STIFTUNG Akkreditierungsrat

Thematic Analysis

Academic Feasibility and Academic Success in Self-Evaluation Reports

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Abstract

When applying for the accreditation of one or more degree programs under program accreditation, universities submit a self-evaluation report and an accreditation report to the Accreditation Council in accordance with § 23(1) MRVO.

A non-representative sample of self-evaluation reports from ten higher education institutions in North Rhine-Westphalia was examined to determine how these institutions ensure academic success and the feasibility of study and how they present this in their self-evaluation reports. To this end, 19 determinants of academic success and the feasibility of study were derived from the scholarly literature, and the self-evaluation reports were analyzed on this basis. In isolated cases, the study examined whether institutions were implementing measures they had not mentioned; in these instances, information from the accreditation reports or the institutions' websites was also consulted. The methodological approach follows qualitative content analysis according to Mayring and the deductive application of categories. First, the determinants of academic success and student experience identified in the research literature were compared with the measures described in the self-evaluation reports aimed at ensuring these outcomes. In a second step, conclusions regarding the universities' management of academic success were drawn from the findings.

The results show that all ten universities conduct course evaluations, graduate surveys, and implement child care measures. Five of the universities use at least ten of the 19 indicators examined. It is striking that the universities by no means mention all the measures they employ to ensure academic success and the feasibility of studying in their self-evaluation reports.

1 Introduction

"In conjunction with the intensive discussions regarding the consequences of the Bologna Process and the improvement of academic success and reduction of dropout rates, a wide range of measures were implemented as part of the Quality Pact for Teaching, many of which were implemented as supplements to existing (curricular) offerings. With regard to changes in the curricular (core) area of teaching, however, the funding program rarely provided impetus or drove developments and changes."[1]

This is stated in the final evaluation report of the Quality Pact for Teaching, the federal-state program for better study conditions and higher quality in teaching, for which for which the federal government provided approximately two billion euros between 2011 and 2020[2]. The program underscores the importance of student success as well as the political will to improve it.

Researchers have agreed to understand academic success as a "multidimensional set of criteria," since empirical studies define it through subjective and objective criteria[3] and it can be "measured by nominal success in terms of degrees earned and grades, as well as subject-specific, interdisciplinary, and career-relevant competencies, satisfaction with one's studies, and the (subjectively perceived) propensity to drop out"[(4)] .

Regardless of the definition of academic success, dropping out stands in direct contrast to it—one prevents the other, and both are conditioned by the same determinants[5] .

The changes in the German higher education system initiated since the Bologna Process have led to a situation where universities must demonstrate, as part of evaluations, that their degree programs are designed in such a way that they can be completed within the standard period of study under. Accreditation, as a mandatory quality assurance tool for universities, plays a decisive role in this regard. In their self-evaluation reports, the universities themselves outline how they ensure the feasibility of their degree programs and, consequently, academic success.

[1] Schmidt et al. 2020, p. 101.
[2] The ongoing commitment to improving study and teaching is also evidenced by the fact that the federal and state governments have launched the "Innovation in Higher Education Teaching" program as a direct successor to the Quality Pact for Teaching, which has an annual budget of up to 150 million euros.
[3] Pohlenz – Berndt 2018, p. 7; Buß 2019, p. 80.
[4] Schmidt 2018, p. 5; Schmidt et al. 2019, p. 25.
[5] See also Heublein et al. 2022, p. 1; Schmidt 2018, p. 4.

2 Basics

2.1 Academic Success

231 German universities that participated in a survey conducted by Heublein et al. on “Measures to Ensure Academic Success” defined academic success in various ways—aspects: ranging from “graduates with very good subject-specific skills” and “good preparation for the demands of the job market,” to “high student satisfaction with their studies,” “good exam grades,” and “low dropout rates” [6]. Depending on how academic success is defined, different indicators must be met to achieve that success, or the reasons for a

Different Reasons for Dropping Out of College [7] .

Explanatory models for dropping out of college are diverse. According to Neugebauer et al., there have been increasing attempts to integrate the various theoretical concepts into a comprehensive model in which “dropping out of college is understood as a complex, multi-causal process”[8] . Research emphasizes the process-oriented nature of the decision to drop out of college

, which generally cannot be attributed to a single cause but rather represents an accumulation of factors that contribute to withdrawal and is the result of a prolonged process of deliberation and decision-making[9] .

Neugebauer et al. distinguish between students’ initial characteristics and internal and external factors that gained significance during their studies[10]: Under

admission characteristics, they include sociodemographic specifics such as migration background, educational background, and gender; pre-college educational history; and whether the choice of major was intrinsically or extrinsically motivated. Personality traits also play a role—albeit a relatively minor one. Internal factors that have the greatest influence on the decision to drop out of college include insufficient

academic performance as well as the quality of relationships with faculty and fellow students. It is also significant whether study conditions—such as the quality of courses and information about the program (for example, during an orientation week)—are assessed positively or negatively. External factors include whether students must work for a certain period of time

, have family obligations, or face health problems.

[6] Heublein et al. 2015, p. 15.
[7] In its template, which specifies how accreditation reports must be structured, the Accreditation Council collects “data on the degree program.” This includes the “graduation rate,” where graduation is defined as completing the degree within the standard duration of study plus two semesters.
[8] Neugebauer et al. 2019, p. 1033.
[9] Ebert – Heublein 2015, p. 67 ff.
[10] Neugebauer et al. 2019, pp. 1034 ff.

Isleib et al. distinguish between the pre-study phase, sociodemographics, structural characteristics, and the academic situation, which in turn is subdivided into individual study processes and factors external to the university[11] . Theune identifies the influencing factors at both the institutional and individual levels, and further attributes significance to personal/psychological characteristics

and behavioral patterns of students[12] .

Finally, Seyfried et al. categorize factors into individual (educational background, social capital, gender, age, high school grades, etc.), organizational (students' performance is related to the planned and goal-oriented aspects of the university as an organization and its members), procedural (this focuses on processes within the university that

may contribute to ensuring academic success, such as the importance of entrance exams, selection procedures, counseling services, etc.) and institutional (this category addresses logics and thought patterns, unquestioned operational logics in teaching, administration, and research, as well as the university's guiding principles) causes of academic success[13] .

According to Buß, the duration of study, the final grade, and the dropout rate are objective indicators of academic success; in addition to student satisfaction, she cites the compatibility of studies with other obligations as a subjective indicator[14] .

Academic success can thus be made visible and measurable, for example, through the duration of studies[15] or grades[(16)] ,and is determined both by academic conditions and by

student admission characteristics as well as their study and learning behaviors[17] . Müller and Kleine define academic success as "the result of a successful match between students and structural study conditions"[18] . In Buß's model of structural study feasibility, "academic success is mediated by study behavior"[19] —namely, attendance at courses, time spent on self-study, or taking exams[20] .

For this analysis, the factors contributing to academic success are divided into those that the institution can influence—such as the absence of scheduling conflicts between courses and exams, the course load, teaching formats, the quality of course evaluations, academic advising sessions, admission restrictions, etc.[21] . In addition, there are factors that can lead to dropping out of college that

lie outside the sphere of influence of a university, such as social background and

[11] Isleib et al. 2019, 1050, Fig. 1.
[12] Theune 2021, p. 23.
[13] Seyfried et al. 2021, p. 29 ff.
[14] Buß 2019, p. 80.
[15] Krempkow 2009, pp. 46 ff.; Krempkow 2011, pp. 37 ff.; Dahm et al. 2019, pp. 18 ff.
[16] Krempkow 2009, p. 47; Dahm et al. 2019, pp. 18 ff.
[17] See Petri 2021, pp. 61 ff.; Academic Readiness According to Schnoz-Schmied – Curcio 2021, pp. 225 ff.
[18] Müller–Kleine 2021, p. 48.
[19] Buß 2019, p. 81.
[20] Buß 2019, p. 3.
[21] See Spörk et al. 2021, pp. 164 ff.; they refer to a structural level.

students' educational backgrounds, aspects of motivation to study, financing of their studies, family obligations, social integration at the university, etc.[22] . The university can respond to some of the factors encompassed by the individual level—for example, in the sense of "structural feasibility of study" as defined by Buß—by making the program more flexible or by offering support for family obligations, thereby influencing the likelihood of academic success[23] . For Spörk et al., "accessibility" is the "partly individual, partly institutional potential […], while academic success represents its realization"[24] .

2.1.1 Academic Success Management and Academic Success Monitoring

Academic success management is intended to promote and improve the academic success of all students[25] . According to Berthold and Herdin, the primary task of academic success management must be "to ensure the integration of students with their respective biographical backgrounds by optimizing the institutional and social context of the university"[26] . Measures that universities can take to promote and improve academic success are diverse and range, for example, from mentoring programs, orientation events, and get-to-know-you sessions to bridge courses, tutorials, and childcare services.

Academic success can be made visible and measurable, for example, through graduation rates, duration of study, or grades. It is determined both by academic conditions and by students' initial characteristics and their study and learning behaviors. Methods for quality assurance—and thus for *monitoring academic success*—include module and course evaluations, student (entry) surveys, graduate surveys, workload assessments, program monitoring, and the scheduling of retake exams. Academic success monitoring is therefore another aspect of academic success management[27] .

Measures for monitoring academic success naturally focus on the program level. With regard to academic success management, measures such as program monitoring or child care support also take place at the institutional level[28] .

[22] See Spörk et al. 2021, 164 ff., who refer here to the individual level.
[23] See Zucha et al. 2019, p. 14; Buß 2019, pp. 8 ff.
[24] Spörk et al. 2021, p. 168.
[25] Stifterverband 2015, p. 27.
[26] Stifterverband 2015, p. 25; see also Schnoz-Schmied – Curcio 2021, p. 229.
[27] Schnoz-Schmied – Curcio 2021, p. 236.
[28] Cf. Bischof – Leichsenring 2016, p. 65.

2.2 Academic Success as a Criterion for Accreditation

Since 2018, degree programs and quality management systems in Germany have been accredited under “new legislation.” The reform of the German accreditation system stems from a ruling by the Federal Constitutional Court, which on February 17, 2016,

that while accreditation was, in principle, constitutional, it was not in the form that existed at the time. The legislature itself had to make decisions regarding the fundamental principles of accreditation, since accreditation was associated with “serious encroachments on academic freedom.” The legislature was required to propose new regulations that would “take constitutional requirements into account.”

Consequently, on December 8, 2016, the Conference of Ministers of Education and Cultural Affairs (KMK) agreed on the “State Treaty on the Organization of a Joint Accreditation System for Quality Assurance in Studies and Teaching at German Universities” (State Treaty on Study Program Accreditation), which was signed by all 16 state premiers, ratified by all state parliaments, and entered into force on January 1, 2018. The State Treaty on Study Program Accreditation—

The State Treaty on Study Program Accreditation and the applicable state laws (see State Treaty on Study Program Accreditation, Art. 2, para. 4) now contain criteria and procedural rules for the quality assurance and development of study programs. On December 7, 2017, the KMK adopted the Model Statutory Ordinance (MRVO) for the State Treaty on Study Program Accreditation, which sets forth the essential operational rules for accreditation. It was essentially

transposed into state regulations without change. Consequently, the standards for formal and subject-specific criteria, as well as the procedures for external quality assurance, are virtually identical across the federal states.

Article 3, paragraph 2, sentence 2 of the State Treaty on Study Program Accreditation states that the assurance and development of quality in study programs and teaching are based on a self-evaluation

report by the institution of higher education, which must include, at a minimum, information on the institution’s quality objectives and on the criteria set forth in Article 2, paragraphs 2 and 3[29] .

According to Article 2, paragraph 3, sentence 4, “measures to achieve sufficient academic success” are listed as a subject-specific criterion. Article 2, paragraph 3, sentence 2 further specifies, as an additional subject-specific criterion, “the alignment of the qualification objectives with

a coherent program concept and its implementation through adequate resource allocation, appropriate qualifications of the faculty, and corresponding competency-based examinations, as well as the feasibility of the program, taking self-study into account,” and, in the fourth

sentence, “measures to achieve sufficient academic success.”

The MRVO lists “academic success” in § 14 as a subject-specific criterion. It states:

[29] A similar formulation is found in § 24(2) of the MRVO.

> "The degree program is subject to continuous monitoring with the participation of students and graduates. On this basis, measures to ensure academic success are derived. These are continuously reviewed, and the results are used for the further development of the degree program
> program. The parties involved are informed of the results and the measures taken, in compliance with data protection requirements."

In the explanatory memorandum to Section 14, the MRVO lists as suitable monitoring measures "in particular course evaluations, workload surveys, or graduate surveys, as well as statistical analyses of the course of study and examinations, and student / graduate statistics."

If a degree program is to be accredited, the institution commissions an accreditation agency and provides it with a self-evaluation report (program accreditation). The agencies are responsible for evaluating the formal criteria and prepare an audit report on this. The evaluation of the academic and content-related criteria is the responsibility of a panel of experts in a peer review process that includes an on-site visit to the institution. The panel's assessment results in an expert opinion, which, together with the audit report, constitutes the accreditation report, on the basis of which the Accreditation Council decides on accreditation. The institution must submit the accreditation report and the self-evaluation report to the Accreditation Council (Section 23, para. 1, 2–3 MRVO).

The self-evaluation reports, as well as all attachments submitted as part of the application for accreditation, are confidential documents that are not accessible to the public. The accreditation report and the decision made by the Accreditation Council regarding the application are publicly available. For this reason, the institutions whose self-evaluation reports were used as the basis for this analysis have been anonymized and designated as Institutions 1 through 10.

3 Methods

To examine the excerpts on academic success and study feasibility from the ten randomly selected self-evaluation reports against the determinants of academic success derived from the literature, qualitative content analysis according to Mayring[30]was chosen as the methodological approach (for the selection of the self-evaluation reports, see 3.1 Sample). In particular,

[30] Mayring 2013, p. 468 ff.

In particular, with such a small sample size of n=10, the deductive application of categories—in which data are organized according to a category system—is suitable for a structured analysis of the texts.

In a second step, an attempt will be made to derive insights from this comparison regarding a effective management of student success.

The question is: What insights can be gained—based on determinants of academic success derived from the literature, the self-evaluation reports of the institutions of higher education, and the measures used to verify the assurance of academic success—regarding effective academic success management that incorporates academic success monitoring?

3.1 Sample

The population consists of all applications for program accreditation under the new law (including both applications for individual degree programs and applications covering multiple degree programs in a bundle) that were decided upon by the Accreditation Council, with or without conditions, by
February 2, 2023 (this also includes two applications for which accreditation was revoked); in total, there are 1,335 applications.

An initial narrowing of the data set was achieved by selecting accreditation applications from North Rhine-Westphalia (NRW). With 389 applications, it is by far the federal state with the most decided applications for program accreditation under the new law
, see Figure 1.

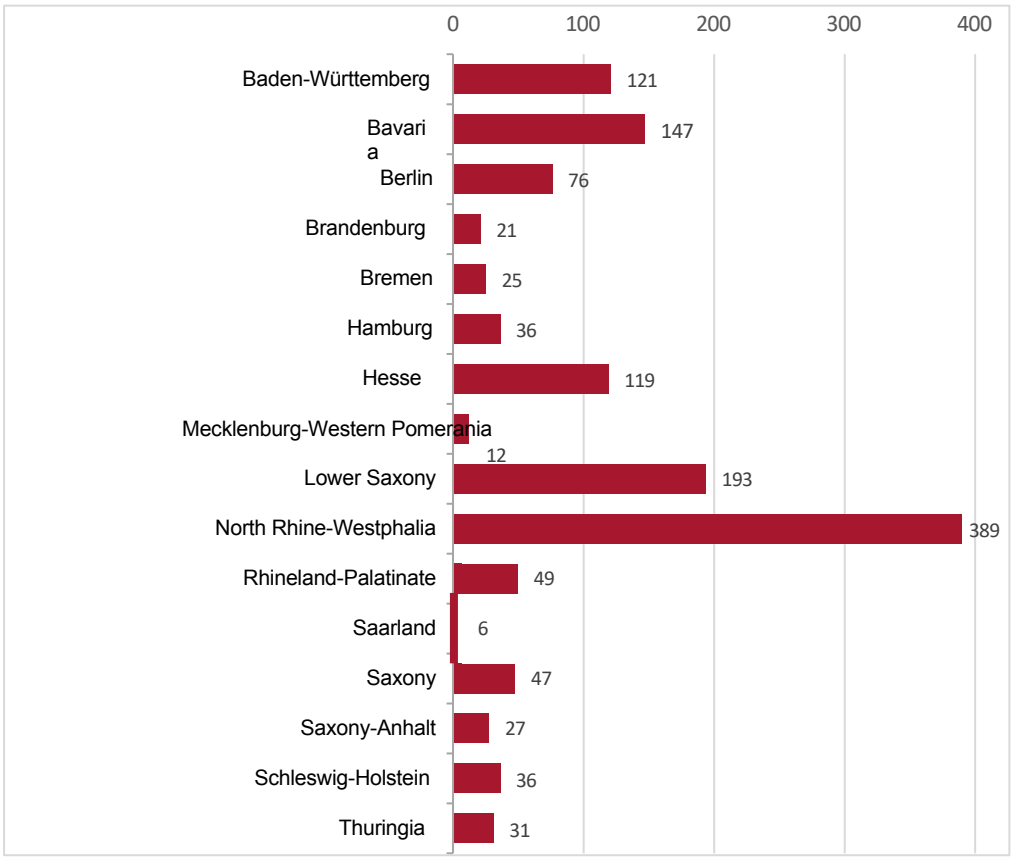


Figure 1: Approved applications for program accreditation as of February 2, 2023

Some universities were specifically selected because they are known to have a comprehensive system for collecting key performance indicators. Other institutions were selected based on their size or regional distribution across the state.

In order to identify any differences between various types of institutions of higher education, it was decided to include both universities and universities of applied sciences, as well as a technical university and a technical college

Thus, self-evaluation reports from five universities (Universities 1–5) and five universities of applied sciences (Universities 6–10) are analyzed. The ten institutions under consideration vary in terms of their tradition, the number of students, the number of faculty members, administrative staff, and financial resources.

The most important criterion in selecting the ten self-evaluation reports was that the Accreditation Council

Accreditation Council had to have already decided on the application; thereafter, the accreditation applications were selected at random from ELIAS for the respective institutions, with the sole consideration being that a broad range of disciplines be represented. The degree programs submitted in the individual or bundled applications for accreditation range from Islamic theology to mathematics, chemistry, and molecular biology, as well as engineering and

20 management programs. In some cases, the literature refers to lower success rates, for example,

in natural science or engineering degree programs[31]; three of the ten degree programs/bundles examined are from the natural sciences and one from the field of engineering. Subject-specific differences are addressed when the program offerings fall directly under a specific subject

, such as the offering of bridge courses in natural science disciplines. Whether a program is offered, for example, on a full-time or part-time basis, as a part-time program while working, or as a distance learning program, was not taken into account or analyzed when selecting the sample. The program at University 4 also represents a joint-degree program; the program is offered jointly by three universities in different countries. The accreditation

decision was made in accordance with § 33(1) MRVO by an agency listed in EQAR and recognized by the Accreditation Council. Consequently, the Accreditation Council's evaluation grid was not applied. The dual degree program submitted in University 7's application for accreditation is carried out in cooperation with a private, state-recognized university. Both universities act as degree-granting institutions for students at

respective locations, each with its own staff resources. In the self-evaluation report, the topics of academic success and program feasibility are clearly broken down by both institutions, so that reviewing the application within the framework of this analysis poses no problems.

In program accreditation, institutions of higher education may submit either a single degree program or

or submit multiple degree programs in bundles for accreditation. In the latter case, it is up to the institutions to decide whether to address the criteria across all degree programs or to do so individually for each program. It has now become standard practice to single out the affected degree program(s) and present them separately if any issues are identified. The sample was selected regardless of whether the

application for accreditation was submitted for a single degree program or for multiple degree programs.

By examining self-evaluation reports from only ten institutions of higher education with regard to academic success and the feasibility of study, it is not possible to obtain a representative picture for North Rhine-Westphalia

30. The same applies to each institution itself. This is because central units—such as quality management departments—are by no means responsible for preparing the self-evaluation report at all institutions; in some cases, the academic departments themselves prepare it. For this reason, it is not possible to assume subject-related differences in the self-evaluation reports; this would require a significantly larger sample that

compares different subject groups from a single institution with one another. Furthermore,

[31] Heublein et al. 2017, p. 264 ff.

it is at the discretion of each institution to determine how thoroughly it addresses the two criteria in its self-evaluation report. Thus, the sample as a whole, as well as the information it provides, represents a limitation of the analysis.

The categories were established by identifying, based on the existing literature, the deter-
determinants of academic success and the components of effective academic success monitoring. These were compared with the results aggregated from the university's ten self-evaluation reports.

3.1 Determinants of Academic Success

To gain insight into the determinants of academic success, the reasons for dropping out of school are examined. Models of the dropout process include various phases that occur at different stages of students' lives. These range from measures at the program level—such as ensuring that courses and exams do not overlap—to measures that may apply across disciplines
, such as bridge courses, to centrally managed measures for the entire institution, such as child care services or early warning systems. Not all of these can be considered within the scope of this analysis. Measures that take place before students begin their studies[32] —such as recruiting qualified students, orientation semesters, or preparatory courses—are not considered; however, bridge courses are an exception
due to their significance for academic success. "Advisory services" are also not taken into account, as they are considered too nonspecific and lacking in reference to concrete explanations of actions. Finally, the context of the research question must be taken into account: The analysis examines how universities track academic success in their self-evaluation reports as one of numerous criteria on which universities must provide feedback within the framework of
the context of accreditation.

Furthermore, the explanatory notes to Section 14 of the MRVO list as suitable monitoring measures "in particular course evaluations, workload surveys, or graduate surveys, but also statistical analyses of the course of study and examinations, as well as student and graduate statistics"; this is by no means an exhaustive
list, but one that refers solely to the monitoring—and not the management—of academic success. Some of the aspects listed there that are relevant to the quality of study conditions—such as a well-structured program, the academic quality of the courses offered, a strong practical focus in teaching, the degree to which the program is structured, and the recognition of additional competencies by the institution—are addressed in

[32] See Fervers et al. 2018, p. 82.

assessment process based on criteria other than those specified in § 12(5) MRVO regarding the feasibility of the program and § 14 MRVO regarding academic success, such as § 12(1) on the curriculum, (2) on human resources, or § 13(1) on the timeliness and adequacy of the academic and scientific requirements, as well as the review of the academic content design and the methodological and didactic approaches of the curriculum. For this reason, not all aspects listed in the reviewed literature are included in the further analysis. The focus is on the measures that the institutions of higher education have assigned to Sections 12.5 (feasibility of completing the program within the standard period of study), 14 (academic success), and 15 (gender equality and compensation for disadvantages) of the MRVO. Likewise, no questions that relate to how dual degree programs[33] (or institutions of higher education) or, for example, the structural facilitation of both domestic and international mobility affect the feasibility of completing a degree and, consequently, academic success[34] .

[33] Although the program at University 7 is a dual degree program, this was not a factor in the selection of programs for the sample.

[34] See Seyfried et al. 2021, p. 35 ff.; Steinhardt 2011, p. 15 ff.

3.2 Coding Guide

The following coding guide was developed for the analysis of the sample (Table 1):

Category	Definition	Anchor Example
Module Evaluation	Text passages indicating that module evaluations take place.	"Module evaluation is typically conducted at the end of a module and serves to assess aspects that go beyond the scope of individual courses. These include the alignment of content within a module, an assessment of the students' workload, and an evaluation of the extent to which the module's instructional content contributes to the achievement of the specified module/learning objectives." (University 3)
Course Evaluations	Text passages indicating that evaluations of courses take place.	"Evaluation of courses (required and elective), including evaluation of the degree program and study conditions, […]." (University 10)
Mid-semester course evaluations with a justification for the chosen timing	Text passages indicating that the course evaluation takes place midway through the semester and explaining the reason for this timing.	"The student evaluation generally takes place shortly after the midpoint of the sessions in the module. After approximately 3 days of electronic processing, the instructors receive the results via email (see Example in Attachment 26), which are then discussed with the students in the next session. This means that any necessary changes to the course can still be made during the current module; instructors can document these in a report that they send to the department's evaluation coordinator." (University 7)
Student Surveys	Text passages indicating that student surveys are conducted.	"The annual survey of all students, including first-semester students and those transferring from other campuses, serves to evaluate the overall quality of academic programs and teaching, equal opportunity, and the promotion of early-career faculty. The focus is on assessing general study conditions and identifying strengths and weaknesses in the academic environment at [University 3]. Specifically, in addition to statistical data, the survey collects information on teaching and academic life in the student's field of study (e.g., evaluation of teaching, taking exams, facilities in libraries and computer labs, transparency of academic performance criteria), general conditions of study, support for young talent, and the image of [University 3]." (University 3)
Freshman Surveys	Text passages indicating that student surveys are conducted at the start of their studies.	"The first-semester and transfer student survey is conducted as part of the general student survey and focuses on advising and support at the beginning of the program or after transferring to a new institution. The survey focuses in particular on the institution-specific orientation programs." (University 3)
Graduate Surveys	Text passages indicating that surveys of graduates are conducted.	"Graduates of [University 3] are asked, 1.5 and 4.5 years after earning their degree at [University 3], about their entry into the workforce and their retrospective assessment of their academic program. In their retrospective assessment of the program, the focus is on the development of relevant skills and qualifications during course of study." (University 3)
Workload Surveys	Text passages indicating that workload is measured or evaluated.	"The workload survey integrated into the course evaluation allows us to assess the time required for the modules in order to make adjustments if necessary." (University 9)
Retake exams scheduled so that an exam can be taken again in the same semester can be retaken	Text passages indicating when retake exams take place.	"The examination regulations allow exams to be retaken twice. Ideally, the exam should be retaken during the same exam period; if possible, retakes should be taken in the same semester and at the same university." (University 4)
No scheduling conflicts between courses	Text passages indicating that courses are scheduled without overlap.	"All courses and all exams at the Center for […] are scheduled so that they do not overlap." (University 5)
No scheduling conflicts for exams	Text passages indicating that exams are scheduled without overlapping .	
Mentoring programs	Text passages indicating that mentoring programs exist.	"The department has joined the university-wide mentoring program, under which all students in their first two semesters are supported and listened to by faculty members in small groups. Participation in the mentoring program is voluntary for students." (University 1)
Orientation Sessions	Text passages indicating that there are events at the beginning of the program designed to help first-year students -first-year students.	"Planning the orientation week for first-year students in collaboration with the student council is also the responsibility of the academic affairs office." (University 5)
Tutorials	Text passages indicating that tutorials are offered.	"In the first semesters, introductory tutorials are held, particularly for the subjects of mathematics, physics, and electrical engineering. These tutorials are always well-attended. The tutors support the students over several semesters." (University 6)
Bridge Courses	Text passages indicating that there are courses designed to help bring students' knowledge to a uniform level.	"The […] university offers the 'Introduction Academy' before the start of the program to first-year students who need to catch up on subject-specific content or who wish to improve their individual learning strategies." (University 10)
Get-to-Know-You Sessions	Text passages indicating that there are get-to-know-you sessions.	"It is particularly important to the […] that students feel welcome from the very beginning, network with one another and with university staff, and get off to a good start in their studies. During the first-semester orientation days, therefore, getting to know one another plays a major role alongside the provision of important organizational information. [...] This often leads to the formation of the first study groups even before the academic program really begins." (University 6)
Data Collection/Analysis of Academic Progress	Text passages indicating that key metrics on academic progress are collected.	"To this end, the [...] operates a decentralized data portal for program management staff that aggregates academic progress data anonymously and visualizes it to simplify analysis ." (University 3)
Childcare Services	Text passages indicating that childcare services are provided.	"Measures taken by […] and the Department of Social Policy to improve the balance between studies and family life include: [list of additional measures] "[...]" a vacation program during the Easter and fall breaks for the children of employees, adjunct faculty, and students." (University 7)
Support measures in cases of illness, caregiving responsibilities, or family obligations	Text passages indicating the measures in place to support students in maintaining their achieve academic success.	"To counteract these external conditions, the recruitment and counseling of prospective students specifically highlight the generally good balance between the MBA program and family life. […] More practically important is that MBA classes take place in the evenings and on Saturdays, so that childcare can generally be provided within the family." (University 2)
Reference to students' socioeconomic backgrounds in the context of support measures	Text passages indicating that measures are being taken to support students from disadvantaged backgrounds.	"The [...] university seeks out undiscovered talent, regardless of parents' educational background, income, or origin. Background: Of 100 children from non-academic families, only 23 go on to college, whereas 77 children from academic families do so. Therefore, the university supports talented students in making the transition to college." (University 10)

5 Table 1: Coding Guide, Source: Author's own presentation

Subsequently, the excerpts on academic success, accessibility of higher education, and compensation for disadvantages from the self-evaluation reports were examined against the categories listed in the coding guide. After an initial review, the coding guide was refined to specify that the measures offered to support students with illnesses, caregiving responsibilities, or other military obligations were specifically named rather than described in general terms as "support measures." In addition, the category "Measures that take into account students' socioeconomic background" was included to document an initiative by University 10 aimed at promoting equal opportunity for people with a migrant background or for individuals from so-called educationally disadvantaged groups. The first ten categories relate to monitoring measures for tracking academic success; additional categories could be grouped under "early stages of study," "social integration," "equal opportunities for students in special life situations," and "educational history and socioeconomic background," although there would be overlaps.

In its data sheet [35], the Accreditation Council requests information on the graduation rate, grade distribution, and average duration of study. These are figures that every institution of higher education is also required to report as part of its student statistics. The category "Key Indicator Surveys/Academic Progress Analysis" focuses on data collection that identifies additional metrics such as dropout rates, students who change their major, etc.

A coding rule was deliberately omitted, as the individual categories are clearly and unambiguously defined and no demarcation issues arise.

4 Results

Because the self-evaluation reports are not bound by the template [36] that accreditation reports must follow, the structure varies greatly. Not all institutions of higher education organize their comments on academic feasibility and academic success under these headings. Accordingly, sections were considered where the heading clearly indicated that academic success and accessibility were being addressed. In these cases, all further comments were taken into account, regardless of the subheading's title. However, if a subheading indicated the topics of academic success and feasibility of study, only that subchapter was considered.

[35] https://akkreditierungsrat.de/index.php/de/media/95.
[36] See https://akkreditierungsrat.de/index.php/de/media/46.

4.1 Analysis of the Coding

The results of the coding show that, of the 19 determinants identified in the literature on academic success and academic feasibility, the evaluation of courses is the only category used by all universities; see Ta-

Table 2.

	University 1	University 2	University 3	University 4	HS 5	HS 6	HS 7	HS 8	HS 9	HS 10	**TOTAL**
Module Evaluation			x				x			x	**3**
Course Evaluation	x	x	x	x	x	x	x	x	x	x	**10**
Course Evaluation for mid-semester			x				x				**2**
Student Surveys	x	x	x		x	x	x	x	x	x	**9**
New Student Surveys			x				x			x	**3**
Graduate Surveys	x	x	x			x	x	x	x	x	**8**
Workload Surveys	x	x	x			x	x	x	x		**7**
Retake Exams in the Same Semester				x	x						**2**
Courses must not overlap	x	x		x	x	x		x	x		**7**
No Overlap Between Exams	x				x	x		x			**4**
Mentoring Programs	x										**1**
Orientation Sessions					x						**1**
Tutorials						x				x	**2**
Bridge Courses										x	**1**
Get-to-Know-You Sessions						x					**1**
Data Collection/ Academic Progress Analysis			x		x			x			**3**
Childcare Services							x			x	**2**
Support services for illness and family obligations	x	x	x			x	x	x	x	x	**8**
Measures Regarding Students' Socioeconomic background of students										x	**1**
TOTAL	**8**	**6**	**9**	**3**	**7**	**9**	**9**	**8**	**6**	**10**	

Table 2: Coding Results, Source: Author's own presentation

Monitoring measures to track academic success:

Three institutions state in their self-evaluation reports that *they evaluate modules* (see Fig. 2)[37]. Institution 7 and Institution 10 do not provide further justification for this measure. University 3, on the other hand, emphasizes that module evaluation serves to assess aspects that go beyond individual courses—such as the coordination of content within a module—and, above all, to verify the extent to which the module's learning content ensures the achievement of

. *Course evaluations* are the only category found at all ten universities. University 3 and University 7 conduct *course evaluations midway* through *the semester*. While the latter justifies this by noting that changes may still be made to the current module

[37] For the remaining categories, the reference to Fig. 2 is omitted.

, the former does so to allow instructors to discuss the results with students. With the exception of University 4, all universities conduct *student surveys*. With the exception of Universities 4 and 5, all universities state in their self-evaluation reports that they conduct *graduate surveys*.

5 According to excerpts from the self-evaluation reports, all universities—except Universities 4, 5, and 10—conduct *workload surveys*[38] . It cannot be ruled out that workload surveys are included in the universities' student surveys; however, this is not evident from either the self-evaluation report or any of the appendices. With the exception of universities 3, 7, and 10, all universities mention in the excerpts from their self-evaluation

10. The *absence of scheduling conflicts for courses* is mentioned in the excerpts from the self-evaluation reports of institutions 1, 5, 6, and 8. Only institutions 4 and 5 offer *retake exams in the same semester* to prevent delays in graduation.

[38] Institution 5 devotes a separate subsection to workload under the heading "Feasibility of Study and Workload." It does not state that workload surveys are conducted, nor is this mentioned in the evaluation regulations.

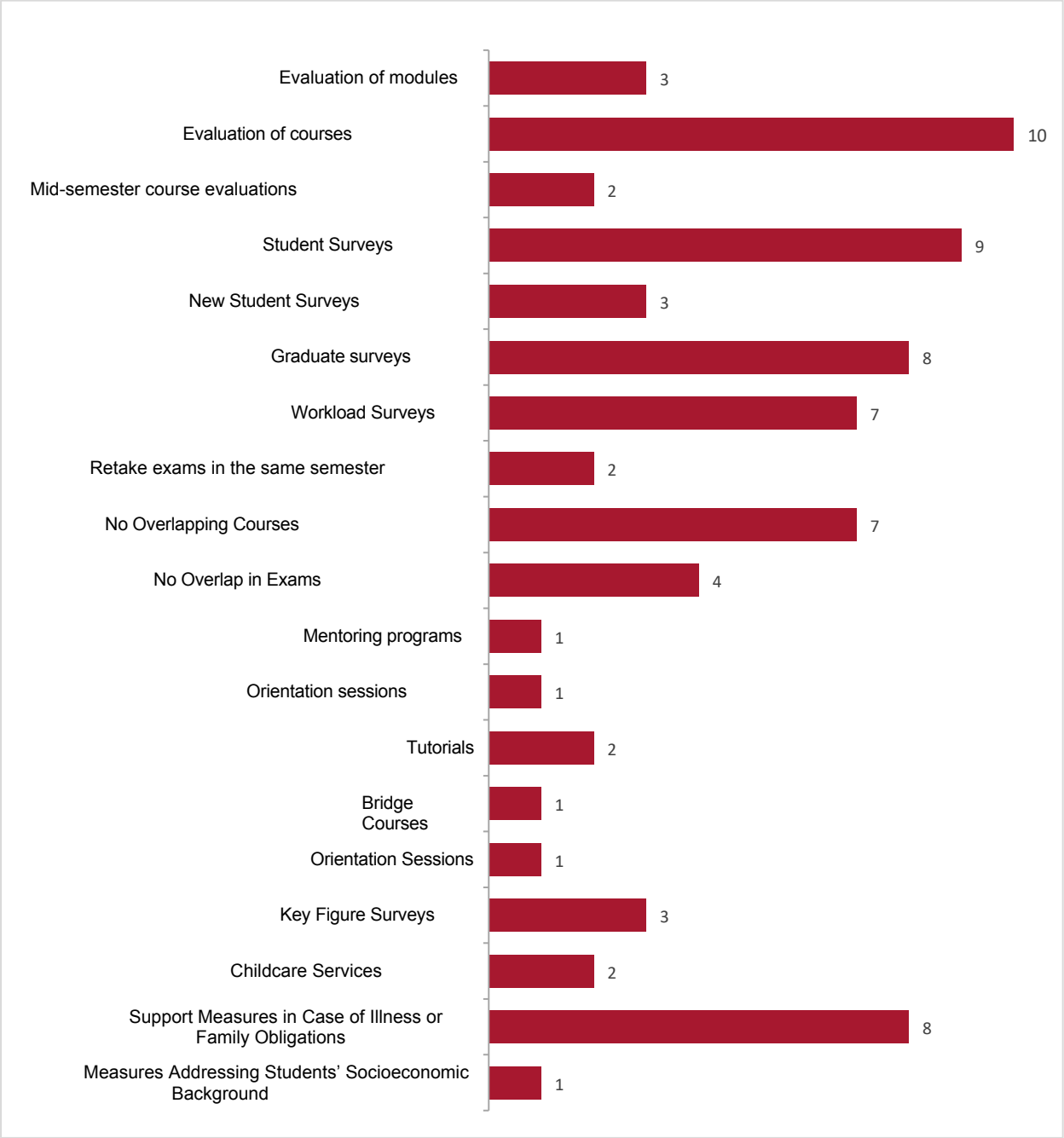


Figure 2: Overview of the frequency of the respective categories

Introductory phase of studies:

Measures related to the introductory phase of study (including *bridge courses*; see p. 13*)*, such as *tutorials* (which serve the purpose of helping students "settle in" academically at the university), are offered only by Universities 6 and 10 (see Table 2). This is not surprising, as both universities offer support programs for the subjects of chemistry and mathematics. *Student intake surveys* are conducted by universities—specifically Universities 7 and 10—conduct student intake surveys in the first semester as well as toward the end of the program in order to gain a representative

impression of the duration of the program.

University 3, on the other hand, hopes that by surveying students at the beginning of their studies, it will obtain specific information regarding the quality of advising and support during the initial phase of their studies. According to the self-evaluation reports, only University 1 operates a *mentoring program*.

Key Metric Collection / Study Progress Analysis:

According to excerpts from the self-evaluation reports, Universities 3, 5, and 8 have a *system for collecting key performance indicators and evaluating* academic progress. While Universities 8 and 5 refer in their self-evaluation reports to the "number of dropouts*" or the "attrition rate" in their self-evaluation reports but otherwise make no statements about their key metric collection management, University 3 states that it has a decentralized key data portal that can anonymously aggregate and graphically visualize student progress data. It is possible to provide information ranging from the analysis of academic progress for cohorts of students, through an examination of success statistics for individual modules within a degree program, to information on the timing of academic performance throughout the entire course of study, and finally to the number of exam attempts and grades.

Social Integration

According to relevant excerpts from the self-evaluation reports, only University 6 conducts an *introductory session*. University 5 refers to an *introductory event* as an "orientation week" without going into further detail about its content.

Equal opportunities for students in special life situations:

University 7 states that it offers *childcare services* during the Easter and fall breaks *for the children* of employees, adjunct faculty, and students. University 10 operates university childcare groups at two locations, which, in cooperation with a private childcare provider, offer childcare with flexible hours. With regard to *support measures in cases of illness, caregiving responsibilities, or family obligations*,
University 2 has implemented a measure to facilitate the balance between family life and MBA studies by scheduling classes in the evenings and on Saturdays. University 6 lists specific possible measures in § 12(6) of its Framework Examination Regulations, such as extended time for completing exams or meeting submission deadlines, the admission of support persons, an increase in the number of opportunities to retake an exam

or a modification of the requirements for retaking an exam. University 7 states that “individual study plans for students with family obligations” can be created to improve the balance between studies and family life. University 10 lists, for students with health impairments in special teaching, learning, and examination situations, the options for compensating for disadvantages and providing academic assistance are cited as examples. In the excerpts from their self-evaluation reports, Universities 1, 3, 6, 8, and 9 refer to corresponding provisions in the examination regulations. In the vast majority of cases involving illness and/or disability, these regulations stipulate that reasonable accommodations may be provided. Only University has also included compensation for disadvantages due to caregiving responsibilities in its regulations. Universities 4 and 5 mention “consultations” in the excerpts from their self-evaluation reports; however, the text passages are general in nature and do not make any specific statements. No university goes beyond what is legally prescribed in Section 62b(2) of the Higher Education Act (HG) of the State of North Rhine-Westphalia [39].

Educational History and Socioeconomic Background:

University 10 *addresses students' socioeconomic background* through an initiative to promote talent, supporting talented high school students regardless of their parents' educational level, with the aim of ensuring equal opportunities for individuals with a migration and from so-called educationally disadvantaged backgrounds. As part of this initiative, students are supported and guided throughout their entire time at the university. University 5 offers social counseling that provides students with support for issues such as financial problems, anxiety, and pressure (the self-evaluation report does not further specify the nature of this pressure).

4.2 Assumptions

The analysis of the self-evaluation reports on academic success and accessibility does not imply that the institutions do not also maintain other categories; however, these are not mentioned in either the self-evaluation reports or the accreditation reports. Not all documents submitted as part of the accreditation application or the universities' websites were examined in this regard, as this would not have yielded any further insights relevant to the research question. This circumstance represents a certain limitation of the analysis, even if it may allow conclusions to be drawn about which aspects the respective universities consider noteworthy in the context of accreditation and which

[39] https://recht.nrw.de/lmi/owa/br_text_anzeigen?v_id=10000000000000000654.

do not. A cursory examination was conducted to determine whether universities might nevertheless be applying determinants that were not mentioned in the self-evaluation report under the topics of academic success or feasibility of study. Where this was the case, it is noted.

According to their respective evaluation regulations, Universities 4 and 5 also track *graduates*—graduate *surveys*, meaning that this category is also utilized by all ten institutions to ensure academic success (see Table 3).

	University 1	University 2	University 3	University 4	University 5	HS 6	HS 7	HS 8	HS 9	HS 10	**TOTAL**
Module Evaluation			x				x			x	**3**
Course Evaluation	x	x	x	x	x	x	x	x	x	x	**10**
Course Evaluation for mid-semester			x				x				**2**
Student Surveys	x	x	x		x	x	x	x	x	x	**9**
New Student Surveys			x				x			x	**3**
Graduate Surveys	x	x	x	x	x	x	x	x	x	x	**10**
Workload Surveys	x	x	x		x	x	x	x	x		**8**
Retake Exams in the Same Semester				x	x						**2**
Courses must not overlap	x	x		x	x	x		x	x		**7**
No Overlap Between Exams	x				x	x		x			**4**
Mentoring Programs	x										**1**
Orientation Sessions	x				x					x	**3**
Tutorials						x				x	**2**
Bridge Courses										x	**1**
Get-to-Know-You Sessions						x					**1**
Data Collection/ Academic Progress Analysis	x	x	x		x			x			**5**
Childcare Services	x	x	x	x	x	x	x	x	x	x	**10**
Supportive measures for illnesses, family obligations	x	x	x			x	x	x	x	x	**8**
Measures Regarding Students' Socioeconomic background of students	x	x		x		x			x	x	**6**
TOTAL	**12**	**9**	**10**	**6**	**10**	**11**	**9**	**9**	**8**	**11**	

Table 1: Results of the coding and further review, where the red crosses indicate categories that the universities did not specify themselves in the examined passages of the self-evaluation reports; Source: Author's own presentation

Furthermore, University 5 is not the only one to hold *orientation events* designed to help students "settle in" at the university. Under the section "2.6.5 Exam Frequency, Workload, Workload, Academic Operations (§ 12, Paragraph 5 StudakVO)," University 10 states under the heading "Orientation Sessions for First-Semester Students" that it conducts precisely these sessions (p. 44). In addition to a more general session—which, for example, is intended to assist with spatial orientation within the department and the city, as well as with the organization of academic operations, and to provide information on the library, among other topics—subject-specific introductory

. Similarly, University 1 mentions in its self-evaluation report under the heading “Addressing Recommendations from the Previous Accreditation” that it “intends to ensure greater awareness of the mentoring program as part of its orientation sessions”; it therefore offers orientation sessions
but does not elaborate further.

Similarly, based on a cursory review of the respective websites, all universities offer *childcare services* during school vacations, events, or in emergency situations; some also have reserved spots in municipal daycare centers or even operate their own facilities for staff and students.

Furthermore, it could be assumed that universities that guarantee that course schedules do not overlap also imply the same for the corresponding exams. Further research would be needed to verify this.

4.3 Conclusions

4.3.1 Limitations

Before developing answers to the research question, we should once again address the limitations of the analysis:

- The small sample size does not allow for a representative picture of North Rhine-Westphalia.
- It is up to each university to determine how thoroughly it addresses the individual criteria. In some cases, the universities do not list all the measures they are already taking,
  even in their self-evaluation reports. This makes comparisons difficult and affects the quality of the self-evaluation reports—both within individual institutions and when comparing them with one another.
- Differences in the quality of the self-evaluation reports also arise from the fact that responsibility for the accreditation process is not always assigned uniformly
  and is sometimes assigned to decentralized departments and other times to central quality management departments.
- Due to the selection of the samples, they include both individual degree programs and groups of degree programs. The degree programs are widely varied and do not belong to a specific subject group, which affects, for example, whether tutorials and
  or bridge courses are offered.

4.3.2 Significance of the Results for the Research Question

Based on the preceding analysis of the categories, the following section will provide an answer to the question formulated in Chapter 3, p. 9:

> *What insights can be gained from definitions derived from the literature—determinants of academic success derived from the literature, the self-evaluation reports of the institutions, and the measures used to verify the assurance of academic success through effective academic success management that incorporates academic success monitoring?*

Table 3 lists in red the additional categories considered by higher education institutions that they did not list under "academic success," "accessibility of higher education," or "compensation for disadvantages" in their self-evaluation reports, and which are derived either from other sections of the self-evaluation reports or from research on the respective institutions' websites.

The indicators used by most universities now include, in addition to course evaluations (10), graduate surveys (10, +2), childcare services (10, +8), student surveys (9), workload surveys (8, +1), support measures for illness and family obligations (8), and the absence of scheduling conflicts between courses (7); see Figure 3:

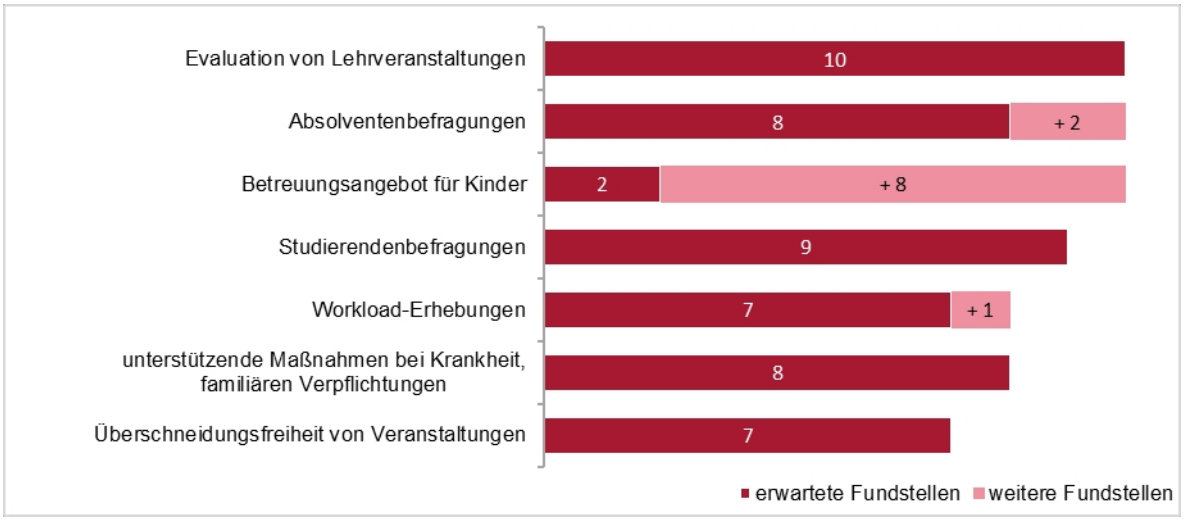


Figure 3: Most frequently cited categories with expected and additional sources.

It is striking that the collection of key metrics and evaluation of academic progress are conducted by four universities but only by one university of applied sciences. In-

interestingly, this is not the largest institution of higher education, but rather the smallest—University 8—in terms of student enrollment and the size of the faculty. Apart from that, no differences are apparent between the various types of higher education institutions.

The following insights can be drawn from comparing the determinants of academic success identified in the literature with the measures used by the institutions to verify that academic success is ensured through effective academic success management:

With the exception of Institution 4, the institutions incorporate at least half of the ten indicators of academic success

.

The categories “entry surveys” and “mid-semester course evaluations with a rationale for the chosen time frame” can also serve as indicators of *academic success*. At the same time, they—like the indicators “tutorials,”
“bridge courses,” “mentoring programs,” “introductory sessions,” and “get-to-know-you sessions”
”—to support students academically and socially during the introductory phase. However, these were each cited only between one and three times by the ten universities. One might conclude from this that the universities are very committed to tracking academic success. Furthermore, the introductory phase does not appear to be perceived by the universities as a particularly critical phase
—a phase in which the foundations for successful academic performance are laid—since they largely fail to cite indicators focused on the introductory phase. Alternatively, they do not mention the implementation of the aforementioned measures, or they address it elsewhere in the self-evaluation report.

It is striking that four universities and only one college conduct key metric surveys and
). This could indicate that universities are more likely to have the resources to set up a key metrics portal, whereas this may not be the case for universities of applied sciences, which are generally smaller. It is also possible that the need for decentralized key metrics collection is greater at large universities of applied sciences.

Only two colleges have mentioned childcare measures in their self-evaluation reports
. However, a review of the websites of the remaining institutions revealed that all of them offer some form of child care. The situation is similar in the category “Measures that take into account students’ socioeconomic backgrounds,” where only Institution 10 mentioned corresponding measures in its self-evaluation report, but five other institutions participate in the
NRW Talent Scouting program.

Factors beyond the universities' control that can jeopardize academic success—such as students' educational background and family obligations—do not appear to be of great importance to the universities. This is because the majority of universities that have such measures in place do not mention them in their respective self-evaluation reports.

The explanatory memorandum to Section 14, "Academic Success," in the MRVO states:

> *"Appropriate monitoring measures include, in particular, course evaluations, workload surveys, or graduate surveys, but also […]"*

Course evaluations and graduate surveys are implemented by all ten universities, while workload surveys are conducted by eight. The universities certainly base their self-evaluation reports on the MRVO (the Study Accreditation Ordinance of the State of North Rhine-Westphalia does not include an explanatory memorandum), just as the three categories are cited as examples for good reason.

According to Seyfried et al., universities focus primarily on the narrative of selecting the best students, academic competencies, and personal responsibility, whereas for universities of applied sciences or dual universities, the focus is on passing courses, practical professional competencies, and external accountability[40] . The statements in the self-evaluation reports did not confirm this, although the picture might be different if complete self-evaluation reports from a larger sample were examined.

The present study has shown that it is difficult to make general statements based on the self-evaluation reports regarding how institutions of higher education address the issues of academic accessibility and academic success (see Limitations). Even the small sample size was sufficient to plausibly demonstrate differences by academic discipline, for example, regarding the availability of tutorials and bridge courses for subjects such as mathematics and chemistry. In principle, however, it seems advisable to distinguish between how the issue of academic accessibility and student success is addressed and how it is presented in the self-evaluation reports. For if one university places importance on emphasizing participation in the NRW Talent Scouting program, while five other universities do not, this allows for conclusions to be drawn about the universities' self-image.

According to Schnoz-Schmied and Curcio, universities would strategically orient themselves in different ways with regard to their mission, their institutional context, and the career-oriented nature of their education[41] . The German Science Council also refers to this in its recommendations for a sustainable design of

[40] Seyfried et al. 2021, p. 38.
[41] Schnoz-Schmied – Curcio 2021, p. 230.

study and teaching to the heterogeneity of the student body[42] . It is possible that, here as well, a review of the entire self-evaluation report would reveal more references to aspects specific to the institution or related to the accreditation application—for example, in the curricula or qualification objectives—so that, on the other
5, the heterogeneity of the institutions would become more apparent.

It is particularly striking that universities 6 and 10 have the most measures in place with regard to academic success management. Both universities implement eleven of the 19 indicators; only University 1 applies more, with twelve indicators. One reason for this could be that the universities invest heavily in retaining their students,
10 since both are located in the same metropolitan area with a high concentration of universities and competition among them is likely to be fierce.

5 Conclusion and Outlook

This analysis has yielded results that were, in part, unforeseeable and
15 provide starting points for further research. Ensuring academic success is a key priority for the universities in the sample. Support services during the initial phase of studies—such as tutoring and bridge courses—are also provided, depending on academic needs. Measures aimed at social integration do not yet appear to be given sufficient priority
20. Two smaller universities of applied sciences pay close attention to these indicators and offer the vast majority of measures to ensure student success, which can be explained by their geographic location. The three measures implemented by all universities are course evaluations, graduate surveys, and child care services. While the first two are not
25, the latter raises the question of whether this is a coincidental finding. If not, it would be interesting to follow up on this result and investigate whether the institutions also offer measures that are costly and require significant coordination to support students' family situations.

Another finding is that universities are far from mentioning all the measures they use to
30 ensure academic success and the feasibility of studying (see Fig. 3) As for the reasons behind this—whether it is considered of lesser importance compared to other academic and content-related criteria such as qualification goals, program design, or the academic and content-related structure of the programs; the effort to adhere to the page limit specified by the template; or whether it is due to the fundamental

[42] Science Council 2022, p. 100 ff.

quality of the self-evaluation reports—cannot be assessed. This would require further investigation in the form of surveys of higher education institutions.

It would also be interesting to compare these reports with the accreditation reports to examine whether measures not listed in the self-evaluation report are mentioned there, or whether there a connection between the measures mentioned and the accreditation agency.

To obtain representative results, the study would also need to be conducted with a significantly larger sample, broken down by different fields of study and taking into account all subject-specific criteria.

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