

RESEARCH SUMMARY

The impact of creativity, action, service (CAS) on students and communities

Summary developed by the IB Research department based on a report prepared by:
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Key findings

- Participation in creativity, action, service (CAS) was perceived to contribute to changes in Diploma Programme (DP) students in terms of their **personal dispositions, behaviour** and **interpersonal relationships**.
 - Specifically, coordinators, students and alumni believed that CAS helps students to become better at **“taking on new challenges”, “learning to persevere”** and **“developing better interpersonal skills”**.
- Coordinators in this study suggested that a successful CAS programme depends on identifying CAS activities that students consider to be both **meaningful** and **enjoyable**.
- The study found two variables to be important for successful CAS implementation: students perceiving CAS as a **valuable use of their time** and **goal-setting** before beginning CAS activities.
- Students identified five factors as supporting a successful CAS experience.
 - **Variety:** Students’ activities are varied.
 - **Challenge:** CAS helps students to push themselves.
 - **Self-knowledge:** CAS results in students learning new things about themselves.
 - **New interests:** CAS leads to new passions and interests.
 - **Reflections:** Meaningful and flexible reflections help students to make sense of their experiences.



Background

This study explored the impact on students and communities of one component of the International Baccalaureate (IB) Diploma Programme (DP): creativity, action, service (CAS)¹. CAS, along with the extended essay and theory of knowledge, forms the core of the DP. The three strands of CAS, according to the 2008 *Creativity, action, service guide* (International Baccalaureate Organization 2008: 3), are as follows.

- 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 study involved three groups of participants: current DP students, staff responsible for delivering or supporting CAS, and DP alumni. Research was carried out in two geographical regions: Asia-Pacific (AP) and Africa, Europe, Middle East (AEM).

¹ Initially creative, aesthetic and social service (CASS), the title was modified to creativity, action, service in 2008 and then to creativity, activity, service in 2015. The project upon which this report is based formally began in October 2015, exploring the views of a number of CAS stakeholders that included students part-way through their studies, whose engagement in CAS was completed under the 2008 guidelines. Throughout this report, therefore, the 2008 *Creativity, action, service guide* vocabulary—creativity, action, service—is employed to reflect the language of the stakeholders at the time the project was undertaken.

Research design

The study combined quantitative and qualitative methods of data collection and analysis to provide a fuller understanding of the impact of CAS through the perceptions of those involved in the programme, past and present. It also set out to identify examples of good practice arising from the data.

Student, alumni and teacher perceptions of CAS, details of CAS projects and activities, and examples of good practice in schools were collected via online surveys. Survey responses were submitted from 7,973 students, 490 coordinators and 903 alumni from the AEM and AP regions. Quantitative survey data was collected through closed Likert-scale questions, while qualitative data was gathered through open-ended survey questions.

Findings

Overview of coordinator, student and alumnus/a perceptions of CAS

Participation in CAS was perceived to contribute to changes in DP students in terms of their personal dispositions, behaviour and interpersonal relationships. There were a number of similarities across groups as to which traits study participants believed CAS helped to develop the most and the least (table 1). Coordinators, students and alumni believed that CAS helps students to become better at “taking on new challenges”, “learning to persevere” and “developing better interpersonal skills” (shown in bold text in table 1). There were lower levels of agreement across all three groups on the impact of CAS in leading students to “make better judgments” or change their “world view” (shown in bold text in table 1). When the agreement average for each group was calculated, it was found that CAS coordinator agreement levels were highest (91%), followed by students (76%) and alumni (68%).

Perceptions of CAS as challenging but rewarding

Students perceive CAS to be difficult, seeing it as a challenging element within a challenging programme, but also agree it is rewarding. Students identify “service” as the most difficult of the three strands (85.4% agreement) but also rated this as the most rewarding CAS strand (figure 1). With regard to the question of whether CAS was “challenging but rewarding”, alumni responses were similar to those of current students.

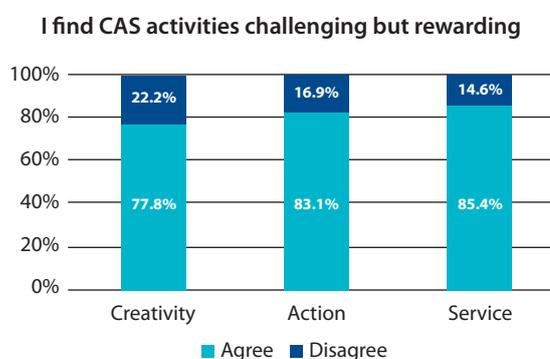


Figure 1: CAS activities “challenging but rewarding” (according to students).

Attributes and skills developed through CAS

Student perspectives

In accordance with the criteria that direct what is accepted as a legitimate CAS experience or project, activities undertaken by a student as part of CAS must “provide opportunities to develop the attributes of the IB learner profile” (International Baccalaureate Organization 2015: 15). More than 70% of students agreed that their participation in CAS has helped to develop the learner profile attributes.

Group	Highest agreement to the statement “As a result of participating in CAS ...”	Lowest agreement to the statement “As a result of participating in CAS ...”
Coordinators	... students: <ul style="list-style-type: none"> • take on new challenges • develop their reflective thinking skills • develop their interpersonal skills • try new things • learn to persevere. 	... students: <ul style="list-style-type: none"> • do not change at all • make better judgments • change their attitudes • change their world view • are better at planning and initiating activities.
Students	... I: <ul style="list-style-type: none"> • take on new challenges • have changed in some other way • developed better interpersonal skills • have learned to persevere • try new things. 	... my/I: <ul style="list-style-type: none"> • behaviour has changed • world view has changed • attitudes have changed • make better judgments • developed my reflective thinking skills.
Alumni	... I: <ul style="list-style-type: none"> • developed better interpersonal skills • increased my self-awareness • became more mature • take on new challenges • learned to persevere. 	... I: <ul style="list-style-type: none"> • changed in some other way • changed by behaviour • changed my world view • make better judgments • developed new skills.

Table 1: Highest- and lowest-rated responses to the statement “As a result of participating in CAS ...” from the perspective of coordinators, students and alumni.

CAS seemed to have the least impact on development of the “inquirer” attribute (73.9%), and the greatest impact on development of the “communicator” attribute (89.8%). As shown in table 2, students report that participation in CAS has had the most substantial impact on the development of their interpersonal skills (collaboration and communication) while the development of cognitive competencies (critical thinking and inquiry) registered lowest, although three-quarters or more of students agreed they had further developed these attributes through CAS.

Group	Highest agreement to the statement “Participating in CAS has helped me to become more...”	Lowest agreement to the statement “Participating in CAS has helped me to become more...”
Students	<ul style="list-style-type: none"> communicative collaborative willing to accept new challenges willing to accept new roles aware of my responsibilities toward other people. 	<ul style="list-style-type: none"> curious and questioning critical in my thinking aware of my responsibilities to the environment internationally minded organized.

Table 2: Highest and lowest responses to the statement “Participating in CAS has helped me to become more ...” from the perspective of students.

While students perceive benefits during their studies, they also generally believed that CAS would have a positive impact on them post-DP. Figure 2 shows that 80.7% of students perceived CAS to be helpful in preparing them for future life, while 73.4% believed that CAS is helpful in preparing them for university.

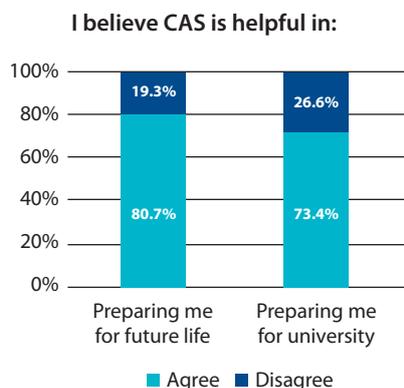


Figure 2: “I believe CAS is helpful in ...” according to students.

Alumni perspectives

Alumni perceived CAS to have positive outcomes that endured beyond the DP, both in general terms (figure 3) and in the development of more specific attributes.

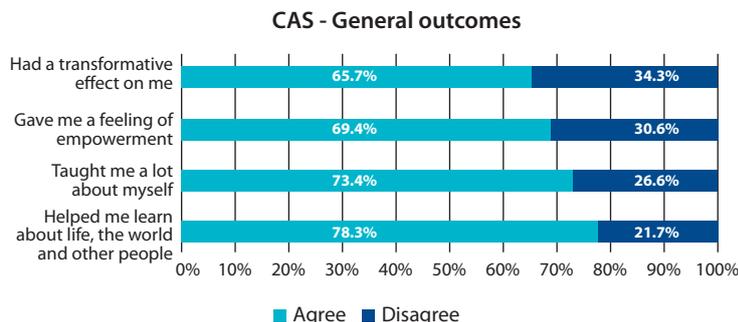


Figure 3: CAS general outcomes according to alumni.

Figure 3 shows moderate to high levels of agreement about the impact alumni report CAS has had on them. There are levels of agreement between 65.7% (“CAS had a transformative effect on me”) and 78.3% (“CAS helped me to learn about life, the world and other people”). Additionally, comparison reveals that both alumni and current DP students identify the same four attributes as having been developed by CAS: they have become more “communicative”, “willing to accept new roles”, “willing to accept new challenges” and “collaborative”.

Student satisfaction with and perceived value of CAS

Figure 4 shows that over 70% of students agreed that CAS is a valuable use of their time, although 10.1% “definitely disagreed” with the statement.

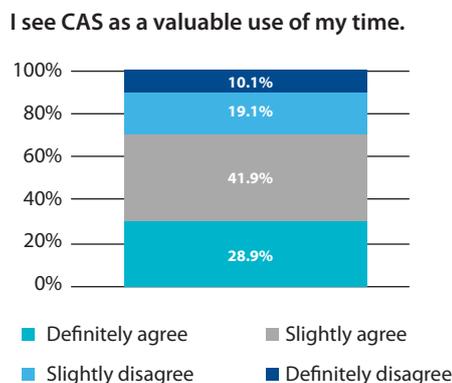


Figure 4: “CAS as valuable use of my time” according to students.





Researchers also attempted to understand the variation in levels of satisfaction among students by examining the extent to which each CAS strand was viewed as “enjoyable” (figure 5) and “worthwhile” (figure 6).

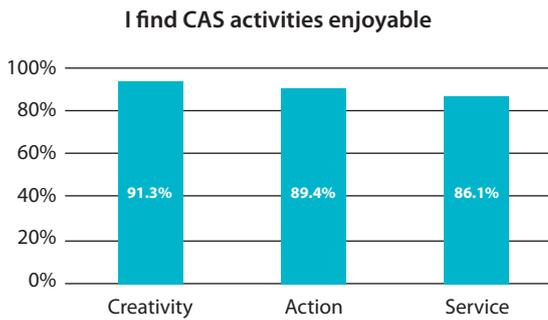


Figure 5: “I find CAS activities enjoyable” according to students.

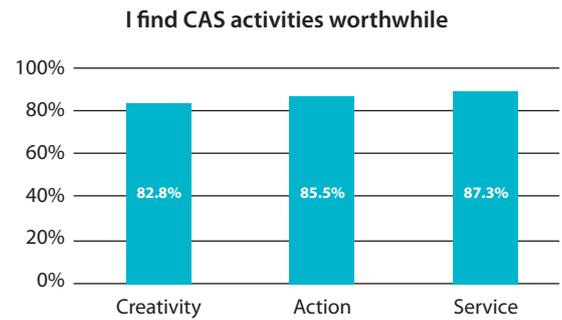


Figure 6: “I find CAS activities worthwhile” according to students.

It can be inferred from figures 5 and 6 that levels of satisfaction (understood through perceptions of CAS as both enjoyable and worthwhile) are high for students across all three CAS strands; reported enjoyment levels are above 85%, while agreement that CAS is worthwhile is above 80%. Interestingly, there is an inverse correlation between the enjoyment gained from a strand and it being considered worthwhile: of the three strands, students perceive “creativity” as being the most enjoyable but the least worthwhile, while “service” is reported to be the least enjoyable but the most worthwhile.

Negative perceptions of CAS

Quantitative findings indicate that there are some negative views of CAS. For instance, sizeable minorities of students disagree that CAS prepares them for future life (19.3%) or for university (26.6%). Qualitative data analysis found further details in students’ completion of the sentence “For me the drawback(s) of doing CAS is (are) ...” (table 3).

Drawback theme	Category
Time-consuming	<ul style="list-style-type: none"> • Took too long • Competes with academic work/hard to fit it into the DP • Infringement on leisure time
Its mandatory nature	<ul style="list-style-type: none"> • CAS is compulsory • CAS becomes onerous • CAS is irrelevant/meaningless
Bureaucracy	<ul style="list-style-type: none"> • Drawbacks linked to written record of activities
CAS is difficult	<ul style="list-style-type: none"> • CAS is stressful • Dislike doing unenjoyable strand(s) • CAS is associated with personal challenge • CAS is tiring • Hard to balance the three strands • CAS has dubious motives
Difficult to achieve outcome	<ul style="list-style-type: none"> • Expectations not met in some way • Rigid definition of CAS activities
Confusion about CAS	<ul style="list-style-type: none"> • Parts of the system opaque to students
Pragmatic difficulties	<ul style="list-style-type: none"> • CAS is expensive • Problems finding opportunities to fulfill the CAS activities

Table 3: “For me the drawback(s) of doing CAS is (are) ...” according to students.

There was also resentment expressed by some DP students who perceived CAS as “compromising school work” and “[taking] time away from doing more important things, such as extended essay and various IAs [internal assessments]”. That CAS can be seen as a distraction from studies may reflect the relative importance placed on academic achievement by some schools at the expense of CAS.

Another issue raised by students was the apparent paradox of mandatory service; others perceived CAS activities as turning their non-academic leisure time into something more burdensome. The arduous nature of written reflections, connected to the perceived time-consuming nature of CAS, was often identified as a substantial drawback, as demonstrated by the following student quote. “THE REFLECTIONS ARE HORRIBLE! STOP MAKING US TRY TO WRITE OUT ALL OF OUR EMOTIONS” (emphasis in original).

While the study found that CAS is perceived largely in a positive light, given the significant motivator of enjoyment, perceived drawbacks such as those noted above have implications when considering the transformative potential of CAS. If CAS is not enjoyed, or is even resented, it is not likely to lead to meaningful educational outcomes. When it is possible to support CAS activities that are rich, well-focused and meaningful to students, the experience is more likely to have an impact on them. Additionally, schools can take specific actions, such as attempting to make reflections flexible, with the goal of helping students to make sense of their CAS experiences while not inhibiting their enjoyment of CAS.

Good practices for implementing CAS

A significant focus of the study centred on identifying good practices that can support positive CAS outcomes for students. The following list provides a cross-section of findings drawn from students and coordinators.

- Coordinators in this study suggested that a successful CAS programme depends on identifying CAS activities that students consider to be both meaningful and enjoyable.
- Getting to know students facilitates the process of planning CAS activities and keeping track of student progress. This enhances the information that CAS coordinators have about students in order to better support them, particularly in the early stages of CAS, when students are inexperienced with CAS or are planning independent activities.
- Schools that are explicit about the aims of CAS, such as supporting the development of learner profile attributes, may facilitate students’ understanding of the programme and feed into its success.
- Consistently, two variables were found to be important for successful CAS implementation: students perceiving CAS as a valuable use of their time and goal-setting before beginning CAS activities. If a school is able to ensure that CAS is perceived as valuable, and if goals are set at the start of CAS activities, the school will be more likely to have an effective CAS programme.

- The findings indicate that parents play an important role in explaining students’ perception of the overall benefits of CAS. If schools are able to encourage parents to become more involved in—and supportive of—CAS, this will increase the potential impact of CAS on students.
- Students identified five factors as supporting a successful CAS experience.
 - Variety: Students’ activities are varied.
 - Challenge: CAS helps students to push themselves.
 - Self-knowledge: CAS results in students learning new things about themselves.
 - New interests: CAS leads to new passions and interests.
 - Reflections: Meaningful and flexible reflections help students to make sense of their experiences.
- CAS is considered by all stakeholders to be successful when it is transformative. A school can consider itself to be engaging in good practice when the following elements underpin its CAS programme.
 - Practising collaborative pedagogies
 - Ensuring activities are meaningful to students
 - Setting clear goals before starting activities
 - Ensuring activities are enjoyable for students
 - Including novelty or challenge in activities

Conclusion

This research has demonstrated that CAS activities are perceived positively by stakeholders and attract high levels of agreement across all three stakeholder groups about the benefits and outcomes of this core element of the DP. Students reported that participation in CAS has led to an improvement in their communication and collaboration abilities, coordinators believed students acquire new skills, and alumni highlighted how CAS supported their personal development.

References

- International Baccalaureate Organization. 2008. *Creativity, action, service guide*. Cardiff, Wales. International Baccalaureate Organization.
- International Baccalaureate Organization. 2015. *Creativity, activity, service guide*. Cardiff, Wales. International Baccalaureate Organization.

This summary was developed by the IB Research department.

A copy of the full report is available at <http://www.ibo.org/en/research>.

For more information on this study or other IB research, please email research@ibo.org.

To cite the full report, please use the following.

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