These assessments are not solely academic; they help learners understand how the Five Areas of Development interact in their daily lives and learning experiences.

By the end of Grade 8, learners are expected to demonstrate the ability to design and lead projects, analyse systems critically, and collaborate across diverse perspectives. They begin to recognise their voice in their communities and take initiative in applying their learning to solve real-life problems.

Development Stage V - Grades 9 and 10

Grades 9 and 10 represent a period of increasing cerebral complexity, social responsibility, and personal autonomy. At this stage, learners are expected to fully lead their own Learning Process, with educators and mentors offering feedback, scaffolding, and strategic challenge. Cross-pollination now becomes an internalized habit of mind. Learners use it to connect insights from different Domains and Areas, often generating original ideas and perspectives in the process.

The focus of learning shifts towards in-depth inquiries, real-world applications, and application of their learning through projects and opportunities to showcase learning. Learners may, for instance, explore sustainability through a project combining environmental science, economics, and personal action. Such learning requires them to move seamlessly between abstract thinking and applied problem-solving, integrating concepts from the Five Areas of Development in dynamic and meaningful ways.

At this stage, Roadmaps take on a strategic character, linking short-term actions to long-term aspirations, including preparation for post-school pathways. Learners identify their strengths and growth areas with increasing independence, and they use these insights to refine their goals, strategies, and methods for self-assessment. They also begin mentoring younger learners, which

reinforces their own understanding and leadership skills.

Assessment becomes increasingly varied and learner-driven. While learners continue to engage in reflective journals and portfolios, they now also lead student-led conferences, present projects, and produce multimedia artifacts to showcase their development. Emphasis is placed on how learners integrate feedback, iterate ideas, and communicate their learning journey in authentic ways. Exam-taking skills also become a focus of learning as learners develop grit, resilience and the ability to communicate their understanding in a specific context.

By the end of Grade 10, learners are expected to demonstrate deep conceptual understanding, self-management skills, ethical reasoning, and the capacity to contribute meaningfully to societal and global challenges. They are beginning to identify potential career paths or life directions, not just based on academic performance but on a grounded sense of purpose, contribution, and identity. Their journey through the Learning Process till Grade 10 culminates in a Portrait, written from their own perspective, supported by the data that has been gathered on the Motherboard. This data serves as evidence of growth from multiple perspectives on a learner's journey. As the learner transitions to the next grade, they continue to refine and update their Portrait.

Development Stage VI - Grades 11 and 12

Grades 11 and 12 represent the culmination of the Learning Process, where learners take major control of their learning. At this stage, learning is entirely driven by the learner's aspirations, inquiries, and sense of contribution. With a solid foundation in the Five Areas of Development and experience in navigating integrated, cross-pollinated learning, learners now tackle challenges that align with real-world issues. They lead projects, whether designing a social innovation initiative, conducting research, or launching an initiative that requires them to draw upon all Domains and express their identities through purposeful action.

Their Roadmaps evolve into life plans, capturing not just academic goals but broader life intentions related to contribution, well-being, and personal growth. Learners mentor younger learners, engage in discussions, and lead learning exhibitions that allow them to share their journey with authenticity and confidence. Cross-pollination at this level includes drawing from

technology, global challenges, ethics, Aesthetics, and lived experience, enabling learners to approach problems with nuance and creativity. This stage reinforces the ability to shift between micro and macro views, honing both analytic depth and strategic perspective.

Internships become more intensive and are often linked to career exploration or higher education goals. Learners expand their self-curated areas into meaningful endeavors, supported by mentors beyond the school, to extend to individuals from the community or professional fields. They continue to participate in physical fitness and Aesthetics, but now with greater ownership. Many learners design their own fitness plans, while others choreograph performances or curate exhibitions. These elements are integral to the wholistic vision of learning and development that the Bhutan Baccalaureate upholds.

By the end of Grade 12, learners are expected to graduate with a strong sense of identity, a deep awareness of their responsibilities as citizens of any community, and the ability to articulate how they will continue learning, contributing, and adapting beyond school. They leave not only with knowledge and skills but with the mindset, values, and capacities needed to thrive in a rapidly changing world. They not only graduate from a Bhutan Baccalaureate school with an academic transcript from an examination board, but also with a more detailed Portrait. They build upon the Portrait that was created at the end of Development Stage V to include their journey, achievements and experiences in Development Stage VI. More importantly, they align their Portrait to their aspirations beyond school.

PART IV:

ENABLING SYSTEMS

Technology in Service of Learning

Educational systems are built on relationships: between learners and mentors, among peers, within communities, across generations. At their best, these relationships create the conditions for discovery, growth, and transformation. Technology cannot replace these human connections. But it can support them, extend them, and make possible forms of personalisation and insight that would be impossible at scale through human effort alone.

The Bhutan Baccalaureate Learning Process generates enormous amounts of information. Each learner develops through the Five Areas of Development, working towards individualized goals set in their Roadmaps, engaging with concepts across the various Domains, and cultivating Skills, Processes, and Watermarks unique to their journey. Mentors observe, educators provide feedback, peers offer perspectives, families contribute insights. Learning happens in mentor groups, through cross-pollinated experiences, in community settings, over years of development. Every interaction, every assessment, every moment of growth creates data that, properly understood, can illuminate patterns and inform how to support each learner.

Without technological infrastructure, this richness becomes overwhelming. No individual mentor, however dedicated, can hold in mind the complete developmental trajectory of even a few learners across all dimensions over time. No school, however committed, can manually track patterns across dozens or hundreds of learners, identify where intervention would be most helpful, generate insights from years of accumulated experience, and make this information accessible to those who need it when they need it.

Technology makes this possible. Not by replacing human judgment, but by augmenting it. Not by automating relationships, but by creating the conditions in which relationships can be more informed, more responsive, more truly personalised.

Augmented Intelligence

In a world deeply connected by technology, learners face a critical choice: to use technology to augment their intelligence or to outsource their thinking to it. The difference matters profoundly. Augmentation means technology extends human capacity. It provides information, reveals patterns, handles complexity, creates possibilities. But

humans remain the agents, making meaning, exercising judgment, taking responsibility. Outsourcing means technology does the work while humans become passive consumers of its outputs.

The Bhutan Baccalaureate Motherboard is designed for augmentation. It serves the relationships at the heart of learning by centralizing the vast amount of information generated by the Learning Process, revealing patterns across time and contexts, and providing the infrastructure for assessment, reporting, and insight generation. Through this work, mentors gain deeper understanding of their mentees' patterns of growth, learners see their own journeys with greater clarity, educators design learning experiences responsive to what learners actually need, and families understand how their children are developing across all dimensions of growth. Yet the Motherboard does not make decisions, does not evaluate worth, does not replace the conversations through which learners, mentors, educators, and families together make sense of what the data reveals.

This commitment to augmentation rather than replacement reflects a deeper principle: discernment and ethical awareness must guide technology use. An Aesthetic Mindset, cultivated through the Learning Process itself, provides this guidance. Learners develop the capacity to ask: What is this technology for? How does it serve my growth and my relationships? When does it enhance my capabilities, and when does it diminish them? These questions ensure that technology remains a tool in service of human flourishing rather than an end in itself.

The Human Foundation

None of this technological capacity matters without the human elements that animate it. The Motherboard serves relationships; it cannot create them. It provides information; it cannot determine what that information means or how to respond to it. It tracks development; it cannot substitute for the attention, care, and wisdom that mentors bring to understanding their mentees.

Technology, at its best, creates space for humans to do what humans do best: observe closely, listen deeply, interpret with nuance, respond with creativity, care with

consistency, inspire with presence. The Motherboard handles what machines handle well—storing vast amounts of data, identifying patterns across complexity, generating reports efficiently, making information accessible instantly—so that people can focus on what only people can do.

The chapter that follows provides technical detail about how the Motherboard functions. The language shifts accordingly, becoming more specific and system-focused. This technical precision serves implementers who need to understand the infrastructure in detail. But for those reading primarily to understand the educational vision, the essential point is simple: technology enables the Learning Process to function at scale while maintaining the personalisation, wholistic attention, and relational depth that make genuine learning possible.

The Bhutan Baccalaureate Motherboard

The Bhutan Baccalaureate Motherboard is a comprehensive technology platform designed to operationalize the Learning Process. It serves as the central infrastructure that enables personalised learning at scale, supports wholistic assessment, and provides insights that inform mentoring and teaching.

At its core, the Motherboard does several essential things:

It centralizes information: All data about learners' journeys flows into and through the Motherboard: Backstories that capture context, Roadmaps that articulate goals and indicators of success, ongoing observations from mentors and educators, peer and self-assessments, results from individualized and Cross-pollination reviews, documentation of learning experiences across the Five Areas of Development. This centralization ensures that information is not scattered across disconnected systems but available in a coherent, accessible form.

It reveals patterns: With data from multiple sources over extended periods, the Motherboard can identify trends that might not be visible to any single observer. A learner's consistent growth in collaboration across different contexts. A correlation between engagement in physical activities and emotional resilience. A need for support in a particular Process that appears across several

Domains. These patterns help mentors and learners understand development more completely.

It generates insights and reports: The Motherboard produces the formal reporting that communicates learners' progress to families and other stakeholders: Progress Letters at the end of Learning Cycles 1, 2, and 4, and Comprehensive Reports at the end of Learning Cycles 3 and 5. Beyond these scheduled reports, it can generate customized analyses in response to specific questions: How is this learner progressing towards their Roadmap goals? Where might timely intervention be most helpful? What strengths are emerging that could be further developed?

It supports Portrait creation: At the culmination of Grades 10 and 12, learners create Portraits that capture their journey in their own voice. The Motherboard provides the foundation for this work, pulling together relevant data, Roadmaps, reflections, and evidence of growth so learners can craft comprehensive narratives of their development.

It connects the learning community: The Motherboard serves not just individual schools but the broader network of Bhutan Baccalaureate institutions. It facilitates knowledge sharing, enables collaboration, and creates opportunities for learners and educators across schools to learn from one another.

The Motherboard is designed to be robust, scalable, and flexible. It must serve learning communities ranging from a single school to thousands of learners across multiple institutions. It must be secure, protecting sensitive information about learners. It must be modular, allowing different technologies to be integrated as needs evolve. And it must be fast and reliable, providing the real-time access that educators and learners need.

What follows is a detailed technical description of the Motherboard's architecture, features, and services. This material is primarily intended for those implementing or maintaining the system: technology teams, school administrators, system designers. The language becomes more technical and specification-focused. Readers seeking to understand the educational vision without needing technical detail may find the overview above sufficient. For those who need to understand how the system actually works, the sections that follow provide comprehensive documentation.

CONCLUSION

What if education could begin not with what learners lack, but with what they already possess? This was the question with which this document began. It is also the question with which it should never end.

The Learning Process described in this document is not a curriculum in the conventional sense. It is an orientation: a sustained commitment to seeing learners as whole, accompanying them through the long and non-linear work of becoming, and trusting that what emerges, when the conditions are right, is something the learner already carried within. All of the structures described in these pages — the Five Areas of Development, the Backstory, the Roadmap, the mentorship system, Cross-pollination — exist in service of this single conviction: that every learner possesses innate potential waiting to be discovered, and that the purpose of education is to create the conditions in which that potential can emerge.

This is not an easy process. It would be a disservice to suggest otherwise. To know a learner deeply enough to support their wholistic development requires patience, sustained attention, and genuine humility. To contextualise this framework to a specific community, attending to its history, its needs, its aspirations, requires courage and a willingness to sit with uncertainty. Holding the tension between individual flourishing and collective well-being, between the learner's innate potential and the world they are being prepared to serve, asks much of the learners and the communities that surround and sustain them. Yet this is precisely the work.

The end, as articulated by His Majesty the Fifth King, is the formation of constructive and contributory members of a just and harmonious society. But what does that mean from the inside, from the perspective of the learner who has moved through this process? It means arriving at adulthood with a grounded sense of who one is: one's strengths, one's aspirations, one's way of learning and growing. It means having developed the inner resources of resilience, ethical discernment, empathy, creativity, and self-awareness needed to navigate a world that will remain uncertain and complex. It means understanding that one's individual flourishing is not separate from the flourishing of those around oneself, but is, in fact, inseparable from it. And it means carrying forward the capacity for reflection: the ability to continue discovering oneself, to revise one's Roadmap as life demands, to remain, always, a learner.

Central to this vision is the actualisation of each person's unique potential. The Bhutan Baccalaureate does not ask learners to conform to a single image of success, nor to measure

themselves against the development of their peers. It asks something more difficult and more rewarding: to turn inward with genuine curiosity, to discover the particular constellation of strengths and aspirations that belongs to them alone, and to chart a life that honours what they find there. This is the work of introspection and reflection that runs through every aspect of the Learning Process; through the Backstory, which helps a learner understand the conditions that have shaped them, and through the Roadmap, which translates self-knowledge into intention and action. Over time, as these practises deepen, the learner becomes their own most reliable guide, not through certainty, but through the practise of knowing themselves ever more deeply.

This is the fruit of the Learning Process: not a degree or a set of credentials, though these matter, but a person. A person who knows themselves, who contributes meaningfully, who cares for those around them, and who understands that their growth does not end when they leave school. The Bhutan Baccalaureate is, in this sense, an education for the whole of life.

Importantly, the Learning Process is itself a living document. It will continue to evolve as it meets new communities, new contexts, and new learners. The five core principles provide an enduring foundation, but the practises through which they are expressed must be continually contextualised, tested, and refined. Schools will discover what works in their setting. Learners will reveal capacities that no framework anticipated. Educators will develop insights that deepen and complicate the work. This is as it should be. A Learning Process that does not itself continue to learn would fall short of the very principles it espouses.

This document is therefore an invitation as much as it is a framework. Those who engage with it, whether to implement it in full, to draw selectively from it, or simply to think alongside it, are participants in an ongoing process of inquiry. What resonates here? What questions has it opened? What does this understanding of learning and human development ask of the communities that take it seriously? These are not questions with fixed answers. They are the very questions that carry the Learning Process forward.

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