

Discussion paper: Enriching the DP at ISL with Approaches to Teaching and Approaches to Learning at International School of London (London)

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Introduction

In 2014 the IB established the development objective of implementing a framework for approaches to teaching and learning (ATT and ATL, now simply ATL) in the IB DP. 2014-15 corresponded to a five-year evaluation for the IBDP at ISL, followed by a voluntary (requested) visiting team report in 2015-16. During these two years, the DP Coordinator began collaborative planning with DP teaching faculty with a view to this development (see appendix A for timeline of workshops). This initial stage was intended to establish the parameters of such an implementation, to ground it in current good practice, and to raise the profile of ATL with the teaching faculty.

The ATL framework should permeate written, taught and assessed curricula in the DP and as such is potentially a key driver for curriculum improvement. We are now in a position to elaborate DP development and align with the global goals of the ISL strategic plan, particularly with the strategic goal concerning teaching and learning. This report therefore summarizes the outcome of the exploratory collaborative planning with DP teaching faculty during 2014-16, synthesizes with it the research and professional development undergone by the DP coordinator, and aligns the DP action plan with the ISL (UK) strategic plan.

1. Rethinking curriculum as inquiry

ATL is grounded in six key areas (IBO, *Approaches to Teaching and Learning Guide*, online 2015). Teaching in the IB programmes is held to be

- based on **inquiry**
- focused on **conceptual understanding**
- developed in local and global **contexts**
- focused on effective teamwork and **collaboration**
- **differentiated** to meet the needs of all learners
- informed by **assessment** (formative and summative)

Of these, *inquiry-led learning* prompts significant reflection about written, taught and assessed curricula in the DP. To what extent can our DP be inquiry-led? This served as the guiding question for collaborative planning work in 2014-15.

Structured opportunities for inquiry

All DP subject groups and the DP core already embed inquiry learning in the form of structured and guided assessments, whether as moderated internal assessment (IA) or examined coursework (EA). These are shown in table 1.1

Table 1.1 Summative assessments as structured and guided inquiry in the DP at ISL

The following are summative assessments that require independent student enquiry. They are identified as such because the student must identify the focus of the inquiry and develop the work with independence – although in each case with guidance from the teacher, or within a prescribed structure.

Group	Subject	Summative assessment	Type	Weighting
1	Literature	Interactive oral and written assignment	EA	25%
	Language and Literature	Written Tasks	EA	20%
		Further oral activity	IA	15%
2	Language Acquisition B	Written Assignment	EA	20%
	Language Ab Initio	Written Assignment	EA	20%
3	Economics	Portfolio	IA	20%
	Geography	Fieldwork investigation	IA	25% / 20%
	History	Historical investigation	IA	25% / 20%
	Psychology	Psychology investigation	IA	25% / 20%
4	Physics, Chemistry, Biology	Scientific investigation	IA	20%
	ESS	Individual investigation	IA	25%
5	Mathematics SL/ HL	Individual exploration	IA	20%
	Mathematical Studies SL	Individual project	IA	20%
6	Visual Arts	Comparative study	EA	20%
		Process Portfolio	EA	40%
		Exhibition	EA	40%
9 Core	Theory of Knowledge	Presentation	IA	33%
		Essay	EA	67%
	Extended Essay		EA	100%

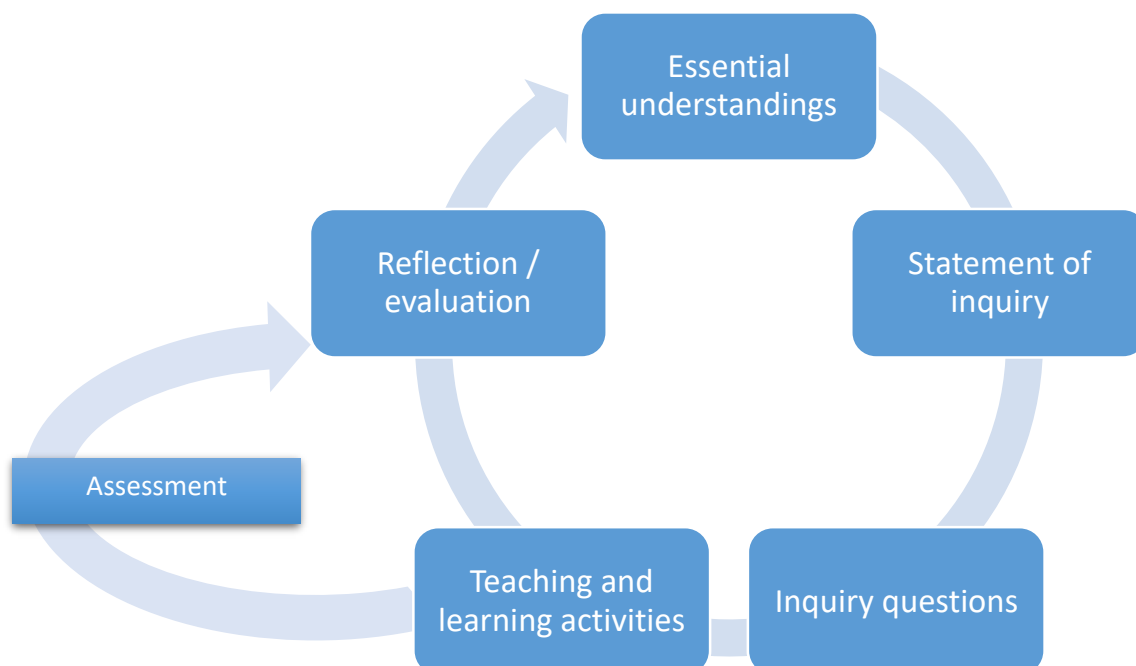
Embedding a culture of inquiry

It is important to note that these are all *summative* assessments as they contribute to the student's final grade. It is not therefore sufficient to rely on these structured opportunities, since students require formative preparation and feedback for them. Such formative preparation should not be an "add-on" to an already crowded and intense curriculum, but rather experienced by students naturally within the taught curriculum, and its planning embedded in the written curriculum. DP classrooms and other learning environments should frame a *culture of inquiry*. In so doing, specific aspects of ATL will naturally inform the design of teaching and learning activities that teachers choose (see section 2 below).

Where the IB-PYP and IB-MYP allow teachers freedom (somewhat prescribed in MYP 4-5) to choose content as a function of conceptual foci, the IB-DP has a prescribed syllabus. With the publication of new subject guides these syllabi are beginning to reflect the key bases of ATL given above. For example, group 4 guides now include identified essential understandings for each topic; group 3 guides identify key concepts. Nevertheless, DP teachers must – and always have had to – make choices about teaching and learning activities.

Evidence from classroom observations shows that a number of IB-DP teachers have already begun to incorporate inquiry-led learning to their practice: a joint IB coordinators' INSET prepared by the PYP and DP coordinators in 2014 introduced the use of Visible Thinking routines (Harvard Graduate School of Education Project Zero, *Visible Thinking*, online) as lesson starter stimuli and has had demonstrable impact, particularly in Sciences, Theory of Knowledge, English Language and Literature and English Language Acquisition. In collaborative workshops during 2015-16, the DP coordinator proposed an approach to unit planning that would embed student inquiry (see fig. 1.2)

Fig 1.2 Unit planning model for IBDP



In this approach, curriculum content and skills are framed (“chunked”) according to essential understandings (after Wiggins and McTighe, 1998, 2004). These essential understandings are presented as a *statement of inquiry*, thus framing the learning objectives in the form of an overarching conceptual statement. While the IB-DP does not yet have a prescribed framework of key and related concepts (nor may it ever do so), the statement of inquiry should be concept-based.

From the statement of inquiry, the teacher can derive a set of *inquiry questions* that serve as guiding questions for the design of discreet teaching and learning activities. Note that the inquiry questions are focussed on particular learning objectives – they are not to be confused with Wiggins’ *essential questions* which are of a much broader nature. In the DP unit planner as provided by Managebac, inquiry questions can be categorised as factual (content-based), skills-based, concept-based or debatable.

In teaching practice, each unit of work is then presented using the statement of inquiry, and each subsection (perhaps a lesson or two) framed by the inquiry questions under consideration. It is equally important that student input is sought. For example, in presenting a unit students could be prompted by some stimulus activity to generate their own inquiry questions from the statement of inquiry. These could be collected or recorded in some form. At the end of a unit, these inquiry questions then form the basis for student reflection on learning, and may prompt new questions for extension and enrichment. There is no reason why this inquiry cycle might not also be deployed at the level of discreet learning activities, although this may prove time-consuming and should only be done where the learning activity presents a real opportunity for student inquiry (see section 2). In all cases, the relevance of a learning activity should be established by aligning it with at least one (possibly more) inquiry question which in turn aligns learning to the statement of inquiry.

2. Using AtL as a focus for design of teaching and learning

The use of inquiry questions to frame and contextualise learning activities immediately invites teachers to deploy the *approaches to learning* framework (cf. Fig 2.1 and IBO, *ATL Guide*, online).

Fig. 2.1 Key AtL skills categories and clusters

Thinking skills	Communication skills	Social skills	Self-management skills	Research skills
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These key skill categories are further developed in the IB-MYP as clusters of identified skills which can then be used as the foci for particular teaching and learning activities. In designing teaching and learning activities therefore teachers should identify perhaps one to three AtL skills they wish students to deploy as tools during the activity. The task should then be configured so as to make these tools explicit – whether it be hypothesis formation, evaluating the validity of data, interpreting intent from a textual source, or demonstrating leadership or collaborative learning in a group setting, tasks should refer to the AtL framework and thus remind students where they may have previously used those same tools, perhaps in a different subject context.

While lesson observations have shown that there is much existing good practice with regard to approaches to learning, this is not consistent across all curriculum areas, nor are AtL skills generally made explicit to students. This means that students are not frequently prompted to transfer skills across the programme and as such they remain somewhat “siloeed.”

Lance King (www.taolearn.com) makes the strong case that AtL skills should be developed consciously and explicitly, with clear scoping and sequencing across the IB programme continuum in grades 6-12, and identification of which parts of the AtL framework can be ‘embedded’ within curriculum, and which can be taught as stand-alone activities. This in turn implies collaborative curriculum development that is coordinated jointly by IB-MYP and IB-DP coordinators.

IBMYP development in the period to 2014 and the implementation of ‘The Next Chapter’ conceptual framework to an extent achieved this, however the new programme framework has necessitated a thorough-going re-think of curriculum design and the AtL scope and sequence has not been developed since this time. Furthermore, in some implementations, the AtL framework can become no more than an onerous auditing exercise and tick-box activity. In order that momentum for development is not lost while whole-continuum planning takes place, embedding inquiry as an approach to curriculum redesign using AtL skills becomes a vital tool for rethinking teaching and learning. Indeed, “AtL tools” is surely a more apt description of the skills framework, since a tool implies a task to be achieved, and tools only gain meaning through their use – with perhaps a reciprocal, positive effect on any future over-arching planning.

Independence in learning: engaging student peer and self-assessment

One excellent way to make AtL explicit and facilitate transfer is to engage students through peer and self-assessment of their deployment of their AtL toolkit. DP1 students currently receive some guidance as to the learning tools they will need to deploy during their DP studies as part of the PSHE / guidance curriculum, but this could be developed to include online or written pre-diagnostics of their strengths and weaknesses, and ongoing review of their proficiency. The IBO have provided general descriptors for AtL proficiency (IBO *ATL Guide*) (Fig 2.2)

Fig 2.2 IB descriptors for AtL proficiency (Source: IBO (2014) ATL Guide, “Pedagogical Leadership: Student self-assessment”)

Level 1 Novice Observation	Level 2 Learner Emulation	Level 3 Practitioner Demonstration	Level 4 Expert Self-regulation
Observes others performing tasks and using the skill High levels of scaffolding from teacher needed	Copies others’ performance of the skill Medium level of scaffolding needed	Can demonstrate the skill on demand Minimal teacher scaffolding required	Can teach others the skill No teacher scaffolding required

In addition to this co-curricular overview, learning activities can be designed that encourage students to peer-evaluate, peer-draft and review, to rank their own work in comparison to

exemplars provided by the teacher, or any of the many other strategies commonly corralled under the concept of *assessment for learning* (cf. For example Wiliam 2013)

Again, opportunities are presented here for the use of ICT tools as a way to share or to self-evaluate students' learning.

Co-curricular structure – the guidance and enrichment programmes

As previously noted, the guidance / PSHE co-curricular program already includes a strand for development of learning skills, and this presents an opportunity for co-curricular “meta-reflection” by the student on their own learning. Sessions currently include target-setting, reflection on semester grades, and since 2014 a day workshop for DP1 students on resilience in learning, led by The Art of Learning (www.taolearn.com). The co-curricular element can also be developed to embrace those parts of the ATL framework which require specific training such as mindfulness and other techniques for managing anxiety and stress, with the involvement of suitably qualified professionals and the school counsellor.

3. Collaboration across subjects: through the core

In the IB-DP, the primary vehicle for student transfer is via the core. Each of the three elements in the DP core provide a reflective space, from which students evaluate their learning in different ways. It is evident from recent syllabus review of the DP core that the emphasis on reflection and inquiry is to be made more explicit. In the Extended Essay, assessment objectives and criteria are now wholly oriented towards process – including the organisational aspect of time management and the affective aspect of student engagement in criterion E. The role of reflection in researching the essay is underlined by the *Reflections on Planning and Progress Form*, now a compulsory requirement worldwide.

In Theory of Knowledge, the moderated IA presentation is an example of student-led guided inquiry, and the students' accompanying *Reflection on Planning and Progress Form* is the focus for moderation. Similarly, the examined coursework essay is an example of student-led structured inquiry, and also has a reflection form for each stage of the process.

CAS presents experiential learning (Kolb 1984, after Dewey 1939) in the core. Here the action element of the inquiry cycle is elaborated through the three elements of creativity, action and service. Again organisation of time, and the key affective approaches to learning of resilience and perseverance, along with the learner profile attribute of empathy, are foregrounded. Student reflection is again the form of evaluation, and this is facilitated through interaction with the CAS supervisors.

At ISL, the core operates as a reflective space, but often this space is disconnected from the students' learning in the subject groups. There is not always a strong sense that students are transferring understanding from the core to the subjects, nor from subject to subject via the core.

To address this the DP Coordinator and TOK teaching team have since 2013 facilitated or delivered a *TOK in the curriculum* workshop, and there is evidence now of increased understanding of the role of Theory of Knowledge – especially ways of knowing, and formulation of knowledge questions – in the planning and practice of DP subject teachers. Further workshops will have as their objective to

prompt more profound 'meta-understanding' of the knowledge frameworks. Similarly, the DP development plan includes strands for 'CAS across the curriculum' and 'Extended Essay across the curriculum.'

4. Facilitating teacher collaboration

Development of ATL is a whole-programme initiative that can only take root and flower in a shared understanding of students' learning experience. In this, the development can draw particularly on two key developments deriving from the ISL (UK) strategic development plan.

Firstly, the harmonisation of the framework for teacher observation under the strategic plan presents the possibility of renewing teacher peer observation. Peer observation is entirely supportive, and should remain completely disconnected from the more formal appraisal and performance management processes. Development of ATL can drive this renewal by identifying expertise across subject groups and within departments. Teacher ATL experts can become 'consultants' who work with other departments as "external" peer observers. This could prompt dialogue and further open classrooms within a culture of sharing good practice.

Secondly, the creation of Professional Learning Groups (PLGs) in 2016-17 has been heavily focused on key ATL skills such as critical thinking, creative thinking, student leadership, service learning and the enrichment of classroom practice through ICT. These groups are constituted both horizontally and vertically, ie. vertically across the entire PYP-MYP-DP continuum and horizontally across subjects. The PLGs thus act as a 'spiral' element, potentially harmonising and focussing good practice across the whole school.

A third opportunity exists for sharing developments across the ISL Group of schools. To date, practice sharing has largely fallen to the programme coordinators at each level, although in recent years there has been some collaborative professional development through the exchange of identified staff across schools. With the introduction of a shared ICT platform across the Group, a possibility exists for sharing ideas and resources, although this may require some coordination and oversight at group level. A first step in this direction will be the sharing of this summary report and action plan.

5. How will we know whether we are doing this well?

Albert Einstein once commented, "Not all that can be measured counts, and not all that counts can be measured." To an extent, ATL falls into this latter category. Dylan Wiliam (Wiliam 2013) and others have noted that there is in reality a paucity of reproducible evidence that initiatives such as assessment for learning have a direct impact on learning outcomes. All learning situations are multivariate and every student will respond to them in a different way. In the end, there is no panacea or uniform model, and no substitute for an individual teacher's judgement as to how to respond or construct a learning situation for an individual learner.

Our performance indicators then will be qualitative, measured in terms of student engagement – expressed as student satisfaction that they are reaching their potential and that they are suitably challenged. It seems probable however that a concordant improvement in measured outcomes

should be expected. This will be evidenced in terms of progression by individual students – always remaining mindful that in the relatively small populations of ISL schools, external factors can lead to statistical fluctuation.

Summary of recommendations

This paper proposes the following recommendations as development objectives for the DP action plan for the five-year cycle 2015 – 2020:

- Taught curriculum to be designed on the basis of concept-based essential understandings that derive from syllabus, driven by a balance of structured, guided and open inquiry as formative learning experiences (stage 1 unit planning).
- Teaching and learning activities to be designed for explicit focus on approaches to learning skills (stage 2 unit planning)
- Student self- and peer-assessment to be further deployed to prompt richer student engagement in learning and reflection
- The co-curricular / guidance programme to incorporate space for student reflection
- The co-curricular / guidance programme to incorporate training in management of the affective skills of resilience, perseverance, and mindfulness
- Further development of the DP core elements such that they function as reflective spaces for learning in the subjects
- Further integration of the DP core elements into learning in the subjects
- A renewed programme of teacher peer observation, utilising teacher ‘experts’ as consultants across subjects, informed by participation in the professional learning groups
- Sharing of practice across ISL schools through use of Office 365 Sharepoint or similar

APPENDIX

Timeline of ATTL development 2014-2015

What?	When?	Who?	Guiding questions
Collaborative workshop: ATTL in the DP	06.05.15	All DP faculty	What does ATTL mean? What foci for development should we choose?
Collaborative workshop: Inquiry in the DP	29.06.15	All DP faculty	What does inquiry look like in the DP now? What could it look like?
Collaborative workshop: Unit planning in the DP	04.11.15	All DP faculty	How do we write the taught curriculum?
Teacher workshop: Resilience in Learning (Lance King, The Art of Learning)	03.11.15	Some DP faculty	
Collaborative workshop: DP unit planning revisited	21.09.16	All DP faculty	How do we integrate inquiry to our taught curriculum?

Collaborative workshop: DP unit planning – incorporating inquiry	07.12.16	All DP faculty	How do we integrate inquiry to our taught curriculum?
Collaborative workshop: Intelligent task design for AtL	01.02.17	All DP faculty	How do make richer tasks with the AtL framework?
Collaborative workshop: Intelligent task design for AtL – show and tell	05.04.17	All DP faculty	How do make richer tasks with the AtL framework?

Timeline and benchmarks for further collaborative planning for the project are given in the DP Action Plan 2015 – 2020.

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