

Purpose of this document

This publication is intended to guide the planning and organization of creativity, activity, service (CAS) in schools. CAS coordinators and CAS advisers are the primary audience; it is expected the guide will also inform the school community about CAS.

This guide can be found on the CAS page of the online curriculum centre (OCC) at occ.ibo.org, a password-protected IB website designed to support IB teachers. It can also be purchased from the IB store at store.ibo.org.

Additional resources

Teachers are encouraged to check the OCC for additional resources created or used by other teachers. Teachers can provide details of useful resources, for example, websites, books, videos, journals or teaching ideas.

Teacher support material (TSM) has been developed to provide additional resources for CAS. These are located on the OCC.

Acknowledgment

The IB wishes to thank the educators and associated schools for generously contributing time and resources to the production of this guide.

For students graduating in 2017 and thereafter

The Diploma Programme

The Diploma Programme is a rigorous pre-university course of study designed for students in the 16 to 19 age range. It is a broad-based two-year course that aims to encourage students to be knowledgeable and inquiring, but also caring and compassionate. There is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and evaluate a range of points of view.

The Diploma Programme model

The course is presented as six academic areas enclosing a central core (see figure 1). It encourages the concurrent study of a broad range of academic areas. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.



Figure 1
Diploma Programme model

Choosing the right combination

Students are required to choose one subject from each of the six academic areas, although they can, instead of an arts subject, choose two subjects from another area. Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

At both levels, many skills are developed, especially those of critical thinking and analysis. At the end of the course, students' abilities are measured by means of external assessment. Many subjects contain some element of coursework assessed by teachers.

The core of the Diploma Programme model

All Diploma Programme students participate in the three elements of the IB Diploma Programme core.

- The theory of knowledge (TOK) course encourages students to think about the nature of knowledge, to reflect on the process of learning in all their subjects, and to see and understand the connections between them.
- The extended essay, a substantial piece of academic writing of up to 4,000 words, enables students to investigate a topic of special interest that they have chosen themselves; this encourages the development of independent research skills expected at university.
- CAS involves students in a range of enjoyable and significant experiences, as well as a CAS project.

Coherence in the core

The three elements of the Diploma Programme core (TOK, CAS and the extended essay) were introduced by the original curriculum designers of the Diploma Programme as a way to educate the whole person. The core consists of three separate elements, but links and relationships are evident between them even if these links have not previously been clearly articulated.

Strongly committed to the principle of developing the whole person, the IB believes that this is best achieved by identifying and developing clearer and more explicit aims for and relationships between TOK, CAS and the extended essay. Specifically, the IB believes a coherent view of the core will:

- support the interconnectedness of learning
- support concurrency of learning
- support the IB continuum of education and the learner profile
- support a broader view of the subject disciplines.

Coherence does not mean similarity. Coherence in this context refers to the three elements of the core complementing each other and working together to achieve common aims. All three elements of the core should be grounded in three coherent aims:

- support, and be supported by, the academic disciplines
- foster international-mindedness
- develop self-awareness and a sense of identity.

Supporting, and being supported by, the academic disciplines

The core is seen as the heart of the Diploma Programme. The academic disciplines, while separate to the core, are nonetheless linked to it. The core relies on the disciplines to provide enrichment, and individual subjects should be nourished by the core. Teachers in each of the three elements of the core need to think about, and plan carefully, how TOK, CAS and the extended essay can feed into a deeper understanding of the subject matter studied by Diploma Programme students. This might include, for example:

- transferring the critical-thinking process developed in TOK to the study of academic disciplines
- developing service learning opportunities in CAS that will build on a student's existing subject knowledge and contribute to the construction of new and deeper knowledge in that subject area
- exploring a topic or issue of interest that has global significance in an extended essay through one or more disciplinary lenses.

Fostering international-mindedness

The core has a responsibility to foster and nurture international-mindedness, with the ultimate goal of developing responsible global citizens. To a large extent, the core should be driven by the IB's mission "to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" and "encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right" (IB mission statement).

To this end, the core should encourage an exploration of issues of global significance and in so doing allow students to examine links between the local and the global. It should encourage students to consider the contexts and views of others, and should ensure that the principles and values developed by students are reflected upon throughout their lifetime. This might include, for example:

- emphasizing different cultural perspectives in TOK and how different cultural traditions have contributed to our current constructions of knowledge
- considering a CAS project that reflects an issue of global significance, but is explored from a local perspective
- encouraging students to write a world studies extended essay—an interdisciplinary extended essay on a global theme.

Developing self-awareness and a sense of identity

The core should strive to make a difference to the lives of students. It should provide opportunities for students to think about their own values and actions, to understand their place in the world, and to shape their identity. This might include, for example:

- providing opportunities in TOK for students to have conversations with others from different backgrounds and with different viewpoints, thereby challenging their own values
- encouraging students in CAS to evaluate their commitment to helping those in need and exploring the notion of advocacy
- asking students to reflect on the process of writing the extended essay and in so doing identifying areas of strength and areas for development.

CAS and the Diploma Programme

CAS experiences can be associated with each of the subject groups of the Diploma Programme. Teachers can assist students in making links between their subjects and their CAS experiences where appropriate. This will provide students with relevance in both their subject learning and their CAS learning through purposeful discussion and real experiences. It will motivate and challenge the students, strengthen subject understanding and knowledge, and allow students to enjoy different approaches to their subjects. However, CAS experiences must be distinct from, and may not be included or used, in the student's Diploma course requirements.

Each subject group of the Diploma Programme can contribute towards CAS. The examples below are suggestions only; teachers and students can create their own authentic connections where possible.

Group 1 students could engage in creative writing, produce audiobooks for the blind or write a movie and produce it.

Group 2 students could provide language lessons to those in need, develop language guides using technology or raise awareness of the culture of the language being studied through a website or other forms of communication.

Group 3 students could record the oral histories of people living in elderly residential facilities and create family memoirs, create a social enterprise addressing a community need or collaborate on a community garden.

Group 4 students could form an astronomy club for younger students, help maintain a nature reserve or promote physical participation in "walk to school" groups.

Group 5 students could teach younger children to overcome mathematical challenges, maintain financial accounts for a local charity or plan a mathematics scavenger hunt at school to highlight the importance of mathematics in everyday life.

Group 6 students could take dance lessons that lead to a theatrical performance, participate in a community art exhibition or community initiatives (such as performances or photo exhibits) for hospitals or aged-care facilities.

Additional suggestions on the links between Diploma Programme subjects and CAS can be found in the *Creativity, activity, service teacher support material*.

CAS and TOK

TOK guides students in making sense of their experiences as learners, and this includes their experiences in CAS. TOK is a course about critical thinking and inquiring into the process of knowing. The course encourages students to examine the presuppositions and assumptions that underpin their own knowledge and understanding of the world.

In TOK the *knower* draws knowledge from two sources: **personal knowledge** and **shared knowledge**. CAS experiences are an important source of students' personal knowledge, providing students with the opportunity to gain awareness of the world in a range of diverse and challenging situations. Shared knowledge extends the idea from how individuals construct knowledge to how communities construct knowledge. In CAS, students might draw on TOK discussions that deepen understanding of different communities and cultures.

CAS also provides links to other areas of the TOK course. For example, a student participating in a visual arts experience for creativity could reflect on the roles of intuition and imagination as “ways of knowing” in the arts area of knowledge. Some students make links between CAS and TOK when carrying out a TOK assessment task. For example, a student’s CAS experiences may also provide rich real-life situations for students to use as the basis for their TOK oral presentation. Further, CAS experiences provide the basis from which knowledge questions can be derived.

In both CAS and TOK, students reflect on their beliefs and assumptions, leading to more thoughtful, responsible and purposeful lives.

Ethics in TOK

CAS helps students to “recognize and consider the ethics of choices and actions” (learning outcome 7), in accordance with the ethical principles stated in the IB mission statement and the IB learner profile. This involves exploring values, attitudes and behaviours as students undertake enterprises with significant outcomes. Various ethical issues will arise naturally in the course of CAS experiences, and may be seen as challenges to a student’s preconceived ideas and instinctive responses or ways of behaving. In the context of CAS, schools have a specific responsibility to support students’ personal growth as they think, feel and act their way through ethical issues.

It is important that schools take the opportunity to use the CAS experiences to understand the ethical systems explored in TOK. CAS coordinators can assist students in identifying ethical principles to guide their actions. As a result, students grow in their awareness of the consequences of choices and actions in planning and carrying out CAS experiences. Increased ethical sensibility supports students in understanding that they are responsible and accountable for their actions, and leads to their acting with integrity.

The CAS coordinator must exercise sensitivity, since students may come from family and cultural backgrounds with different worldviews that shape personal values and beliefs. While it is important to recognize and respect differences, the values and ethical practices that underpin CAS must align with the IB learner profile.

CAS, the extended essay and the world studies extended essay

Through CAS experiences, a student’s exposure to particular global issues at a local level may give rise to an interest in furthering their understanding of these issues through academic research. Both the extended essay and the world studies extended essay allow students to explore the issues that may have arisen during CAS.

In the extended essay, students may research and explore personal interests that link with a subject of the Diploma Programme.

The world studies extended essay provides students with an opportunity to undertake an in-depth, interdisciplinary study of an issue of contemporary global significance manifested at a local level. Students can choose to explore a topic from one of the following global themes.

- Language, culture and identity
- Science, technology and society
- Equality and inequality
- Conflict, peace and security
- Economic and/or environmental sustainability
- Health and development

The world studies extended essay provides opportunities for a well-grounded appreciation and understanding of these themes, which in turn may lead to a more considered involvement in CAS.

CAS within the IB continuum of international education

All IB programmes address students' cognitive, social, emotional and physical well-being and offer opportunities for students to become active and caring members of local, national and global communities.

CAS purposefully builds on the Primary Years Programme (PYP) and the Middle Years Programme (MYP), establishing continuity across the IB continuum of international education. CAS represents part of the Diploma Programme's ongoing commitment to the IB learner profile. As the IB's mission in action, the learner profile concisely describes the aspirations of a global community that shares the values underlying the IB's educational philosophy.

Through CAS, students continue to strengthen the approaches to learning they encounter and develop in the PYP and MYP. In approaches to learning, students are encouraged to grow both personally and socially, developing skills such as cooperation, problem-solving, conflict resolution and creative and critical thinking, as well as developing their own identities. CAS continues to develop students' ability to engage in critical reflection, offering increasingly sophisticated opportunities for students to analyse their own thinking, effort and performance. Students also learn how to set challenging goals and develop the commitment and perseverance to achieve them.

The elements of approaches to learning and the attributes of the learner profile highlighted and developed across the continuum of IB programmes are lived through the variety of CAS experiences and CAS project(s). Further, during CAS students continue to develop individual and shared responsibility, and effective teamwork and collaboration.

The nature of CAS

“...if you believe in something, you must not just think or talk or write, but must act.”

(Peterson 2003)

CAS is at the heart of the Diploma Programme. With its holistic approach, CAS is designed to strengthen and extend students' personal and interpersonal learning from the PYP and MYP.

CAS is organized around the three strands of **creativity, activity** and **service** defined as follows.

- **Creativity**—exploring and extending ideas leading to an original or interpretive product or performance
- **Activity**—physical exertion contributing to a healthy lifestyle
- **Service**—collaborative and reciprocal engagement with the community in response to an authentic need

As a shining beacon of our values, CAS enables students to demonstrate attributes of the IB learner profile in real and practical ways, to grow as unique individuals and to recognize their role in relation to others. Students develop skills, attitudes and dispositions through a variety of individual and group experiences that provide students with opportunities to explore their interests and express their passions, personalities and perspectives. CAS complements a challenging academic programme in a holistic way, providing opportunities for **self-determination, collaboration, accomplishment** and **enjoyment**.

CAS enables students to enhance their personal and interpersonal development. A meaningful CAS programme is a journey of discovery of self and others. For many, CAS is profound and life-changing. Each individual student has a different starting point and different needs and goals. A CAS programme is, therefore, individualized according to student interests, skills, values and background.

The school and students must give CAS as much importance as any other element of the Diploma Programme and ensure sufficient time is allocated for engagement in the CAS programme. The CAS stages offer a helpful and supportive framework and continuum of process for CAS students.

Successful completion of CAS is a requirement for the award of the IB Diploma. While not formally assessed, students reflect on their CAS experiences and provide evidence in their CAS portfolios of achieving the seven learning outcomes.

The CAS programme formally begins at the start of the Diploma Programme and continues regularly, ideally on a weekly basis, for at least **18 months** with a reasonable balance between creativity, activity, and service.

All CAS students are expected to maintain and complete a **CAS portfolio** as evidence of their engagement with CAS. The CAS portfolio is a collection of evidence that showcases CAS experiences and for student reflections; it is not formally assessed.

Completion of CAS is based on student achievement of the seven **CAS learning outcomes**. Through their CAS portfolio, students provide the school with evidence demonstrating achievement of each learning outcome.

Students engage in **CAS experiences** involving one or more of the three CAS strands. A CAS experience can be a single event or may be an extended series of events.

Further, students undertake a **CAS project** of at least one month's duration that challenges students to show initiative, demonstrate perseverance, and develop skills such as collaboration, problem-solving, and decision-making. The CAS project can address any single strand of CAS, or combine two or all three strands.

Students use the **CAS stages** (investigation, preparation, action, reflection and demonstration) as a framework for CAS experiences and the CAS project.

There are three formal documented **interviews** students must have with their CAS coordinator/adviser. The first interview is at the beginning of the CAS programme, the second at the end of the first year, and the third interview is at the end of the CAS programme.

CAS emphasizes **reflection** which is central to building a deep and rich experience in CAS. Reflection informs students' learning and growth by allowing students to explore ideas, skills, strengths, limitations and areas for further development and consider how they may use prior learning in new contexts.

Aims

The CAS programme aims to develop students who:

- enjoy and find significance in a range of CAS experiences
- purposefully reflect upon their experiences
- identify goals, develop strategies and determine further actions for personal growth
- explore new possibilities, embrace new challenges and adapt to new roles
- actively participate in planned, sustained, and collaborative CAS projects
- understand they are members of local and global communities with responsibilities towards each other and the environment.

CAS learning outcomes

Student completion of CAS is based on the achievement of the seven CAS learning outcomes realized through the student's commitment to his or her CAS programme over a period of 18 months. These learning outcomes articulate what a CAS student is able to do at some point during his or her CAS programme. Through meaningful and purposeful CAS experiences, students develop the necessary skills, attributes and understandings to achieve the seven CAS learning outcomes.

Some learning outcomes may be achieved many times, while others may be achieved less frequently. Not all CAS experiences lead to a CAS learning outcome. Students provide the school with evidence in their CAS portfolio of having achieved each learning outcome at least once through their CAS programme. The CAS coordinator must reach agreement with the student as to what evidence is necessary to demonstrate achievement of each CAS learning outcome. Commonly, the evidence of achieving the seven CAS learning outcomes is found in students' reflections.

In CAS, there are seven learning outcomes.

LO 1	Identify own strengths and develop areas for growth
Descriptor	Students are able to see themselves as individuals with various abilities and skills, of which some are more developed than others.
LO 2	Demonstrate that challenges have been undertaken, developing new skills in the process
Descriptor	A new challenge may be an unfamiliar experience or an extension of an existing one. The newly acquired or developed skills may be shown through experiences that the student has not previously undertaken or through increased expertise in an established area.
LO 3	Demonstrate how to initiate and plan a CAS experience
Descriptor	Students can articulate the stages from conceiving an idea to executing a plan for a CAS experience or series of CAS experiences. This may be accomplished in collaboration with other participants. Students may show their knowledge and awareness by building on a previous experience, or by launching a new idea or process.
LO 4	Show commitment to and perseverance in CAS experiences
Descriptor	Students demonstrate regular involvement and active engagement in CAS.
LO 5	Demonstrate the skills and recognize the benefits of working collaboratively
Descriptor	Students are able to identify, demonstrate and critically discuss the benefits and challenges of collaboration gained through CAS experiences.

LO 6	Demonstrate engagement with issues of global significance
Descriptor	Students are able to identify and demonstrate their understanding of global issues, make responsible decisions, and take appropriate action in response to the issue either locally, nationally or internationally.
LO 7	Recognize and consider the ethics of choices and actions
Descriptor	Students show awareness of the consequences of choices and actions in planning and carrying out CAS experiences.

CAS learning outcomes can be more fully explained through the use of descriptors. See the appendix of this guide for further information on CAS learning outcomes and descriptors.

The responsibility of the CAS student

Key to a student's CAS programme is personal engagement, choice and enjoyment of CAS experiences. Throughout the Diploma Programme students undertake a variety of CAS experiences, ideally on a weekly basis, for a minimum of 18 months. They must also undertake at least one CAS project with a minimum duration of one month. Students reflect on CAS experiences at significant moments throughout CAS and maintain a CAS portfolio. Using evidence from their CAS portfolio, students will demonstrate achievement of the seven CAS learning outcomes to the CAS coordinator's satisfaction.

CAS students are expected to:

- approach CAS with a proactive attitude
- develop a clear understanding of CAS expectations and the purpose of CAS
- explore personal values, attitudes and attributes with reference to the IB learner profile and the IB mission statement
- determine personal goals
- discuss plans for CAS experiences with the CAS coordinator and/or CAS adviser
- understand and apply the CAS stages where appropriate
- take part in a variety of experiences, some of which are self-initiated, and at least one CAS project
- become more aware of personal interests, skills and talents and observe how these evolve throughout the CAS programme
- maintain a CAS portfolio and keep records of CAS experiences including evidence of achievement of the seven CAS learning outcomes
- understand the reflection process and identify suitable opportunities to reflect on CAS experiences
- demonstrate accomplishments within their CAS programme
- communicate with the CAS coordinator/adviser and/or CAS supervisor in formal and informal meetings
- ensure a suitable balance between creativity, activity and service in their CAS programme
- behave appropriately and ethically in their choices and behaviours.

CAS experiences

A **CAS experience** is a specific event in which the student engages with one or more of the three CAS strands.

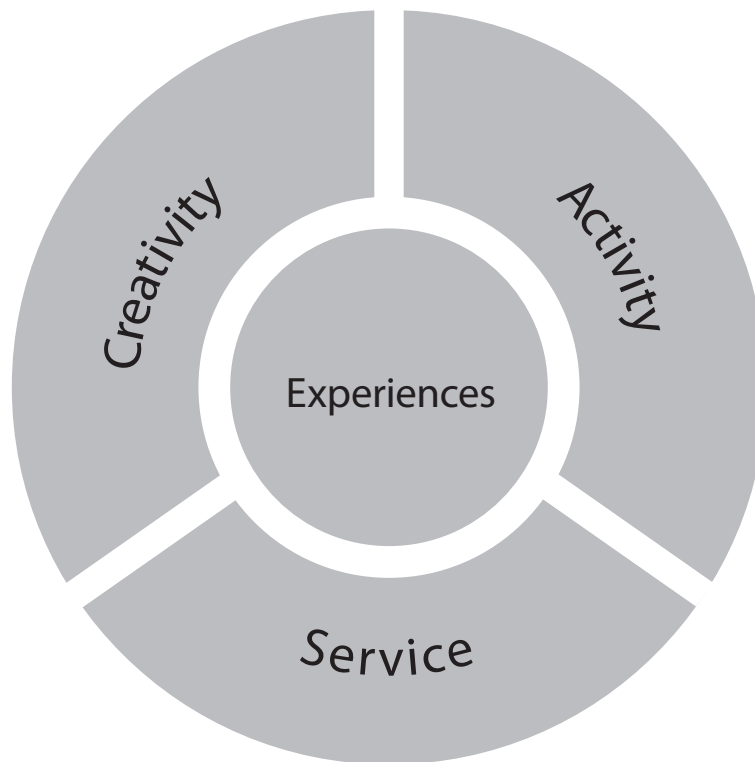


Figure 2
CAS experiences

CAS experience can be a single event or may be an extended series of events.

A CAS project is a collaborative series of sequential CAS experiences lasting at least one month (see the section on CAS project for additional criteria).

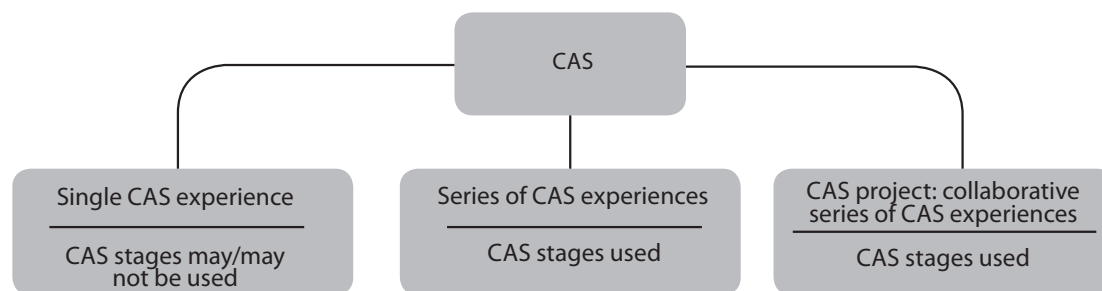


Figure 3
CAS experiences and stages

Typically, a student's CAS programme combines planned/unplanned singular and ongoing experiences. All are valuable and may lead to personal development. However, a meaningful CAS programme must be more than unplanned/singular experiences. A series of planned CAS experiences are recommended for a more engaging CAS programme.

CAS experiences may incorporate one or more of the CAS strands. For example:

- Going for a mountain hike could be a singular experience within the "Activity" strand.
- A student plans a number of visits to a nursing home resulting in a series of CAS experiences within the "Service" strand.
- A group of students plan and stage a basketball tournament for the local community, resulting in a series of CAS experiences involving the strands of "Activity" and "Service".

Guidelines to CAS experiences

The CAS coordinator assists students in understanding what may or may not be a CAS experience. There are four guidelines that should be applied to any proposed CAS experience.

A CAS experience must:

- fit within one or more of the CAS strands
- be based on a personal interest, skill, talent or opportunity for growth
- provide opportunities to develop the attributes of the IB learner profile
- not be used or included in the student's Diploma course requirements

To further assist students in deciding on a CAS experience, the following questions may be useful for students to consider.

- Will the experience be enjoyable?
- Does the experience allow for development of personal interests, skills and/or talents?
- What new possibilities or challenges could the experience provide?
- What might be the possible consequences of your CAS experience for you, others and the environment?
- Which CAS learning outcomes may be addressed?

While it is not necessary for each CAS experience to address a CAS learning outcome, upon completion of the CAS programme, CAS students are required to present evidence demonstrating achievement of all CAS learning outcomes.

CAS stages

The CAS stages (adapted from Cathryn Berger Kaye’s “five stages of service learning”, 2010) offer a helpful and supportive framework and continuum of process for CAS students as they consider what they would like to do in CAS, make plans, and carry out their ideas. The CAS stages are applicable to the three strands of creativity, activity, service, and the CAS project.

These CAS stages represent a process and sequence that can assist students in many aspects of their life. They follow a process whereby they investigate an interest that often raises questions and curiosity, prepare by learning more, take some form of action, reflect on what they have done along the way, and demonstrate their understandings and the process. By applying these stages to CAS, students have a reliable yet flexible structure they can then apply to future situations with confidence.

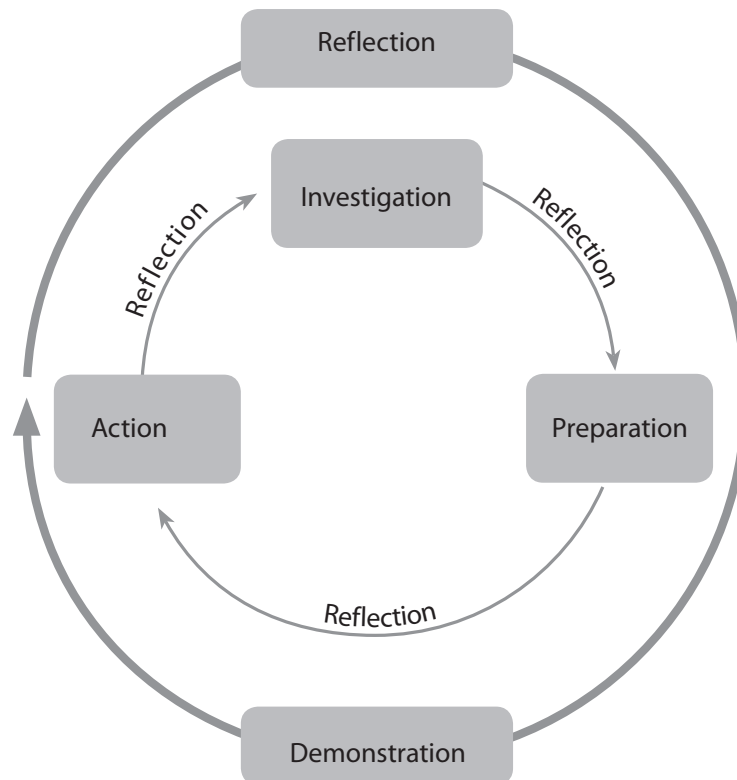


Figure 4

The five CAS stages

There are two parts as noted in the diagram. **The centre** represents the process with four key parts: **investigation, preparation, action, and reflection** (occurring intermittently in response to significant experiences). The outer circle has two parts and guides students in summarizing their experience: **reflection** and **demonstration**.

The five CAS stages are as follows.

1. **Investigation:** Students identify their interests, skills and talents to be used in considering opportunities for CAS experiences, as well as areas for personal growth and development. Students investigate what they want to do and determine the purpose for their CAS experience. In the case of service, students identify a need they want to address.
2. **Preparation:** Students clarify roles and responsibilities, develop a plan of actions to be taken, identify specified resources and timelines, and acquire any skills as needed to engage in the CAS experience.
3. **Action:** Students implement their idea or plan. This often requires decision-making and problem-solving. Students may work individually, with partners, or in groups.
4. **Reflection:** Students describe what happened, express feelings, generate ideas, and raise questions. Reflection can occur at any time during CAS to further understanding, to assist with revising plans, to learn from the experience, and to make explicit connections between their growth, accomplishments, and the learning outcomes for personal awareness. Reflection may lead to new action.
5. **Demonstration:** Students make explicit what and how they learned and what they have accomplished, for example, by sharing their CAS experience through their CAS portfolio or with others in an informal or formal manner. Through demonstration and communication, students solidify their understanding and evoke response from others.

The CAS stages provide a framework that enables students to:

- increase self-awareness
- learn about learning
- explore new and unfamiliar challenges
- employ different learning styles
- develop their ability to communicate and collaborate with others
- experience and recognize personal development
- develop attributes of the IB learner profile.

For singular CAS experiences, students may begin with investigation, preparation, or action. For ongoing CAS experiences, beginning with investigation is advised. In these ongoing experiences, the action stage may lead students back to investigation or preparation as they further develop, expand and implement new or related ideas.

The CAS coordinator ensures that CAS advisers and other supporting staff, as well as CAS students, understand the CAS stages so they are readily applied to advance the students' CAS programme.

Resources are available in the *Teacher support material* to assist with student understanding of the CAS stages.

CAS strands

Creativity

Exploring and extending ideas leading to an original or interpretive product or performance

Creativity in CAS provides students with the opportunity to explore their own sense of original thinking and expression. Creativity will come from the student's talents, interests, passions, emotional responses, and imagination; the form of expression is limitless. This may include visual and performing arts, digital design, writing, film, culinary arts, crafts and composition. Students are encouraged to engage in creative endeavours that move them beyond the familiar, broadening their scope from conventional to unconventional thinking.

If students are accomplished in a particular creative form, for example, music, painting or acting, they may choose to extend their involvement and deepen their skill level. Within their field, students can define new challenges and objectives to fulfill creativity in CAS. For example, a musician may compose and perform a guitar solo; an artist may create a new sculpture or photographic series; an actor may present an original dramatic piece. By striving for new possibilities, students may discover ways to meet challenges and identify strengths that carry them forward with curiosity and continued innovation. When demonstrating creative expression, students may showcase their product or performance in a variety of ways, for example, through a recording, a presentation, an exhibition, social media or shared discussion. Creativity in CAS is not met by the appreciation of the creative efforts of others, such as attending a concert or art exhibition.

Creativity can be inspired and informed by the student's Diploma courses. For example, students can meet new challenges and objectives in creativity using the skills developed in the visual arts course, or find new ways of expression utilizing elements in the design technology course. However, creativity experiences must be distinct from, and may not be included or used in, the student's Diploma course requirements.

As with all CAS experiences, students reflect meaningfully on their engagement with creativity, and may be guided to look for moments of personal significance or inspiration as a call for reflection. Creativity may provide inspiration for the ways in which students will reflect. For example, students may reflect through art, music, a brief narrative, a blog posting, photos, a skit, or other methods.

Approaches to creativity

There are many approaches to creativity, such as:

- **Ongoing creativity:** A student may already be engaged in creativity as part of a school group or club, or through some other form of sustained creativity. Students may continue in this as part of their creativity; however, students could also be encouraged to further extend and develop their participation if appropriate.
- **School-based creativity:** Students are encouraged to participate in meaningful creativity and to explore their own sense of original thinking and expression. In school, there may well be appropriate creativity opportunities in which the students can engage. These creativity experiences could be part of the school's service CAS projects, a school club, timetabled creativity sessions, or other opportunities.

- **Community-based creativity:** Participating in creativity within the local community advances student awareness and understanding of interpersonal relationships with others, particularly if the creativity experience involves the local community. Creativity experiences best occur with a regularity that builds and sustains relationships while allowing the growth of students' talents, interests, passions, emotional responses, and imagination. For example, students could be encouraged to join a community-based theatre group, contribute towards a community art gallery, create a sculpture for the community park, take cooking classes, or other opportunities.
- **Individual creativity:** Students may decide that they wish to engage in solitary creativity experiences such as composing music, developing a website, writing a compilation of short fiction stories, designing furniture, creating arts and crafts, or painting a series of portraits. Such creativity experiences are of most benefit when they take place over an extended duration of time. Students can be encouraged to set personal goals and work towards these in a sustained manner. Risk assessment of such solitary creativity experiences should be conducted with the student beforehand if applicable.

Activity

Physical exertion contributing to a healthy lifestyle

The aim of the "Activity" strand is to promote lifelong healthy habits related to physical well-being. Pursuits may include individual and team sports, aerobic exercise, dance, outdoor recreation, fitness training, and any other form of physical exertion that purposefully contributes to a healthy lifestyle. Students are encouraged to participate at an appropriate level and on a regular basis to provide a genuine challenge and benefit.

Schools must support students whose circumstances or culture may determine participation in physically active experiences. Similarly, students with disabilities must be given opportunities to take part in this strand. All CAS students must satisfy the basic requirement of physical exertion contributing to a healthy lifestyle as is appropriate for each student.

Students who regularly participate in suitable activity experiences are encouraged to develop and extend their participation. Students could expand personal goals, explore different training models to enhance their existing sport or become involved in a new sport. For dedicated student athletes, maintenance of a planned rigorous training programme is appropriate. Some national curriculums require students to participate in a physical education course. Participation in such courses may be considered activity if it meets the CAS guidelines.

As with all CAS experiences, students reflect purposefully on their engagement with activity and may be guided to look for moments of personal significance or inspiration as a call for reflection.

Approaches to activity

There are many approaches to activity, such as:

- **Ongoing activity:** A student may already be engaged in activity as part of a school team or club, or through some other form of sustained physical exercise. Students may continue in this as part of their activity; however, they should set personal goals in keeping with the principles of CAS. Students can also be encouraged to further extend and develop their participation if appropriate.
- **School-based activity:** Students are encouraged to participate in meaningful activity that benefits their physical well-being. In school there may well be appropriate activity opportunities in which the student can engage. These activity experiences could, for example, be part of the school curriculums, a school sports club, or timetabled sports sessions. Students may elect to initiate a school-based activity such as basketball or tennis and engage other CAS students or any student within the school.

- **Community-based activity:** Participating in activity within the local community advances student awareness and understanding of interpersonal relationships, particularly if the activity experience involves members of the local community. However, single events of activity can lack depth and meaning. When possible, activity experiences best occur with a regularity that builds and sustains relationships while allowing the growth of physical well-being of the students. For example, rather than a single activity experience at a community-based fun run, students could be encouraged to join a community-based running club, a dance class, an aerobics class or an out-of-school sports group.
- **Individual activity:** Students may decide that they wish to engage in solitary activity experiences such as, for example, attending a gym, bicycling, roller-skating, swimming, or strength conditioning. Such activity experiences are of most benefit when they take place over an extended duration of time. Students can be encouraged to set personal goals and work towards these in a sustained and correctly applied manner. Risk assessment of such solitary activity experiences should be conducted with the student beforehand if applicable.

Service

Collaborative and reciprocal engagement with the community in response to an authentic need

The aim of the “Service” strand is for students to understand their capacity to make a meaningful contribution to their community and society. Through service, students develop and apply personal and social skills in real-life situations involving decision-making, problem-solving, initiative, responsibility, and accountability for their actions. Service is often seen as one of the most transforming elements of CAS by promoting students’ self-awareness, offering diverse occasions for interactions and experiences and opportunities for international-mindedness. Use of the CAS stages in developing a service experience is recommended for best practice.

Service within CAS benefits all involved: students learn as they identify and address authentic community needs, and the community benefits through reciprocal collaboration. Service fosters development of abilities, attitudes and values in accordance with the IB mission statement and the IB learner profile. As such, CAS service experiences are unpaid.

When defining “community”, consideration must be made to situation and culture. The community may be the school; however, it is recommended that service experiences extend beyond the school to local, national and/or international communities. Community involvement includes collaboration with others, as students investigate the need, plan and implement their idea for service.

CAS coordinators should always consider the advantage of students conducting service locally. Local interactions allow for developing relationships, observing and participating in sustained change, and meeting challenges through collaboration. From the local context, students can extend their thinking and knowledge to understanding global issues. Students can also extend local service to global impact through partnerships with CAS students in other cities and towns, countries and continents. Technology affords opportunities for networking, sharing of initiatives, partnerships and impact.

As with all CAS experiences, students reflect purposefully on their engagement with service, and may be guided to look for moments of personal significance or inspiration as a call for reflection.

Service learning

Service experiences in CAS can be approached using a service learning model. Service learning is the development and application of knowledge and skills towards meeting an identified community need. In this research-based approach, students undertake service initiatives often related to topics studied

previously in the curriculum, utilizing skills, understandings and values developed in these studies. Service learning builds upon students' prior knowledge and background, enabling them to make links between their academic disciplines and their service experiences.

Using the CAS stages for service learning

Using the CAS stages is the recommended approach for students engaging in service experiences. All forms of service should involve investigation, preparation and action that meets an identified need. Reflection on significant experiences throughout informs problem-solving and choices; demonstration allows for sharing of what has taken place. The CAS stages specific to service learning offer students a helpful and supportive approach. As students progress through each of these stages, they can draw upon the skills and knowledge gained from their academic subjects to support their experiences.

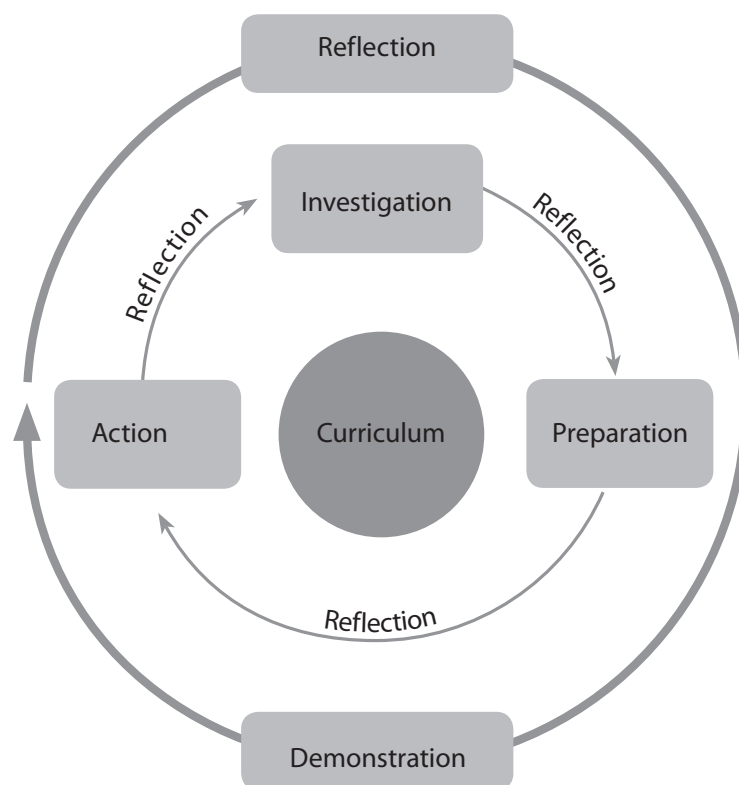


Figure 5

The CAS stages for service learning

The service learning stages are:

1. **Investigation:** Students participate in social analysis of a selected issue, with identification and confirmation of a community need, often with the designated community partner. Having an inventory of interests, skills, talents and areas for personal growth, students are able to make choices based on their priorities and abilities and the designated need.
2. **Preparation:** Students design a service plan appropriate to the identified need, with clarification of roles and responsibilities, resource requirements, and timelines to successfully implement the plan. Any community partners are likely to be consulted. Students also acquire and develop the knowledge and skills needed for the experience.
3. **Action:** Students implement the plan through direct service, indirect service, advocacy, or research. Their service may be a combination of one or more of these types of service. Students may work individually, with partners, or in groups.

4. **Reflection:** Students examine their thoughts, feelings and actions applied to the context of self, community and the world. With service learning, reflection often occurs with greater frequency as students identify significant moments generated by new situations and insights.
5. **Demonstration:** Students make explicit what and how they learned and what they have accomplished, for example, by sharing their service experience through their CAS portfolio or with others in an informal or formal manner. Through demonstration and communication, students solidify their understanding and evoke response from others.

Four types of service action

It is recommended that students engage with different types of service within their CAS programme. These types of action are as follows.

- **Direct service:** Student interaction involves people, the environment or animals. For example, this can appear as one-on-one tutoring, developing a garden in partnership with refugees, or working in an animal shelter.
- **Indirect service:** Though students do not see the recipients of indirect service, they have verified their actions will benefit the community or environment. For example, this can appear as re-designing a non-profit organization's website, writing original picture books to teach a language, or nurturing tree seedlings for planting.
- **Advocacy:** Students speak on behalf of a cause or concern to promote action on an issue of public interest. For example, this may appear as initiating an awareness campaign on hunger, performing a play on replacing bullying with respect, or creating a video on sustainable water solutions.
- **Research:** Students collect information through varied sources, analyse data, and report on a topic of importance to influence policy or practice. For example, they may conduct environmental surveys to influence their school, contribute to a study of animal migration, compile effective means to reduce litter in public spaces, or conduct social research by interviewing people on topics such as homelessness, unemployment or isolation.

Approaches to service

There are many approaches to service, such as:

- **Ongoing service:** When investigating a need that leads to a plan of action implemented over time, students develop perseverance and commitment. They observe how their ideas and actions build on the contributions of others to effect change. Their reflections may show deeper awareness and knowledge of social issues.
- **School-based service:** While students are encouraged to participate in meaningful service that benefits the community outside school, there may well be appropriate service opportunities within the school setting. In all cases an authentic need must be verified that will be met through student action. Service needs met at a school may prepare students for further action within the larger community; for example, by tutoring within the school, students may then be better prepared to tutor at a community centre.
- **Community-based service:** Participating in service within the local community advances student awareness and understanding of social issues and solutions. However, single incidents of engagement with individuals in a service context can lack depth and meaning. When possible, interactions involving people in a service context best occur with a regularity that builds and sustains relationships for the mutual benefit of all. For example, rather than a single service experience at a retirement

facility, students can decide to establish regular visits when they realize their efforts are valued and have reciprocal impact.

- **Immediate need service:** In response to a disaster, students often want to move towards immediate action. Typically they quickly attempt to assess the need and devise a planned response. Later, the students can be reminded and encouraged to further investigate the issue to better understand underlying causes. This provides greater context even if the service action has already taken place. With increased knowledge, students may commit to ongoing assistance, for example, such as joining with prevention or community resilience initiatives regarding an environmental issue.
- **Fundraising:** The preferred approach is for students to initially develop their understanding of the organization they choose to support and the issues being addressed. Students can draw from their interests, skills and talents to plan the method and manner of fundraising. Ideally, students directly communicate with the organization and establish accountability for funds raised. Sharing the rationale for the fundraising educates others and advocates the chosen cause. Students can also be asked to consider other ways to augment their contribution through direct, advocacy, or research service.
- **International service:** Students are encouraged to participate locally in service before considering service opportunities outside their country. When participating in international service, students must understand the background and the circumstances of an identified and authenticated need to support their involvement. When direct communication with an overseas community is not possible, students could cooperate with an outside agency to provide an appropriate service. Students do benefit from serving in an international context when able to make clear links to parallel issues in their local environs and they understand the consequences of their service. Schools must ensure that commercial providers, if used, act in accordance with the aims of the IB mission statement and CAS requirements. Additionally, schools must undertake risk assessment to ensure the safety of students.
- **Volunteerism:** Students often volunteer in service experiences organized by other students, the school or an external group. In such cases, students benefit from prior knowledge of the context and the service need. Being informed and prepared increases the likelihood that the students' contribution will have personal meaning and value. Utilizing the CAS stages prior to volunteering is highly recommended.
- **Service arising from the curriculum:** Teachers plan units with service learning opportunities in mind, students may or may not respond and act. For example, while studying freshwater ecology in environmental systems and society, students decide to monitor and improve a local water system.

CAS project

A CAS project is a collaborative, well-considered series of sequential CAS experiences, engaging students in one or more of the CAS strands of creativity, activity, and service. **CAS students must be involved in at least one CAS project during their CAS programme.**

The primary purpose of the CAS project is to ensure participation in sustained collaboration. Through this level of engagement students may discover the benefits of teamwork and of achievements realized through an exchange of ideas and abilities. A CAS project challenges students to show initiative, demonstrate perseverance, and develop skills such as those of cooperation, problem-solving and decision-making.

A CAS project involves collaboration between a group of students or with members of the wider community. Students work as part of a team, with all members being contributors. A CAS project offers students the opportunity to be responsible for, or to initiate, a part of or the entire CAS project. Working collaboratively also provides opportunities for individual students to enhance and integrate their personal interests, skills and talents into the planning and implementation of CAS projects.

All CAS projects should use the CAS stages as a framework for implementation to ensure that all requirements are met.

A CAS project can address any single strand of CAS, or combine two or all three strands. The following examples are provided to help generate further ideas without limiting the scope and direction of a CAS project.

- Creativity: A student group plans, designs and creates a mural.
- Activity: Students organize and participate in a sports team including training sessions and matches against other teams.
- Service: Students set up and conduct tutoring for people in need.
- Creativity and activity: Students choreograph a routine for their marching band.
- Service and activity: Students plan and participate in the planting and maintenance of a garden with members of the local community.
- Service and creativity: Students identify that children at a local school need backpacks and subsequently design and make the backpacks out of recycled materials.
- Creativity, activity, and service: Students rehearse and perform a dance production for a community retirement home.

All CAS projects are designed with a defined purpose and goals. Individual students identify one or more learning outcomes to further guide their role and responsibilities in the CAS project. Students will likely identify more outcomes, or modify expected outcomes during the CAS project and/or at its completion.

A minimum of one month is recommended for a CAS project, from planning to completion. CAS projects of longer duration can provide even greater scope and opportunities for all participants and should be encouraged. Students should aim to undertake their CAS project locally and, if possible, engage in more than one CAS project over the duration of their CAS programme.

As expected throughout CAS, students reflect on their CAS project experience. Due to the collaborative nature of the CAS project, having occasions to reflect with others can prove most informative and assist students in gaining insights into the process of their endeavour as well as personal growth.

Service project

When a CAS project addresses the CAS strand of service (known as service project), students must take into account the opinions and expectations of others involved and focus on meaningful and authentic needs to ensure actions are respectful and reciprocal. Awareness of the possible impact and consequences of the students' actions should be part of the planning process. Where possible, service projects should involve working alongside community members with ongoing communication. When the service project involves the use of an external facilitator such as a non-government organization or a commercial provider, care should be taken to ensure that the facilitator acts in accordance with the IB mission statement and CAS requirements.

A service project that includes interaction with and appreciation of diverse social or cultural backgrounds can increase international-mindedness and engagement with issues of global significance. International service projects are acceptable if clear goals and outcomes are established, understood, and based on the expectation of compelling benefits expected for all stakeholders. If a service project is conducted outside the local context, it is recommended that there is some form of continuation. For example, students could research the community served and educate themselves further about the issues involved, develop an advocacy programme for the served community, or develop greater awareness of a related need in their local community leading to some form of local action. This may inspire the next group of CAS students.

For any service project it is important to ensure that there is:

- a genuine need for the service project, which has been stated and agreed upon by the potential partners
- if required, a liaison officer who has a good relationship with the community where the service project is based
- an understanding of the level of student participation that is feasible in the service project
- a clear assessment of potential risks to participating students
- approval from the school administration for the service project
- a demonstration of how the CAS stages were followed
- a thorough evaluation of the benefits of the service project for all involved.

Purposeful relationships between students and community members leading to sustainable service projects are potentially the most rewarding for all concerned. As community needs change, students' responses should also evolve to meet these new circumstances. When a service project initiated by one group is adopted by other students, the new students must ensure the need is authentic or make the necessary adjustments and ensure their contribution is relevant.

Reflection

Introduction

Being reflective is one attribute of the IB learner profile: “We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.”

Reflection is central to building a deep and rich experience in CAS. Developing a culture of reflection helps students recognize and understand how to be reflective as well as deciding the best methods and appropriate timing. Student learning is enhanced by reflection on choices and actions. This enables students to grow in their ability to explore skills, strengths, limitations and areas for further development. Through reflection students examine ideas and consider how they might use prior learning in new contexts. Reflection leads to improved problem-solving, higher cognitive processes and greater depth of understanding in addition to exploring how CAS experiences may influence future possibilities.

The thinking skills category of the approaches to learning in the Diploma Programme highlights the need to explicitly teach students to reflect in different situations. For reflection in CAS to be meaningful, schools must plan how to engage students in reflection as a learned process. The development of reflective skills is best when explicitly taught across the curriculum, leading students to reflect independently as a valued process.

The overarching intention of reflection in CAS includes the opportunity for students to:

- deepen learning
- consider relevance of experience
- explore personal and group values
- recognize the application of knowledge, skills, and attributes
- identify strengths and areas for development
- gain a greater understanding of self and others
- place experience in a larger context
- generate relevant ideas and questions
- consider improvements in individual and collective choices and actions
- transfer prior learning to new situations
- generate and receive constructive feedback
- develop the ongoing habit of thoughtful, reflective practice.

Elements of reflection

Reflection is a dynamic means for self-knowing, learning and decision-making. Four elements assist in the CAS reflective process. The first two elements form the foundation of reflection.

- **Describing what happened:** Students retell their memorable moments, identifying what was important or influential, what went well or was difficult, obstacles and successes.

- Expressing feelings: Students articulate emotional responses to their experiences.

The following two elements add greater depth and expand perspectives.

- Generating ideas: Rethinking or re-examining choices and actions increases awareness about self and situations.
- Asking questions: Questions about people, processes or issues prompt further thinking and ongoing inquiry.

Extending reflection

Having established an effective understanding of the four elements of reflection, students develop higher-order thinking skills by critically examining thoughts, feelings and actions, thereby synthesizing their learning. The theory of knowledge (TOK) course provides students with critical thinking skills to develop and extend their reflections. For example, during TOK (ways of knowing) they consider their emotions, ability to reason and how to use language.

Students can be encouraged to move forward through deeper questions. For example:

What did I do? could become:

- *Why did I make this particular choice?*
- *How did this experience reflect my personal ideas and values?*
- *In what ways am I being challenged to think differently about myself and others?*

How did I feel? could become:

- *How did I feel about the challenges?*
- *What happened that prompted particular feelings?*
- *What choices might have resulted in different feelings and outcomes?*

Following reflection, feedback from the CAS coordinator and/or adviser is beneficial and necessary as is peer feedback. Feedback provides acknowledgment, confirmation or clarification of students' understanding and insight, and opportunities for further development. Feedback can take many forms such as part of an informal or formal discussion, as a written response to a blog posting, during group discussion or paired peer conversation. Students may also advise on their preferred method for feedback.

Time for reflection

Purposeful reflection is about quality rather than quantity. The appropriate occasion, amount and method is the student's decision. Students are not expected to reflect on every CAS experience; they should identify moments worthy of reflection. Reflection is most meaningful when recognized as a personal choice. If the emphasis is on quantity with a required number of reflections or with a requirement such as "students must complete a reflection for every CAS experience", reflection becomes an obligation, which is contrary to the purpose of reflection in CAS.

The preferred emphasis is for the student to determine key moments during CAS experiences that inspire reflection. The following approaches may be helpful.

- Students choose significant moments as the basis for reflection, for example when:
 - a moment of discovery is happening
 - a skill is mastered
 - a challenge is confronted

- emotions are provoked
- achievement deserves celebration.
- Students reflect during or at the end of a CAS experience or series of CAS experiences, to identify important moments, discuss a possible learning outcome, recognize personal growth and achievements, and plan for their next CAS experience.
- Students engage in group reflection with their peers to discover shared insights.
- Students reflect at the beginning, during, and at the end of a series of CAS experiences. This enables students to deliberate on such elements as planning, opportunities, expectations, challenges, progress, and personal growth.

Reflection offers students opportunities to understand the concept, process and value of CAS experiences. With experiences that add meaning and self-knowledge, students can adapt, adopt and integrate reflection into a lifelong practice.

Forms of reflection

During CAS, the form of reflection must take into account student choice. When overly prescribed, students may perceive the act of reflection as a requirement to fulfill another's expectations. Students may then aim to complete "a reflection" quickly since the value is unrealized. By contrast, the student who understands the purpose and process of reflection would choose the appropriate moment, select the method and decide on the amount of time needed. With this greater sense of autonomy and responsibility, the student may be encouraged to be more honest, forthcoming and expressive, and develop insights including those related to the learning outcomes. The ultimate intention is for students to be independently reflective.

Reflection can appear in countless forms. CAS students should be able to identify forms of expression that have personal meaning and best enable them to explore their experiences. For example:

- A student might take photographs while hiking and use these to reflect in writing.
- Two students could compose a song describing how they helped children.
- A student might dramatize a poem to capture a feeling of creative endeavour.
- A student could produce a short video summarizing a CAS experience.
- A group of students create a poster highlighting aspects of a shared experience.

By encouraging students to choose forms of reflection that are personal and enjoyable, reflection becomes a means for self-discovery. Students make connections, develop awareness of choices and consequences, and acquire sensitivity to the experiences of self and others.

Student reflection may be expressed through a paragraph, a dialogue, a poem, a comic strip, a dramatic performance, a letter, a photograph, a dance, or other forms of expression. Students find greater value and purpose when they apply their own interests, skills and talents when reflecting. They discover that reflection can be internal and private or external and shared.

It is possible students may wish to keep private certain reflections. As such, it is recommended that students decide which reflections will be placed in their CAS portfolio. Students should include reflections in their CAS portfolio that give evidence to achieving each of the seven CAS learning outcomes.