Critically review the ‘learning to learn’ aims of the International Baccalaureate and examine how this is achieved in the Diploma Programme drawing upon educational practice based on my own experience.

**Understanding Learners and Learning**

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**Introduction**

The International Baccalaureate (IB) has a vision of effective learning rooted in a perceived reality of life in the 21st century of a rapidly changing world and a rapidly expanding knowledge base, where the employment environment stresses transferable skills and collaborative working practices. This reality necessitates that when their formal education is complete students are equipped with the necessary skills and prepared as effective and autonomous lifelong learners (IB, 2008a). Thinking with autonomy and responsibility are seen as essential for full citizenship in democratized society and for moral decision making in situations of rapid change (Mezirow, 1997). Furthermore, the IB considers intercultural understanding to be an essential part of life in the 21st century (IB, 2014). Thus it perceives that the purpose of education, as provided through its programmes, is to develop young people who have an international understanding and help to make a better and more peaceful world (IB, 2008b). In this way the IB sees education as transformative and schools as agents of social change; a social constructionist orientation to learning (Eiser and Vallance, 1974, cited by Marsh, 2009).

Underpinning all four of its programmes, the Primary Years Programme (PYP), the Middle Years Programme (MYP), the Diploma Programme (DP), and the IB Career-related Certificate (IBCC) (collectively known as the IB continuum), the IB expresses its educational aims in its mission statement –

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. (IBO, 2014)

Here, and explicitly expressed throughout its literature, the IB sets out the primary outcome of learning in the continuum; to develop the whole child as an inter-culturally aware lifelong learner. Seen as an essential strategy to cope with the challenges of the globalized and knowledge-based socio-economic reality of our time, lifelong learning is ‘characterized as a life encompassing process organized around the centrality of the learner’ (Uggla, 2008: 212). For the IB, the significance of the learner as the central facet of the learning process is attested to by the central position it occupies in the circular models of the continuum programmes. It asserts that effective lifelong learners are self-aware, can realistically appreciate and control their own learning process and are able to evaluate and self-regulate their performance (IB, 2008a). The intention of this essay is to review the IB learning objective of fostering lifelong learners, and to critically examine how this is achieved in the DP.

**IB learning for the 21st century – lifelong learning in the DP**

Completed over two years by students aged 16-19, the DP consists of six academic areas, studied at either higher or standard level, including science, first and second languages, humanities, mathematics and the arts. All students, irrespective of subject choices, complete the three compulsory core components of the DP; creativity, action, service (CAS), the Theory of Knowledge (ToK), and the extended essay.

 (IB, 2014)

Taking a holistic view of learning which emphasises the development of the whole person, the distinctive aims of the DP are a mix of the pragmatic, providing an internationally recognized university entry qualification, the ideological, encouraging international understanding and peace, and the pedagogical, promoting critical and creative thinking skills and the reflective capacity necessary for learning to learn (IB, 2009). Commonality between the specific aims of the DP and those of the IB continuum is explicit.

The DP aims to -

* provide an internationally accepted qualification for entry into higher education
* promote international understanding
* educate the whole person, emphasizing intellectual, personal, emotional and social growth
* develop inquiry and thinking skills, and the capacity to reflect upon and to evaluate actions critically. (IB, 2002)

An awareness of the influences that shape thinking enables the learner to select, develop and defend their position of understanding in a self-critical way (Woolfolk *et al*., 2008), leading to learner autonomy.Metacognition is seen by the IB as fundamental to the reflective thinking strategies, attitudes and competencies necessary for learners to monitor and control learning, and become effective lifelong learners (IB, 2008a). Metacognition needs to be understood as the discovery and development of the learner’s identity as a learner (Kusuma-Powell and Powell, 2013), with students becoming self-aware of themselves as learners and their process of learning, and skilled at utilizing this knowledge to regulate learning and improve performance; the IB (2008a) identifies these two component parts of metacognition as metacognitive knowledge and metacognitive performance. The essential skills which allow a learner to regulate thinking and learning are planning, monitoring and evaluation (Woolfolk *et al*., 2008). These should not necessarily be viewed as distinct and exclusive stages to the regulatory process; a beginning, middle, end. Many of the considerations at the start of a learning task, what might be perceived of as the ‘planning’ stage, such as how much time to allot, which resources to utilize and how to proceed, are pertinent throughout the completion of a task and will need to be regularly readdressed. Monitoring and evaluating, furthermore, can be seen as mutually supporting components of the same process, that of making judgements about the learning process and its outcome.

Learning to learn and metacognition need to be an integrated part of the learners’ overall learning experience and approached within context, ‘infused naturally into the curriculum as part of teaching and learning’ (IB, 2009: 8), rather than being an isolated component or part of a separate study skills programme. The IB (2009) asserts that metacognitive learning is delivered through identified aims and objectives in the DP subject groups, supported by ToK, that require students to reflect on and evaluate the knowledge claims and methodologies they encounter. Furthermore, ToK is directly cited as the learning to learn component of the DP (IB, 2008a). While it is true that subject disciplines and ToK do contain metacognitive objectives, metacognition, in this instance, needs to be understood in its epistemological sense as the exploration of knowledge, its foundation, extent, validity and methodologies, rather than the reflective critical self-evaluation that leads to the self-awareness as a learner implicit in the process of learning to learn. The metacognitive approach to learning envisaged in the DP ‘helps students develop the higher-order thinking strategies needed to become lifelong independent learners’ (IB, 2009: 8) but not necessarily to actually become lifelong learners; it cannot be assumed that the development of higher-order thinking skills will automatically generate the understandings, dispositions and competencies involved in learning that leads to autonomous thinking (Mezirow, 1997) and develops the lifelong learner. Kusuma-Powell and Powell (2013) contend that learning to learn implementation is at the discretion of individual schools and teachers, rather than an explicit and systematic feature of the DP. This contrasts to the explicit emphasis on learning to learn in the DP’s partner programmes of the IB continuum, the MYP and PYP. Learning to learn is delivered through the Approaches to Learning area of interaction of the MYP’s distinctive core (IB, 2008c) and through the transdisciplinary themes of the PYP in which learners consider, at age appropriate stages, such questions as: what is school? How does the brain function? What is learning and how do we construct meaning? (IB, 2007).

**The inter-culturally aware lifelong learner: an identity**

The international objective of the IB can be viewed in two ways; from an ethical perspective where developing greater intercultural understanding on the part of students will increase the chances of achieving world peace (Cambridge and Thompson, 2004: Hill, 2007: Peterson, 2003: cited by Wells, 2011) as described in the IB mission statement; from a pragmatic perspective where intercultural understanding leads to intercultural literacy allowing for successful negotiation and navigation through the living and working environments in a cross-cultural and pluralist setting (Heywood, 2002). When this pragmatic view is accepted, the understanding of the two IB objectives, of developing intercultural understanding and fostering lifelong learners, can be perceived, not as two distinct objectives, but as intercultural understanding being the essential frame of mind necessary to be an effective lifelong learner in the 21st century, successfully making sense of and in an ever-changing globalized world. Thus, the two objectives of lifelong learning and international mindedness cannot be disassociated.

Common to international mindedness and lifelong learning is the concept of identity; international mindedness is a personal identity that transcends the boundaries of a national conceptual framework (Hemmens, 2013), constructed through an understanding of the self in a socio-cultural diverse context; a lifelong learner is self-aware of their identity as a learner, and through that awareness, able to form and define that identity. Individuals with an established learner identity believe in their ability to learn and develop, not only embracing but purposely generating new life experiences with a learning attitude (Kolb and Kolb, 2009). As an understanding of identity, mentally constructed by each individual learner, the IB learning objective of fostering lifelong learners is developed from and through the IB pedagogical emphasis on constructivist learning.

The IB views learning as a process of developmental construction, testing and revising of mental models of the world (IB, 2008a). This is a constructivist understanding where learning can be defined as ‘the extension, modification or elaboration of existing cognitive schemas’ (Bennett and Dunne, 1994: 51). The main facet of constructivism is that learning is an active and personal process of knowledge construction facilitated through social interactions (Woolfolk *et al*., 2008). Neither empty-headed nor empty vessels students come to lessons with pre-established knowledge of reality where information and concepts have been organised into constructions of understanding – schemas – which they use to make sense of everyday experience (Bennett and Dunne, 1994; Woolfolk *et al*., 2008). It is in light of a constructivist understanding of learning, and the pedagogical approaches this necessitates, that the IB programmes, including the DP, have been designed to stimulate intellectual curiosity and to equip young people with ‘the knowledge, conceptual understanding, skills, reflective practices and attitudes needed to become autonomous lifelong learners’ (IB, 2008a: 12).

**Constructing lifelong learners – transformative learning / instructional conversation**

Learning to learn is an adaptive challenge requiring that learning is transformational in nature (Kusuma-Powell and Powell, 2013), where transformative learning produces change in a learner’s frame of reference; the structure of assumptions an individual uses to understand experience (Mezirow, 1997). The process of challenging assumptions of understanding requires that a student is a critically reflective thinker, and is enabled through communicative learning (Mezirow, 1997). Communicative learning is facilitated through instructional conversation where the goal of the teacher is to maintain cognitive engagement in substantive discussion (Woolfolk *et al*., 2008) which aims to challenge assumption and create new understanding, with conversation being critical to the cultivation of self-awareness and identity (Alchin, 2011). When conversation is utilised in the classroom as a learning resource the individual learner is able to benefit from peer to peer interaction; by sharing conversation with classmates and collectively reflecting on learning experience, the individual learner can access a greater number of perspectives and interpretations. As a result, the learner is more likely to find a dependable personal interpretation and synthesis of his/her own (Mezirow, 1997). Piaget asserts that peer to peer interaction is the most beneficial in cognitive development as students can challenge each other’s thinking by creating cognitive conflict and disequilibrium (Woolfolk, 2008). While this may be true in many learning contexts, this author would contend that it is not beneficial or applicable in the context of developing learner identity, where the working out of identity develops through reflection in a hospitable learning space containing an ‘optimal balance of support and challenge’ (Kolb and Kolb, 2009: 4), not through combatant intellectual engagement; challenge does not equate to conflict.

An understanding of learner identity develops when learners reflect on learning experience, however, learners do not make transformative changes in the way they learn or in their mental models of understanding when content and experience fit comfortably into their existing frames of reference (Mezirow, 1997). Learners, therefore, need to be presented with ideas that challenge their established understandings and provided with new experiences that go beyond the familiar. Emphasising breadth of study, the DP abounds with academic and experiential learning opportunities, both familiar and new, that can be utilized for learning to learn reflection. Indeed, this is a primary function of the culminating experience of the DP, the extended essay, which is an opportunity for learners to synthesize their learning, putting learning strategies into practice to produce an independently researched and written piece of work of up to 4000 words (IB, 2009). The viva voce, held with their supervisor once the extended essay is complete, is an opportunity for the student to reflect upon the extended essay as a learning experience and him/herself as a learner. In this author’s experience the level of reflective self-evaluation expressed in the viva voce is not consistent between students; some students demonstrating a more advanced ability to critically reflect and extract meaningful understandings of themselves as learners than others, suggesting that by the end of their DP studies, students are prepared at differing levels to be lifelong learners. Anecdotal evidence, perhaps, that a more systematic and rigorous approach to learning to learn needs to be adopted by teachers as they assist students through their DP studies so that all students complete the programme with an advanced awareness of their learner identity?

The learning experiences encountered in the formative years of education, set within a school context, will form a large part of the learning identity, learning capacity and affective attitudes towards learning that students carry into adulthood. Cropley and Knapper (2000) identify habits of perceiving, thinking, remembering and problem-solving as forming a frame of reference that enable an adult to categorize and interpret new experience but which can also constrain and limit the formation of new meaning. As experience occupies the central role in the learning process of adults (Rogers, 1964: cited by Kolb and Kolb, 2009), it is imperative that learning habits developed through a learner’s formal education lead to cognitive flexibility and emancipation from cognitive constraints so that the adult individual is able to utilize the full potential of their experiences to understand, grow and adapt. The individual’s attitude toward, and understanding of, him/herself as a learner must not be allowed to act as a barrier to effective learning; the starting point for learning from experience, and the essential core of a learner identity, is the individual’s self belief that they *can* learn and develop from experience, for, in the absence of this, they never will (Kolb and Kolb, 2009).

As an understanding developed through experience, learning to learn is a combination of action and reflection. The development of conceptual understanding requires regular and planned reflection on experience (Marshman, 2010) as learning identity develops over time (Kolb and Kolb, 2009), with development taking place gradually (Woolfolk *et al*., 2008). This time is afforded the IB learner through their participation in and progress through the IB continuum, while the skills of metacognition and critical reflection enable the learner to continue developing as a lifelong learner after their formal education is complete. The construction of learner identity and the understanding of the self as a learner becomes more sophisticated and accurate the more often the learner evaluates their learning experiences and reflects on him-/herself as a learner; repetition of reflective self-evaluation is an essential requisite of learning to learn. Kusuma-Powell and Powell (2013) argue that learning to learn requires a framework to embed metacognition into every unit of work; such an approach would make metacognition systematic, accountable and frequently activated within the learning process. Presently, there is no such framework or requirement for a systematic approach to metacognition prescribed in the DP.

Learners need to develop a full understanding of what learning is if they are to effectively understand themselves as learners; the IB concurs with this idea stating ‘IB students must fully understand the process of learning in order to learn as effectively as possible (2008a: 16). Teachers, therefore, should share with their students operative details about how learning functions and occurs; a greater understanding of learning theory will promote, on the part of the students, critical evaluation of learning experiences which is better informed and more effective. In this way the IB perceives that ‘all IB teachers need to be teachers of learning’ (2008a: 16). Could there be a case, therefore, for the inclusion of a compulsory educational psychology component in the DP taken by all students irrespective of subject choices, as part of the programme’s learning to learn provision. In its function as the learning to learn component of the DP, and with its emphasis on higher-order thinking skills, the logical locus for such a unit of study is ToK, where students would revisit the questions of the PYP transdisciplinary themes and MYP Approaches to Learning area of interaction to continue constructing their understanding of their learner identity, at more advanced and sophisticated levels.

The IB recognises that ‘each academic discipline presents students with different challenges’ (2009: 8). Students need to understand what learning entails in the separate knowledge domains, the learning demands of each discipline and how they can become effective learners in each of their subjects. Kolb and Kolb (2009) identify that the learner identity of the majority of people is not consistent across knowledge domains; learners do not perceive themselves as equally capable as learners from subject to subject. With many learning and performance tasks specific or unique to particular discipline subjects: oral commentaries on poetry to literature, laboratory reports to natural science, investigation workbooks to visual arts, the teacher best placed to assist students with learning strategies specific to these tasks is the subject teacher as they have the requisite understanding and experience, hence the necessity that learning to learn is embedded in the context of DP subjects. However, many learning skills and strategies are also transferable, with elements of a student’s learning profile being generic and applicable to a variety of learning contexts; students need to be aware of this so they can make connections between learning experiences in different subjects and to be able to select appropriate strategies as they encounter unique and novel learning experiences. The IB (2009) acknowledges that it cannot be assumed that understandings of learner identity gained in one subject will readily transfer to another, yet, relying solely on the concurrency of learning in the DP structure and ToK, makes insufficient provision for such transfer. Subject teachers, as they facilitate the evaluation of subject specific learner identity, need to encourage students to draw comparisons and identify contrasts with other academic disciplines and learning contexts to ensure that their understanding of their learner identity transcends disciplinary boundaries. Furthermore, by sharing the exploration of learner identity with their students, subject teachers will become sufficiently informed as to the level of understanding students have of those identities and therefore better able to effectively guide their students through the developmental process and provide individualised support. The assessment made by a teacher of a student’s learning to learn development needs to be formative so they can assist the learner in that process, joining them in informed and meaningful discussion. This assessment will be made through the process of talking with students and listening to their evaluations (Mercer, 1994). This is formative assessment to inform teaching for diagnostic purposes, with knowledge regarding a pupil’s learning profile necessary in order for the teacher to adapt their work to meet learner needs (Black and Wiliam, 1998).

The critical exploration central to learning to learn needs to be conducted in the autobiographical context of each individual learner reflecting upon and evaluating their own personal learning experiences. Much of the success of learning to learn promotion in the DP classroom is dependent upon the teacher who, in order to explicitly encourage the development of learner identity, needs to be conscious of his/her own thinking and learning (Kusuma-Powell and Powell, 2013) and a proficient lifelong learner. Furthermore, research findings from Kolb and Kolb suggest there may be a contagious quality to learning identity where ‘those who have a learning identity tend to create relationships that stimulate it in others’ (2009: 4); the teacher who is a lifelong learner will, by virtue of this, naturally display behaviours and exude values and attitudes conducive to the development of lifelong learning in their students. The IB (2009) perceives the role of the teacher as being to model the reflective practices students need to develop as lifelong learners. The modelling approach to instruction necessitates that the teacher is actively engaged in the learning process in real time and in partnership with his/her students, not only setting but also completing learning tasks, allowing the teacher to then participate in reflective discussion as an informed equal to the students as well as a guide; in the context of learning to learn the teacher is not an imparter of knowledge but a partner in learning.

The teacher’s proficiency as a lifelong learner enables him/her to effectively initiate and orchestrate the class discussion that is so crucial to the development of metacognition, self-awareness and learner identity. A teacher who is self-aware as a learner is able to share their anecdotal autobiographical narrative and experiential knowledge, and effectively select appropriate questions that lead the learner to their own self-awareness; shared narratives and guiding questions acting as prompts for the learner to evaluate their own learning experiences. Seen by the IB (2008a) as central to teaching for understanding, guiding questions need to be organic, formulated by the teacher to initially elicit, and then in response to, the learners’ reflections on learning and their understandings of their learner identities. The orchestration of this component of a lesson will therefore be dependant upon the engagement and interaction between the teacher and the students, necessitating flexibility in how learning time and activities are employed and utilised. Crucial to the quality of learning is the quality of communication between teachers and pupils (Mercer, 1994) with the nature of the teacher’s talk needing to be carefully considered (Bennett and Dunne, 1994). As it relates to the process of learning to learn, teacher talk needs to be predominately of the interrogative, convey genuine enthusiasm for and interest in the learner and their observations, and assist learners to clarify their understandings.

**Differentiation for learning to learn individualization**

Bennett and Dunne (1994) argue that the shared cultural contexts in which understandings develop generate commonality between the learning identities of students, meaning the individualization of learning within a whole-class context should not be taken too far. However, the understanding of self as a learner, as derived from critical self-reflection, will be, by very definition, idiosyncratic; individualization being intrinsic to the learning to learn process, necessitating the implementation of differentiation within that process. The most effective strategy for differentiation within the learning to learn process is individual consultation between the learner and the teacher, with consultations needing to be an on-going engagement in which the teacher acts as a learning coach. Through shared dialogue the teacher and student can construct a clear understanding of the developmental level of that student’s learner identity, permitting both parties to negotiate and establish strategies for future development. Learning strategies the teacher shares with a student can be tried and tested by that student in subsequent learning exercises to assess their effectiveness for that individual; students who are aware of a variety of strategies are more likely to use them (Kusuma-Powell and Powell, 2013). Where a strategy is found to be effective the learner can add it to their ‘tool-box’ of learning strategies; whether a strategy is effective or ineffective, the learner can reconstruct and expand their understanding of their own learner identity through the trying and testing process. The IB (2009) view of the teacher as a support to student learning, rather than as a transmitter of knowledge, is nowhere truer than in the learning to learn process.

This author recently completed a series of lessons with grade 11 ToK students at the International School of xxx with the primary learning objective of developing oral presentation skills. Students were instructed to analyse their presentations and, from self-reflection and the formative feedback provided by the teacher, construct an understanding of their performances and task capacities. This self-assessment as assessment for learning provided the foundation for discussion in individual consultations conducted by the teacher with each student once the unit of work was completed. There was a wide spread of achievement in the presentations themselves, but in the learning to learn function of the consultation meetings just one student really stood out.

The most striking and distinguishing quality of Margeaux (not the student’s real name) was her positive attitude towards the process of self-reflection. She had known, immediately on completion of her presentation and before receiving feedback details from the teacher, that she had not been successful, the performance lacking the essential qualities of effective delivery and the content lacking sufficient depth of analysis. In her consultation meeting Margeaux was able to comfortably make this admission, at ease with her negative self-appraisal. She went on to describe how, in her capacity as an audience member, she had utilized subsequent presentations as learning opportunities, focusing on techniques, strategies and styles that she judged as being successful and that she would incorporate into her own future presentations; in doing this she was conducting formative assessment of other students to inform and improve her own performance, an effective learning strategy of a lifelong learner.

A number of salient points can be drawn from this example. Having a well-formed learner identity and a belief in herself as an effective learner, Margeaux demonstrated resilience to set back, where failure was not perceived as a failing but as a learning opportunity. Successful learning to learn development necessitates a redefining of our relationship to failure, where failures morph into successes when we are able to learn, develop and improve from them. Students must be able to take risks, and in doing so risk failing, if they are ever to become effective lifelong learners; the IB states that students are unlikely to take risks ‘if they don’t feel that intellectual risk-taking, open-mindedness or curiosity are valued and respected’ (2008a: 16). In the context of international education this requires careful management and sensitivity on the part of the teacher as students from different cultural and educational backgrounds react differently to failure and therefore are more or less likely to take intellectual risks.

The primary focus for lifelong learners must be on the ongoing recursive process of learning from experience with the avoidance of an ‘excessive focus on the outcomes of immediate performance…short term gains and achievements’ (Kolb and Kolb, 2009: 6). The affective and psychological impact on learners of an excessive system of summative assessment and an over-emphasis on grading is detrimental to the development of lifelong learning as students are less likely to take risks if those risks entail the possibility of failure that is formally recorded and shared, particularly with parents. In the face of failure, students who do not have a well-developed understanding of and belief in themselves as learners are more likely to withdraw, quit, blame others and try to manipulate the resources around them to their own advantage. Contrarily, lifelong learners ‘embrace challenge, persist in the face of obstacles, learn from criticism and are inspired and learn from the success of others’ (Kolb and Kolb, 2009). The attributes of a lifelong learner, as demonstrated by Margeaux, need to be recognised and understood by all students so they can emulate them. The teacher needs to lead open class-discussion about what characterises an effective learner and then encourage development of those qualities in their students through modelling, highlighting and praising when these attributes are displayed, highlighting and redirecting when they are not; it is a nurturing process (IB, 2008a).

**Profile of a lifelong learner and the DP learning environment**

If we take the view that learning and thinking are always situated in a cultural setting, with cognitive meaning transformed within cultural communities (Bruner, 2009), we need to ask what is the cultural setting envisaged by the IB, what is the cultural community of DP learners and which learning environment best stimulates the learning of learning (Alheit, 2009).

The kind of learner the IB hopes to develop through the programmes of the continuum is defined in the IB learner profile. The IB mission statement expressed as a set of learning outcomes for the 21st century, the learner profile is a list of ten attributes with learners striving to be inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced and reflective (IB, 2008b).These attributes express the values inherent to the IB continuum and the culture and ethos that underpins education in IB schools (IB, 2008b); they create, by defining, the cultural setting and context of the DP learning environment. The learner profile is a profile of the whole person as a lifelong learner (IB, 2008b) with two of its attributes making direct reference to lifelong learning; inquiring learners ‘actively enjoy learning and this love of learning will be sustained throughout their lives’: reflective learners are ‘able to assess and understand their strengths and limitations in order to support their learning and personal development’ (IB, 2008b: 5). Further, as already explored in the previous section of this essay, lifelong learners need to be risk-takers. The attributes of the learner profile can thus be understood as both defining what it is to be a lifelong learner and as defining the cultural context from which the lifelong learner will emerge; in this sense the learner profile is both the source and definition of the lifelong learner in the IB continuum, including the DP.

To promote effective learning to learn within a school environment it is essential that educators relinquish their control of students and their learning experience, necessitating that there is a shift of power, and a shift in pedagogical focus, from the teacher to the individual learner (Uggla, 2008). The ultimate aim of learning to learn is the empowerment of the individual, both as a student and, after the completion of their formal education, as an adult. Learner empowerment is predicated upon a democratic relationship between the learner and teacher (Kolb and Kolb, 2009) where the learner is given the autonomy to make their own learning decisions with the supportive assistance of the teacher in a nurturing environment. Seen as a resource for learning, the IB learning environment ‘should be stimulating, provocative and promote unobserved learning’ (2008a). For this author, the learning environment that most successfully develops the lifelong learner, is one which values, above all else, the process of learning itself and the learner him/herself.

**Conclusion**

Becoming a lifelong learner necessitates that the individual becomes an autonomous critical and reflective thinker, taking responsibility for the direction of his/her own live, making informed choices from a position of self-confidence and accepting responsibility for the consequences of those choices. Effective lifelong learners need to possess the adaptive flexibility required by the ever-changing circumstances of the globalized socio-economic reality of our age. They need to have well-formed understandings of their learner identities and skills of metacognition which allow them to successfully embrace new experiences which help to perpetuate learner identity development. As an on-going cognitive process of development, students need to be supported in this process throughout their formal education, with learner identity facilitated through critical self-reflection enabled through the dialogue learners have with each other and their teachers.

The IB commitment to learning to learn is explicitly stated throughout its literature, yet its effective delivery is insufficiently detailed in that literature and, in this author’s experience, it is too conspicuously absent in practice. The position taken in this essay is that learning to learn provision needs to be systematically approached in the DP, embedded in the DP subjects and supported with a unit of work on learning itself in ToK. Such a salient element of an individual’s development cannot be left to chance, provided haphazardly by individual teachers. Instead it requires a collaborative and orchestrated approach on a school-wide bases. Educators, teachers and the school administrators who support them, need to take responsibility for setting objectives that explicitly include autonomous thinking and experiences that foster critical reflectivity in discourse (Mezirow, 1997) which promotes the development of learning to learn and learner identity.

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