



GYA Impact Assessment

December 2018

Introduction

The Global Young Academy aims to give voice to young scientists around the world. The organisation has evolved greatly since the early ideas at inception; and whilst GYA has had a number of annual reports documenting their activities, the 10-year mark is an opportunity to reflect on what has been accomplished so far and to inform the next 2020-2025 strategic plan to increase impact for the next 10 years. An impact evaluation was thus commissioned by the GYA, conducted by independent consultants to explore this impact further. The overall goal of this impact assessment was both to complement the existing impact assessment report submitted to evaluation committee with personal narratives of impact, and to generate data to inform development of our next 5-year strategic plan.

Aims

The aims of the impact assessment were to better understand:

- how members, alumni, and other young scientists experience GYA activities
- the impact of GYA activities on them (on the individual, their institutions and countries, and globally)
- to explore the contribution of the GYA to this impact

Methods

To collect these data, we sent this survey (see appendix for survey) to all GYA members, alumni, members of National Young Academies, and other young scientists (who may have had contact with GYA) inviting them to share their stories of the GYA. The survey was open from 22 Oct – 13 Nov 2018. Of the 683 people reached, 103 completed the survey.

This report presents a summary of the results of this assessment. Details of methodology and the complete analysis are given in a Technical Appendix to this report, available separately.

In the main part of the survey, respondents were asked for personal stories about *“how the GYA has influenced our members, other scientist/researchers, their institutions, countries, science and the world. These may include (but are not limited to) skills building, personal development, friends, networks and connections, mentorship, primary research collaboration, publications, qualifications, policy papers published, policies enacted or influenced etc.”* Respondents could enter up to three stories. An analysis of the content of these stories is given on page 3. For each story, the respondents were asked closed questions to quantitatively explore the role of the GYA in their stories. These responses were quantitatively analysed, whilst their stories were qualitatively analysed.

These results are presented below in 4 sections:

1. The types and importance of assistance provided by the GYA in the stories
2. The nature of achievements described in the stories

3. The collaborations described in the stories
4. Tracing the GYA's impact: a qualitative analysis

Results

1. What are the types (and importance) of assistance provided by GYA in the stories?

This graphic shows types of GYA assistance which were important in the stories.

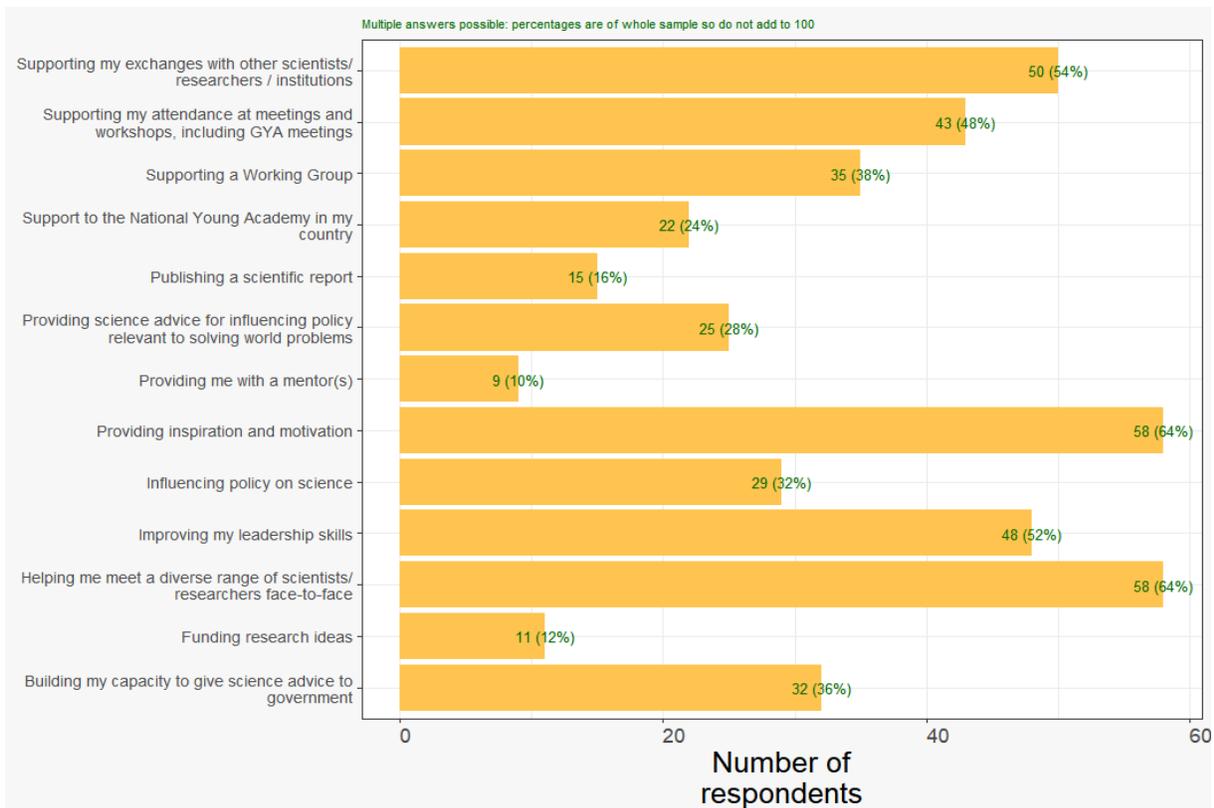


Figure 1: Types of GYA assistance.

GYA contribution to personal development and growth were most frequently mentioned (particularly among GYA members/alumni who had played a role as leader of a Working Group; see Technical Appendix, page 23 for further details), **as well as increased confidence and helping to overcome discrimination**. Specific mentoring activities were least frequently mentioned and were not in fact explicitly described in the text of any of the stories. **Support to NYAs was most frequently mentioned in Africa, whereas support for exchanges was most frequently mentioned in Europe.**

In nearly 90% of the stories, respondents said GYA assistance was “essential” or “important”: a large majority of respondents were able to think of a story in which GYA assistance played an important role.

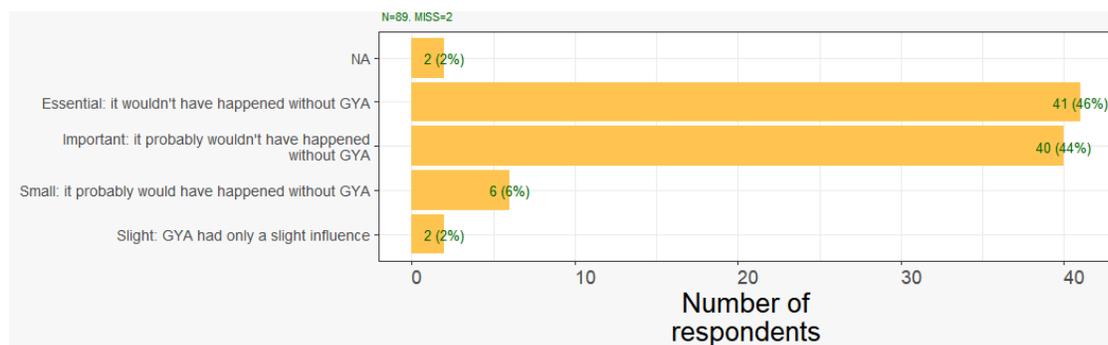


Figure 2: How essential was GYA assistance in the stories?

2. What was the nature of the achievements described in the stories?

For each story, respondents were asked to describe the nature of achievements in their stories and how they perceived the importance of these achievements. For most respondents, each story involved a broad range of different achievements; with the majority of stories representing achievement in more than one area. Overall, these achievements were perceived as “important” on a scale from “not important at all” to “extremely important”. In 66 of the 98 stories rated, at least one kind of achievement was rated as “extremely important”. **Achievements related to one’s own institution or country were much more frequently mentioned in Africa and Asia.**



Figure 3: Average importance of different achievements described in the stories.

3. What collaborations were involved in the stories?

For each story, respondents were also asked about the kind of collaborations involved¹. In all except two of the 98 stories rated, at least one kind of collaboration was rated as “important” or “extremely important”.

¹ The categories were: "With other individual scientists/researchers in my institution; With other individual scientists/researchers in my country; With other institutions in my country; With individual scientists/researchers or institutions in low and middle income countries; With individual scientists/researchers or institutions in high income countries"

important” and in 64% of them at least two were rated as “important” or “extremely important”. **The most important kind of collaboration was with individual scientists / researchers from a range of countries**, less so with other individuals or institutions in one’s own country.

Non-members of GYA and respondents from Africa and Asia were most likely to mention collaboration with individuals and institutions within their own country. Respondents from Europe were least likely to mention this, and respondents from Central and South America very frequently mentioned collaboration with institutions with one’s own country.

4. Tracing the paths of GYA’s impact

In addition to the quantitative analysis above, the stories were thematically analysed looking for examples of *A leading to B* - for example, where someone said, “I loved the regional meetings because they helped me widen my professional network”. Then all the *As* (like, *Global and regional interaction*) and all the *Bs* (like, *Building networks ...*) were listed and grouped into themes.

Figure 4 shows the results of this search: an empirically-derived Theory of Change for GYA based on participants’ own stories.

Within each of the three thematic categories in Figure 4 (input, individual impacts, broader impacts) the themes emerging from the stories are shown as circles. Bigger circles are those themes which were mentioned more often. The width of the arrows shows how often people said that one theme (like, “Global and regional interaction”) led to another (like, “Opportunities and career development”).

4.1 GYA Inputs

By far the most common theme in this group was ***global and regional interaction***, in particular, meetings.

I meet colleagues from others countries so I learned how they are organized in their National Young Academy (NYA). When I went back I decided to create a NYA².

Also, respondents often mentioned individual and group membership of GYA as relevant to their stories:

When I talk about my own Young Academy, which I often do, I always talk about how our Young Academy is also part of GYA and that gives our Young Academy more credibility and clout.

Being accepted as a member of the GYA gave me immense confidence boost...

This theme (*GYA non-specific; structure and membership; support to NYAs*) also includes stories in which the specific GYA input was not further specified.

Many respondents highlighted GYA’s *specific values* as an important input in its own right: supportive, inclusive, and cross-disciplinary.

I always felt like a bit of an oddball scientist because I do not conform to the "traditional" scientist model...

² Paragraphs shaded in this way are quotes from actual respondent stories.

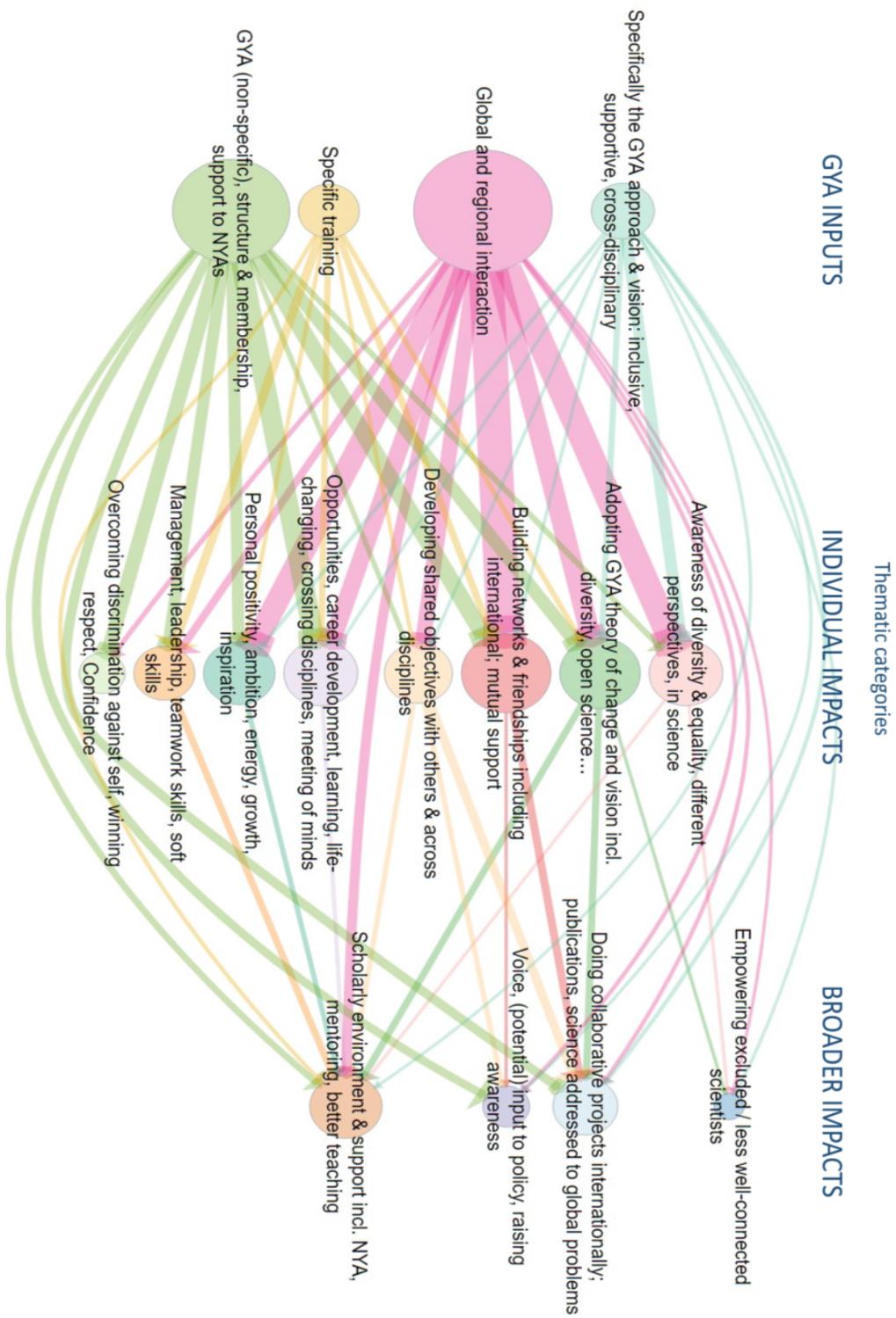


Figure 4: Tracing the paths of GYA's impact in the respondents' stories.

4.2 Individual Impact

There was a wide variety of themes concerning impact on individuals. The most common was ***Building networks & friendships, including mutual support.***

If I think about the greatest lasting effect of the GYA on me as a person, excluding benefits only to my career, the most significant impact the GYA has had on me is the network of friends I have built who are passionate about improving society through the work they do and the activities they volunteer on and they way they have changed my thinking.

We have described the second most common theme as *Adopting GYA's Theory of Change*. Here, a key personal impact is described as understanding and taking on board a specific GYA way of thinking which involves diversity, cross-disciplinary work, and taking new perspectives on familiar issues.

Realising that science truly is global, and excellent science comes from every country on earth

Some respondents describe it as quite a profound change in their understanding of and approach to science and even issues beyond science.

To give one specific story, will be the ECs response to the request from our funders to have a GYA initiative in response to the EU immigrations 'crisis'. In 2016 there was so much media attention on immigration of refugees of war into Europe, and how Europe was going to deal with this 'crisis'. Whilst the fleeing of thousands of innocent people from war was truly a humanitarian crisis, the perspective in the media came more from this being a social 'crisis' for the countries to which the immigrant were feeling, that they now had to 'deal with'. Thus, when the GYA held a meeting regarding Europe's response to this immigrant crisis, EC members from Africa countries brought to the table their objection to just an initiative, given the millions of refugees of war that Africa countries have been supporting for years, with no media attention. Their perspective was that in their countries, refugees were brought in and supported as brothers and sisters in need, not as invaders. This discussion will remain with me forever and continues to highlight the advantage to understanding a different perspective to global issues. but more importantly, the need to ensure that Europe and America do not dominate the conversation and perspective. That we continue to draw on the perspectives from a diverse experience.

A related theme was *general awareness of diversity*.

The GYA has profoundly affected how I think about cultural diversity.

Other common themes were *new opportunities and career development ...*

These opportunities brought me to many places, and allowed me to experience diverse cultures and connect with varied individuals, but more importantly, gave me an opportunity to learn new things, enrich my skills, discover more of my talents, and think beyond my own research field.

... as well as *personal positivity and confidence*.

The GYA has helped me to connect to a deep commitment I have to engage, to serve and to help build a better world.

Management, leadership, teamwork skills and soft skills were frequently mentioned, for example learning about participatory methodologies.

I started thinking about nurturing leadership in a strategical way and [thanks] to GYA for this piece of inspiration.

4.3 Broader Impact

Many stories mentioned broader impacts beyond those on individuals. The most frequently mentioned was ***support to the scholarly environment***.

After some planning and with the strong support of GYA members in the ASEAN region, ASEAN has established the ASEAN Young Scientists Network and the Responsible Conduct of Research Programme will be one of the key programmes of this ASEAN network.

GYA motivated me to set up the Benin Young Academy of Science, with their advices.

I feel that the existence of GYA is very important because it acts as a cohesive network for all other Young Academies

There was also frequent mention of concrete impacts such as *Doing collaborative projects internationally, publications and science addressed to global problems*.

Another GYA member and I have a joint research grant together ... In addition, we also had a joint research publication in a very high impact journal

4.4 Links Between Themes

The story fragments quoted above were given as examples of particular themes, but all the sentences in the stories which we categorised in fact contain a link from one theme to another.

The most frequently mentioned link was *Global and regional interaction* → *Building networks ...*:

I met incredibly inspiring colleagues from around the world that think like me, making me feel like I'm not alone which is often difficult when you are one of the few STEM PhDs in a tiny Caribbean island.

Another common link was *GYA (non-specific) ... membership* → *Overcoming discrimination ... Confidence*

Winning the membership itself has given me a strong motivation and confidence to speak up my thoughts and vision regarding young scientist's role in advancing science, health, and research in all regions of the world.

As well as people telling us about links from GYA inputs to personal factors and then on to impacts, sometimes they told us about links directly from GYA inputs (on the left of the diagram) to broader impacts (on the right of the diagram), such as the link *GYA (non-specific) → Scholarly Environment...*:

I feel that the existence of GYA is very important because it acts as a cohesive network for all other Young Academies

One particularly interesting set of links was from the theme "*Adopting GYA Theory of Change*". This was often mentioned as a driver of broader impact.

GYA gatherings were always opportunities to strengthen my ideas and have insights into new ideas which were always brought back home to drive one initiative or the other in my national young academy.

This helps create a network and foundation for later long-distance work, but, moreover, helps to find common values and to identify shared ideas that can guide member activities throughout the year. Attendees think and talk about familiar and new ideas, about how to apply familiar ideas to new areas, and explore the scope for new cooperation across disciplines, countries and cultures.

Conclusion

As the GYA begin the process of drafting the Strategic Plan for the next 5 years, it is informative to reflect on the nature of impact of the GYA to date, and areas of improvement.

Alongside the 2018 [self-evaluation report of activities of the GYA](#) which comprehensively details the ways in which these activities align with the current 5-year strategic plan, this impact assessment explores how these activities are experienced by early and mid-career scientists: GYA members, alumni, NYA members and others; and interrogates the self-reported impact of these experiences.

From these results, we note that respondents most appreciate the opportunities for global and regional interaction. At the level of the individual, respondents place the greatest value on building networks and community; with training and exposure to diverse skillsets such as leadership, management and teamwork contributing to personal development and growth. Respondents further describe broader impact primarily through supporting the improvement of the scholarly environment, and through embracing GYA values of inclusivity, diversity and open science.

By way of next steps, the GYA aims to further develop these results into a detailed theory of change that will inform the development of the next 5-year strategic plan to ensure that GYA activities are aligned and prioritised to achieve the overarching mission of empowering outstanding early-career researchers to lead international, interdisciplinary and intergenerational dialogue to promote reason and inclusiveness in global decision-making.

Authors

Steve Powell and Anamaria Golemac Powell (independent consultants commissioned for this assessment) contributed to finalising the survey tool, conducted the survey, and led the analysis of the results and write up.

Tolu Oni (GYA co-chair 2017-19) led this project, created the first draft of the survey questions, and worked closely with Steve Powell on the data analysis and interpretation, and report write up.

GYA Executive Committee 2018/19: provided input into results interpretation.