Evaluation of the Contributions to the Training of Highly Qualified Personnel (HQP) - Discovery Grants

The answers to the FAQ are based on information in section 4.4.3 of the Peer Review Manual.

For more information contact the program staff at resgrant@nserc-crsng.gc.ca.

1. Why has NSERC revised the Instructions for Completing an Application, the Peer Review Manual and the Merit Indicators Grid for the HQP criterion?

Starting with the 2018 Discovery Grants competition, the Instructions for Completing an Application and the Peer Review Manual were revised to reflect the recommendations made by the 2014 International Review – Evaluation of NSERC's Discovery Program. The report highlighted that of the three selection criteria, the HQP criterion was the most difficult to assess. The revised Instructions, the Peer Review Manual, and the Merit Indicators Grid are designed to provide applicants and Evaluation Group (EG) members with clearer guidance on what to include in the application and how this criterion will be assessed.

2. What is new to the HQP criterion?

The overall focus and weighting of the HQP criterion have not changed. However, the Instructions on How to Complete an Application were revised to provide guidance to applicants on ways to demonstrate the quality and impact of their HQP training. The Peer Review Manual and Merit Indicators were revised to guide evaluation group members in interpreting this information. Instructions on how to complete an application and the Peer Review Manual now state the following:

- The assessment of the HQP training plan is composed of two components: training philosophy and research training plan.
- The assessment of the past contributions to HQP training is composed of three components: training environment, HQP awards and research contributions, and outcomes and skills gained by HQP.
These components are designed to provide insight into what constitutes valuable HQP training, both from the standpoint of training the next generation of natural sciences and engineering (NSE) researchers, but also providing HQP with desirable skillsets leading to impactful careers.

3. **Do I need to formulate my answers for the HQP Training Plan and the Past Contributions to HQP Training by dividing them into two and three subsections respectively, as highlighted in the instructions?**

No, both the HQP Training Plan and the Past Contributions to HQP Training are free-form sections in the application. This allows you the flexibility to choose the best method to present the evidence that supports each subsection (component). It should be noted that the Past Contributions to HQP Training section is an ideal place in the application to expand on and complement the information contained in the CCV regarding past and current HQP to demonstrate the quality and impact of your training.

4. **How will my HQP training plan be assessed?**

Assessment of the HQP training plan will focus on two components: the research training plan and the training philosophy (refer to questions 5 and 6 for details on what to include). If you submit a plan without relevant details, the overall rating of the HQP criterion may reflect the lack of specificity. It is also important to remember that the assessment of contributions to the training of HQP is based on both the past contributions to HQP training and the future plan for training HQP. If you submit a poor training plan, but your past training is good (or vice versa), this will be reflected in the final HQP rating.

5. **In the research training plan component, should I present specifics about what each research personnel will be doing?**

A good research training plan should provide details on the activities or projects in which research personnel will be involved and how these relate to achieving the objectives of the proposed research program. Sufficient detail should be provided to demonstrate that the activities are appropriate to the level of research personnel involved (e.g. undergraduate, Masters, PhD, etc.).

6. **What can I include in the training philosophy component?**
The training philosophy will contribute to the assessment of the quality, suitability and clarity of your HQP Training Plan. You can include details such as your approach to and interaction with your HQP, your research mentorship methods, as well as the opportunities provided to enhance the HQP training environment. You can also describe the intellectual involvement of HQP in your research program, the skills and knowledge that HQP will acquire and the expected impact on HQP. You can also use this section to describe how you promote participation from a diverse group of HQP, such as taking into account equity in recruitment practices, mentorship and initiatives aimed at ensuring an inclusive research and work environment.

7. **What can be considered as evidence of quality and impact when evaluating the past contribution to HQP training?**

   Assessment of the past training of HQP will focus on three components: the training environment, HQP awards and research contributions, and outcomes and skills gained by HQP.

   Participation and involvement of HQP in research training and development opportunities such as science outreach activities, interdisciplinary research, collaborations and/or interactions with the private and public sectors can be used as evidence of an enhanced training environment. The type and nature of the research training and development opportunities will depend on the discipline and level of HQP, and you must be able to demonstrate that the training is appropriate and valuable to both the HQP and your research program.

   Evidence that HQP have collaborated in research contributions (conferences, publications, patents, technical reports, etc.) can be considered as an indicator of their intellectual involvement and success. Evidence of HQP collaboration can take the form of co-authorship, although this varies depending on the norms of the discipline.

   The progression of HQP into further studies or careers that have impact can be evidence of how the quality of training contributed to the success of HQP. Careers can be in the private sector, public sector or academia. The impact can be either in an NSE or a non-NSE domain, but it must be clearly demonstrated how the skills gained by HQP in your research training environment are being used in their careers or further studies.

8. **Will my HQP trained outside the six-year window and who have recently been appointed to a professor position be considered in the evaluation of HQP training?**
HQP trained entirely outside of the six-year window will not be considered in the evaluation of past contributions to HQP training.

9. **What weight will be put on the training of PhD students vs. undergraduate students, or post-doctoral fellows versus laboratory technicians?**
Members look at the quality and impact of the contributions to HQP training and refrain from trying to quantify or give different weights *a priori* to different HQP groups. Contributions to high quality research training at all levels are valued, including undergraduate students involved in research, graduate students, postdoctoral fellows, technicians and research associates.

10. **Some of my HQP received training in fields outside the Natural Sciences and Engineering (NSE). Can this training be considered in the evaluation of HQP training?**
Past HQP training can be in the NSE or non-NSE domains (e.g., health, social sciences), but must be in a research training environment that generates new knowledge or insights. However, your proposed training plan for HQP must be within the NSE domain.

11. **I have multiple grants and I have not always listed the funding sources for each HQP. Will past HQP training supported by NSERC Discovery Grant funds be weighted more than HQP training supported by other funds?**
When evaluating your past contributions to the (research) training of HQP, members do not consider how the HQP were funded, whether from an NSERC Discovery Grant, a CIHR or SSHRC grant, or any other type of funding.

12. **I am from an institution without a graduate program (or with a new graduate program). How will I be evaluated?**
All applicants will be assessed in terms of the quality and impact of their past contributions to the training of HQP and their training plan. Contributions to training will not be assessed solely in terms of the number and level of individuals supervised. Members will consider how the training contributes to the advancement of knowledge in the particular field of research and in the NSE. It is important to remember, especially in regards to the training of undergraduate students, that the progression of HQP into further studies or careers that use the skills gained during the applicant’s research training environment are considered as evidence of the quality of their training. If you are involved in the co-supervision, the level, content, and involvement of the co-
supervision in the training must be clearly described. In all cases, the onus is on the applicant to
describe their particular situation in sufficient detail to allow an assessment to be made.

13. **How do members balance the evaluation of HQP training for researchers with
greater amounts of funding (and therefore with the ability to train larger numbers)
compared to researchers with less funding?**
All applicants are assessed in terms of the quality and impact of their past contributions to HQP
training and future training plan. The amount of funding received in the past is not a factor that
is considered in the evaluation. An applicant who has received funding from different sources and
who has supported many HQP does not automatically receive a higher rating. Members look at
the quality of the training environment, HQP awards and research contributions, outcomes and
skills gained, as well as the proposed training plan and philosophy rather than the number of
HQP that an applicant has or is planning to train. For example, members assess the
appropriateness and clarity of the training plan, such as whether the HQP are well integrated into
the proposed plan, the proposed work for specific HQP is appropriate for their level, and the
training plan is appropriate for the size of the group proposed. In the case of a large research
group, the onus is on the applicant to explain the management and their involvement with the

group.

14. **How will mentorship versus official supervision be evaluated?**
Within your description of past contributions to HQP training, mentorship alone is not considered
as official HQP supervision, even if the applicant is an Early Career Researcher. It can, however,
be used as context in support of the applicant’s training plan. For example, if an applicant has
had mentorship experience, it could indicate a higher feasibility of successful implementation of
their training plan. Your ‘future’ mentorship approach in a research training environment will be
assessed as part of your training philosophy component in the HQP Training Plan section of the
HQP criterion.

15. **How will involvement in student outreach, workshops, etc. be taken into
account?**
Your involvement in science outreach activities (e.g., general outreach activities and/or NSERC-
funded activities) is recognized within the Excellence of the Researcher criterion. Enhancement of
the training environment through involvement of your HQP in science outreach activities,
professional development workshops, interdisciplinary research and/or interaction with the
private and public sectors (e.g., industry, government agencies, etc.) is recognized within the Contributions to the Training of HQP criterion as evidence of quality and impact of the research training.

16. How do I identify my HQP within the Publications and Intellectual Property subsections my CCV?
All of your HQP are to be identified by an asterisk; this is extremely important for the assessment of HQP research contributions.

17. Where do I include HQP presentations at conferences?
Presentations given by HQP can be included as evidence of the quality and impact of HQP training. These can be summarized within the Past Contributions to HQP Training section of the application, and are not to be included within your CCV.

18. Within the CCV, the Supervisory Activities section includes a selection of Supervision Roles including “Principal Supervisor”, “Co-supervisor”, and “Academic Advisor”. How should I use “Academic Advisor”?
Do not include the role of Academic Advisor in your NSERC CCV. Typically Academic Advisor is not considered an official supervisor role in the evaluation of the contributions to HQP. If you wish to include HQP that are not under your direct and formal supervision, you can describe them within the section Past Contributions to the HQP Training. Clearly define your role in their training. Refer to question 14 for information on how mentorship versus official supervision will be evaluated.

19. How do the members assess my HQP criterion if I am unable to receive consent from research personnel to include names within my CCV and application?
If you are not able to obtain consent, you are to provide information regarding HQP without providing names. Even though this information might be more generic, it should be sufficient to enable members to assess your HQP criterion. Every effort should be made to include names where feasible.

20. How will information regarding my general teaching responsibilities be taken into consideration when evaluating the training of HQP?
General teaching responsibilities are not taken into consideration in the evaluation of the HQP criterion, as this criterion measures research training, not teaching.

21. **I am an Early Career Researcher. Will I be assessed differently with regards to HQP?**

All applicants are evaluated using the same criteria. The only difference in the assessment of Early Career Researchers (ECRs) and Established Researchers (ER) is the role of the past contributions to the training of HQP in determining the final rating. ECRs should not be rated as *Insufficient* solely due to the lack of past training of HQP; the review should focus on the plan for future training. To compensate for the fact that ECRs have little to no past training of HQP and generally receive a lower HQP rating than most ERs, ECRs are usually funded to a lower bin level than ERs and normally receive a rating of *Moderate*.

22. **I am an Early Career Researcher. How can I rate more than ‘Moderate’ for the HQP criterion?**

It is normal and expected that most Early Career Researchers applicants will receive a rating of Moderate on the HQP criterion due to a lack of past contributions to the training HQP. However, a higher or lower rating can be given if warranted by your past contribution to the training of HQP and future training plan. For example, a higher rating can be given if your past training of HQP and training plan compares favourably with other applicants, including established researchers.

23. **Until recently I was employed in industry/government with little opportunity to train HQP. How will I be evaluated?**

If you have held an independent academic position for three years or less, you will be evaluated as an Early Career Researcher (please see Questions 21 & 22). Otherwise, all applicants are evaluated using the same criteria. Applicants are reminded that supervision or co-supervision of HQP within an academic setting is not the only way to demonstrate past training of HQP. When completing an application, it is important to include all forms of research training of HQP, including interns, junior staff or visiting students who were under your supervision or co-supervision and who were involved in your research program. You should clearly explain your role in the research training as well as your level of involvement.