



Discussion document for the curriculum review of creativity, action, service

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Introduction

This project is in line with one of the academic divisional objectives for 2011, that is, to underpin the IB Diploma Programme with explicit pedagogy with an emphasis on interdisciplinary and authentic approaches to teaching and learning. The purpose of this project is firstly to revisit the theoretical and practical perspectives within the creativity, action and services (CAS) framework and secondly to explicate the implications and applications of service learning for the development of the course.

The first article of this document, “Creativity, action and service: Reflections”, addresses the history of CAS in the IB Diploma Programme and the issues in its evolution. The article reviews CAS’ relevance to the learning of other hexagon core elements, subjects and the curriculum components of the other two programmes. By reviewing and drawing implications from the field of service learning, the second article, “Creativity, action and service: The potential for service learning”, introduces service learning and examines its connections with CAS.

The challenges of CAS

1. **For IB students:** to make the most of their CAS provision, to learn to reflect meaningfully and to demonstrate and to articulate their eight learning outcomes in practice and during the CAS interviews.
2. **For teachers:** to value the CAS provision appropriately, to teach IB students to reflect in a way that allows for the eight learning outcomes to be articulated, which presumes genuine engagement with and dedication to their goals and undertakings during their studies, and subsequent changes in their knowledge of and sensitivity towards groups of people with different sets of beliefs and values, experiences and practices.
3. **For CAS coordinators and advisors:** to train supervisors to monitor and evaluate students in ways that facilitate the CAS ideals, to teach teachers to help IB students complete appropriate reflections, to provide a substantive course that really does educate the whole student—physically, intellectually, emotionally and ethically, in the 21st-century environment.
4. **For schools:** to provide the appropriate venues, staff and resources to run a great CAS programme. This includes those supervising and monitoring activities and those teaching and monitoring reflections.

“Creativity, action and service: Reflections” by Catherine Elliott and Cheryl Keegan

CAS and its original inclusion in the IB Diploma Programme

When the IB was conceived, the initial plan and hope of the founder was to create “the organization [to] work 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” (*Creativity, action, service guide* 2008: 5). CAS was created and included as part of the core of the Diploma Programme in order to extend the traditional curriculum to give students the opportunities and experiences necessary to achieve the compassion and the appreciation of difference that the founders envisaged.

Hill’s history of the IB identified the aims of CAS as an important contribution to the whole person rather than just recognition of academic achievement (*IB Bulletin* 1969: 2). This stemmed from Atlantic College, and its founder Kurt Hahn’s belief in physical and social activity as a developer of character. So important is it perceived to be now, that it is a requirement for all students. The IB stipulates that “all Diploma Programme students participate in the three course requirements that make up the core of the hexagon. Reflection on all these activities is a principle that lies at the heart of the thinking behind the Diploma Programme” (*Creativity, action, service guide* 2008: 11).

The emphasis on compulsory involvement in CAS was recognized early in the development of the Diploma Programme as “one of the remarkable requirements which placed IB way ahead of its time”. (Jenkins 1994). CAS, theory of knowledge (TOK) and the extended essay have continued to give the IB Diploma Programme its unique quality. The original reasons for including CAS as an integral part of the Diploma Programme are as valid today as they were at its inception: CAS activities take students away from abstract academic work, immersing them in practical, real tasks and projects that, through appropriate reflection, educate the “whole person”.

Originally, the primary emphasis in the Diploma Programme was on educating the student. In 1968, the precursor to CAS was an afternoon each week of instruction in fine arts. Social service also began to be seen as important, but there were inconsistencies in the Diploma Programme guides for several years in the 1970s. Arts always featured, but action and service sometimes featured as well. Action and service became known as “CASS”: creativity and aesthetics and social service. It finally became CAS in 1989, with the three components given equal weight and “action” permanently included. The word “social” was removed from service as it was recognized that some schools might not be able to interact with the local community, and therefore service within the school could be included. At the 1981 IB Conference, “reflection” was incorporated as an integral and essential part of the process. CAS was instituted in 1989 (*Guidelines for IBO schools*), and the regional offices were made responsible for CAS committees, the first being IB Asia-Pacific, whose recommendation that CAS be satisfied before awarding a diploma was accepted. By 1992, CAS was more formal and professional. The IB Asia-Pacific office was instrumental in drawing up guidelines that included expectations of students’ participation and commitment. This allowed the CAS programme to be monitored more formally.

In its present form, CAS came from the abiding concern of IB developers that their programmes produce a different educational product than that offered in traditional academic institutions. “CAS should aim to challenge and extend the individual student; to develop a spirit of discovery and self reliance; to encourage personal skills and interests; to inspire an awareness, concern and responsibility to serve the community, in general, and its disadvantaged, in particular”. (IBO 1991) In 1984, at the prompting of the IB heads of IB schools, Dickson consulted on CASS (as it was at that time). The heads were concerned that “young people ... are enjoying a privileged education

with very little awareness of the social and human responsibilities which privilege should entail". The original IB heads' concerns are now expressed within the *CAS guide* as: "The IB goal of educating the whole person and fostering a more compassionate citizenry comes alive in an immediate way when students reach beyond themselves and their books" (*Creativity, action, service guide* 2001: 3). This places CAS and its goals at the centre of the core, which is at the centre and cornerstone of the Diploma Programme hexagon.

The 1996 and 2001 CAS guides (*Creativity, action, service guide* 1996, 2001) recommended the inclusion of longer-term community projects, combining two or more aspects of CAS, and these remain to this day. Furthering the professional nature of monitoring CAS, students' CAS studies were "assessed" on five performance criteria—personal achievement, skills, personal qualities, interpersonal qualities, and global awareness. Guiding questions to assist reflection were provided in both CAS guides. Students were required to write summative reflections on all their activities and a final "essay" that would encapsulate their CAS experience. These forms supplied the evidence for CAS and could become part of the students' curricula vitae after the examination period was completed.

The 2008 *CAS guide* has more recently changed the assessment focus, rather than the nature of CAS itself. Focusing on quality rather than on quantity, students are required to demonstrate eight learning outcomes, similar to the performance criteria but more clearly articulated. In addition, the *CAS guide* stipulates the need for a minimum of three interviews during the course, and evidence that each learning outcome has been achieved. There is now also a requirement for sustained collaborative activities involving two or more aspects of CAS.

These refinements in CAS over the course of the IB history are updated expressions and practical requirements for best practice involving a part of the Diploma Programme that attempts to educate the whole person. CAS is more defined, broader in its scope, and more carefully monitored than the founders envisaged, as is all educational practice. However, in essence, it is the element of the programme that has values at its centre and that asks students to change and develop their perceptions and compassion towards inclusion and not exclusion of "other". This is as important today as it was at the IB's inception.

CAS as separate and integrated components

The 2008 *CAS guide* states that: "if you believe in something, you must not just think or talk or write, but must act" (Peterson 2003). Further, it defines CAS as at the heart of the Diploma Programme core, and as one of the three essential elements in every student's Diploma Programme experience. CAS involves students in a range of activities alongside their academic studies throughout the Diploma Programme (*CAS guide* 2008). The guide then refers to CAS as intrinsically bound within the Diploma Programme. However, it is equally necessary for each individual aspect to be clearly defined and respected for its own integral value to the programme, in order for students to recognize and value the individual pursuits and their potential for rich development.

Three separate aspects

- Creativity: arts, and other experiences that involve creative thinking.
- Action: physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the Diploma Programme.
- Service: an unpaid and voluntary exchange that has a learning benefit for the student. The rights, dignity and autonomy of all those involved are respected (*Creativity, action, service guide* 2008: 11).

Creativity

Creativity often stems from an individual's experience or passion, and as such needs to be followed individually; notwithstanding that to satisfy CAS fully, some activities should be in concert with other aspects of CAS. Excellence in any area or discipline can demand single focus, and CAS allows for this opportunity with creative pursuits such as learning an instrument, any aspect of visual art, teaching or coaching in one's field of speciality, performance of all kinds, and so on. Students with clearly articulated goals for these individual pursuits must ensure that the activities are a challenge and that they represent either completely new skills, or extensions of long-term committed activities.

Students who excel at sport can also be involved in a creative activity when coaching younger teams. Here, they remain within their fields of expertise and comfort, while sharing something of their skill. The act of teaching renders them novices and thus satisfies the challenge outcome. The creativity that feeds planning lessons, practices, fundraisers, service activities and so on is a refreshing intellectual break from academic toil. It immerses CAS students in others' needs and wants. CAS students' appreciation of the differing requirements of their client groups grows, and they must often make ethical decisions as to best practice for these clients, placing themselves last in consideration. That said, the same student who could comfortably coach younger people, will also benefit from broadening his or her experience by participating in a new creative activity such as cooking, or an artistic or musical/performance activity, for which he or she may not have any experience or technical know-how. Students are thus encouraged to try out activities that can contribute positively to their experiential education, building their confidence and appreciation of spheres beyond their usual pursuits. The value of such single creative activities is clear. CAS would not be as rich without artistic and cultural areas into which discrete creative activities lead students.

Action

Students require "action" as an independent entity to satisfy their basic need for fitness, and IB students rarely participated in active pursuits until CAS. One great benefit of CAS is that it encourages lifelong fitness by forming patterns while still at school. Students who are propelled to begin fitness regimes or to take up recreational sports by the CAS action requirements frequently continue into a second year at least. Without "action" as a separate component, the health benefits of regular exercise could be diluted or restricted to intense activity during a week of project work and not healthy habit-forming enterprises.

Many fitness and recreational sport schemes may be conducted in concert with service activities contributing to the education of healthy communities. Similarly, and equally important to the aims of CAS, outstanding and competitive sports enthusiasts must be allowed the potential to develop to the best of their abilities. This requires specialized, discrete training regimes and events. Numerous less talented students are also driven to fulfill sporting potential, and still others are driven to try out the competitive need that sport fulfills at all levels of participation. Participation in sports events for school teams that are largely recreational and not conducted at elite levels builds and sustains spirit and harmony in schools and year groups, and builds an awareness of teams and how they function. This in turn leads to better community awareness, in addition to relieving stress of overworked students. Similar to "creativity", there is a good case for "action" standing alone in addition to it being an integral part of projects.

Service

There is a place for sensitive service that is just "service", not necessarily involving creativity or action. This is likely to be with hospice patients or elderly people with dementia and/or communication problems. The service could involve massage, or simply handholding and talking without expectation of a reply, for severely incapacitated patients. Such service is invaluable for clients' well-being; it reduces their sense of isolation and is a powerful tool in teaching students about conditions very different from their own. Visiting, talking, accompanying and soothing such clients is a viable activity that stands alone. That said, it is a rare service activity that does not demand some creativity on the part of the student in terms of designing appropriate activities and encounters with the frail and elderly, the intellectually challenged, or with troubled and under-

privileged youth. Consequently, service will often include both creativity and action that is frequently long term and develops bonds and commitments to clients, fostering perseverance.

Routine service, such as helping at an event, is not considered suitable for CAS because it does not necessarily involve either thoughtful consideration or personal challenge.

Three integrated components

The CAS experience must be balanced to be rich, therefore CAS provisions that regard CAS as only or as largely “creativity”, “action” and “service” in concert do not necessarily do service to each individual component. Many schools list the activities available and classify them in terms of “creativity”, “action” and “service”. It can be more rewarding for students to approach projects without thinking in “CAS” terms, but to realize which of the aspects and learning outcomes they have covered during reflection. Perhaps schools should refrain from strict labelling.

One of the aims of CAS is for students to be “balanced—they enjoy and find significance in a range of activities involving intellectual, physical, creative and emotional experiences” (*Creativity, action, service guide* 2008). While these could be achieved through separate “creativity”, “action” and “service” activities, it is difficult to see how students could be “active participants in sustained, collaborative projects” (*Creativity, action, service guide* 2008) without incorporating two or more aspects.

Some schools categorize CAS activities by giving a wide variety of options where students can choose their level of commitment. Projects are described as, for example, highly demanding community service, or discrete activities, or projects involving two or more CAS elements (Piaggio 2002). Projects where all three CAS aspects combine are frequently the highlight of the CAS scheme. This is partly because they achieve tangible results and are often highly rewarding for the clients, especially if carried out due to a specific request, or in response to an articulated need. These projects are frequently student-initiated and involve global or local issues. There is the opportunity for students to develop leadership and communication skills, and the reflective process can be followed more naturally. “Working through projects, which implies diagnosis, planning, management and evaluation, is the best way to successfully achieve CAS objectives” (and now, learning outcomes) (Piaggio 2002).

The project

Regardless of the nature of the CAS activity, there is an expectation of purpose, challenge, planning and reflection. Creativity, action and service are regarded as equal components, and schools monitoring CAS provisions must strive for a reasonable balance between the three. Nonetheless, there is an additional requirement for “at least one project involving teamwork that integrates two or more of creativity, action and service, and is of significant duration” (*Creativity, action, service guide* 2008: 12). Projects may often be those that will meet the learning outcome of engaging with issues of global importance. By nature, such projects frequently have service as their base, and creativity and action become included in the execution of same. This is not to suggest that all CAS activities should be a combination of two or three of the aspects, merely to recognize that realistically, in a large community or global project, the three aspects come into play.

Hill reiterates other IB historians’ views that CAS addresses a consideration of the human condition; that it is experiential learning followed by reflection (Hill 1969). Many CAS projects in schools around the world also promote intercultural understanding and attention to global issues (Hill 1969). A similar definition is offered by the most recent CAS guide when it says: “The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world” (*Learner profile booklet* 2006a). This development is not considered to come about solely through integrated CAS projects, but the 2008 *CAS guide* recognizes such projects as a likely time when the CAS aims might come together in a student’s programme.

There is a place for both separate and integrated CAS activities, depending on the interests and talents of the student. Creativity, action and service must sometimes stand alone.

Examples of student-initiated projects

i) Students were concerned about wastage, lack of recycling and other environmental issues on the school campus. From small initiatives such as labelling recycling bins and placing boxes for one-sided paper in teaching rooms, students were inspired to set up a group called “LEAF” (Local Environmental Action Force) which has joined forces with other environmental groups on campus and organized events such as a Sustainability Dinner. Service and creativity are self-evident, and action was in the form of planting trees and other manual labour.

ii) Students belong to a Global Concerns project allied to “Tabitha”—a Cambodian NGO that focuses on savings and micro-finance for villagers with no proper housing or means of support. Students organize events and raise money through sales of Tabitha products. Many also visit Cambodian villages to build houses and dig wells. Others promote gift cards, the purchase of which will, for example, buy a pig for a Cambodian family. All three elements of CAS are well represented and many learning outcomes would be fulfilled here.

iii) Students visit AIDS wards every week and offer massage to patients confined to bed. This is a discrete service; however this has also led to helping to organize and run an AIDS Benefit fundraiser and other special projects such as digging and planting a garden and painting a mural in an HIV/AIDS family support centre.

(UWCSEA Senior School 2011 projects)

In summary, there is a place for both separate and integrated components of CAS. Students should aim to challenge themselves both creatively and physically, while giving service a central role in all programmes. Collaboration should follow naturally from a requirement to participate in a project that will see aspects of CAS achieved in concert.

CAS in the light of 21st-century teaching and learning

Each element of CAS remains the same, despite sweeping new technology, but new influences require refined definitions.

Creativity

Notions of creativity are rapidly changing; numerous kinds of new media are the focus of students’ creativity component for CAS, and with them completely new techniques for presentation. What is within the practical scope of the school to monitor will need ever-clearer guidelines; but essentially activities will be deemed as “creativity” if they are possible to document in process. Computer-aided photography, drawing and constructing, and online learning, for example, will grow exponentially in coming years. CAS students will take classes and teach younger students as they develop skills in these new areas. CAS students will work in concert on social network sites, immediately collaborating on a final product in inter-school projects. It should be noted that safety issues abound, from shared personal information on social network sites to scurrilous opportunities for volunteering that are concealed money-making ventures. CAS supervisors will need to include clear warnings about such pitfalls in initial CAS training and preparation, particularly in developing

countries, where the students' only experience of the internet may be through the school networks. In Singapore, boys from a boys' home were using an online chatline to talk with female United World College of SE Asia students: very creative, but difficult to supervise adequately (UWCSEA internal records).

Definitions for creativity will stand—as original ideas engendered by the experience, curiosity, fascination, or obsession of students, and as such creativity can be convened and conveyed by any medium. While the production of podcasts for school radio stations, and of animated “animae” for presentations may be completely digital, the process of their creation can still be reflected upon, and digital evidence can be uploaded or viewed by the CAS supervisor.

Creativity that results from problem-solving will remain applicable, and will encompass all the kinds of coaching, mentoring and teaching undertaken by CAS students but often while employing new technologies. Training in new internet tools for less privileged clients in CAS “service” opportunities will give students chances to put new digital skills into further practice.

Future CAS “creativity” will reach out further through electronic media—witness the “UWC Words” blog maintained by seven institutions worldwide, where students post weekly blogs of interest and like mind across the net of United World Colleges as a forum for dialogue and consciousness raising. Countless such sites exist for students to create and contribute, and will become part of their CAS offerings. Again, schools will have to adopt clear guidelines for the monitoring of these activities in order to ascertain that their individual students are actively and originally contributing to the whole.

Ethical issues for CAS supervisors and coordinators are inherent within the electronic communications changes. The greater available spread of information in the developed world demands more complex awareness of cultural sensitivities due to the potential for a much wider spread of culture. Students sending and exchanging information more widely across the globe will need to take the local culture into account to avoid upset and embarrassment if inappropriate material originates from them and their institution. Monitoring the output will be a challenge.

Efforts must also be made to ensure that creativity is not restricted to solitary online activities, since the spirit of CAS is, and should continue to be, group work and building communities.

Action

CAS “action” is being extended and refined by technical advances in monitoring fitness and in changes to sports codes and practice. Students joining personal fitness plans will in future be working on machines that log and evaluate the ongoing progress of a chosen plan. Attendance will be dated and will be able to be documented precisely. Such equipment will again raise questions about doing CAS in isolation, and schools will have to address this creatively, in order not to have students complete all of their action in a gym or at home, while plugged into TV or internet and thus isolated from interacting with fellow fitness seekers. Fitness, in a world of sedentary computer users, will be ever more important.

Increasingly, 21st-century legality is restricting what schools can offer for action as risk assessments make activities too “dangerous” or costly. Adventure activities in schools in most developed countries are being greatly curtailed; individual pursuits of excellence through award schemes are also being restricted. CAS action projects that include a service component in less privileged areas or communities will be subject to increasing risk assessment, and also school prohibition because they are deemed not worth the (documented) risk due to costly insurance and threat of legal proceedings in the case of misadventure.

In this safety vein, new school rules for various codes of team sports will refine and reduce the risks associated with such activities. These rules should benefit CAS as some sports, for example, rugby, wrestling and climbing, may be seen as safer, more regulated activities to encourage in schools. Twenty-first-century “action” is essentially still strenuous and able to be combined with “creativity” and “service”.

Service

Increasing global interconnectedness means that the 21st-century requires a gradual redefining of the developed and developing world's responsibilities and creating social conscience for people and the environment. The implications for CAS "service" resulting from these shifts in thinking are vast. More opportunities will present themselves for students looking to make meaningful connections within their school outreach programmes, within their greater communities, and globally. As corporate parents become more involved in social responsibility and awareness, as citizens join more "Earthwatch"-type online organizations, and more adults become participants in micro-finance from their own homes, students and schools will also expand their notions of service. New technologies will allow quicker and more accurate monitoring of outcomes in service organizations, giving CAS students more confidence that their fundraising and general efforts are being well used. "Service" in CAS must be cognizant of these changes in its basic expectations and in dealing with the organizations it serves; increasingly, it will be able to demand demonstrable outcomes and evidence of monies well spent. With the change in global perspectives and the recognition of the rights of clients, individuals are afforded more dignity than previously. CAS students must set out with the idea of partner rather than patron.

Service projects in the Asia-Pacific region are, in reality, often untouched by the 21st century. A recent article in *Spotlight on Service* issued by the IB Sydney office details a service project by International School Suva (ISS):

The International School Suva (ISS) is a school of 460 students who have come from 40 different countries around the world. As part of CAS, ISS Diploma Programme students work on a number of excellent projects that contribute significantly to their community and the environment.

Library Project

Students and teachers are working to create a library at a local primary school. The Assemblies of God Primary School has a student population of over 800 students and a teacher/student ratio of 1:50. Its rooms are bare concrete and dark, and there is no library in the school. The team of CAS students and teachers first visited the school to assess the situation and began clearing out rubbish and broken materials from one of the rooms. They found that there was a lot of old, broken wooden desks that with some repair and repainting could be reinstalled into the room to become the new library shelves.

While one half of the student group set to work repairing the wooden shelves back in the ISS workshop, (removing the old rusty nails, sanding them back and repainting), the rest of the team returned to the primary school to wash and prepare the walls for painting. The walls are being painted white, and the library will feature a colourful mural designed by the students. This will transform the room that was formerly dark, bare concrete into a bright and colourful library filled with books for the children.

(*Spotlight on Service* February 2011)

Thus, CAS "service" in poorer areas may be focused on bringing less well-endowed institutions into the 21st century, although more wealthy IB World Schools may use the latest technologies in their efforts to update others. In developing countries, CAS "service" may encompass more and more tutoring and mentoring in the use of emerging technologies. It will demand of IB students an extended awareness of the realities of society for the less fortunate in order to help raise their clients' cultural capital with 21st-century tools.

IB Diploma Programme schools generally, just as is stipulated for Primary Years Programme (PYP) school communities, should collaboratively identify and agree upon the need for, and aims

of, the use of information technologies (IT); an excellent TOK topic as well. CAS “service” reflections can identify where IT tools are being used critically, with integrity, and there should be specific attention given to the validity and reliability of information gained through their use.

The ethical use of IT

The ethical use of IT:

- can document the learning, making it available to all parties
- can provide opportunities for rapid feedback and reflection
- can provide opportunities to enhance authentic learning
- can provide access to a broad range of sources of information
- can provide students with a range of tools to store, organize and present their learning that encourages and allows for communication with a wide-ranging audience.

As the powerful tools of IT come into play in our CAS endeavours and reflections, Diploma Programme students must be acutely aware of the ethical decisions involved in all levels of new technologies.

While the tools and some practices may be changing, in essence “creativity”, “action” and “service” remain what they have always been. Twenty-first-century learning will only enhance and enlarge the possibilities for CAS.

CAS and its place in the hexagon

CAS, TOK and the extended essay make up the core of the Diploma Programme hexagon, and all three of these activities require reflection. They also require independent thought and action, either academic or practical.

The TOK course “encourages students to think about the nature of knowledge, to reflect on the process of learning in all the subjects they study as part of their Diploma Programme course, and to make connections across the academic areas” (*Creativity, action, service guide* 2008: 2). While CAS aims to educate the whole person through experiential education, TOK does the same through ways and areas of knowledge.

TOK and CAS common ground

TOK models and encourages critical thinking and reflection, both of which are central tenets of CAS and represent ethical practice and education. By stating that “wisdom ... is the capacity to solve human situations ... in the light of freely chosen values that render social harmony and respectful co-existence possible”, Maria Ines Piaggio explains that both TOK and CAS contribute to an ethical education through practical and reflective processes (Piaggio 2005).

In concert with TOK considerations and explorations, CAS actions and subsequent reflections build the desirable qualities of:

- self-awareness and accurate self-image
- human relationships and positive coexistence

- the capacity to take valid decisions.

The experiential learning in CAS allows student participants to construct knowledge from reflecting upon their experience. The *Theory of knowledge guide* (2006) states that: “A successful course will build on the students’ own experiences and involve them actively”, thus CAS can be a model for TOK. “[The] course encourages students to share, to listen and learn what others think, shaping, enriching and deepening [their own] thinking and understanding of knowledge as a human construction” (*Theory of knowledge guide*, 2006). CAS gives students the opportunity to analyse and evaluate life experiences and to draw conclusions, change perspectives and plan further actions, first through their activities and goals and later in their self-initiated projects.

TOK examines the areas of knowledge of: mathematics, natural sciences, human sciences, economics, history, arts, ethics, and within each the nature and value of the knowledge, how it is acquired and how its claims are examined. CAS looks at the practical acquisition of knowledge, sharing energy and talent and developing the awareness, concern and ability to work with others. Whole-person education, developing caring, socially responsible adults, is achieved with outreach by students. CAS extends and develops a value system of open-mindedness, lifelong learning, discovery and self-reliance that inspires responsibility.

TOK, CAS and ethics

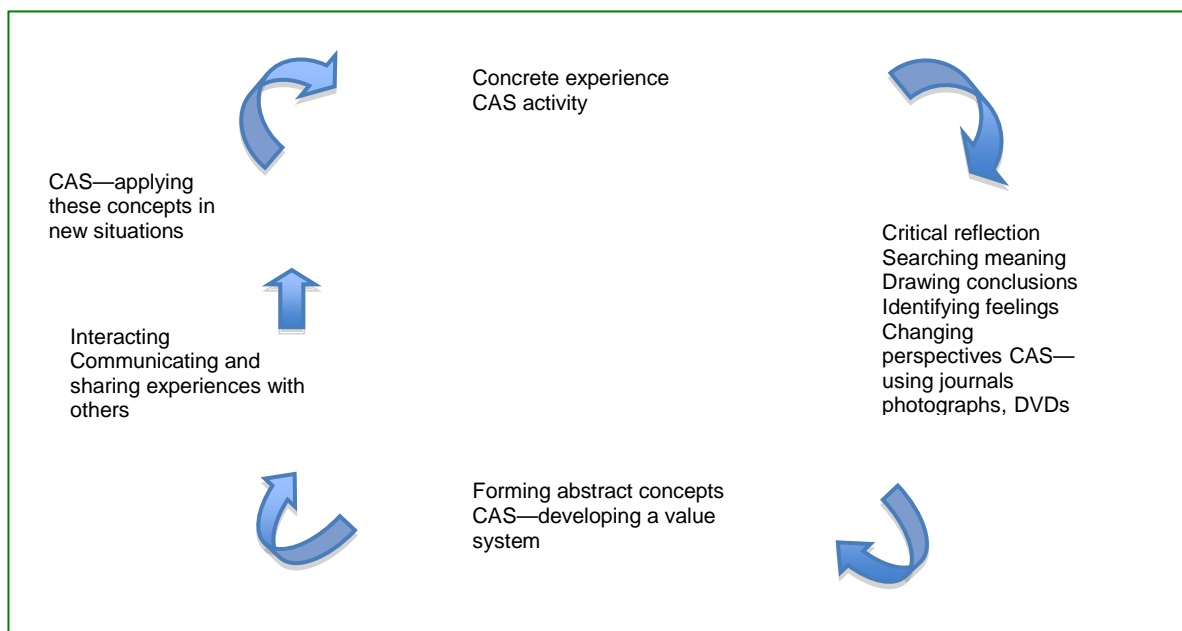
CAS assumes that best practice takes an ethical stance. In CAS interviews, the ethical considerations of students’ actions are raised and articulated as embedded in good practice. To ensure that ethics is not abstract but is also related to students’ experiences, ethical issues arising from CAS activities could be discussed in TOK lessons as concrete examples rather than abstractions. CAS is ethical education, involving students searching for meaning, and developing and applying values to their activities. CAS offers experiential learning of valid alternatives to usual practice in practical project construction and process. Critical reflection is an ethical reflection, since it fosters skills of analysing, evaluating and drawing conclusions and changing perspectives. Reflection is the key to evaluating experiences and to developing new sets of values, for example, “CAS aims to help students transcend cultural and socio-economic barriers” (*Creativity, action, service guide* 2008). TOK discussions articulate how this happens as “TOK tries to help students make sense of what they encounter” (*Theory of knowledge guide* 2006). This is important, since many Diploma Programme schools represent the highest level of social standing in their surrounding communities and, in the case of many international schools, they are bastions of the developed world sitting rather grandly in the developing world.

TOK, CAS and reflection

The skill of critical reflection is common and essential to both TOK and CAS. Critical reflection in CAS is enhanced by using the “ways of knowing”. TOK identifies four ways of knowing—sense perception, language, reason and emotions—and examines the scope and limitation of knowledge in each, trying to link the “ways” with areas of knowledge. CAS progresses through the four ways in its experiential learning. Through their experience, students realize the scope and limitations of each of the ways of knowing. The TOK “ways of knowing” could be particularly used in service projects as a guide to reflection. A possible order of reflection writing for CAS could be: sense perception, emotion, reason and language. This could be done as a task during TOK lessons. Students’ first impressions—as sense perception and accompanying emotions—should be discussed after the first visit(s) to a service organization. Reason can be applied after subsequent visits, and finally all this can be recorded into reflections. Their CAS activities will show students what the ways of knowing really mean and will highlight the practical limitations of these terms. However, in order for students to construct knowledge that will change their actions, this detailed, specific reflection needs to be taught for both TOK and CAS. For example: Do people act their way into feeling or feel their way into action? How did your feelings or emotions affect your ability to perform, to make decisions or to reason in regard to particular activities? How did your feelings or emotions affect your ability to perform, to make decisions or to reason in regard to particular CAS activities? (*Theory of Knowledge guide* 2006).

CAS has its genesis in Kolb, Fry and Hahn. Kolb divides learning into concrete experience, observation, reflection, the formation of abstract concepts and testing ideas in new situations (Kolb and Fry 1995). CAS as experiential education matches Kolb's steps (see Figure 1).

Figure 1 Smith's diagram of Kolb's learning cycle, 2001



Reflection, which involves critical thinking in evaluating the experiences and in developing new sets of values, needs teaching. The skill of critical reflection is a common aim of the TOK course and the CAS activities and projects—ways of knowing enhance CAS reflections.

As a means of framing their own set of values, students can look at aspects of areas of knowledge. For example, one could ask in what ways might CAS be said to promote ethical education? Is service to others in whatever form a moral obligation? If so, on what is the obligation based? If not, why not? (*Theory of knowledge guide 2006*)

Another useful CAS question might be: In what ways can service learning projects enhance one's personal development? CAS virtually fits the service learning paradigm (Hill, Brussels Conference).

Piaggio suggests that meaningful reflection should follow a process that mirrors Kolb's experiential learning cycle:

- Bring back life situations
- Analyse them
- Evaluate them
- Draw conclusions
- Change perspectives
- Plan further actions (Piaggio, *Nature and rational for CAS: 5*)

Molly Peterson (2011) has suggested some guiding questions for students to reflect on ethical implications:

- In what ways did you act with integrity and honesty in this activity?
- In what ways did you find the activity required you to make reasoned, ethical decisions?
- How did this activity expose the attributes of a good team worker/leader?
- How did this activity expose the attributes of a good person?
- Did participating in the activity provoke any emotions in you or the participants, and how were these emotions dealt with?
- Did the activity assist in introducing or reinforcing obligations that we have as a member of society?
- Were there any issues raised in this activity that relate to maintaining a sustainable natural or economic environment?
- What are some of the key personal attributes required to work fairly and justly with other people? How were they evident in this activity?
- Were you required to adhere to any rules/obligations in doing this activity? How well did you adhere to them?
- Did participating in the activity question or conflict in any way with the cultural/social/religious guidelines in which the activity was held?

TOK, CAS and assessment

The methods of recording and assessing CAS and TOK for the Diploma Programme are quite different. CAS records and reflections may be private or public and in the form of oral, written or audio-visual media. TOK proceeds informally through discussions, essays and presentations as part of the curriculum and will be assessed regularly according to the school's reporting procedures. Evaluations of CAS performance may be informal or formal, and by fellow students, although an adult must assume the ultimate responsibility for verifying a particular activity.

CAS is completed by meeting the eight learning outcomes that are ascertained through any form of recording and an interview between the CAS advisor and student. TOK is formally assessed through a presentation graded by the teacher and an essay externally marked by an IB examiner. There have been many calls for CAS to contribute to the Diploma Programme score but this continues to be resisted; there are many other ways to reward students for high-quality CAS studies, and in a world of rampant quantification it is refreshing that something as valuable as CAS has not succumbed.

Extended essay and CAS

CAS and the extended essay have a more distant relationship than CAS and TOK; however, the qualities of a student that result in a successful extended essay are often those that contribute to a worthy and satisfying CAS scheme. A CAS activity cannot be a requirement for one of the student's academic courses, although the academic course may provide the stimulus for a CAS activity. The extended essay is part of the hexagon and therefore contributes to the student's independent learning and development, possibly including the ongoing development of his or her values. The extended essay process frequently follows the experiential learning cycle, particularly in group 4 experimental sciences, where a concrete experience leads to hypothesis formation and action followed by reflection. Many of the learning outcomes in CAS would also be demonstrated during the extended essay process.

- Strengths and weaknesses—students generally choose an essay in their stronger subject disciplines but often are called upon to redress weaknesses in their research, analysis or documentation skills to complete the process.

- Undertook new challenges—the essay may lead students into new realms of study or to visit new places and institutions, and there is the challenge for all students of constructing a research paper.
- Planned and initiated activities—the stimulus and passion for the research question must come from the student, and meticulous planning is inherent in the primary research and construction.
- Worked collaboratively with others—the students' relationships with their supervisor and anyone else, such as human experimental or survey groups and experts from other institutions, must be clear and successfully articulated.
- Showed perseverance and commitment—essential for a substantive essay and for positive comments from supervisors that will help to support the holistic criterion.
- Engaged with issues of global importance—this depends on the nature of the research question but many essays relate to current events of importance. For example, numerous essays in biology are conceived through the student's interest in environmental problems, and he or she will focus his or her primary research on pollution, agricultural pests or the effects and causes of eutrophication; while language A1 essays frequently focus upon works of social criticism with telling messages for present times.
- Considered ethical implications of actions—there may be causes for concern with certain biological experimentation: students are advised against using vertebrates for any physical manipulation, but there are grey areas with behavioural investigations and also which, if any, invertebrate groups might be involved. In language A1, oppressive regimes, brutal incarcerations, inherent injustice of all types are examined and reflected upon within a thorough examination of technique and purpose.
- Developed new skills—for most students this will be the first time that they have used some techniques both in collecting primary and secondary data, and in constructing the essay; for most, the required depth and gravitas is also a new skill.

CAS in relation to “Action” in the IB Primary Years Programme

The PYP's transdisciplinary themes emphasize that it is important to acquire skills in context, and ultimately to relate what students learn to life: that is, areas of shared human experience have meaning for individuals from different cultures and ethnicities. Similarly, CAS is only real when situated in its own contexts; it is then that CAS students relate what they are seeing and considering to their own lives, particularly when CAS activities immerse them in the cultures and ethnic particularities of others.

The PYP tenets all lead logically to the Middle Years Programme's (MYP's) community awareness and understanding and to the building of a positive values system and thus, later, into CAS notions of community membership and its attendant responsibilities. The tenets are as follows.

- Who we are
- Where we are in place and time
- How we express ourselves
- How the world works

- How we organize ourselves
- Sharing the planet

Even more closely aligned is the international-mindedness aspect of the PYP. The attributes of the learner profile are value-laden, and like CAS practice, they are shaped and coloured by the context, culture and practice of each school.

The learner profile aims to promote an awareness of the human condition and to recognize a commonality of human experience that is explored collaboratively from the multiple perspectives of students' individual experiences and backgrounds. This lays the groundwork for an awareness and sensitivity to the experiences of others beyond the students' own local or national communities. In the PYP such considerations begin within the classroom and curriculum. Global awareness is further facilitated by learning another language from age 7.

The PYP focuses on the heart as well as the mind, and addresses social, physical, emotional and cultural needs in addition to those considered more academic. Therefore, it is required to go beyond the traditional classroom to make meaningful connections with the world outside the school. It leads to the MYP and CAS focuses on communities in a socially responsible way.

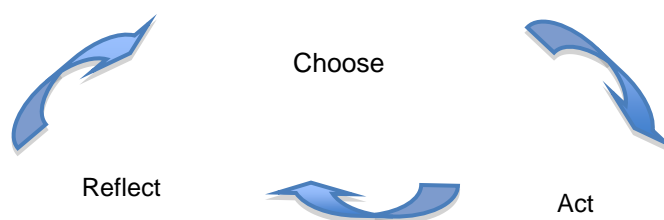
Assessment

- In assessment, PYP anecdotal records in which students tell teachers “learning stories” are similar to the reflections and conversations between CAS students and their advisors in interview and in the course of monitoring their programmes.
- When students in PYP student-led conferences identify their strengths and weaknesses, it directly echoes MYP students' reflections and learners' abilities to reflect later on in CAS. PYP assessment strategies draw on the variety of intelligences and the ways of knowing that anticipate those considered in the Diploma Programme core.
- The PYP exhibition aims are to provide students with an opportunity to demonstrate independence and responsibility for their own learning (*Making the PYP happen* 2007, revised 2009: 53). Similarly, in the final CAS interview, students are prepared to demonstrate that they have achieved the eight learning outcomes.
- The exhibition can follow any transdisciplinary theme at the discretion of the school. Students are required to engage in a collaborative, transdisciplinary inquiry process that involves them in identifying, investigating and offering solutions to real-life issues or problems.
- The centre of the PYP hexagon (synthesis of essential elements) is students constructing meaning, and this culminates in the PYP exhibition in the final year, demonstrating the five essential elements: knowledge, concepts, skills, attitudes and action.
- In PYP, teachers sharing their values, ideas and strengths are early role models; they are precursors for similar people guiding MYP and CAS students.
- In the *PYP guide* introduced in 1997, “action” asked for a consistent philosophy.
- The guide identified a set of attitudes—appreciation, commitment, confidence, cooperation, creativity, curiosity, empathy, enthusiasm, independence, integrity, respect and tolerance—that focus on the development of the whole child and seek to develop international-mindedness.

Action

“Action” is one of the essential elements of the PYP programme. It is the area most closely aligned with CAS. “Action” uses the learning cycle, as shown in Figure 2.

Figure 2 The learning cycle



The learning cycle is a precursor to the experiential learning cycle devised by Kolb and presented in the 2008 CAS guide.

The PYP believes that international education must extend beyond intellectual attainment to include not only responsible attitudes but also thoughtful and appropriate action. International schools and increasingly, local IB schools, can and should meet the challenge of offering all learners the opportunity and the power to choose their actions, and to act and to reflect on these actions in order to make a difference in and to the world.

The PYP believes that every student, every year, has the right and the duty to be involved in such transforming action. In order to make the action component of the curriculum as powerful as possible in terms of student learning, the PYP advocates a cycle of involvement, which provides students with opportunities to engage in meaningful action.

(PYP guide 1997)

There are no prescriptions for what actions should be undertaken during the PYP; this will depend on the circumstances of the school and the local community. However, the action should be voluntary and introduced out of a sense of need and/or conviction. Action may not always be desirable in some cases.

The suggestions for effective action at the PYP level are similar to the expectations of students in CAS. Both should be voluntary, where students use their initiative and take responsibility for their actions.

While CAS activities begin from a wide range of starting points, PYP actions should begin in a small way. Nonetheless, both should arise out of a sense of concern and a decision to commit. PYP actions arise as a result of concrete experience, while CAS activities can begin from an observation or arise from acquired knowledge, for example, anecdotal or personal experience, the internet or printed sources.

Action requires continual guidance and facilitation from a teacher in PYP, whereas it can be a more advisory role for CAS supervisors to ensure the quality of the action and to ensure that reflection supports the student's views of his or her contribution. For PYP students, action is more beneficial when students can see the outcomes, but this may not always be the case for CAS. PYP actions can happen at home, whereas this would not be condoned for CAS activities (*Making the PYP happen* 2007, revised 2009).

As with CAS, PYP action as service can be anywhere: in or outside school and within the wider community. Unlike CAS, it is seen as a voluntary demonstration of a student's empowerment to act as a result of what has been learned and experienced but predominantly in the classroom. The action may be confined to an individual student, a small group, the whole class or contribute to a whole-school project.

Table 1 Action in the PYP

Topic	Level of involvement	Action(s)
Water supply	Individual Large group	Saving shower and washing up water for the garden Raise money to dig wells in Cambodia (eg Tabitha)
Animals and welfare	Individual Any size group	Feed a stray cat Produce awareness-raising posters (eg not eating shark fin soup, send letters to restaurants) Buy non-perishable food and other supplies (eg bear sanctuaries)
Diets	Individual group	Change to healthier eating at home Produce posters for the school canteen
Pollution	Individual groups	Plant a tree, recycle paper, plastics, etc Make cards and models from recycled materials
Community homes for the elderly or destitute	Groups	Organize and decorate shoe boxes that are filled by the children and then taken to the homes

CAS in relation to “Community and service” in the IB Middle Years Programme

There are five areas of interaction in the MYP: approaches to learning, environments, community and service, health and social education, and human ingenuity. While all five could provide the stimulus for an activity outside the classroom, it is the area of community and service that demands this.

The key questions in community and service are:

- How do we live in relation to each other?
- How can I contribute to the community?
- How can I help others?

All of these match CAS concerns and learning outcomes.

Similarities to the MYP

There are many similarities between the MYP and CAS.

- CAS places the learner at the centre and requires that while students begin as a product of their immediate family, they progress through the school environment and community experience to the world at large.
- CAS looks beyond academics to the development of a personal value system that results in active community members, both local and global.

- CAS activities deepen students' knowledge and awareness of the world.
- CAS recognizes and encourages students to reflect upon the two-way action of learners benefiting and, in turn, being benefited by those they serve.
- CAS extends MYP opportunities for students to enhance and discover the social reality of self, of others and of the communities of themselves and others.
- CAS principles believe that action fosters affective, creative, ethical and cognitive development.
- CAS understands that change begins with awareness, which leads to action.
- CAS works on the understanding that students moving beyond their local school community foster empathy and respect and understanding, which develop with interaction. This in turn enriches them emotionally, socially, morally and culturally.
- In CAS the qualities and motives of an act are more important than the act itself—the antithesis of grades.
- The service programme of MYP is embedded within the whole curriculum and activity spectrum, promoting responsibility and empowering autonomous action. While CAS is extra-curricular, it is expected that the growth in responsibility that accompanies its activities will inform all of the students' thinking in regular subjects.
- CAS teachers can promote and guide, help with reflection, identify satisfactory responses and monitor safety through approved activities and overall appraisal of programmes.

The MYP tenets of community awareness and understanding, action and reflection and involvement through service are used in the learning cycle. Community and service, like CAS, encourages students to become aware of their roles and responsibilities as members of communities and requires them to become involved. Students learn about their place within communities and can be motivated to act in a new context. Awareness of an issue can lead to empathy, a change in behaviour, setting up projects, independent action, collaboration, modifying, and lobbying. Students will be changed by the process (*MYP: From principles into practice*). These are all skills that are expected of CAS students.

Possible MYP actions through the areas of interaction (AOIs) but primarily through community and service are shown in Table2.

Table 2 Action in the PYP

Key questions of community and service	Actions and activities
How do we live in relation to each other? (Awareness)	Assist with a Red Cross first aid course (Cedar International School British Virgin Islands) Toy donations (International School Paris) Student-led cake sales (International School Paris)
How can I contribute to the community? (Involvement)	Plant mangrove saplings (Cedar International School British Virgin Islands) Create educational board games to donate (Cedar International School British Virgin Islands) Fundraising—Namibia Project, UNICEF, Cambodia (International School Paris) Join with senior Global Concerns groups to fundraise for projects in Africa, Nepal, Cambodia, India, Indonesia, Vietnam: <ul style="list-style-type: none"> • Grade 6—Lavalla, Cambodia (children with physical disabilities) • Lamdon School Ladakh, India (dental hygiene initiative) • Grade 7—Swaziland school project • Vietnam (underprivileged children) • Grade 8—Tabitha, students have a chance to house build in Cambodia, (All UWCSEA)
How can I help others? (Reflection)	Visit a home for the elderly (Cedar International School British Virgin Islands) Tutor younger students (Cedar International School British Virgin Islands) Peer support (International School Paris) HIPS—help in primary school (UWCSEA)

Schools' interpretations of community and service assessment include the following.

- Assigning after-school clubs and activities linked to organizations and charity fundraisers with different credit values. (International School of The Hague website—Building of a varied CAS programme). This is similar to Piaggio's idea of categorizing CAS activities with different levels of demands (Piaggio 2002).
- Each of years 6–10 increasing time spent on school and AOI-connected community activities, along with guided reflection, for example, Plan—Do—Outcomes—Meaning to me and others—Value—Learn to apply—Personal strengths—Challenges (Cedar International School British Virgin Islands) CAS link: Meaningful reflections as evidence.
- Two community activities and one service activity in each year; reflections written on the gains by both student and client; informal interviews in years 9 and 10 giving evidence of participation (International School Paris). CAS link: Anticipating CAS interviews.
- Differentiate activities that do not contribute to community and service as recreational sport, raising money with no defined goal, teaching religion, and any unsupervised activity. CAS link: What is not CAS?

Beyond MYP

CAS goes beyond the MYP in the following ways:

- CAS extends and allows students to refine their notions of community in its different forms. CAS students, being more independent in their pursuits, can broaden their experience of community.
- Like MYP, through the process of CAS reflections, students extend their developing awareness of community needs, of their subsequent responsibilities and of an acceptable quality of response. They can become aware of and record their own attitudes, strengths and limitations; similarly, advisors will monitor these reflections. As with MYP, reflections are varied in form. CAS culminates in interviews that provide teachers with the tools to determine whether the learning outcomes have been achieved.
- Specifically for service, CAS requires positive involvement that deepens students' understanding of the mutual benefits of community involvement. CAS also requires an ethical consideration of such involvement.

CAS and service learning

Through the PYP and MYP and other non-IB programmes, younger students are appropriately introduced to service through guided and instructive practices, including learning to reflect thoughtfully. At the time of their entrance into the Diploma Programme, many students are well equipped to identify the value of their service. Others, who have not previously been involved in service, are strongly influenced and galvanized by those who have.

Experience in the Diploma Programme shows that real change is wrought through experiential encounters. Countless cohorts of CAS students identify and respond to the needs and wants of their service partners in an organic way, through discussion with peers, through meaningful reflection, and through analysis during interviews with supervisors and CAS team members. Students perceive immediately that effective planning is necessary for the successful development of service projects, including open dialogue with both partners and the organizations involved. Such dialogue immerses the CAS students in the realities of that particular situation, making them knowledgeable and aware of the specific challenges. CAS supervisors are most often Diploma Programme teachers who, from their varied disciplinary perspectives and often years of voluntary service experience, are well aware of discrepancies in communities' opportunities. These views, overlaid with discussion in CAS groups as they prepare and identify their service programmes, lead to students making their own meaning and sense of the situations that they encounter, and of their appropriate place in those.

Solid preparation and advance thinking about CAS service effectively occurs outside the curriculum, thus supporting the spirit and ethos of CAS, which has always by definition lived and thrived outside the formal classroom. Supervisors, often by virtue of their own experience, understand poverty and/or neglect. Students want to quickly understand about the particular circumstances of their service(s), and in good schemes the needs of the surrounding or distant communities are researched and clarified before a service project is initiated. This may happen as a normal part of CAS preparation if the service is already in place. If it is a new venture, extra time must be put into sufficient orientation by both supervisor and student. Traditionally, this happens in the student's own time. This process results in real links between CAS service providers and their partners. CAS opportunities naturally evolve as needs and awareness change. For CAS students to identify need and the suitability and sustainability of their offerings requires raising awareness and de-briefing after powerful interactions with disadvantaged communities. A successful process of this nature will preclude the need for formal service learning instruction.

While limited response does sometimes occur in CAS service, it is certainly not what characterizes service in good schools and provisions. Notwithstanding that there will always be students (and indeed CAS supervisors) who look for a quick way to fulfill their obligations, when this occurs it is due to lack of understanding and commitment.

The 2008 *CAS guide* changes the focus from “hours” to learning outcomes. The guide also specifies activities that have purpose, planning and the expectation of reflection.

At Prem Tinsulanonda International School in Chiang Mai, Thailand, when the school was in its inception, the CAS Coordinator toured the surrounding villages and the city of Chiang Mai, spoke with officials and staff at various institutions, schools and non-government organizations (NGOs), and worked with high school staff and potential CAS students to make a prioritized list of CAS service places. This happened extra-curricularly. The needs and wants of the local community dictated the provision, and often resulted in groups being brought to the school campus in order to share the facilities. As guests, the partners’ needs had to be paramount, and CAS students learned the difficulties of managing a scheme that hoped to offer the best and most productive encounters every visit. Likewise, when they visited orphanages and hospitals, careful and detailed preparation before visits directed by requests from the partners shaped the activities and resources offered. In UWCSEA, service schemes are ever-changing, responding to feedback from all parties, the needs of the organizations, and student initiatives, as reflected in students’ powerful reflections.

In the hands of good CAS teams, authentic links are forged as information about other people’s situations is shared. CAS schemes as a whole are rarely superficial or only best in emergency response situations. Activities such as these deny the experience and practice of hundreds of coordinators and thousands of students who make meaningful contacts every week through thoughtful and responsive service. The fundamental discovery Hill references in his paper on the early days of the Diploma Programme is that real encounters and real reflections shared within the cohort result in permanent change in students and staff. This is what makes the core of the Diploma Programme so important. The 2008 *CAS guide* changes the emphasis from logging activity time to quality experiences, a timely improvement and one that has been welcomed by schools that conduct CAS in its true spirit.

From the authors’ perspective, the overloaded Diploma Programme does not allow time to institute service learning. It should occur before students enter the programme. The only way service learning would fit into the Diploma Programme is to take time away from actual service, which seems unwise given the other demands of the programme. The majority of students arrive at the Diploma Programme ready and prepared to give service. Most CAS students need careful discussion and orientation into the varied communities with which they will interact and, where possible, visits from staff for training are an excellent way to make contact. However, from the outset it is understood that such planning and preparation is part of the extra time CAS asks for. After the first visits, CAS students’ discussions and reflections show their surprise and growing understanding at the circumstances of those they work for.

With encouragement from supervisors and guidance from the partners themselves, students’ reflections indicate a real involvement and a willingness to make a connection and to take responsibility for their charges. This “mindset” does not so much need to be taught as experienced. At CAS workshops, one of the constant requests from participants is how to make administrators of schools aware of the changes in the new CAS guide that demand time and/or money be spent on training CAS assistants, supervisors and tutors in the process. If schools are so reluctant to provide this training, it is doubtful that they will approach service learning positively.

If we dream of anything for CAS in the Diploma Programme, it would be better training for CAS supervisors, and advisors who would be better mentors for CAS students. The students have the raw materials and are ready to go, but too often supervisors who have little knowledge of, or interest in, CAS hold them back. Likewise, without investing time in training CAS advisors, the advisors will offer less than they possibly could in interviews and general guidance.

Concluding remarks

From its inception early in the development of the IB Diploma Programme, CAS has been recognized as the element without which the ideal of educating the whole student—physically, intellectually, emotionally and ethically—may not occur. Done well, CAS awakens IB students to the social and human responsibilities that privilege should entail. This review identifies and respects the three aspects of creativity, action and service as separate and valuable entities, while realizing that some of the very best CAS happens when they are in concert with one another. Certainly, the requirement of CAS students being engaged in sustained, collaborative projects most often combines all three aspects. Viewing CAS in the light of 21st-century learning is a challenge only in that it requires that school communities adapt to new processes. Creativity involving new technologies, provided it can be traced from its original concept to execution, will still be creativity. Action may be better documented and monitored with advances in equipment and technology. The real difference we suspect will come through changing attitudes towards service. As our global community takes on more social responsibility for inequalities and seeks to redress them, CAS students will hopefully find more willing partners to aid their service efforts. In the future, when IB students teach less-privileged groups, they will teach new technologies, which will help towards more efficient communications and extend employment chances. CAS aligns closely with TOK and the extended essay in approach, in ethical considerations and in some facets of assessment. The three hexagon core components offer an invaluable opportunity for deep exploration, ethical reflection and, thus, articulation of desired values and attitudes. Looking at the trail from PYP, MYP through to the Diploma Programme, a logical progression can be seen, beginning with PYP action, moving through MYP community and service to CAS. Students progress from being encouraged to articulate reflective ideas within their own communities, through group projects in a wider community, to being supported in independent exploration that may include a global project. Common attitudes and beliefs support all of the programmes.

“Creativity, action and service: The potential for service learning” by Cathryn Berger Kaye

Defining service learning

Simply put, service learning occurs in classrooms or guided situations as students connect academic study, both skills and content with authenticated community needs and develop a response to these needs that advances their knowledge and abilities. Defined as a research-based teaching method, service learning adheres to a process that allows for youth initiative and provides structured time for reflection on the service experience along with a demonstration of acquired skills and knowledge (Kaye 2011).

Service learning can be defined in part by what it does for students. When service learning is used in a structured way that connects classroom content, literature (fiction and non-fiction) and skills to authenticate and respond to community needs, students will:

- apply academic studies with rigour and relevance towards improving the community with real, not hypothetical, results
- participate in action research and social analysis
- experience social and emotional integration
- have a sense of explicit purpose that values intrinsic knowing over extrinsic rewards
- integrate youth voice and choice into a research-based process
- transfer knowledge from academic study—content and skills—and personal attributes into different settings and situations
- develop as world citizens and leaders who take initiative, solve problems, work as a team and demonstrate their abilities through reciprocal relationships.

These important and documented academic and social results have helped validate service learning as a valuable, respected and widely recognized teaching method across the globe in primary and secondary schools, from kindergarten through to year 12, and university settings, with a growing number of schools of education internationally teaching this pedagogy. While the essential structure and process of service learning stays the same, the resulting activities take a great variety of forms.

With service learning, the education of students is always at its core. Students actively participate in the process of understanding, integrating and applying knowledge from various subject areas as they improve their communities. The question “Why am I learning this?” disappears as students restore a fragile ecosystem, prepare and teach lessons to children in an orphanage, and see the transference of classroom content and what they’ve learned in action. Students of all ages and most ability levels can participate successfully, and almost every subject or skill can be enhanced through the practice of service learning. This naturally encourages cross-curricular or interdisciplinary integration that can help students grow, retain what they have learned, improve in several areas simultaneously and transfer knowledge and skills into new settings more readily.

Any discussion of service learning is going to include many references to community. Service learning helps students to build and improve community, yet sometimes the who or what of community is unclear. “Community” can have different meanings in service learning that are influenced by geography, culture, situation and need, so its definition often depends on the nature of the service learning activity or on who’s doing the defining.

For some schools, service learning activities may be working towards improving interpersonal relationships or safety on the school campus, or beautifying the grounds. “Community” in this case may be defined as the school campus and population, which includes the immediate surrounding area, parents and any outside agencies assisting with the issues being addressed. Other schools extend their communities geographically and socially to include the surrounding neighbourhood, city or region. Examples of off-site locations for service learning include a local watershed to help with plant restoration, a refugee centre where students assist with childcare, and a radio station where students record public service announcements. In these situations, “community” usually includes agency partners.

Whatever is included in your definition of “community”, students engaging in service learning will come to know that community develops and builds through interaction, reciprocal relationships and knowledge of people, places, organizations, governments and systems. Through service learning, the often elusive idea of “community” takes shape and has a more tangible meaning for all involved. Recognizing and becoming active in a community builds a true foundation for civic responsibility that lasts well beyond school years (Kaye 2011).

Clarifying the difference between community service and service learning establishes a necessary distinction. With service learning, the education of the students is always at the core of the process. This is not just another lesson plan or classroom activity. There exist benchmarks, the K12 Service Learning Standards for Quality Practice and Five Stages of Service Learning, discussed later in this document, that elevate classroom experience into a well-designed opportunity for critical thinking, problem solving, meeting challenges, and better understanding the world students live in, both local and global. Academic integration is critical, as is youth initiative, both fundamental expectations for teacher and students. Intrinsic motivation is being developed as students apply knowledge with purpose. Reflection becomes a central process that connects in an ongoing manner to the unifying principle of intention or query.

During community service, the process typically begins with the action. Students may or may not be involved in examining a need or looking for a deeper understanding of the circumstance through preparation. Often with community service, even to meet CAS hours, students just show up. They may board a bus and arrive at a place to repair a school structure and may not have discussed the education system that created a schoolhouse in ill repair. With community service, students have been known to ask if they can do any menial task to clock in hours, and again there is no real sense of purpose or skills gained. Community service can be done well, this is for certain, and may include many aspects of a well-framed service learning experience. When an emergency arises and students must respond with immediate action to a local flood or provide needed resources for a population hit by a tornado, community service may be what is best at that moment. It does, however, become incumbent on the educator to ensure that the knowledge is placed in a larger context and connected to classroom academic study even if this occurs after the action. The risk with discrete community service is the frequent attachment to an extrinsic reward that may take centre stage for the youth as the reason for participation.

With community service, context and connections are by no means guaranteed. A student’s voice may be missing altogether and reflection can be accomplished with a quick journal entry that misses the entire purpose of integrating the affective and cognitive learning. Even the use of the term “service learning” does not guarantee that the practitioners truly understand and maximize what they are doing to ensure reciprocal benefits for students and the community. This makes professional development a critical part of advancing service learning.

Types of service and service learning

While service can take many forms, usually the “service” in service learning can be classified as direct service, indirect service, advocacy, or research.

Direct service: Students’ service directly affects and involves the recipients. The interactions are person-to-person and face-to-face, such as tutoring younger children. Students engaged in direct service learn about caring for others who are different in age or experience, develop problem-solving skills by following a sequence from beginning to end, and see the “big picture” of a social

justice issue. Interacting with animals is also included in direct service, as is on-site environmental work, such as restoring a wetland area or testing water for phosphates.

Indirect service: With indirect activities, students do not see the recipients; however, their actions benefit the community or environment as a whole. Examples can include stocking a food pantry, writing picture books for a pre-school literacy programme, collecting clothing for families living in a shelter, or creating a newsletter for a retirement community. Students engaging in indirect service learn about cooperation, working as a team, taking on different roles, organizing and prioritizing. They also gain specific skills and knowledge that relate to academic content reinforced through application.

Advocacy: The intent of advocacy is to create awareness of, or promote action on, an issue of public interest. Central to the word is *voc*, which is Latin for voice. Through advocacy, students provide a voice for an issue, particularly when a population may not be able to speak for themselves. Related activities include writing letters, sponsoring a community meeting, performing a play, and public speaking. Student advocates learn about perseverance and understanding rules, systems and processes. They also experience civic engagement and working with adults.

Research: Research activities involve students in finding, gathering and reporting on information in the public interest. For example, students may develop surveys or conduct formal studies, evaluations, experiments or interviews. To qualify as service learning, the research must extend beyond the classroom to inform others or provide needed information that benefits the public good. By participating in research-based service learning, students may learn about how to learn and how to gather information, how to make discriminating judgments and how to work systematically. This leads to enhanced skills in organization, assessment and evaluation.

That said, a caution is worth noting related to indirect service. If students who have the ability to experience all four forms of service only have indirect opportunities, a subtle message may be communicated: that we can keep issues and problems distant or at arms' length. Research confirms that, particularly with high school students, direct service and advocacy appears to have the greatest long-term impact on knowledge gained and personal value recognized. Moreover, younger children are developmentally prone to learning best with concrete involvement.

Skills for service learning

A well-designed service learning experience affords plenty of opportunities for students to consider their own ideas and those of others, think critically about what occurs, anticipate possible outcomes, adjust plans, articulate their intentions in both written and verbal forms, and assess the outcomes of their endeavours—all essential leadership skills. Every form of communication is enhanced in the process: listening, speaking, writing and calculating, as well as using symbolism, body language, and interpretation. Through a series of service learning experiences, the transferable nature of this skill development becomes apparent, and students accumulate expertise. Leadership competencies surface with an increase in self-knowledge regarding areas for further improvement and strengthening. At all times, it is the role of the teacher or adult facilitator to communicate with the students and note the areas where development is needed and to assist in providing that development. Do students need to learn interviewing skills? Are students prepared to analyse a survey that they are soon to complete? Who in the community can assist students to prepare a press release or to contact a government representative? This may be distinctly different from how CAS now operates in that the teacher or CAS coordinator continues to play a role in an ongoing relationship with the students at each of the five stages, making certain that students continue to acquire whatever incremental, and often highly practical, skills are needed. Service learning then truly becomes leadership in action.

High-quality service learning experiences also provides ample integration and development of social and emotional traits that can also be categorized as learner profile attributes. Clarification of these desired attributes by the educator is integral to the service learning process, as is observing student development through this lens during the process (Kaye 2011).

Standards for effective service learning

Research has verified that when the following elements are present as base criteria for service learning, there is a greater likelihood for significant impact on the students and the community (Billig, 2009). Depending on the particular design and what approach is taken, some of these K12 Standards for Service Learning may be more evident than others. The responsibility for infusing these standards rests primarily on the teachers or other adults, while students focus on progressing through the Five Stages of Service Learning.

- **Meaningful service:** Service learning actively engages students in significant and personally relevant and real service activities. Students identify, investigate, learn about and articulate an authenticated, recognized community need.
- **Link to curriculum:** Service learning is employed as a teaching method to meet designated content and skills. Knowledge is applied with transparency, allowing students to make explicit connections between subject matter and application within the context of community. Skills learned and practised by students are transferable. The service informs the curriculum and the curriculum informs the service.
- **Reflection:** Through service learning, students participate in systemic processes that integrate cognitive thinking—related to social issues and their lives—with empathetic response. This blend of affective and cognitive thought deepens the service learning as students apply and transfer new understandings of themselves, others and the world around them.
- **Diversity:** Imagine all the possible ways service learning can expose students to the concept of “diversity.” Whether interfacing with a community partner, an elder in a retirement community, a veteran just returning from war, a recent immigrant, or a government official, participation in service learning provides exposure to a range of backgrounds and perspectives, and different ways of thinking and solving problems.
- **Youth voice and choice:** Service learning enables students to take initiative, make decisions, develop critical-thinking skills, put ideas into action, and assess and evaluate what happened. Students meet significant age-appropriate challenges with tasks that require thinking, initiative, problem-solving, and responsibility in an environment safe enough to make mistakes and to succeed.
- **Reciprocal partnerships:** Students develop partnerships and share responsibility with people from organizations, business, government, parents and other students. Reciprocity exists when each person sees the other as having something to share, when roles and responsibilities stay clarified, and when a shared vision moves the group forward.
- **Progress monitoring:** Students set a baseline of the status quo as they begin, and learn the skill of comparing this with the results. In process, they observe, report, calculate and modify.
- **Duration and intensity:** Sufficient duration allows students to move through the Five Stages of Service Learning—investigation, preparation and planning, action, reflection, and demonstration—with plenty of time to authenticate and address identified community needs and achieve learning outcomes. Emphasis is on process and purpose allowing for flexibility, inevitable detours and unexpected occurrences inherent to real-world participation rather than premeditated goals.

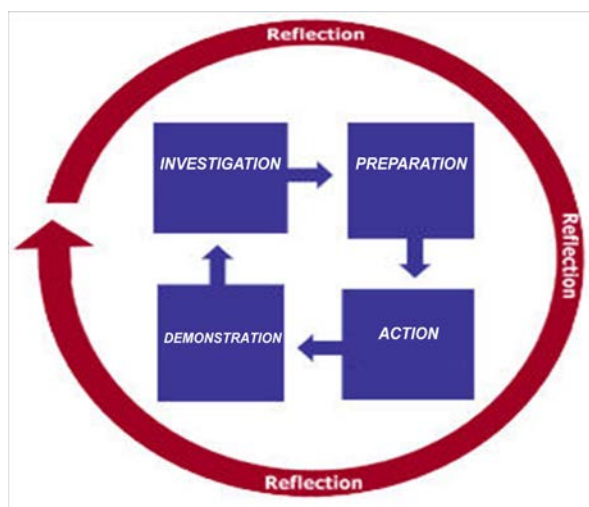
The Five Stages of Service Learning

The Five Stages of Service Learning provide the sequence, the “recipe”, for student success and integration of cognitive knowledge and skills, and affective personal and social development. The essential and interdependent five stages of successful service learning are:

- Investigation: Investigation has two parts: 1) investigation of the student’s interests, skills and talents; 2) investigation and authentication of the community need through “social analysis” by using one or more of these modalities—designing a survey, conducting interviews, using varied media such as books, films and the internet, and drawing from personal experience or collective observation. Students then document the extent and nature of the problem and establish a baseline for monitoring progress.
- Preparation and planning: The depth of academics occurs as students take the questions that naturally merge during investigation and learn more, meet designated academic measures, and generally advance their course requirements with the added benefit of having a purpose in mind—to meet their designated and authenticated need. Varied engaging teaching methods are employed and community partners are often involved.
- Action: Action is the direct result of solid preparation and planning. The action, incorporating student ideas and initiative, is intended to have value, purpose and meaning as students continue to acquire academic skills and knowledge. These unique experiences have real consequences and offer a safe environment to learn, make mistakes and succeed. The “real” nature of action has inherent complexities that allow for depth of understanding, development of leadership and varied learner profile attributes, and maintain the continuity of this inquiry-based approach as students contribute to the common good.
- Reflection: Reflection appears in both the K12 Service Learning Standards and the Five Stages of Service Learning, a “reflection” of its importance! This vital ongoing process integrates learning and experience with personal growth and awareness. Using reflection, students consider how the experience, knowledge and skills they are acquiring relate to their own lives and communities. While reflecting, students put cognitive, social and emotional aspects of experience into the larger context of self, the community and the world. This helps them to assess their skills, develop empathy for others, and understand the impact of their actions on others and on themselves.
- Demonstration: Students make explicit what and how they have learned and what they have accomplished through their community involvement. Presenting what they have learned allows students to teach others while also identifying and acknowledging to themselves **how** they learned—a critical aspect of metacognitive development.

Together these constitute a process key to students’ effectiveness and critical to students learning transferable skills and content. These stages are linked together, with reflection being an ongoing component. Each stage of service learning is part of an interdependent whole (see Figure 3).

Figure 3 Representation of the Five Stages of Service Learning



Service learning and CAS

Alignment of CAS with an accurate and well-articulated understanding and framework for service learning can have significant benefits. Service learning is distinct from community service, as noted previously, and these differences become more apparent when the Five Stages of Service Learning is the process that students follow. In Table 3, the stages are shown with the fundamental skills developed along with the learner profile attributes. Of course additional skills and attributes will be strengthened with each particular student. The organizers reference documents from *The Complete Guide to Service Learning* that have been successfully used by students when progressing through a well-organized sequence of taking initiative and preparing and implementing well-articulated plans of action. Note that throughout the Five Stages of Service Learning, students apply prior knowledge and continue to gain knowledge, integrate varied technologies and platforms at all stages of the process, participate in reflection, and acquire assistance as needed with developing skills.

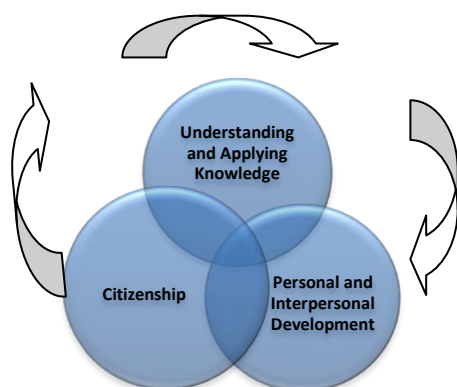
Table 3 Integrating the Five Stages of Service Learning into CAS with student competencies and learner profile attributes

Five Stages of Service Learning	Skill development	Organizers/Evidence	Learner profile attributes
Investigation	<ul style="list-style-type: none"> Recognize personal interests, skills and talents, and apply them in meaningful ways Conduct social analysis through action research to identify a meaningful issue to address and to authenticate a need 	<ol style="list-style-type: none"> Personal inventory Gathering information about a community need 	Reflective Inquirers
Preparation and planning	<ul style="list-style-type: none"> Understand how to develop a plan of action to address that problem Establish a network of supportive peers and adults and be likewise supportive of others Connect local and global issues and know avenues of responding that are being or could be applied in diverse settings Communicate effectively to contact people who have information or resources Prepare articulated proposal for course of action 	<ol style="list-style-type: none"> Take action Take action Who is helping? Government and community groups Community contact information Service learning proposal 	Knowledgeable Thinkers Open-minded
Action	<ul style="list-style-type: none"> Promote a cause using well-chosen appropriate mediums Monitor progress and 	<ol style="list-style-type: none"> Promotion—turning ideas into action Progress monitoring 	Caring Principled Risk-takers

	advancements made	10. Capture the action	
Reflection	<ul style="list-style-type: none"> Value reflection and do so in ways that are challenging and ongoing throughout all the stages 	11. Four square reflection tool	Reflective Balanced
Demonstration	<ul style="list-style-type: none"> Convincingly relay ideas and solutions using effective, engaging presentation skills Receive and consider feedback from others 	12. Once you know it, show it! 13. Community response 14. Student self-evaluation	Communicators Open-minded Reflective

In Figure 4, the service learning process is illustrated with the full integration of purpose and process. Understanding and applying knowledge becomes maximized through personal and interpersonal development. With the application towards a meaningful verified need, an innate and dynamic sense of citizenship is established.

Figure 4 From *Where's The Learning In Service-Learning?* by J Eyler and DE Giles Jr



With a well-designed experience, service learning integrates the ongoing acquisition and application of knowledge, ideas, and skills with personal and interpersonal development. This builds and reinforces the foundation of citizenship.

The challenges of service learning and CAS

The process and methodology of service learning described herein aligns with the overall mission of the IB and schools that aim to prepare citizens for the 21st century who are healthy, growing, contributing members of society. The more service learning becomes integrated into the IB's continuum of programmes, the more likely students will demonstrate and achieve the desired outcomes of the Diploma Programme and CAS.

Consider, however, that in the article, "What is an 'expert student'?", psychologist Robert J Sternberg claims that at best education systems are currently preparing students to be intelligent, and intelligence is a far cry from wisdom. "When schools teach for wisdom, they teach students that it is important not just what you know, but how you use what you know—whether you use it for good ends or bad" (Sternberg 2003: 5–9). This approach, he says, "requires students to think analytically, creatively, and practically. They need creative thinking to generate ideas, analytical thinking to evaluate those ideas, and practical thinking to implement the ideas and convince others of their value". When we look at practical thinking, Sternberg (2003) notes, "Teaching for *practical* thinking means encouraging students to apply, use, put into practice, implement, employ and render practical what they know. Such teaching must relate to real practical needs of students, not just to what would be practical for individuals other than the students". He describes that students studying economics and mathematics could, for example, "apply the formula for computing compound interest to a problem people are likely to face when planning for retirement". Sternberg

(2003) continues that we can elevate the intent of education by teaching our young people “not only to think well, but also wisely”. Can we move students towards wisdom? As defined by Sternberg (2003), “Wisdom, the opposite of foolishness, is the use of successful intelligence and experience toward the attainment of a common good”. There may be challenges associated with service learning as there are with any new initiative; however, the outcome is well worth the journey.

Professional development

Providing the requisite professional development through written materials, institutes, online seminars and articles is key to integrating any new concept. These must also be full of examples of how service learning looks at schools in the sequential stages of achieving integration. Stories of success must be promoted with evidence of benefits and improvement that convinces the reluctant to move forward. The roles of all involved, from the school head to curriculum coordinators, Diploma Programme teachers and CAS coordinators, parents and students, are also of paramount importance. And of course the IB must also be cognizant about the idea **and process** of service learning—what it is and isn’t, and what kind of standard is set to ensure high-quality implementation. To be most enriching, professional learning opportunities must also be sustained over time and embedded in on-site development and school practices.

Diploma Programme academics

The myriad of ways that service learning can be integrated into Diploma Programme curriculums needs to be examined. Clearly it can be done and is being done, as shown as in this example from the International School of Estonia:

An IB Diploma Programme 20th century world history class, grade 10–12 students at the International School of Estonia, studied World War One and World War Two in history class and *All Quiet on the Western Front* in English class. Their studies inspired a service learning experience. Students wanted to bring the delicate and emotional subject of war closer to their learning community. They hoped that through conducting a series of interviews to better understand the sacrifice soldiers made for their countries during the war and “bring history to life”. The students contacted a group of war veterans from around the world and conducted interviews asking various questions about wartime memories. This culminated in a publication of the book *Memoirs of a Soldier*. This book explored themes students discovered during interviews such as fear, friendship and coming home. They chose to organize the book thematically to show common humanity among soldiers from around the world. For the release of the book students made an exhibition that taught about wars during the 20th and 21st century. In addition, they wrote a script and directed a dramatic performance that juxtaposed interviews with excerpts from *All Quiet on the Western Front*. Parents, soldiers and the American Ambassador attended this moving performance. The school received an award from the European Council of International Schools for its success promoting international understanding.

When reasonable ideas are presented that can be adapted to the diverse IB programmes in many different locales, teachers can begin to generate and implement their own ideas. Research confirms that making a direct connection between students’ service learning experiences, the academic curriculum they must master, and the standards they must meet assists in achieving significant and positive outcomes that are desired through service learning experiences (Billig). If service learning is also a valued practice of PYP and MYP, students will arrive in the Diploma Programme with an expectation and a lens on how they see the curriculum, and they too will come up with practical ideas for applying the knowledge and skills they are developing. The more service learning becomes integrated as an effective and valued teaching approach and pedagogy in the Diploma Programme, the more skillful students will become in carrying out the intent of CAS. Within the classroom setting, they will develop and advance a mindset for meaningful service,

examine issues with depth, and seek solutions and ways to contribute to the communal well-being. All of this sets the stage for being effective in CAS.

Service learning in PYP and MYP

Service learning has progressed from an occasional event that a single teacher may add to a classroom strategy. Academic-rich service learning experiences developed as a school-wide approach at all year levels has deeper merit. In a K12 service learning scheme, students from the youngest years begin to develop the outcomes that the IB is seeking to instil in the CAS programme. The learner profiles for these younger students become activated through this dynamic learning experience. Teachers begin to consider how students will apply classroom knowledge in the community at the beginning of a unit of inquiry rather than towards the conclusion, as application becomes a centrepiece of the essential preliminary questions, while still leaving plenty of room for student voices and choice. This can appear as a challenge for schools, or as an exciting and vibrant opportunity.

The time concern

Initially, integrating a service learning approach and adding more engaging and student-driven ideas into the curriculum will take more time than a typical lesson. However, as teachers become more adept and confident with the practice, curricular connections and possibilities for worthwhile experiences and community partnerships appear much more easily. Long-term partnerships also emerge with sustained relationships. With the proper skill development and reinforcement, students take on more leadership. Levels of engagement and enthusiasm rise for teachers and students. The academic results and accomplishments in the community reward the effort for everyone involved. Many teachers attest to service learning saving time as students work more conscientiously when they know their efforts have a public purpose.

Transitions and opportunities

In looking at the overall IB courses of study, from PYP to MYP to DP, for service learning opportunities, particular areas lend themselves to creating an example of ideal alignment for service learning, for developing an internalized vocabulary for participation in service, and for guiding students towards the discovery of what issues they find most compelling. This, of course, can and will change, and that is ideal as well, as students develop a repertoire of understanding across a range of topics and concerns. It is appropriate for students to become open-minded (learner profile attribute) to issues through a developmental and age-appropriate programme, and then to reflect (learner profile attribute) about which issue is the one to embrace for CAS.

In Table 4, reference is made to two examples of opportunities in the Diploma Programme, with the group 4 project and extended essay to lead toward greater continuity in the development and application of academic studies and personal investment with readiness for CAS.

Table 4 Connections: Group 4 project, extended essay, and CAS

Opportunity	What students do	Resources
Group 4 project with biology and chemistry <ul style="list-style-type: none"> • Inquirers • Knowledgeable • Caring • Communicators 	While research is key to this opportunity, the premise can now have at the core: “Who can be influenced by your research?” By providing this research to an identified recipient—a person of influence, or a platform that gives local or international exposure to the research—purpose will elevate the process	<ul style="list-style-type: none"> • Gathering information about a community need (from <i>The Complete Guide to Service Learning</i>) • an upcoming website for STREAM—Students Reporting Environmental Action in Media—could be a likely place if students assume roles as youth

		citizen journalists about an environmental issue
Extended essay <ul style="list-style-type: none"> • Inquirers • Knowledgeable • Principled • Open-minded • Balanced 	For the subject of exploration, students engage in action research—media, interview, survey, and observation/experience. They develop a case for action. This can be a baseline for the need that compels students to take action during CAS. Should a student want to embark on another topic for CAS, he or she would have the background to complete successfully meaningful authentic research that validates the need and sets the stage for action	<ul style="list-style-type: none"> • Gathering information about a community need (from <i>The Complete Guide to Service Learning</i>)

Concluding remarks

Service learning provides a deliberate framework that has the potential to strengthen CAS activities including learner profile attributes and resultant student attitudes. Basic beliefs that promote good CAS programmes are magnified through the integration of skills and knowledge, and strengthened through a well-designed service learning approach blending analytical, creative and practical intelligence. The investigative stage necessitates a depth of awareness and thoroughness in how the need is authenticated to ensure that planning and action emerge from this verified need in the here and now. Ongoing reflection protocols integrate affective and cognitive development. Having experienced academic service learning integrated into PYP, MYP, and the Diploma Programme including TOK, students will have the basic requisite experience and skills that come from initiating, planning, constructing and implementing their ideas with the support of their teacher and community partners. This provides excellent and reliable preparation for CAS, a process that may then be accomplished individually, in pairs or in small groups, and may be heightened with global partners through technology integration, all in response to this substantial authenticated need. Critical are two key aspects: 1) ongoing skill development as students face new challenges; and 2) the emphasis and strengthening of intrinsic student motivation over extrinsic student motivation, which is always the intention of high-quality service learning. As with any worthwhile pedagogy, professional development reinforces the practice of service learning and builds a culture and ethos of service that permeates a school community. With this comprehensive approach to service learning in place, each class of students would enter their CAS years ready to reach success in what they strive to accomplish and to contribute for the common good.

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