

Kristina Khrul, William Backes (Eds.)

Global Talent, Local Needs: Supporting International Students in German Labor Markets

A Practical Guide for Planning,
Implementing, and Evaluating Career
Programs for International Students



WAXMANN

Global Talent, Local Needs: Supporting International Students in German Labor Markets

Kristina Khrul,
William Backes (Eds.)

Global Talent, Local Needs: Supporting International Students in German Labor Markets

A Practical Guide for Planning,
Implementing, and Evaluating Career
Programs for International Students



Waxmann 2025
Münster · New York

Funded by the Ministry of Culture and Science of the state
of North Rhine-Westphalia



RHEINISCHE NRWEGE
FRIEDRICH-WILHELMS- LEUCHTTÜRME
UNIVERSITÄT BONN

**Ministerium für
Kultur und Wissenschaft
des Landes Nordrhein-Westfalen**



Waxmann Verlag GmbH, 2025
Steinfurter Str. 555, 48159 Münster

www.waxmann.com
info@waxmann.com

Cover design: Anne Breitenbach, Münster
Cover picture: © Viktoria Kurpas | shutterstock.com
Typesetting: Roger Stoddart, Münster



This work is licensed under the Creative Commons licence
CC BY-NC-SA 4.0. This licence applies only to the original material.
All marked third-party content (e.g., illustrations, photos, quotations, etc.)
is excluded from the CC licence, and it may be necessary to obtain further
permission from the copyright holder for its reuse.

Contents

Foreword	7
Disclaimer	9
Glossary	10
Initial Situation	11
Intensive Career Program	16
Program Structure.....	16
Conditions of Participation	20
Selection Criteria.....	22
Program Materials	25
Program Events.....	28
Leadership Component	40
Easy-Access Service.....	44
eCampus: User Experience Infrastructure	50
Data Analysis & Program Results	55
Applicant data	55
Participant data	62
Program Outcomes.....	68
Correlation & Regression Analysis.....	77
Database & Data Management	84
Lessons Learned	88
References.....	91
Contacts	93

Foreword

Five years ago, when the International Office at the University of Bonn first initiated an intensive career program for international students, the International Career Service (ICS) was not yet well established among German universities. Currently, many higher education institutions are placing increasing emphasis on supporting international students as they transition from university to the job market. This growing commitment is evident in over 100 active university projects funded by the German Academic Exchange Service (DAAD).

On the one hand, the involvement of universities in such projects confirms that the shortage of skilled workers is becoming an increasingly relevant issue and that the employment potential of international students in Germany is gaining greater recognition among a growing number of educational institutions and employers. On the other hand, we still see that the transition from studies to employment does not always proceed so smoothly as all stakeholders might hope.

In order to share some valuable tips and hands-on information on organizing career programs for international students with interested colleagues and practitioners, our team of authors has written the second edition of the practical guide “International Students as (Future) Employees vs. The Shortage of Skilled Workers?” (in German: “Internationale Studierende als (zukünftige) Fachkräfte vs. Fachkräftemangel?”).

For the financial support of this publication, we thank the Ministry of Culture and Science of the state of North Rhine-Westphalia.

Director of the International Office at the University of Bonn
Dr. Katharina Fuchs-Bodde

Disclaimer

Dear reader,

This document should be seen as a practical guide for those colleagues who are planning or implementing different supportive measures for international students at their universities who are transitioning into the career world. Readers who are interested in possible measures against the shortage of skilled workers and/or planning employment-oriented projects for students or potential young employees, will find some practical information in this paper. In the following pages, we briefly describe the initiation and transformation within five years of the “iStart” project, which was financed by the Ministry of Culture and Science of the state of North Rhine-Westphalia (NRW).

First presented in the German edition in 2022, the project measures covered in this edition span the period from October 2020 to March 2025. It not only includes helpful hints and tips for their practical implementation but also reflects the views of project practitioners on the benefits and advantages of each activity tested. Another important focus of this document will be dedicated to the empirical measurement and the results of the impact analysis of the Intensive Career Program.

Some passages of this guide were directly translated from the German edition. Grammar and style corrections were partly made with the help of AI tools.

Glossary

- **eCampus** – an internal university-based digital platform for organizing courses and seminars to provide students with learning materials.
- **International students** – foreign students at German universities or other education institutions who gained their higher-education entrance certificates abroad and do not have German citizenship.
- **International degree seekers** – foreign students at German universities or other education institutions who have their higher-education entrance certificates abroad, do not have German citizenship and are pursuing a complete degree. In this paper, both terms – international degree seekers and international students – will be used as synonyms.
- **Students with a refugee background** – foreign students at German universities, who have been recognized as refugees within an asylum procedure. In our project, applicants are requested to inform us about their status but are not obligated to deliver any written confirmation of it.
- **WS20/21** or **SoSe21** – abbreviation for the winter term and summer terms respectively. The abbreviation is followed by the academic year.

Initial Situation

In the German edition of our practical guide published in 2022, we started this part with the idea that, “in our crisis-ridden age, every societal and social system is confronted with specific challenges – war and climate-related migration, global pandemics, digitalization, an aging population and the associated changes in the labor market” (cf. Khrul et al., 2022). After almost three years, we can only reduce the relevance of one challenge from the list – global pandemics – but, unfortunately, we must add several others: inflation and rising living costs, layoffs, budget cuts, and the rise of populism in politics and society. All these factors impact the labor market, higher educational institutions (HEIs), and international students.

The increasing role of the HEIs in the integration of international students with different backgrounds into local and regional society brings new questions into our practical agenda. Education practitioners today are not only addressing issues such as study dropouts, career entry after graduation and learning the national language but also increasingly taking on broader responsibilities. These include finding – and sometimes also creating – affordable housing for both domestic and international students, tackling inflation and rising student poverty, adapting teaching practices to AI technologies, liaising with potential employers and fostering collaboration with societal stakeholders and local communities. Whether universities should sustain this multidimensionality and multifunctionality, however, is a topic for discussion elsewhere.

The challenges mentioned (indirectly) impact the implementation of the iStart project, funded by the Ministry of Culture and Science of NRW,¹ which focuses on supporting the transition of international degree seekers from the academia into the German job market.

1 The Ministry of Culture and Science of NRW initiated and financed the “NRWege Leuchttürme” program, which launched in 2017 and ends in 2027. This program connects 12 HEIs in NRW with one common purpose – “to

The current² project focuses on the following main targets:

- *Supporting international students with and without a refugee background in their transition to the labor market*

The growing interest in international degree seekers as potential employees for the German labor market has led to an increase in studies focused on their post-graduation intentions. The DAAD's³ BintHo survey,⁴ for example, shows that "almost 65% of the surveyed international degree seekers⁵ in the 2023/24 winter semester have indicated that they would 'definitely' or 'probably' stay in Germany after completing their studies" (cf. DAAD Wissenschaft weltoffen, 2024, p. 50). At the same time, more than a quarter of all respondents had not yet decided on their geographical future (cf. *ibid.*), which might partly depend on their career and family planning and corresponding conditions in the host country.

According to the most recent official data from the Federal Statistical Office, almost half of non-EU⁶ international students who started their studies in Germany during the period from 2006 to 2011, are still in the country ten years later (cf. Weißmann/Eberle, Federal Statistical Office, 2023, p. 7). Around two-thirds of them either hold a permanent residence permit or an employment visa or have been naturalized (cf. *ibid.*). Based on this data, we can assume that about one-third of all international non-EU students are available to the German labor market in the long term. However, there is potential to

ensure the academic success of various target groups and enable them to take up highly qualified employment on the German labor market" (*Integration von Flüchtlingen an Hochschulen in Nordrhein-Westfalen*, Ministry of Culture and Science of NRW).

- 2 The initial iStart project had developing digital formats for consulting and support as a fifth target. In the current funding period (since January 2023), this purpose was not included due to it having been completely fulfilled in the first period.
- 3 The German Academic Exchange Service
- 4 International University Benchmark (BintHo) study carried out by the DAAD in the 2020/21 winter semester and 2023/24 winter semester. The data includes replies from around 20 thousand international students and doctoral candidates enrolled at various German universities.
- 5 Including EU- and EEA-nationals
- 6 The statistic from the publication cited is based on data from the Central Register of Foreigners (AZR), which includes only the data of internationals from non-EU or non-EEA countries who are required to apply for a visa/residence permit for study purposes in order to live and study in Germany.

increase this number. One way to achieve this is by supporting their transition from study to employment.

- *Increasing the employability of the target group*

A successful transition into the labor market is closely linked to the “employability”⁷ of students. The discussion about the role and importance of “employability” in a university context is generally not new and concerns not only our target group but also the entire student body (see more in: Eimer et al., 2019, p. 11–18). Due to the rapid changes in the global labor market, employment conditions and job profiles in general, employability will certainly gain in importance in the future (cf. *ibid.*, 18–19).

“Employability” encompasses more than just the theoretical knowledge and skills gained through academic studies – it also includes personal traits, practical experience and self-esteem. Therefore, enhancing employability is connected to specific challenges of our target group as well. Common obstacles for international students include: limited knowledge about the application process in Germany, a lack of local work experience and networks, uncertainty about their language skills or professional abilities, and sometimes low self-esteem. These factors were carefully considered when designing specific measures and drafting the project proposal.

- *Reducing the dropout rate of international students*

Different studies confirm that international students with a foreign university entrance certificate are more likely to drop out of their studies than their German fellow students or international students with a German higher-education entrance certificate (cf. Heublein et al., 2022, p. 12 and DAAD *Wissenschaft weltoffen*, 2024, p. 48). The data collected by the DZHW⁸ among graduates in 2020 shows that the dropout rate for international students is 41% for in undergraduate studies and 28% for master’s degree programs, while the rates

7 This term can be defined in various ways. The definition that was used in implementing and planning the iStart project was that formulated by Pool & Sewell (2007, p. 280): “Employability is [a] having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful”.

8 The German Center for Higher Education Research and Science Studies

are lower for students with German citizenship and a German higher-education entrance certificate – 28% for bachelor's and 21% for master's (cf. Heublein et al., 2022, pp. 5, 9, 12–13). Although the reasons for dropping out depend on each individual students' situation, there are some specific ones that appear more often in the cases of international students in particular. Various authors name the following difficulties, which can have an impact on a decision to drop out of one's studies: "language problems, a discrepancy between expectations and the reality of life in relation to studying in Germany, difficulty adjusting to the specific characteristics of studying and everyday life in Germany, bureaucratic and organizational hurdles in the organization of everyday life (sometimes also linked to experiences of discrimination), lacking or confusing support structures at universities, social isolation and segregation, and financial problems" (cf. Pineda, 2018 in: Falk et al., 2022, p. 20–21), but also study satisfaction (cf. Zimmermann et al. 2021 in *ibid.*, p. 22) and a (lack of) feeling of belonging to one's place of study (cf. Yildirim et al., 2021 in: *ibid.*, p. 23). It would not be realistic to plan measures in one single project, which would be able to cover all the possible reasons for dropping out, hence we focused on the assumption that the financial conditions of one's studies and an understanding of one's personal career targets contribute to one's motivation to graduate. Therefore, the measures of this project aim not only to support international students in entering the labor market but also to assist them in finding student jobs.

- Sustainable intensification of the network with institutions, partners and stakeholders in the context of professional qualification and job placement

Already during the first period of the project, it became clear that the measures aimed solely at preparing international degree seekers for the German job market would be insufficient without direct contact with employers and other relevant stakeholders. It was evident that local and regional employers also need a certain level of "preparation." This includes informational input, presentations of good practices, networking opportunities with employers experienced in

Initial Situation

hiring international students and graduates, and general advocacy and awareness-raising regarding our target group.

The next section of this guide shows what implementation of these project targets looks like in practice.

Intensive Career Program

The concept of the Intensive Career Program (ICP) for international students was established in the insecure times of the COVID-19 pandemic and was later adapted to post-pandemic conditions. The initial form of the program and the creation process was explained in detail in the first edition of this praxis guide (see Khrul et al., 2022, pp. 17–19). In this guide, we would like to focus more on the recent structure of the program and its changing content as well as on the effect of the program's participants on its design and subject matter.

Program Structure

Our career program and its structure had from the beginning a theoretical base in a combination of the Career EDGE Model⁹ or “Key to Employability” devised by Pool & Sewell (Figure 1), the classical consulting workflow by the job agencies in Germany (starting with orientation and self-analysis, going on to job search and application strategies and finishing with applications and interviews) and experience of working with German-based international students and realizing their usual dif-

9 The Career EDGE Model has the following components: Career Development Learning, Experience in work and life, Degree subject knowledge, Generic or Soft Skills, and Emotional Intelligence (cf. Pool & Sewell, 2007, pp. 280–285). According to the authors, self-analysis and reflection on these components give students an understanding of what career they could build for themselves, what areas might suit their profiles and what their next steps should be (cf. *ibid.*, p. 285). This analytical process contributes to a better self-efficacy, self-confidence and self-esteem, which are responsible not only for a career start but also for job satisfaction and a realistic self-estimation of their career chances by the students themselves (cf. *ibid.*, p. 285–287).

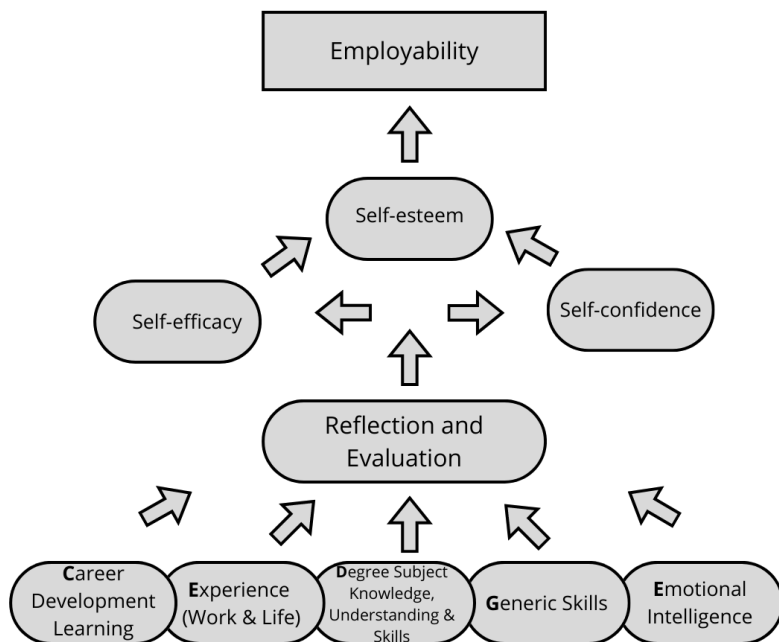


Figure 1: Career EDGE Model (Source: Pool & Sewell, 2007, p. 280).

faculties and needs. While the consulting workflow had a strong impact on the structure of our program, giving us our “Orientation” and “Application” blocks, awareness of the lack of local contacts and networks by international students also led to addition of the “Networking” block to this structure and impacted the content of the first orientations. The theoretical model mentioned was shaping the direction of the program’s content in general.

Looking at the Career EDGE Model, it is clear that implementing all its components within one career program would not be realistic, especially because some of them – Work & Life Experience and Degree Subject Knowledge – lie outside of competence of the International Office. Therefore, we focused on the Career Development Learning component, also considering reflection and evaluation processes. During some of the semesters, we offered a few events targeting Generic Skills and Emotional Intelligence. Our own reflection on the use of this model and its

components will be shown more detailed in the “Lessons Learned” part of this guide.

The logic of the Intensive Career Program flows through its structure (Figure 2). Starting with the orientation, the participants get common initial information about the German job market and take their first steps in towards analyzing their career profiles and identifying suitable fields, employers and positions. This step is necessary to make before starting with a specific job search and concrete target-oriented networking. The second block is dedicated to these topics and offers different activities and opportunities to network and/or to scale up personal communication and networking skills. After getting in touch with this area of their professional and career-related interests, we assume that our participants are ready to write well-tailored CVs and explain their motivation in cover letters and, subsequently, in job interviews or assessment centers. All this is covered in our Application block.

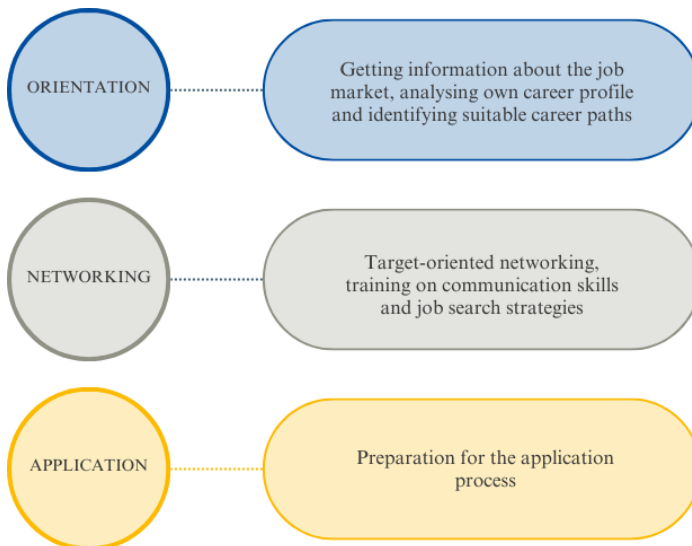


Figure 2: Core structure of the iStart Intensive Career Program.

Program Structure

While the block structure of the program has remained constant over the years, the project team has introduced various changes in the event program by integrating events by cooperation partners, experimenting with various contents, addressing particular soft skills and updating some conditions and frames of the career program. These changes will be demonstrated in more detail in the next few sections.

Conditions of Participation

The following conditions are framing our Intensive Career Program:

- The program takes place **parallel to the semesters** and therefore starts each October and April. The program's final events usually happen before the examination period. These time frames allow a higher reachability and recruiting of participants.
- Depending on the semester, the program lasts either **three or four months**.
- The format of the program is **mixed**: the majority of the events take place onsite, others – online only. It is also possible to implement the program entirely digitally or offline. In the first case, it would attract fewer participants;¹⁰ in the second, it would limit participation flexibility for some of them.
- The language of the program remains **English**. All individual sessions can also take place in German, if participants prefer this language for communication. The selection of this language is connected not only with the higher accessibility of the program but also with the fact that international students without sufficient German knowledge have more challenges in obtaining relevant information about the national job market and the job search itself.
- The participation in the program's events is a **voluntary** decision. There is only one event in the program that we communicate as

¹⁰ During the last two semesters – the 2024 summer semester and 2024/25 winter semester, the participants asked more frequently for more events to be offered on site instead of online. At the same time, a very regular request from participants is to join the events digitally (especially for individual sessions).

being necessary – the Kick-Off-Meeting (see the part entitled “Program Events”). We assume that our participants have a better overview of their time schedules and their personal needs in terms of job search and can therefore decide which events they can attend. Of course, during the Kick-Off-Meeting, we give them a broader overview of the contents of each event, supporting their decision-making process in this regard.

- Apart from gaining valuable guidance and relevant contacts, we set two main **incentives** for our participants to stay active during the whole program. The first is issuing a certificate only for those who attended six program events in total (we recommend attending two events in each block). The second is a free CV photo shoot in a studio for those who have attended nine events (here too, we recommend attending three events in each block).
- Since the 2023 summer semester, we have offered an opportunity for interested participants to get some volunteering experience within the program (see the chapter entitled “Leadership Component”).
- Since the 2024/25 winter semester, participation in some particular events or the Leader’s role in the program has been able to count toward the Certificate for Intercultural Competence offered by our colleagues in the International Office.

Selection Criteria

The individual approach applied in the iStart Intensive Career Program does not allow for all interested applicants to be accepted. General admission to the program was made once (2022/23 winter semester) as part of an experiment designed to test the program's limitations. This test revealed a very high level of absences and "no-shows" as well as difficulties for the project's team in tracking the progress overview of the participants. Therefore, we assume that 50 enrollments in the program per semester is its highest capacity.

Since the number of applicants is higher than the number of spots offered each semester, we use the following selection criteria:

- The criteria derived from the frameworks of our current funding:
 - **Refugee status:** the applicants with refugee status have a guaranteed spot in the program (see "Descriptive Statistics" for a concrete number of applicants and participants with a refugee background).
 - **Non-EU citizenship:** from 2024 onward, the funding program of our donor has only allowed us to accept participants with non-EU citizenship.
 - **Duration of living in Germany:** from 2024 onward, only those students who have been living in Germany for less than five years at the time they apply have been eligible for the program.¹¹

¹¹ Those applicants who have already joined some programs for refugees before can be excluded from this rule.

Selection Criteria

- Program specific criteria¹²:
 - **Motivation**: through this question, we try to identify whether the needs of each candidate are meeting the offer of the ICP. For this, a simple evaluation of the motivation was introduced (Figure 3).

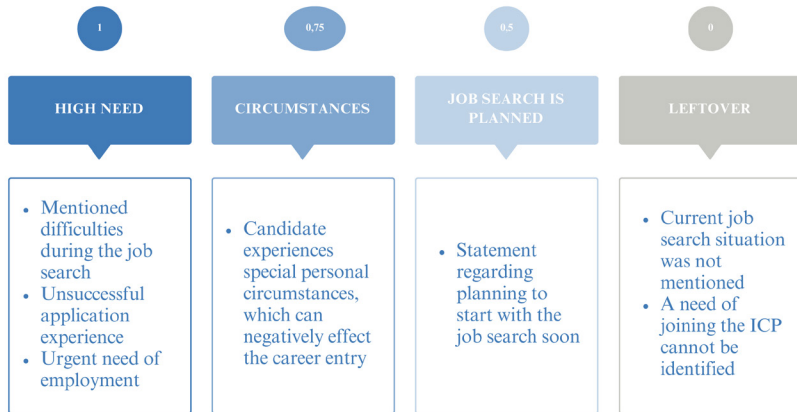


Figure 3: Evaluation of the Motivation Criteria.

- **Semester of Study**: the candidates studying in their last semesters and those who are beyond the standard period of study for their degree are prioritized in the selection process, since the current semester may be their last opportunity to join the program.
- **Diversity**: this criterion usually plays a role after all previous criteria were applied and some spots in the program remain free. These spots are allocated based on the diversity principle in respect of country of origin, gender, study subject and study degree.

¹² At the beginning of the program, we used the average grade as a selection criteria as well. Writing correct information in this field was a struggle for many applicants: different grade systems were used, the grades from the previous degrees were mentioned or it was stated that the applicant still does not have an average grade even in the advanced semester. Moreover, correlation analysis of this criteria and further participants' behavior did not show any correlation between these variables. Therefore, this criteria was removed from the application form for the program.

Selection Criteria

During the selection procedure, we also pay attention to whether each application is being submitted for the first time. Applicants who have applied before but did not secure a spot in the program, despite meeting the criteria of our donor, will be admitted on their second attempt. Meanwhile, applicants who have already participated in the program are usually placed on the waiting list and will be admitted only if there are spots remaining in the program.

In the application for the iStart Intensive Career Program, the candidates are expected to enter more details than the selection criteria mention. What data was collected and for what purpose can be found in the part entitled “Applicant Data”.

Program Materials

The usual amount and content of the additional informational and practical material depends on the specific events and trainers for each semester. At the end of the 2023 summer semester, the leaders of the ICP recommended including a common guide that would help participants to navigate through the program and collect their takeaways. For this, we initially developed a participants' form and later transformed that into the workbook with some gamification elements (Figure 4).

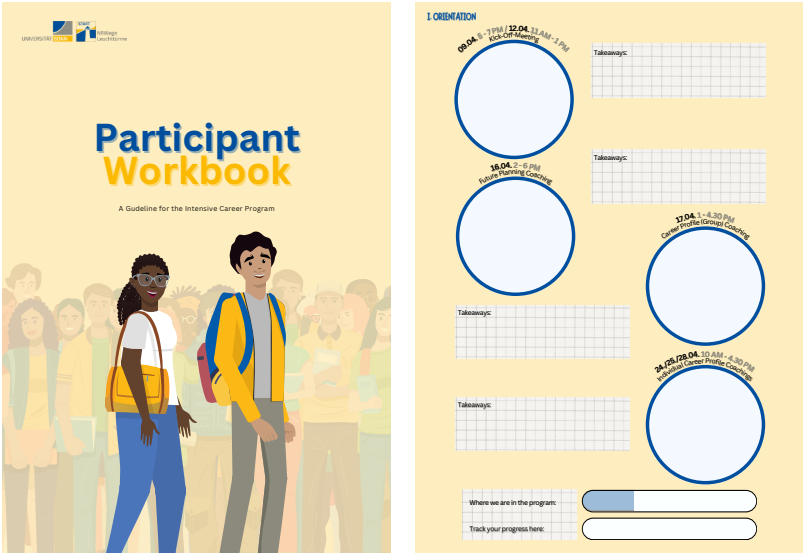


Figure 4: Participant workbook: cover and orientation page.

The gamification part of the program consists of handing out different stickers for each event attended and collecting them in the workbook. Apart from that, participants can write down the most important take-aways from each coaching session attended, which would be helpful for them to complete core fields (Figure 5) and take notes in order to give more precise feedback during the Wrap-Up Meeting.

FORM FOR PARTICIPANTS
OF THE **INTENSIVE** **CAREER** PROGRAM

RECOMMENDED TO COMPLETE DURING CAREER PROFILE COACHINGS AND/OR DURING EXTERNAL EVENTS TO JOB SEARCH STRATEGIES

WHAT AREAS AND FIELDS WOULD I LIKE TO WORK IN?

WHAT COMPANIES AND ORGANIZATIONS WOULD I LIKE TO WORK FOR?

WHICH POSITIONS WOULD I LIKE TO WORK IN?

WHAT RESOURCES DO I HAVE ALREADY?

RECOMMENDED TO COMPLETE DURING THE WHOLE INTENSIVE CAREER PROGRAM

KNOWLEDGE

SKILLS

EXPERIENCE

CONTACTS

OTHERS

Figure 5: Participant workbook: one of the pages with core fields.

Also, the core fields are recommended to be filled in during the whole program. What exact event is more suitable to attend, in order of filling in the field, is also indicated in the workbook. Currently, the workbook contains the following core fields: What is my concrete target in joining this program; What is my current career target; Why or what makes this target so attractive to me; What areas and fields would I like to work in; What companies and organizations would I like to work for; Which positions would I like to work in; What resources do I have already (knowledge, skills, experience, contacts, others); What is my current strategy (Step 1, 2, 3); My takeaways from the whole program.

The aforementioned fields were created in order to support our participants with their overall preparation for their career entry, guiding them through a very intensive program and motivating them to reflect on their profiles and their opportunities on the job market (see the reference to the Career EDGE Model devised by Pool & Sewell in the “Program Structure” section). The gamification part in its recent form – the workbook and stickers – was introduced in WS24/25, therefore, we have only one semester of experience at the moment of writing this practical guide. The feedback on this element from the participants of this semester was unexpectedly extremely positive,¹³ so that we will keep it for future semesters as well.

13 Some participants mentioned that getting stickers had a motivational effect on them to attend more events or not miss them (so as not to miss out on the sticker).

Program Events

The core part of the iStart Intensive Career Program consists of different types of events, through which participants get the necessary information and relevant training for their career entry. What content is covered in which event, will be explained in this part. It is also important to mention that here we list all events of the Intensive Career Program, including those that were only offered once or those that were removed from the program over time.

Orientation Block

Kick-Off Meeting

Form: on-site, compulsory

Duration: 1.5–2 hours

Number of participants: 15–25

Target: introducing the program and helping participants to bond

Content: interactive form of introducing the contents of the program, explaining the terms and conditions, expectation management, “getting to know you” games, first exercises for self-analysis, completing the workbook’s field on main goals of joining the program

During this event, we try to make sure that our participants understand, how they can navigate through the program and benefit from it as well as to establish a certain obligation toward their future activities within the program.

Future Planning Group Coaching¹⁴

Form: on-site

Duration: 3.5–4 hours

Number of participants: 10–15

Target: setting career targets and planning future

Content: interactive exercises and games for strategic future planning including relevant administrative and visa-related steps for the time period after graduation, work on setting possible career targets and goals, completing the corresponding field of the workbook

The idea of this event was given by many leaders of this program. They mentioned that “life after thesis” makes them anxious, since the “structured life path” that the educational system provides from kindergarten through to university finishes after graduation. This event is aimed exactly at this need.

Working in Germany

Form: online

Duration: 1.5 hours

Number of participants: unlimited

Target: providing general information about the (German) job market

Content: overall recent statistics on different working fields and occupations, current trends on the job market, career entry opportunities for (international) students, information on work permits and types of visa available after graduation

This event is traditionally organized by our cooperation partner –, the Office of Economic Development of the City Administration, but is also recognized for participants of our program.

¹⁴ At the time point of writing this guide, this event is offered for the first time. So there are no experience value on this topic yet.

Career Profile (Group) Coaching¹⁵

Form: on-site or online

Duration: 3.5–4 hours

Number of participants: 12–20

Target: profile analysis

Content: interactive group and individual exercises for profile analysis (defining core competences and transferable skills), identifying suitable working areas and positions based on analysis of personal work expectations and reflection on values and career goals, completing or adding information in the workbook in the sections on career targets, suitable area and current steps

This event aims to make participants aware that analyzing their profile and reflecting on current job market offerings, are essential steps before beginning a job search. According to our current statistics, this is the most-attended event among ICP participants (see “Participant Data”).

Individual Career Profile Coaching¹⁶

Form: on-site or online

Duration: 1 hour

Number of participants: 1 per coaching session

Target: individual consultation and feedback on a career profile, suitable fields, positions and strategy and future planning

Content: consultation and feedback on the topics mentioned above, with the focus on the completed spaces of the workbook

A combination of group and individual coaching sessions ensures that participants will have a clearer view of their own profiles, suitable career paths and strategies after attending both events and that they will be able to get answers to their individual questions, which may not be suitable for a group setting.

¹⁵ Also called “Self-Assessment Training.”

¹⁶ Alternatively, “Individual Orientation Coaching.”

Dealing with Challenges during Job Search (Group Coaching)¹⁷

Form: on-site

Duration: 4–5 hours

Number of participants: 8–12

Target: increasing resilience and self-motivation in challenging job-search-related situations

Content: safe space for a group work on challenges and negative experiences during the job search, discussions and creative exercises on strengthening self-esteem and self-motivation

This event was inspired by certain program participants whose job searches were hindered by previous negative – and, in some cases, even traumatic – experiences during the application process or in the workplace as well as by gaps or unique aspects in their career profiles or life paths.

Networking Block

Networking & Communication Coaching¹⁸

Form: on-site or online

Duration: 3.5–4 hours

Number of participants: 15–20

Target: improving networking and communication skills, learning how to approach companies and present oneself to them

Content: sharing different networking methods and techniques, training in initiating conversations, follow-up, small talk in a professional setting, training on presenting oneself at career fairs and other career related events

¹⁷ Also potentially called “Self-Empowerment and Motivation Coaching.”

¹⁸ The titles used are: “How to network?,” “Presenting Oneself to Employers and Professional Networking,” “Personal Marketing/Self-Branding,” “Communication and Networking,” “Personal Marketing and Self-Presenting,” “Professional Networking for Introverts.”

It is recommended to connect the content of such coaching with real examples from working life and with intercultural competency training, so that participants can better understand the practical value of the event.

Job Search Info-Events

Form: online

Duration: 1.5 hours

Number of participants: unlimited

Target: Providing information about different job search strategies, drawing attention to “hidden champions”

Content: showcasing different strategies for a job search, giving insider tips regarding industries, regional and local companies, job portals

This event is traditionally organized by our cooperation partner –, the Office of Economic Development of the City Administration, but is also recognized for participants of our program.

LinkedIn (Group) Training

Form: online

Duration: 2 hours

Number of participants: 15–40

Target: improving use of the LinkedIn platform for job searches and networking by the participating students

Content: showcasing the most important functions and features of the platform, introducing examples of functional profiles, giving tips on how to approach recruiters or networks via LinkedIn

This event was added to the program on request from the students and is very popular among them.

Individual LinkedIn Profile Check

Form: online

Duration: 20–30 minutes

Number of participants: 1 person per time slot

Target: individual consultation and feedback on a LinkedIn profile

Content: checking LinkedIn profiles of participants and giving them advice on improvement

This event is offered in combination with the corresponding group training.

iStart International Alumni*ae Day¹⁹

Form: online

Duration: 1.5 hours

Number of participants: unlimited

Target: networking with international alumni and alumnae currently in employment

Content: introducing speakers²⁰, general discussion about job search experience and the current situation on the job market, Q&A from participants, speakers' presentations of their current working area in the specific subject groups, group discussions

This event reassures international students that they are not alone in their job search situation and that fellow students also faced similar struggles. Moreover, it helps to expand their professional network in order to identify companies experienced in hiring international graduates.

¹⁹ Or "International Alumni*ae Stories."

²⁰ Securing speakers who studied different subjects and come from different countries is recommended. Some interactive games, involving participants, are also very helpful for a more satisfactory experience during the event. Since the 2024 summer semester, we have recruited a range of different international alumni and alumnae as moderators for the iStart International Alumni*ae Days and iStart Alumni*ae Buffet, which brings a new dynamic to discussions and helps us to keep in touch with international alumni and alumnae in other settings too.

iStart Alumni*ae Buffet

Form: on-site

Duration: 2–3 hours

Number of participants: 30–50

Target: networking with international alumni and alumnae currently in employment and keeping in touch program alumni and alumnae

Content: sharing current progress with the iStart Intensive Career Program, various “getting to know you” games and networking, data collection walls and merchandise corners, buffet

*This event is organized once per year and is always considered as an addition to the first iStart International Alumni*ae Day. It contributes to better networking for current and former participants and gives us an opportunity to have updates from previous program cohorts and collect some marketing material through pictures and video-interviews with alumni and alumnae.*

Day of Virtual Company Visits

Form: online

Duration: 4–5 hours, 1 hour per company

Number of participants: unlimited

Target: networking with potential employers

Content: regional and local organizations and companies introduce themselves and present their entry options for international students and graduates, Q&A with participants, (optional) Speed Interviews in break-out rooms

This event is organized once per year. Through this virtual visit, we try to familiarize our international students with our regional “hidden champions.”

Mid-Semester Meeting²¹

Form: on-site

Duration: 2–3 hours

Number of participants: 8–15

Target: networking among ICP participants, monitoring their current job search status and the status of their workbooks

Content: networking activities, industry role-playing game,²² checking up on progress with the workbooks

A mid-semester meeting will only be attractive for participants if this meeting contains some information relevant to their job searches.

Group Coaching: How to Deal with Discrimination during Job Search

Form: online or on-site

Duration: 3–4 hours

Number of participants: 8–20

Target: Raising awareness and providing information about the topic

Content: Providing information about types of discrimination and techniques for recognizing it, sharing suggestions for possible behavioral scenarios in the context of a job search (how to behave and whom to contact)

This event was only organized once, since the content forms part of the other structural unit of the University administration, but the topic has potential for regular events (maybe in safe space formats).

²¹ Also known as the “iStart Check Up.”

²² Participants are asked to either create a company or choose an existing one, research its structure, select a potential position within the company, describe the tasks and responsibilities of that role, and use their knowledge, skills, and experience to justify why they would be suited to that position. At the end of the role-playing game, each company should be pitched.

Individual Coaching on Dealing with Difficulties during Job Search²³

Form: on-site

Duration: 1 hour

Number of participants: 1 per coaching session

Target: Obtaining individual feedback on increasing resilience and self-motivation in challenging situations related to job search

Content: in-depth coaching and advanced exercises/techniques with a focus on individual struggles with the job search of the participating student, formulating possible strategies for strengthening self-motivation and resilience

This event is offered in combination with the Group Coaching, which takes place some weeks before.

Application Block

Job Application Training/Coaching

Form: online or on-site

Duration: 2–4 hours

Number of participants: unlimited

Target: Sharing information on job application procedures

Content: Explaining techniques for reading and analyzing job advertisements, identifying key words and tailoring application documents according to the job ad requirements, the use of AI in job applications

This event can be divided into two parts: Basic and Advanced. While the first part would cover the basics of application, the second should focus on concrete examples, paying attention to the ATS and sharing some insights from the selection procedures.

²³ Event also known as “Empowering Individual Coaching.”

Individual Application Check

Form: online or on-site

Duration: 30 minutes to 1 hour

Number of participants: 1 per coaching session

Target: individual feedback on application documents

Content: checking application documents and giving recommendations for improvement

It is also recommended that this event be attended in combination with the Job Application Coaching.

Job Interview Coaching

Form: on-site

Duration: 4 hours

Number of participants: 10–18

Target: sharing information on preparing for job interviews and assessment centers

Content: providing information about common job interview and assessment center settings, sharing techniques and methods for preparing accordingly, exercises on body language and voice, dealing with difficult questions and training in the use of AI

Since this event is usually very popular, it can be offered on different days in order to have medium-sized groups that work well.

Individual Interview Simulations

Form: online or on-site

Duration: 1 hour

Number of participants: 1 per coaching session

Target: simulating individual interview situations

Content: practicing a job interview with the coach and getting individual feedback on body language, voice, overall presentation and partly on content of answers

This event was requested by students and is offered in combination with the corresponding Job Interview Coaching.

Wrap-Up Meeting

Form: on-site

Duration: 1.5–2 hours

Number of participants: 5–20

Target: getting feedback on the program, checking up on participants' current job search situations, explaining the rules of the CV photo shoot, providing a moderation opportunity for the program's leaders

Content: exercises and activities for getting comprehensive feedback on the program, specific events and coaches, interactive rounds to collect information on the experiences with job search and application during the program, handing over the certificates and giving tips for a CV photo shoot for active participants

Since this event does not include any information relevant to job searches, it is usually not counted as a part of the program. The event has been prepared and moderated by leaders from the Intensive Career Program since the 2023 summer semester.

In our first edition of this practical guide, we also introduced a block of “Soft Skills for Career,” which we implemented solely during two semesters and cancelled afterward due to no measurable effect of attending these events on an improved self-perception of employability from our participants (the reason why this series was introduced in the first place). The events in this block were: Anti-Procrastination Training, Communication Skills Training, Emotional (Cultural) Intelligence, Training on Presentation Skills and Public Speaking, Problem Solving and Self-Confidence Training.

Leadership Component

After the first few years of the program, we noticed that some of our ICP participants wanted to commit more deeply to the program and were eager to receive more information that would be valuable for their future careers than what our usual intensive event program could offer. So the idea of the Leadership component was born.

The main purpose of this idea consists of involving a small group of interested ICP participants in evaluating and adapting of the program as well as giving them a feeling of leadership responsibility through the training of negotiation, problem-solving, strategic thinking and communication skills. These skills and experiences are connected with the following tasks, which are usually explained to the interested candidates during the Kick-Off Meeting:

- The Leaders should attend at least six events during the program. They can freely decide what events they will participate in. By way of comparison: for other participants, the minimum requirement for attended events only applies if they would like to get a certificate and/or a CV photo shoot.

Since one of the tasks for the Leaders is to give individual feedback about the program and to contribute their ideas to the program's design, being an active participant who attends at least a certain minimum number of events for a certificate is a crucial criterion. The completing of this requirement is usually not problematic for the Leaders, based on our experience with four cohorts by now.²⁴

²⁴ According to our statistics from the last four semesters (SoSe23–WS24/25), one Leader attends about nine events per semester on average (56% of the program's offer), while "usual participant" from the same semesters attends 4.6 events on average (29% of the program).

- They are asked for more detailed personal feedback on the workshops and coaching, which they give to the program's team during the Career Coffee Talks each month. By way of comparison: usual participants are asked to give a standard evaluation via an online survey.

Through this task, the Leaders are put in the position of self-reflection of their participant experience. They not only learn the material and content relevant for their job search but are also asked to analyze the process and settings of learning ("What events/exercises were most helpful for your understanding and your orientation?", "What questions remain unanswered?", "Do you have any ideas about what other exercise/form/event/topic should be offered in future?"). Reflecting on one's own experience and offering their ideas and suggestions not only helps to improve the ICP itself but might also give a feeling of being able to make an impact, which is directly connected with their leadership skills.

In order to create an open atmosphere for giving feedback, we created a series of regular meetings, which we called Career Coffee Talks.²⁵ These meetings are obligatory for the Leaders to attend.

- They themselves are responsible for their communication within the group and for their self-organization. By way of comparison: each participant of the Intensive Career Program is joining the program individually and is not obligated to join any group or to coordinate their self-organization with anybody else.

Some of the tasks – like preparation of the Wrap-Up Meeting or selection of an exclusive training (see below) – require a good degree of self-organization and communication within the group. This is intentionally not provided by the program team, thus creating a first "problem/challenge" on the Leaders' journey to completing their tasks. Their

²⁵ The Career Coffee Talks are not considered part of the Intensive Career Program. They do not have any particular agenda and any interested person can usually attend them. With a few exceptions, these events are only attended by the Leaders of the ICP. It should be mentioned, though, that, at the time of writing this edition – SoSe25 – we converted this event format into Coffee Talks with Experts, since our participants wanted more networking with companies and professionals. At the moment, we cannot draw any conclusions on this new format.

search for a solution obligates them to communicate with each other, to collaborate and train their problem-solving skills in a real-life setting. On the other side, it facilitates our work with the Leaders, where the team just communicates the tasks and supports through questions.

- At the end of the semester program, the Leaders have an opportunity to prepare and to moderate the Wrap-Up Meeting. Before that, they get a short training/introduction into the event management and moderation from the program's team. By way of comparison: other participants have a "passive" role during this event.

This part is always presented as an opportunity and not as a task *a priori*. Until now, all groups of the Leaders took advantage from this opportunity and showed a high level of engagement through the organization of this event. Through this activity, they learn some basics of the event management and moderation and get insights from the project management. First, a short training/introduction takes place (sometimes, during the Career Coffee Talk). After that, they have time to create their own plan for the event or to use ones from the previous semesters; they decide who will prepare material and who will moderate (and which part). After the event, when the program is officially ended, the Leaders get feedback on their group dynamic and on their moderation performance from the program team.

Gaining leadership skills is not the only benefit that participants can expect from the program:

- They also receive a certificate, where their contribution to the program and the skills learned are mentioned;
- Together with the certificate, they get a CV photo shoot (after attending at least six events instead of nine);
- They have an opportunity to "order" any workshop/training that they want for their group within the current semester.²⁶

26 Surprisingly, this benefit from the Leadership Component might be the most challenging experience for the Leaders, since they need to negotiate with the whole group in order to have a common solution to find a single topic and a single time slot, that would work for all Leaders.

After four semesters with a Leadership Component, it can be concluded that the Intensive Career Program has benefited from it, through offering new events, introducing the workbook for participants and improving the content of particular events. What advantages the Leaders received from this journey in the short or medium term should be analyzed in future.

Easy-Access Service

The understanding that our target group is very diverse and has different questions and needs in terms of their preparation on the job market brought us to the idea that, apart from the Intensive Career Program, we also need to offer an easy-access service to an unlimited number of international students. This service has changed over the past five years. The most frequently used items from this service will be introduced here:

- **Personal Consultations**

This service has been offered since the beginning of the project and has not experienced any big changes since then. The consultations are offered two times per week, each time with two appointments of 30 minutes. Two appointments are always offered online and two on-site. Both types of appointments are utilized by students, depending on their time schedule and physical location.

Mostly, these consultations are used by those students, who did not receive a spot on the Intensive Career Program or who did not apply for it at all. The variety of questions includes topics such as visa and work permit issues, the need for general guidance with their job search and application strategy, future career planning, concrete questions on application documents and job interviews.

Sometimes, we also invite some participants in the Intensive Career Program to use these consultations, especially at the end of the program, when we notice that some important questions have remained unanswered after some participants have finished the program.

- **CV (Grammar) Check**

This is the most frequently used easy-access service in our project so far. Initially, it was particularly focused on the grammar check. It was

expanded later with the addition of a content and design check, since the demand for that was high.

Now international students can upload their application documents and put the link for the vacancy they are applying for on our digital eCampus platform at any time. After no more than three working days, they receive their documents with our feedback on the content (how tailored it is for this particular vacancy), design, style and with our grammar corrections. Very often, we need to add some additional remarks, because many students apply for inappropriate positions.²⁷

This service not only supports our students, but also helps us to identify those students, who need some particular information on the preparation for the job market and to direct them to the corresponding events and services we offer.

- **Job Board**

This service was introduced after a relaunch of our eCampus project group three years ago. Usually, the board is filled with the job and internship offers (in English) that we receive from our cooperation partners. No additional search for possible positions takes place because there are more than 1,200 different job portals in Germany that specialized in this domain. Some of them are also introduced in the area of this service, so that international students can filter their job search more precisely.

- **Podcasts**

This service was actively offered in the first three years of our project. Lately, the production of new episodes had to be stopped due to the large amount of the student assistants' working time that this service was taking up. The previous episodes were focused on different topics such as visa-related questions (interview with the representative from the Immigration Office), volunteering opportunities (interview with a colleague from the Service Learning Office), job opportunities at big employers based in Bonn (interviews with representatives from Deutsche Telekom, DHL Freight, UNRIC), etc. All podcasts are still available on the eCampus platform.

27 For example, when a first-semester master's student applies for a full-time expert position or when a master's graduate applies for an apprenticeship.

- **Explanatory Animations**

In order to complement our event offers and digital services, a series with five episodes was created. The main animated figures represent international students with different backgrounds – Yvonne and Jorge.²⁸ In each episode, they embark step by step on their journey to enter the job market (Figures 6–10). Our concept is designed so that the target group can relate to these characters, making it easier for them to follow in their footsteps.

The **first step** in career orientation is usually connected with the questions: “Who am I?”, “What can I do?” and “What do I want?”. This self-reflective topic is addressed in the first episode.



Figure 6: First episode: “Who am I?”.

In the **second part**, the characters engage in a more in-depth analysis of their career profiles, taking into account their experience, core knowledge, skills and interests. This exercise brings them to the identification of suitable working fields.

28 The same characters are used in the program’s workbooks and in all marketing materials for the project.



Figure 7: Second episode: “Where do I stand?”.

After identifying possible employment areas, Yvonne and Jorge occupy themselves with planning their further strategy in the **third episode**. In this video, two concrete – profession and job market – strategies are explained.

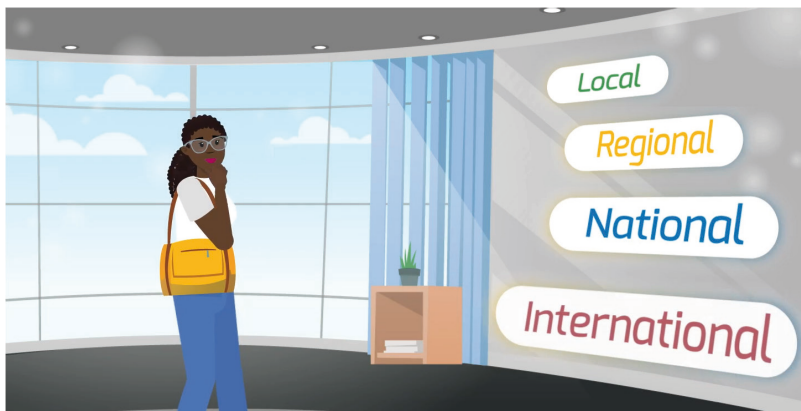


Figure 8: Third episode: “What is my strategy?”.

Preparing application documents and tailoring them for an identified suitable position is the top of the **fourth video**.



Figure 9: Fourth episode: "How do I apply?"

The animated series **finishes** with the last relevant step – mastering a job interview. Doing research in advance, preparing self-introduction, own questions and possible answers, by paying attention to body language, voice, facial expressions and technical settings (for online interviews).



Figure 10: Fifth episode: "How do I present myself?"

All the above-mentioned services are complemented with additional official brochures for international students, sources and assessment tests. Apart from the feedback from former participants of the Intensive Career Program²⁹ and apart from the statistics of personal consultations and applications checked, there is no technical way to track clicks, views or uploads from the eCampus platform. Although this makes it difficult to measure the impact of these services on international students' preparation for entering the German job market, having these online services facilitates individual consultations, where referring to concrete information sources or services helps students to find some answers to their questions independently.

²⁹ On average, during nine semesters (WS20/21–WS24/25), 25% of former participants of the ICP used general information and tips from eCampus for their career entry.

eCampus: User Experience Infrastructure

Many educational and extracurricular programs for (international) students face a similar problem as early as at the planning stage: what digital infrastructure can they use for their events and services? The opportunities for that might differ from university to university even within the educational landscape in one country. Conversations with other German colleagues confirm the situation and show that the technical settings in place can sometimes be underestimated. It applies, for example, to the ILIAS³⁰ – the open source learning management system that many universities in Germany use to organize learning materials and that is used in this project (at the University of Bonn it called “eCampus”).

This digital platform was picked right from the beginning of the project, because it would secure the protection of personal data of our participants, would allow only those who were enrolled at our University to have access to our infrastructure and would be more readily accepted by the target group, since many of them would be using this tool for their academic seminars anyway.

Within the eCampus repository, a course³¹ for our project was created. The main landing page of the course copies our flyer’s cover (Figure 11), in order to facilitate navigation and contribute to the recognition feature.

From the main page, the students (users) will be redirected to the corresponding services, which are contained in the folders that are invisible (for users). The redirection is engineered via the Hot Spot object of the H5P³² plugin.

30 Please read more about this platform here: <https://www.ilias.de/en/>.

31 A “group” object would also be suitable.

32 H5P is an open source-based plugin for existing platforms. You can find more details here: <https://h5p.org/>.



Figure 11: Main landing page of the eCampus project course (SoSe edition).

Both the closed group for the Intensive Career Program and the registration for it are stored in the same folder (Figure 12). Thanks to block containers, it is possible to sort different types of information for the user, to integrate video and audio and to upload different type of media. Objects such as surveys can be used for the registration for the program, for which a wide range of data is collected.

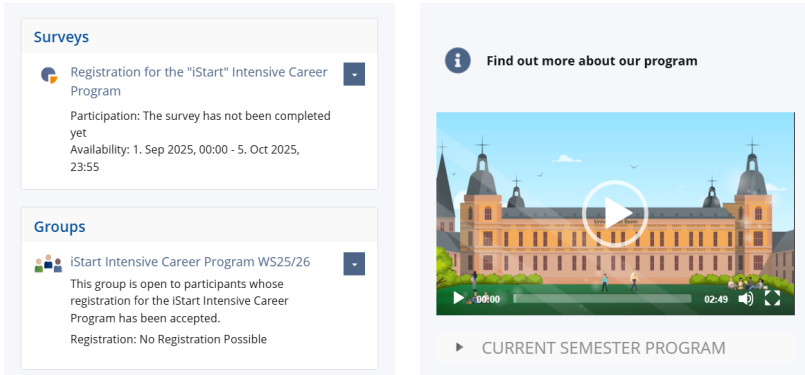


Figure 12: Content of the folder for the Intensive Career Program.

Within courses, folders and groups, the same type of objects can usually be used. We follow the program's logic for designing the user experience in the closed group for selected members of the ICP (Figure 13). Thus the events of each program's block can be found in the corresponding folder, which looks just like a button for the users.

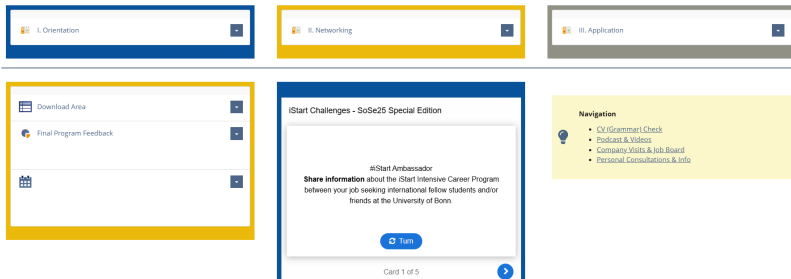


Figure 13: Intensive Career Program closed group and its content.

The registration for the events is done via two types of objects – sessions (for group events) and booking tools (for individual coaching slots). Both types of object permit corresponding material to be uploaded in different file formats (Figure 14). Cooperation events can be integrated as links within text block containers, so that each user has access to all events from the same program block at the same place.

Sessions

9. Apr 2025, 17:00 - 19:00: |

OFFLINE | Kick-Off-Meeting

Session Materials: 1

12. Apr 2025, 11:00 - 13:00: |

OFFLINE | Kick-Off-Meeting

Session Materials: 1

16. Apr 2025, 14:00 - 18:00: |

OFFLINE | Future Planning Coaching

Free places: 8 Session Materials: 1

Individual Coachings

OFFLINE Individual Career Profile Coaching

The coach will answer individual questions related to your profile and your applicant strategy. This is NOT a CV-Check! The ro...

ONLINE Individual Career Profile Coaching

The coach will answer individual questions related to your profile and your applicant strategy. This is NOT a CV-Check! What...

Figure 14: Two types of events in the “Orientation” folder of the ICP.

The booking tool is also used for the management of the appointments for personal consultations. Various official information sources and flyers are usually uploaded to this folder together with the interactive assessment center, which is powered with the personality quiz object of the H5P plugin (Figure 15).

Our Office Hours:

- Monday, 12 pm - 1 pm (online)
- Wednesday, 12 pm - 1 pm (in Office)

If you are interested in getting a personal advice or have some career related questions, please reserve a suitable appointment for you.

Note: You can always get advice on your application documents. Upload them [here](#).

Booking Pools

Personal Consultations

Mondays 12:00-13:00 Wednesdays 12:00-13:00

Self-Assessment

This test will help you to identify your own career anchors (or your “internal career”, which represents our subjective ideas of work, our wishes and motivations).

The results are not applicable for the whole life time. Please, be aware, that this test only measures your current opinion.

This self-assessment survey is created with the base on the theory of “Career Anchors”, developed by Edgar Shein, the organisational psychologist and MIT professor.

Start

This test doesn't replace individual consultations!

Figure 15: Content of the folder for Personal Consultations.

Another useful object – test – is used for the CV (Grammar) Check service, which allows participants to upload their documents there, select the type of the check they want to have and post the link to the vacancy they are applying for.



Figure 16: Navigation Block.

For the rest of the course content, the block containers including accordions are used, which can be adapted to different types of device. Depending on the services offered by the project/program, it is a good idea to include the navigation block/button (Figure 16) so that users will be able to navigate easily between different folders, groups and objects.

In summary, this type of platform can meet the essential needs of the project infrastructure, enabling registrations, participant and appointment management, storage of information and materials, and offering specific online services. However, it has some limitations, such as the lack of possibility to track clicks, visits and views of uploaded videos and audios as well as unresponsive surveys (which limits their use for evaluations). Using this type of platform can also be difficult if some of the events or services are planned for participants outside of the University (such as alumni and alumnae events).

Data Analysis & Program Results

The data analyzed in this report spans the first eight semesters of the Intensive Career Program, collected from the 2020/21 winter semester to the 2024 summer semester. The data collection process covers three phases of the program (before, during, and after the program takes place) and addresses applicants, participants and program events.

Applicant Data

Before the program begins, socio-demographic data is gathered through a registration questionnaire. As all applicants need to be enrolled at the University of Bonn and have access to eCampus, the data is collected through this platform. The main purpose of collecting applicant data is to select candidates for the Intensive Career Program (see “Selection Criteria”).

Applicants provide information on their country of origin, degree level pursued, field of study, faculty, current semester of studies, German language proficiency, gender, employment status, motivation for participating, willingness to engage in the Leadership Component and, more recently, how long they have been in Germany. Since the 2023/24 winter semester, applicants have additionally been required to submit the last four digits of their student ID. This method facilitates matching data collected across the different program’s phases, enabling inferential statistical analysis while ensuring anonymity and truthful responses. Participants also consent (or not) to their data being processed by the iStart team.

Descriptive Statistics from Applicant Data

During its first eight semesters, the ICP received a total of 642 applications, averaging 80 applications per semester. The highest number of applications occurred in the program's first two semesters, exceeding 100 applications per semester. This period coincided with the COVID-19 pandemic, during which all events were held online. Since then, a clear preference for in-person events has emerged, with students reporting that direct interaction with trainers and peers enhances their learning experience. In response, the program shifted toward more in-person formats. However, this transition required greater commitment from students in terms of attendance and reduced flexibility regarding location, which likely contributed to a drop in applications in the third semester in which the program took place. From the third semester onward, application numbers steadily increased until the sixth semester, as students adapted to and embraced the new format.

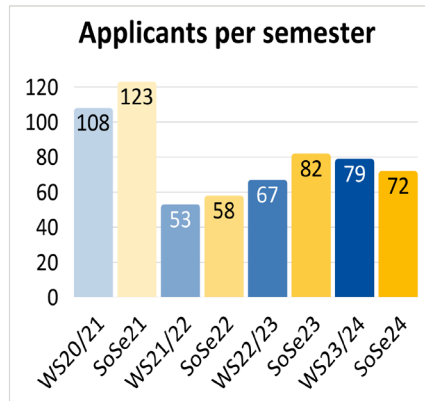


Figure 17: Number of applicants for the ICP per semester.

While the number of applicants provides an indication of student interest and program visibility within the University of Bonn, a more critical observation is that demand has consistently exceeded capacity. The program can accommodate approximately 50 participants per semester, highlighting both its popularity and the need for a selection process (see “Selection Criteria”).

The ICP has attracted the interest of students from 91 different countries, with the largest groups coming from India (17.9%), China (12.8%), Turkey (5.9%), Iran (5.3%) and Russia (4.2%). Together, these five countries account for nearly half (46.1%) of all applicants. This distribution reflects broader trends in international student enrollment at German universities, where students from India and China represent a significant portion of non-European enrolled students (cf. *DAAD Wissenschaft weltoffen*, 2024, p. 7).

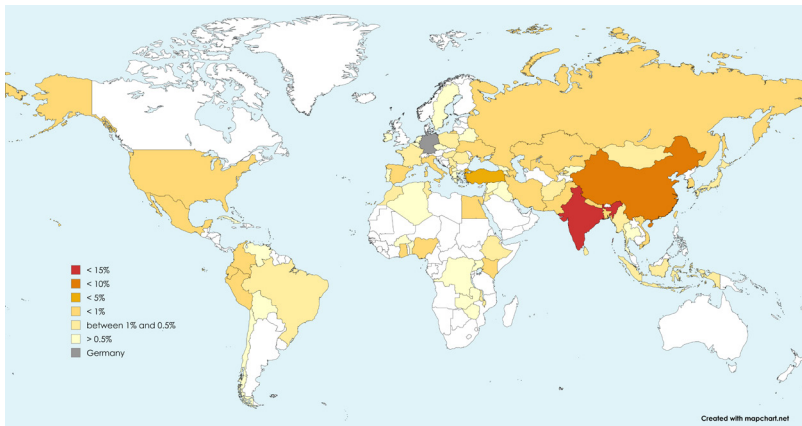


Figure 18: Map of countries of origin of the ICP applicants.

Employment status data was collected from applicants from the second semester onward. Among the respondents, 300 individuals (56.18%) reported not being employed at the time of application. Among those who were employed, the most common form of employment was working as a student assistant (23.41%), followed by holding a mini-job³³ (13.11%) and completing an internship (4.49%). Another 2.81% preferred not to answer.

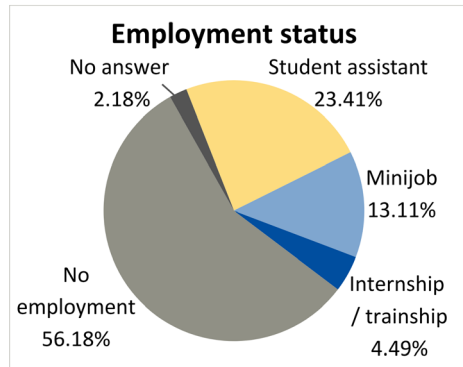


Figure 19: Employment status of applicants.

Regarding their academic background, the majority of applicants belong to the Faculty of Mathematics and Natural Sciences (38.9%) and the Faculty of Law and Economics (26.0%). The subjects covered in these faculties have strong connections to industry and often require students to navigate complex job markets, making career guidance particularly relevant.

33 A “mini-job” is a form of minor employment in Germany, with a maximum salary of €556.00 per month or a work limit of 70 calendar days per year (cf. Bundesagentur für Arbeit).

Applicant Data

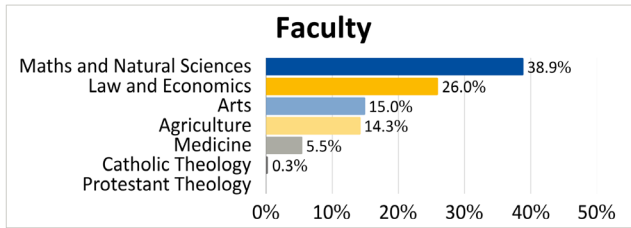


Figure 20: Applicants by faculty.

A striking 83.6% of applicants are pursuing a master's degree, reflecting the program's alignment with students at a critical career transition point. This aligns with general trends in higher education, where master's students are typically more focused on securing employment after graduation cf. OECD, 2024, p. 60). Additionally, 8.6% of applicants are bachelor's students, many of whom are already considering their career paths early on, while 5.8% are doctoral candidates, often weighing up options between academia and industry.

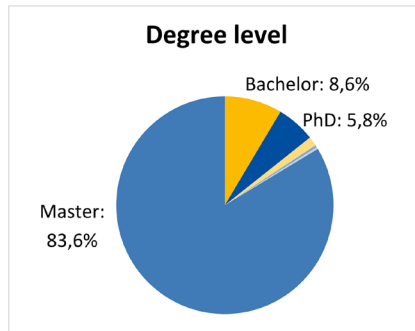


Figure 21: Applicants by degree level.

The distribution of participation across study semesters is also noteworthy. The majority of participants are in their second, third or fifth semester, which aligns with the prevalence of master's students, whose programs typically last four semesters. This suggests that students recognize the importance of career preparation relatively early in their studies rather than waiting until the final semester (Figure 22).

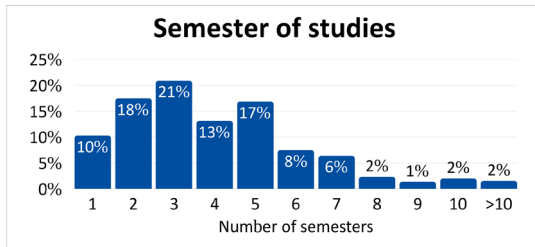


Figure 22: Applicants by semester of study.

The gender distribution of ICP applicants shows a slight predominance of female students (58.1%) compared to male applicants (41.3%), with three people identifying as “other.” Regarding refugee background, the ICP has received seven applicants (1.1%) with a refugee background. While a small proportion, this participation underscores the program’s inclusivity and potential to support students facing additional difficulties.

Applicant Data

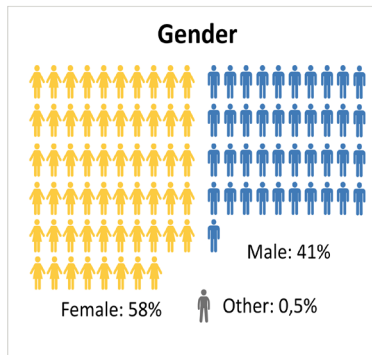


Figure 23: Applicants by gender.

A significant barrier for international students in Germany is language proficiency, and data on ICP applicants reflects this reality. More than half (56.6%) of applicants report a German language level of A2 or lower, which can present a major obstacle when seeking employment in Germany. Language barriers often limit access to job opportunities, particularly in fields requiring client interaction or administrative responsibilities.

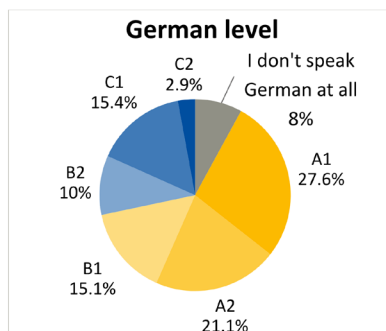


Figure 24: Applicants by level of German knowledge.

Participant Data

After accepting applicants onto the Intensive Career Program, data is collected from participants through questionnaires in three different phases: during, immediately after and three months after the program.

During the program, data is collected anonymously to evaluate the events which were attended by ICP participants and non-participants (in the case of open events). Taking into consideration that some open events can be attended by individuals who are not enrolled at the University of Bonn, the data is collected using the online survey and questionnaire tool LamaPoll.³⁴

When filling in the questionnaire, event participants indicate if they are participants in the ICP or not, identify the events they wish to review and assess them using a four-point Likert scale, focusing on aspects such as general quality of the event, trainer performance, informativeness, interactivity and usefulness of the information provided. Responses are categorized as “Very Good,” “Good,” “Satisfactory,” “Poor” or “No Answer.” Respondents can also add a general open comment at the end of the questionnaire. Individuals who are not participants of the ICP also answer an additional question about how they found out about the iStart. This question helps to evaluate the communication channels through which people discover iStart.

Descriptive Statistics from Participant Data

From the 642 applications, 368 students (57.3%) were accepted into the program, with an average of 46 participants per semester. The number of participants has remained fairly stable and close to the maximum participant capacity (50 participants). The exception is the 2022/23 winter

³⁴ See www.lamapoll.de.

semester, with 54 participants, the highest amount of participants in a semester (see “Selection Criteria”).

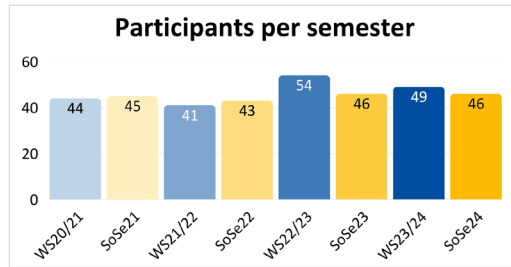


Figure 25: Number of participants per semester.

For selected participants, the distribution of their socio-demographic data resembles the distribution of applicant data. This means that the proportions of participants with a given characteristic is similar to the proportion of applicants with the same characteristic. Additionally, this indicates that there is no selection bias when accepting applicants into the program.

For this reason, we do not present the distributions of applicant's data to avoid redundancy. However, two cases are worth mentioning where the distributions differ. First, the proportion of participants not currently in employment at the time of applying (61.4%) is larger than the proportion of applicants in the same category (56.2%). Second, the share of doctoral students is larger among participants (8.4%) if compared to applicants (5.8%). In both cases, the differences observed between participants and applicants can be precisely explained by the Intensive Career Program's goal of supporting international students in their transition from university to the job market. Therefore, students who are not employed by the time they apply or who are considering their options after completing their doctorate are likely to benefit more from the advice that the ICP provides.

Participant Data

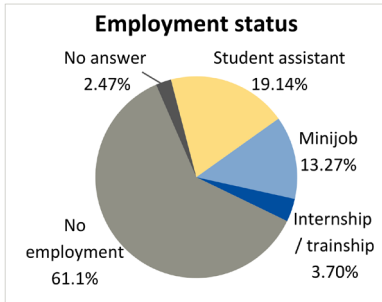


Figure 26: Participants by employment status.

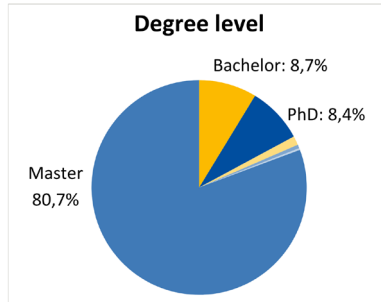


Figure 27: Participants by degree level.

Event Attendance

To track attendance at ICP events and check program completion, a database is maintained and updated during the program. This database contains an identifier that makes it possible to determine which participant attended which event, and the events are labelled according to the three different blocks of the program: Orientation, Networking and Application. Two additional columns take into account the sum of events attended by each participant, determining whether or not participants are eligible to receive a certificate (if they attended six events or more) and whether or not they should receive a CV photo shoot (if they attended nine events or more).

Considering its first eight semesters, 162 participants (44.0%) received a certificate and 78 (21.2%) received a CV photo shoot. On average, participants attend 4.96 events per semester, with an average of 1.99 events attended in the Orientation block, 1.51 in the Networking block and 1.29 in the Application block. Note that these calculations include the discontinued Soft Skills block that was part of the program in its third and fourth semesters.

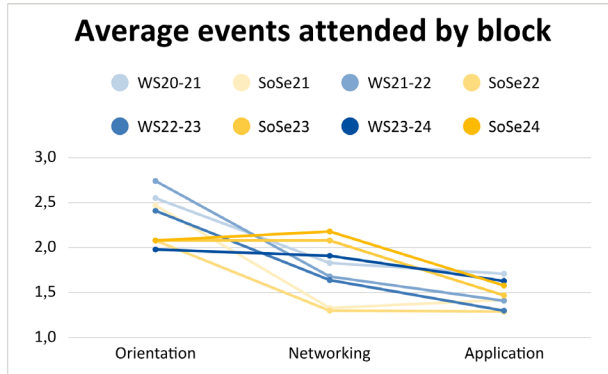


Figure 28: Average number of events attended per participant, per block.

Since the beginning of the program, the number of events offered has risen from 10 events its first semester to 16 events in the 2024 summer semester. The events that attracted the greatest attention from participants were the Career Profile (Group) Coaching (185 participants), Kick-Off (179), Job Application Training (170), Working in Germany (165) and Individual Career Profile Coaching (146). Remarkably, four out of these five events take place in the Orientation block of the program. This is possibly because these events have been available in every semester since the beginning of the program with a focus on fundamentals such as receiving information about the ICP, general information about working in Germany and understanding of a participant's profile. In contrast, the Networking block offers a wider range of events that are not necessarily available in every semester, as the program adjusts to participants' demands.

Event Evaluation

After each iStart event, participants are invited to anonymously evaluate the event through an online survey administered via LamaPoll. Evaluations from each semester are stored in an evaluation database designed to standardize and compare results across different semesters despite variations in survey structures over time.

Participants evaluate events using structured statements assessed on Likert scales. Historically, two different evaluation scales have been employed:

- Scale A: used until the 2021/22 winter semester (third semester); consist of six response options: “Very good,” “Good,” “Rather good,” “Rather bad,” “Bad” and “Very bad.” Each response option is assigned weights ranging from 1 (Very good) to -1 (Very bad).
- Scale B: adopted from the 2022 summer semester (fourth semester) onward, consist of four response options: “Very good,” “Good,” “Satisfactory” and “Poor.” Response weightings similarly range from 1 (Very good) to -1 (Poor), enabling standardization across different survey formats.

To calculate standardized event evaluation scores, response frequencies are multiplied by their assigned weightings and aggregated. For instance, if an event receives response distributions for “Very good” (70%), “Good” (10%), “Satisfactory” (15%) and “Poor” (5%), the standardized score is calculated as follows:

$$\begin{aligned} \text{Standardized Score} &= (1 \times 70\%) + (0.333 \times 10\%) \\ &\quad - (0.333 \times 15\%) - (1 \times 5\%) = 0.63335 \end{aligned}$$

The evaluation database captures responses across consistent evaluation criteria from the 2022 summer semester onwards:

- General quality of the event
- Trainer's performance
- Event informativeness
- Interactivity of the event
- Usefulness of the information received

Evaluations from previous semesters are aligned with these standard criteria by identifying equivalent statements from past surveys, thus ensuring comparability over time.

Individual coaching sessions are evaluated specifically on the criterion of "Trainer's performance" (uses only a general criterion), while certain events or semesters may require aggregation of multiple sub-criteria into a single standardized metric.

Finally, the database provides an overall evaluation rating by averaging the standardized scores of available evaluation points for each event, generating an overarching metric for comparative analysis and reporting.

Program Outcomes

Immediately after program completion, participants of the ICP fill in a questionnaire that includes questions related to participants' perceptions of the program's usefulness, highlights of the most and least helpful elements, current employment and study status and preparedness for career entry. Furthermore, there are questions to infer how confident participants are with regard to the fields, companies and positions they can and want to pursue. As all participants of the ICP are enrolled at the University of Bonn, the data is once more collected using eCampus.

As a way to keep track of ICP's impact in the longer term, another questionnaire is run three months after completion of the program. As the outcomes of the program might not be perceived immediately after program completion, this questionnaire revisits the participants' employment and study status, asks them about their level of satisfaction with their current employment status, assesses how the program supported their career entry, and updates their aspirations regarding the preparedness for the job market and fields, companies, and positions they can and want to work in. Given that, three months after participation, students can have graduated by the time the questionnaire is run, this data is collected using LamaPoll. Comparing this questionnaire to the one run immediately after program completion, enables the analysis of participant outcomes over time, providing valuable insights into the program's longer-term impacts.

Program Outcomes I: Descriptive Statistics from Personal Feedback at the End of the Program

A total of 119 participants provided feedback voluntarily over the first eight semesters of the ICP, which corresponds to an average response rate of 32.3%. This corresponds to an average of almost 15 respondents per semester.

When asked if participation in the program was of any help for the participants, 75 respondents (63.0%) replied that the program helped a lot and another 41 (34.5%) respondents said that the program helped in some questions. Only 3 (2.5%) respondents answered that the program did not really help or did not help at all.

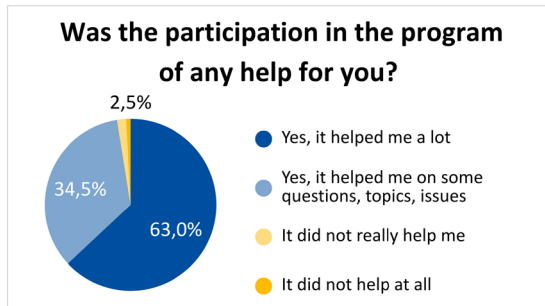


Figure 29: Results for the question “Was the participation in the program of any help for you?”.

Furthermore, 110 respondents (92.4%) replied “yes” or “rather yes” when asked if they felt prepared for career entry. The high percentage of respondents who said that they benefited from iStart and were confident for their career entry demonstrate the program’s strong impact and its relevance to participants’ career development, highlighting the value of the ICP in fulfilling its mission.

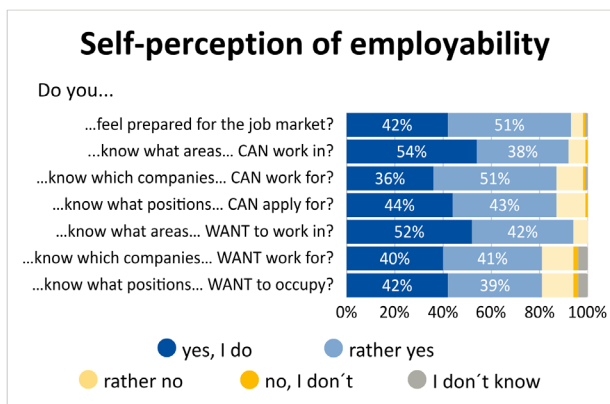


Figure 30: Self-perception of employability by the end of the program.

At the end of the program, participants report on their employment status once more. While 61.4% of applicants initially indicated that they were not in employment, this figure decreased to 42.9% upon program completion. This change suggests that many participants secured some sort of employment immediately after their time in the ICP, assuming that there is no selection bias (i.e. participants who are (un)employed are just as likely to reply as in the application questionnaire) in the answers obtained. Among the employed, the most common forms of work included roles as student assistants (25.2%), mini-jobs or similar positions (12.6%), and internships or traineeships (11.8%). A smaller portion (4.2%) volunteered for projects or companies, and 3.4% reported being in regular employment. These results highlight the program's role in facilitating participants' engagement with the job market and gaining relevant work experience as they progress in their studies and career preparation.

Program Outcomes

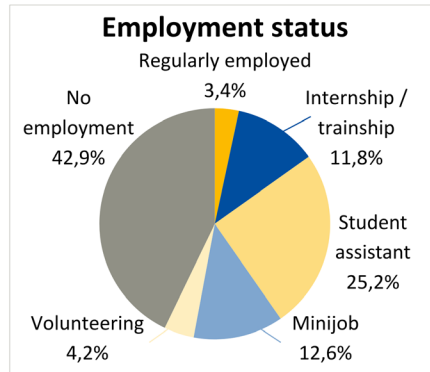


Figure 31: Employment status at the end of the program.

Regarding their studies, 3.4% of the participants say that they have already graduated and 26.1% mention that they are graduating. These participants are likely to benefit more immediately from the ICP as they prepare to enter the job market. The majority (68.9%) of participants report that they are still students and intend to finish their studies. They are the students who are looking forward and preparing early for a career start. Two students (1.7%) indicated that they want to discontinue their studies.

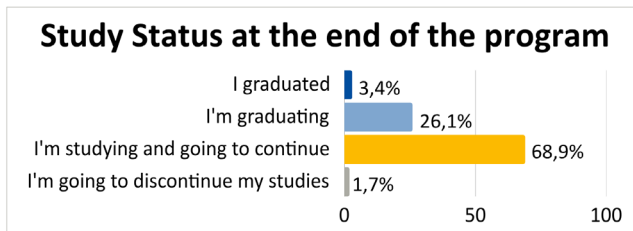


Figure 32: Study status of participants at the end of the ICP.

Program Outcomes II: Descriptive Statistics Three Months after Completing the Program

The final questionnaire is available for participants to complete three months after the end of the program. This questionnaire is helpful to understand the ICP contributions in the longer run. We would also be willing to collect this information in longer time frames, but response rates would be considerably low.

Since the start of the program, 154 participants have completed this questionnaire, resulting in a response rate of 41.8%. When asked if they feel prepared for career entry, 80.5% of respondents answered “yes” or “rather yes,” a decrease from the 92.4% reported immediately after program completion. This decline may be partly explained by the phenomenon known as the “expectation hangover,” a term coined by Christine Hassler. It refers to the emotional letdown that occurs when reality does not meet the high expectations one had for a future event or outcome (cf. Hassler, 2016). In this context, participants may leave the ICP feeling optimistic about their job prospects but, as challenges in the job search arise, their initial confidence may fade, leading to a more tempered view of their preparedness.

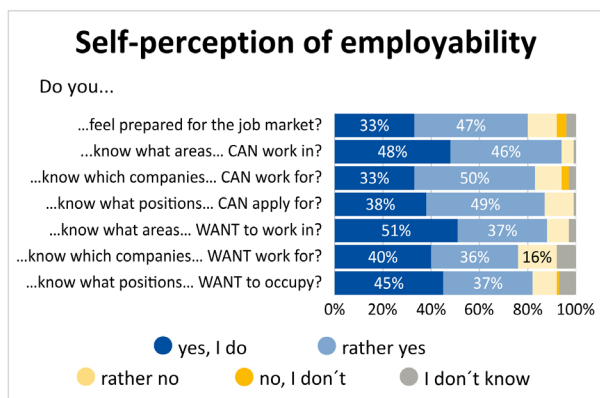


Figure 33: Self-perception of employability three months later.

Once again, the share of participants reporting no employment drops considerably: from 61.4% in the application questionnaire to 42.9% at the end of the program, and down further to 27.9% three months after completion. Assuming there is no selection bias, this suggests that a higher proportion of participants have successfully secured employment.

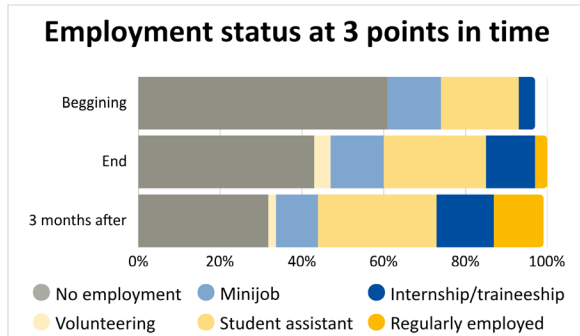


Figure 34: Employment status: comparison between three points in time.

From the fifth semester onward, participants were asked about their level of satisfaction with their employment status on a four-point Likert scale. Among the 62 respondents to this specific question, the majority reported being happy (30.6%) or satisfied (48.4%) with their current status. An additional 6.5% felt neutral, while 14.5% expressed dissatisfaction. Of the 9 participants who were unhappy with their employment status, all were unemployed, with 7 still studying for the same degree, while 2 had already graduated.

Program Outcomes

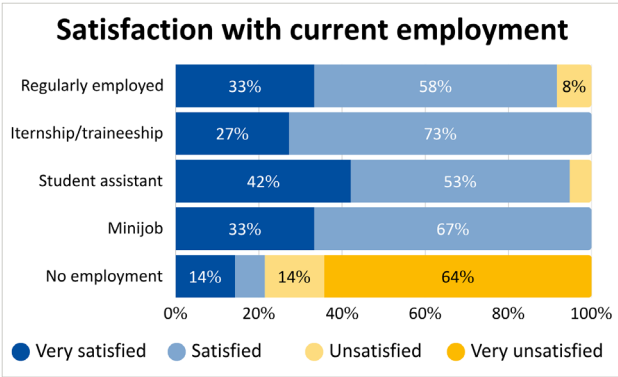


Figure 35: Satisfaction with current employment, by employment status.

Regarding academic progress, 12.1% of participants had graduated three months after completing the program. The majority (81.3%) were still studying for the same degree and a smaller portion (4.7%) had moved on to pursue a higher degree (master’s or doctorate). Two students (1.9%) reported their decision to discontinue their studies.

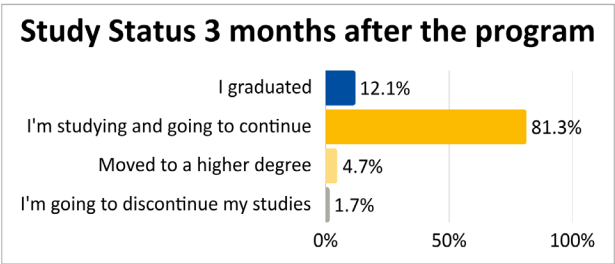


Figure 36: Study status of participants 3 months later.

In addition to tracking outcomes, the questionnaire also explored which elements of the ICP participants found helpful for their career entry. The most widely used components were the information and tips received during events (86.0%) and during Individual Coaching sessions with trainers (67.3%). Nearly one-third of participants also reported benefiting from information shared by fellow ICP participants, suggesting a

potential peer effect within the program. The Easy-Access Services available to all international students also played a role, with 16.8% of ICP participants using Personal Consultations and 10.3% taking advantage of CV Checks. Other helpful resources included documents available on the eCampus portal (23.4%), international alumni and alumnae (8.4%) and companies (2.8%). Only two participants (1.9%) stated that they had not used any of the above-mentioned elements for their career entry.

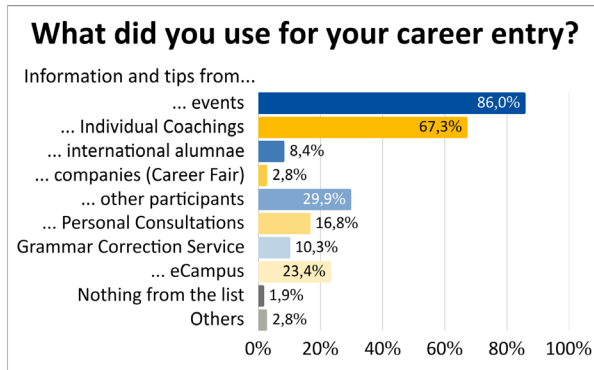


Figure 37: Results for the question “What did you use in your career entry?” three months later.

A final aspect of interest is related to the connections formed during the Intensive Career Program. A majority of participants (53.2%) remained in contact with others three months after program completion. These findings highlight another valuable dimension of the iStart program, which is its role in fostering networking opportunities that can support participants in their job search.

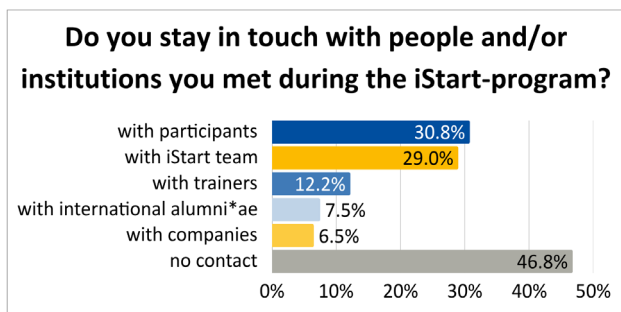


Figure 38: Results for the question “Did you stay in touch?” three months later.

These results offer an initial overview of participant experiences and outcomes based on descriptive statistics. They suggest that the ICP contributes positively to participants’ preparedness for career entry, supports their transition into employment and facilitates valuable networking opportunities. While these findings are encouraging, they remain exploratory in nature. To deepen our understanding of these patterns and explore potential relationships between program participation and outcomes, more detailed statistical analyses will follow.

Correlation & Regression Analysis

While descriptive statistics provide valuable insights into participants' experiences and perceived outcomes, they are not sufficient to understand the underlying patterns or potential relationships between different components of the Intensive Career Program.

To explore these dynamics further, we use correlation and regression analyses. These methods help us examine, for example, whether participation in one block of the program encourages further engagement in others, whether attendance at specific events increases the likelihood of completing the program, and whether program completion is associated with improvements in employment status. Though these analyses cannot establish causality, particularly in the absence of a control group, they allow us to investigate how different variables relate to one another and to identify trends that can inform future program development.

Anonymity, Matching and Sample Size

To balance participant privacy with the need for longitudinal analysis, an anonymized tracking system was introduced in the seventh semester of the ICP. Since then, participants have been asked to provide the last four digits of their student ID when completing surveys. This approach ensures data remains anonymous, thus encouraging honest and uninfluenced responses, while still allowing responses to be matched across different phases of the program. Using this system, it is possible to fully merge participant data with event attendance records, resulting in a matched dataset of 368 observations.

However, when it comes to linking this information to the feedback surveys, the number of matched cases drops significantly. Out of the 119 participants who completed the immediate post-program questionnaire,

only 70 could be reliably matched to data collected before and during the program. The situation is even more pronounced for the follow-up survey, administered three months after program completion: of the 154 respondents, only 36 could be linked to the earlier phases. These gaps considerably reduce the sample size available for statistical analysis and limit the strength and generalizability of the findings. As a result, while the available matched data allows for an exploratory analysis of potential relationships between participation and outcomes, the reduced sample sizes should be taken into account when interpreting the results.

Correlation between attendance in different program blocks

A central question in evaluating the structure of the ICP is whether participation in one block of the program is associated with participation in the others. The program is designed around three thematic blocks (Orientation, Networking and Application) each addressing a different aspect of career preparation. Understanding whether participants tend to engage in multiple blocks or focus selectively on one provides an insight into how the different components of the program relate to each other.

To explore this, we examine the correlations between the number of events attended in each block, taking a pair at a time. If attendance across blocks is positively correlated, this would suggest that participants who attend more events in one block also tend to attend more events in the others. Importantly, this does not indicate causality or says anything about the total number of events attended, it simply reflects how attendance in different content areas overlaps.

Table 1: Correlation Table between Attendance in the Program Blocks.

Block	Orientation	Networking	Application
Orientation	1	.555**	.564**
Networking	.555**	1	.569**
Application	.564**	.569**	1

Note. Values represent Pearson correlation coefficients. N = 368.

** Correlation is significant at the 0.01 level (2-tailed).

The results presented in the table above show that attendance across all three blocks is positively and significantly correlated at the 1% level. Specifically, participation in the Orientation block is associated with attendance in both the Networking (correlation = 0.555) and Application (correlation = 0.564) blocks. Similarly, the correlation between Networking and Application is also strong (correlation = 0.569). These consistent and moderately strong correlations indicate that attendance across blocks tends to move together: participants who engage more in one content area are also likely to engage more in others.

In conclusion, the evidence suggests that the participants' engagement in the ICP is not confined to isolated blocks but tends to span all of the program's thematic areas. While this does not say anything about total participation levels or motivation per se, it does indicate that the blocks are complementary in practice, with many students participating in multiple components of the program.

The relevance of attending the Kick-Off Meeting

An important element of the ICP is the Kick-Off Meeting, which marks the beginning of the semester's activities and introduces participants to the program's structure, goals and key events. Beyond its informative role, the Kick-Off may also serve as an entry point for deeper engagement with the program. To evaluate this, we investigate whether attending the Kick-Off Meeting is associated with greater overall participation and a higher likelihood of program completion.

The first analysis focuses on total event attendance (excluding the Kick-Off itself) as the dependent variable, using linear regression to estimate whether participation in the Kick-Off leads to attending more events. In Model (1), only the Kick-Off variable is included as a predictor. The results show that attending the Kick-Off is associated with attending 2.76 more events on average (SE = 0.334), a statistically significant effect at the 1% level. The model explains 15.7% of the variation in event attendance ($R^2 = 0.157$), highlighting the strong stand-alone impact of this single event.

Table 2: Effect of Kick-Off Participation on Total Event Attendance.

VARIABLES	Dependent Variable: Event Participation	
	(1)	(2)
Kickoff	2.758*** (0.331)	2.727*** (0.347)
Constant	3.127*** (0.233)	5.037 (3.329)
Observations	368	368
R-squared	0.157	0.210
Faculty FE	NO	YES
Degree FE	NO	YES
Employment FE	NO	YES
German Level FE	NO	YES
Gender Control	NO	YES
Semester FE	NO	YES

Note: Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

In Model (2), demographic and academic controls are added, including faculty, degree level, employment type, language level, gender and semester. The effect of Kick-Off participation remains virtually unchanged and continues to be statistically significant.

To assess whether Kick-Off attendance is also linked to program completion, we conduct a logistic regression using receipt of the ICP certificate as the outcome variable. In the model without controls, attending the Kick-Off is associated with significantly higher odds of receiving the certificate, with a coefficient of 2.019 (SE = 0.238). This model yields a pseudo R^2 of 0.1618, indicating a strong relationship between this single event and program completion. In the fully specified model, which includes the same set of control variables, the effect of Kick-Off attendance remains significant and robust (coefficient = 2.138, SE = 0.260).

In summary, both linear and logistic regression analyses highlight the central role of the Kick-Off Meeting in shaping participant engagement. Attendance at this initial event is associated not only with higher levels of participation throughout the semester but also with successful completion of the program.

Table 3: Logistic Regression Predicting Certificate Completion.

VARIABLES	Dependent Variable: Certificate (Binary)	
	(1) No Controls	(2) With Controls
Kickoff	2.019*** (0.238)	2.033** (0.889)
Constant	-1.283*** (0.176)	30.572 (1.46e+07)
Observations	368	368
Pseudo R-squared	0.162	0.211
Faculty FE	NO	YES
Degree FE	NO	YES
Employment FE	NO	YES
German Level FE	NO	YES
Gender Control	NO	YES
Semester FE	NO	YES

Note: Logistic regression coefficients presented. Standard errors in parentheses.

*** p < 0.01, ** p < 0.05, * p < 0.1

Program Completion and Employment Status at the End of the Program

One of the key questions in evaluating the ICP is whether completing the program leads to improvements in participants' employment status. To explore this, we examine changes in employment between the beginning of the program and two points in time: immediately at the end of the program and three months after program completion.

Employment status is measured using a broad definition of "having a job," which includes full-time positions, mini-jobs, internships, student assistant roles and volunteering. Based on this definition, we construct a binary variable capturing whether a participant's employment situation improved, remained the same or worsened. For this analysis, we group individuals who experienced no change or a decline in employment status together and compare them to those whose situation improved. Logistic regression models are then estimated to test whether program completion (as indicated by receiving the certificate) is associated with a higher likelihood of employment improvement.

Table 4: Logistic Regression Predicting Employment Status Improvement.

VARIABLES	Dependent Variable: Employment Improved (Binary)	
	(1) End of Program	(2) 3 Months After
Certificate (Binary)	0.164 (0.505)	-1.299* (1.146)
Constant	-0.657** (0.329)	1.791 (1.080)
Observations	70	36
Pseudo R-squared	0.001	0.0347

Note: Logistic regression coefficients presented. Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The first model, based on 70 matched observations, evaluates employment outcomes immediately after the program. The results show no statistically significant effect of program completion on employment improvement (coefficient = 0.164, $p = 0.745$). Although 35.7% of participants reported an improved employment status, this outcome appears unrelated to whether or not they completed the program.

The second model uses a smaller sample of 36 matched participants to assess outcomes three months after program completion. In this case, 66.7% of participants reported an improvement in employment status. The estimated effect of program completion is again not statistically significant ($p = 0.257$). This means that, based on the available data, we cannot conclude that completing the program with a certificate after attending at least six events leads to a higher likelihood of employment improvement.

However, these results should be interpreted with great caution. First and foremost, the analysis is based on a very limited sample size, particularly in the three-month follow-up, where only 36 observations could be matched. Small sample sizes reduce statistical power and make it difficult to detect meaningful effects, even if they exist.

There are also important contextual factors that help explain these findings. The ICP gives priority to applicants who report difficulties in the job search or face challenging personal or structural circumstances. In this sense, program completion might not guarantee employment but may instead serve to level the playing field, helping these students reach a similar position to peers who may not face such barriers. Apart from

this, the ICP is designed with an individualistic approach, where each participant is encouraged to attend the events and obtain the information they are missing for entering the (German) job market. Supporting this view, the data previously presented shows that 63.0% of participants said the program “helped a lot,” and another 34.5% said it “helped in some questions,” pointing to perceived value even if this was not always reflected in immediate employment outcomes.

Unfortunately, the data currently available does not allow us to test these hypotheses directly. Nonetheless, these results highlight the importance of considering participant context, timing and program goals when interpreting employment outcomes. Rather than definitive measures of success, they should be viewed as part of a broader effort to monitor progress and identify areas for further support and investigation.

Database & Data Management

Data Sources

As previously mentioned, the data used to evaluate the Intensive Career Program is primarily collected through online surveys, conducted via eCampus or LamaPoll depending on the specific evaluation point. Both platforms ensure that the data collection process remains consistent, secure and anonymous.

Data Storage and Security

Although data is initially accessible through the survey platforms, it is systematically transferred and securely stored on internal drives managed by the University of Bonn. This practice ensures compliance with the General Data Protection Regulation (GDPR), the European Union's data privacy law in effect since May 25, 2018. By storing data internally, the program upholds high standards of data security, guarantees continued access in case of any issues with LamaPoll or eCampus, and safeguards the rights and privacy of participants. All data handling processes follow strict confidentiality protocols, ensuring that personal information remains anonymous and is processed solely for evaluation purposes by authorized personnel.

The organizational structure for data handling includes clearly defined folders to ensure easy navigation and systematic data management:

- **Raw Data:** stores original, untouched survey files downloaded directly from eCampus or LamaPoll
- **Clean Data:** contains processed versions of raw data after undergoing initial transformations, including standardized naming, formatting corrections and data validation

- Analysis: stores analytical processes, including statistical analyses performed using Excel and SPSS
- Results: archives final outputs and summaries derived from analyses, intended for reporting and decision-making purposes

Additionally, data folders are segmented according to program phases to clearly reflect different evaluation periods:

- Before Program: applicant data and demographic information
- During Program: event attendance records and event evaluations
- After Program: follow-up evaluations conducted immediately after program completion and three months later

File Naming Conventions

To enhance clarity, ease of identification and cross-referencing, all data files adhere to a structured naming convention, capturing essential descriptive elements. The file naming convention is as follows:

[Num Semester]_[Semester]_[File Type]_[Source]_[Description].xlsx

Example:

- 02_SoSe_21_raw_ecampus_registration_for_the_istart_program.xlsx

Variable-Naming Conventions

Variables within datasets follow clear and consistent naming conventions to ensure readability and ease of use:

- All variable names are lowercase.
- Underscores replace spaces between words.
- Special characters and ambiguous abbreviations are avoided.
- Variable names clearly describe their content or function (e.g., employment_status).

Auxiliary Variables

To facilitate specific types of analyses, auxiliary or derived variables are created as needed. These variables include:

- Dummy variables: used primarily for regression analyses and statistical modelling, converting categorical data (e.g. faculty, gender, language proficiency levels) into binary format.
- Aggregated variables: created by summarizing or aggregating multiple data points to represent broader categories or summary indicators, such as total attendance count or overall satisfaction scores.

Software and Tools

The analytical workflow involves software tools optimized for various data analysis tasks. Excel serves as the primary tool for initial data inspection, storage and performing simple calculations or generating descriptive statistics. SPSS is utilized for conducting more sophisticated statistical analyses, including regression modeling, correlation analyses, hypothesis testing and advanced data manipulation tasks. Additionally, Canva is employed for visualizing analytical results, enabling the creation of professional graphs and charts. Customized Canva templates aligned with the ICP's branding ensure visual consistency and enhance communication effectiveness in reports and presentations.

While the current workflow relies on these tools due to internal availability and institutional restrictions, other software such as R or data visualization platforms like Power BI and Tableau could offer significant advantages for a program like iStart. These tools provide greater flexibility, automation, reproducibility and integration with external databases or APIs, enabling more dynamic and scalable analyses. Their use could enhance the depth and efficiency of data processing and visualization, especially as the program expands and more complex evaluation needs arise.

Influencing Decision-Making

The structured data management and analytical processes make a significant contribution to the ICP's decision-making and strategic planning. Clear and systematic data handling ensures reliable, actionable insights, influencing program adjustments, event content revisions, communication strategies and overall improvements aimed at enhancing participant experiences and outcomes.

Lessons Learned

During these five years, the iStart team has learned many lessons by implementing the Intensive Career Program and by offering easy-access services for international degree seekers. In this part, you will see some of them. Since the learning process in this project is always ongoing, this list cannot be considered complete.

- Offering a comprehensive and compact program for a career preparation seems more effective than an easy-access service for independent preparation, especially because the latter cannot be tracked outside of the ICP. Meanwhile, there is regular contact with program participants and various opportunities to analyze their event attendance and measure their employment status at different time points. We also noticed that members of the program exhibit more responsible behavior in registering, attending and canceling their participation for all events compared with individual students attending our open events.³⁵
- At the same time, even a very complete program cannot cover the needs and questions of all participants attending it. Therefore, offering individual sessions and integrating tasks and exercises for personal self-reflection might be very helpful for those participants, who have specific questions, biographies and study/career/life situations. Through the implementation of our program, it was noticed that the Career EDGE Model devised by Pool & Sewell is readily compatible with this individualized approach, thanks to its significant focus on the reflection and evaluation pillar (Figure 1).

35 The average no-show rate by the ICP-only events for the first eight semesters is 24%, while events open to all international students have a no-show rate of 45%.

- We find it very beneficial and helpful to actively involve the ICP participants in the program's planning and design. This direct contact with the participants not only makes the program client-oriented but also empowers the participants to show initiative and boost their responsibility as well as contributes their training in Generic Skills and Emotional Intelligence (Career EDGE Model). Establishing leadership (or similar) components is helpful for that.
Therefore, we would recommend allowing some flexibility when designing the program in general. However, changing frames, settings and content of the program has a major impact on the evaluation process and the data management.
- When implementing a leadership component, it is important to remain in the background and avoid direct involvement in negotiations or problem-solving processes. For certain groups of leaders, additional opportunities to get to know each other and to improve communication are necessary – such as through regular meetings like Career Coffee Talks or Regulars' Tables.
- A very clear communication with trainers and coaches as well as structuring the planned content are crucial for the implementation of the program in general. If the events are moderated by different people, there is the risk of similar exercises being repeated in different events or even of contradictory information being shared, which will confuse participants.
- Another important issue we noticed during the organization of our Intensive Career Program is the insufficient preparation of participants for the program itself. Often participants register for the events without checking the content description and completing corresponding tasks, which leads to a shift in topics and content during the event and dissatisfaction among other participants. During the Kick-Offs, we try to address this problem through interactive games (matching topics and contents of the events) but would still tend to assume that not all participants understand how to use the benefits of the program properly.

We have noticed that introducing gamification elements has a positive effect on participants' behavior and would like to try to combine it with learning tasks in future as well.

- Such large projects involve collecting a large amount of diverse data. Therefore, we would like to emphasize the necessity of hiring a data analyst (either as a project assistant or student assistant) who can dedicate their full attention to this part of the program for projects of this kind.
- The use of the standard Microsoft Excel software for storing and analyzing data over an extended period makes it more difficult to maintain a clear overview of the data. Thus, we would recommend using professional data analysis software for this purpose, if regulations and resources permit.
- Some measures to motivate participants to leave feedback to different periods should be undertaken. Otherwise, it leads to gaps in the data, which makes it difficult to draw reliable conclusions.
- When initiating such a project, it should be considered how the performance and development of each participant can be tracked over the time, without connecting it directly with personal data.
- A measurement of the impact of such programs should be appropriate to the program's approach. Based on the descriptive statistics, we can assume that former participants of the Intensive Career Program apply many of the tips and information gained through the program to their career entry. They feel better prepared for the job market and consider participation in the program to be helpful. Nearly two-thirds of them are employed and satisfied with their jobs.

At the same time, we cannot determine which specific factor within the program leads to this improvement. We realized that our current correlation and regression analyses are not suitable for measuring outcomes using an individualistic approach. We believe that external research could help identify a more appropriate method for impact measurement.

References

- Bundesagentur für Arbeit: Minijob. <https://www.arbeitsagentur.de/lexikon/minijob> (last visited: 25.07.2025).
- DAAD Wissenschaft weltoffen (2024): *Facts and Figures on the International Nature of Studies and Research in Germany and Worldwide*. https://www.wissenschaft-weltoffen.de/content/uploads/2024/11/wiwe_2024_web_en.pdf (last visited: January 14, 2025).
- Eimer, Andreas, Jan Knauer, Isabelle Kremer, Tobias Nowak, Andrea Schröder (2019): *Employability als ein Ziel des Universitätsstudiums: Grundlagen, Methoden, Wirkungsanalyse*. Bielefeld: wbv.
- Falk, Susanne, Jan Kercher, Julia Zimmermann (2022): Internationale Studierende in Deutschland: Ein Überblick zu Studiensituation, spezifischen Problemlagen und Studienerfolg. In: *Beiträge zur Hochschulforschung*, 44, 2–3, p. 14–39. https://www.bzh.bayern.de/fileadmin/user_upload/Publikationen/Beitraege_zur_Hochschulforschung/2022/2022-2-3-Falk-Kercher-Zimmermann.pdf (last visited: January 15, 2025).
- Hassler, C. (2016): *Expectation hangover: Free yourself from your past, change your present & get what you really want*. New World Library.
- Heublein, Ulrich, Christopher Hutzsch, Robert Schmelzer (2022): *Die Entwicklung der Studienabbruchquoten in Deutschland*. DZHW Brief, No. 5. https://www.dzhw.eu/pdf/pub_brief/dzhw_brief_05_2022.pdf (last visited: January 15, 2025).
- Khrul, Kristina, Seraphim Kirjuhin, Giovanni Rocha Piazza, Julia Winkel (2022): *Internationale Studierende als (zukünftige) Fachkräfte vs. Fachkräftemangel? Ein Praxisguide für Planung, Umsetzung und Evaluation von Karriereprogrammen für internationale Studierende*. Waxmann Verlag.
- Ministry of Culture and Science of North Rhine-Westphalia: Integration von Flüchtlingen an Hochschulen in Nordrhein-Westfalen. MKW: Informationen für Flüchtlinge. <https://www.mkw.nrw/service/informationen-fuer-fluechtlinge> (last visited: May 28, 2025).
- OECD (2024): *Education at a Glance 2024: OECD Indicators*. OECD Publishing, Paris. <https://doi.org/10.1787/c00cad36-en> (last visited: February 3, 2025).
- Pool, Lorraine D., and Peter Sewell (2007): The Key to Employability: Developing a Practical Model of Graduate Employability. In: *Education + Training*, 49, 4, p. 277–289.

References

- Weißmann, Sarah and Eberle, Jan (2023): *Professionals from Abroad – Stay Rates of International Students and People with A Blue Card*. https://www.destatis.de/EN/Methods/WISTAScientificJournal/Downloads/professionals-from-abroad-042023.pdf?__blob=publicationFile (last visited: January 14, 2025).

Contacts

During these five years, many team members (student and research assistants) have contributed to the project. We would like to thank them all: Patrycja Drzewiecka, Robin Wieczorek, Julia Winkel, Christina Dobbehaus, Seraphim Kirjuhin, Giovanni Rocha Piazza, Irene Carolina Báez de Janz (intern), Vinayak Arora, Marina Bonaventure, Lucia Heiwolt, William Backes, Giovanna C. Pantalena and Alessa Damaschke.

The following have contributed to this particular edition: Kristina Khrul and William Backes (authors), Giovanna C. Pantalena (editing diagrams) and Alessa Damaschke (correction and proof-reading).

If readers have any further questions on the content of this practical guide, we would be happy to answer them via start@uni-bonn.de.

