UHASSELT
KNOWLEDGE IN ACTION

Maastricht University

School voor Educatieve Studies

Educatieve master in de gezondheidswetenschappen

Masterthesis

Evaluatie van een beoordelingstool voor het beoordelen van competenties in het hoger onderwijs

Jenthe Kowalewski

Scriptie ingediend tot het behalen van de graad van Educatieve master in de gezondheidswetenschappen

PROMOTOR :

Prof. dr. Kris JANSSENS

2024
2025

De transnationale Universiteit Limburg is een uniek samenwerkingsverband van twee universiteiten in twee landen: de Universiteit Hasselt en Maastricht University.

UHASSELT
KNOWLEDGE IN ACTION

www.uhasselt.be
Universiteit Hasselt
Campus Hasselt:
Martelarenlaan 42 | 3500 Hasselt
Campus Diepenbeek:
Agoralaan Gebouw D | 3590 Diepenbeek

UHASSELT
KNOWLEDGE IN ACTION

Maastricht University

School voor Educatieve Studies

Educatieve master in de gezondheidswetenschappen

Masterthesis

Evaluatie van een beoordelingstool voor het beoordelen van competenties in het hoger onderwijs

Jenthe Kowalewski

Scriptie ingediend tot het behalen van de graad van Educatieve master in de gezondheidswetenschappen

PROMOTOR :

Prof. dr. Kris JANSSENS

Reading between the lines of the rubric

Exploring biomedical students' experiences with rubric use during internships at Hasselt University

Jenthe Kowalewski & Kris Janssens
School of Educational Studies, Hasselt University, Hasselt, Belgium

August 11, 2025

Abstract

Internships are increasingly recognized as critical components of higher education, offering students opportunities to integrate academic knowledge with professional practice. In biomedical sciences, internships span multiple stages, transitioning students from guided learning to independent research. Given the complexity of internship learning, there is growing interest in structured evaluation tools such as rubrics. This study investigated how internship evaluation rubrics are used and experienced by students enrolled in the biomedical sciences program at Hasselt University in Belgium. A mixed-methods research design was employed, combining a systematic literature review, a student survey (N = 40), and two focus group sessions with both students and supervisors. The research focused on four interrelated dimensions of rubric function: clarity of expectations, support for self-regulated learning, quality of feedback, and perceived fairness. The literature review confirmed that rubrics, when well-designed and contextually implemented, support student learning by clarifying performance standards, enhancing transparency, and promoting reflective practice. However, vague descriptors and bundled criteria were found to hinder interpretation and consistency. Survey results indicated that while most students viewed the rubric as helpful for orientation and reflection, nearly half reported insufficient explanation of the rubric at the start of their internship. Focus group findings confirmed this variability in communication, with some students only discovering the rubric during the course of the internship. Both students and supervisors highlighted interpretive challenges, especially where rubric items combined multiple competencies. This affected the perceived fairness and transparency of the evaluation process. Feedback practices were also inconsistent: while some students received structured, rubric-based discussions, others described brief verbal interactions without written documentation. The lack of formal feedback was perceived as a barrier to effective learning. Although students generally valued the rubric's potential to support goal setting and self-monitoring, some expressed concern that their developmental progress was not adequately reflected in their final scores. Supervisors acknowledged that expectations increase throughout the internship trajectory, but noted that this progression was not always clearly communicated. Despite these challenges, students reported that the rubric provided a helpful framework for structuring their development, especially when accompanied by timely and constructive feedback. The triangulated findings suggest that rubrics are most effective when embedded in a transparent, dialogical, and formative assessment culture. This study contributes empirical insights into how rubrics function in a real-world university context and highlights the importance of structured communication and consistent interpretation. While the focus

on one academic program may limit generalizability, the findings offer transferable implications for rubric use in similar internship-based curricula. The strength of this study lies in its integration of literature, student voice, and educator input, offering a robust foundation for improving internship assessment practices in higher education.

Abstract (Nederlands)

Stages worden steeds meer erkend als een cruciaal onderdeel van het hoger onderwijs, omdat ze studenten in staat stellen om academische kennis te koppelen aan praktijkervaring. Binnen de opleiding biomedische wetenschappen aan de Universiteit Hasselt doorlopen studenten verschillende stagemomenten, waarbij ze evolueren van begeleid leren naar zelfstandig wetenschappelijk werken. In het licht van deze complexiteit groeit de belangstelling voor gestructureerde evaluatie-instrumenten, zoals rubrics. Deze studie onderzocht hoe rubrics worden gebruikt en ervaren door studenten in de opleiding biomedische wetenschappen aan de Universiteit Hasselt. Hiervoor werd een mixed-methods onderzoeksopzet gehanteerd, bestaande uit een systematische literatuurstudie, een studentenbevraging (N = 40), en twee focusgroepen met studenten en supervisors. Vier centrale functies van de rubric werden onderzocht: duidelijkheid van verwachtingen, ondersteuning van zelfgestuurd leren, kwaliteit van feedback, en ervaren eerlijkheid. De literatuurstudie bevestigde dat rubrics, mits goed ontworpen en contextueel ingebed, bijdragen aan het verduidelijken van prestatieverwachtingen, het verhogen van transparantie en het stimuleren van reflectief leren. Tegelijkertijd bleken vage formuleringen en samengevoegde criteria een obstakel voor consistente interpretatie. Uit de enquête bleek dat de meeste studenten de rubric nuttig vonden als richtlijn en reflectietool, maar bijna de helft gaf aan dat de rubric bij de start van de stage onvoldoende werd toegelicht. In de focusgroepen werd deze inconsistentie bevestigd: sommige studenten maakten pas tijdens de stage kennis met de rubric. Zowel studenten als begeleiders rapporteerden interpretatieproblemen, vooral wanneer meerdere competenties binnen één criterium waren gecombineerd. Dit had invloed op de ervaren eerlijkheid en transparantie van de evaluatie. De feedbackpraktijken bleken eveneens sterk te variëren: sommige studenten kregen uitgebreide feedback op basis van de rubric, terwijl anderen slechts een kort mondeling gesprek kregen zonder schriftelijke neerslag. Het ontbreken van formele feedback werd beschouwd als een hinderpaal voor duurzame leerprocessen. Hoewel studenten over het algemeen de rubric waardeerden als hulpmiddel bij het formuleren van leerdoelen en het opvolgen van hun ontwikkeling, gaven sommigen aan dat hun persoonlijke groei onvoldoende tot uiting kwam in de eindbeoordeling. Begeleiders bevestigden dat de verwachtingen stijgen naarmate de stage vordert, maar merkten op dat deze opbouw niet altijd duidelijk gecommuniceerd werd. Ondanks deze uitdagingen beschouwden studenten de rubric als een nuttig kader, zeker wanneer dit gepaard ging met constructieve en tijdige feedback. De triangulatie van bevindingen toont aan dat rubrics het meest effectief zijn binnen een transparante, dialogische en formatieve evaluatiecultuur. Deze studie biedt empirisch inzicht in de toepassing van rubrics in een reële universitaire context en onderstreept het belang van duidelijke communicatie en consistente interpretatie. Hoewel de studie focust op één academisch programma, bieden de bevindingen waardevolle inzichten voor andere opleidingen met stagestructuren in het hoger onderwijs.

Keywords: Rubric-based assessment, student perceptions, internships, higher education, self-regulated learning, formative feedback, Hasselt University.

---

1. Introduction

In recent decades, internships have become a cornerstone of higher education programs worldwide, providing students with structured opportunities to integrate academic knowledge with hands-on, practical experiences (Jackson, 2015; Smith et al., 2019). Particularly in disciplines such as biomedical sciences, internships function as transitional learning environments where students evolve from passive recipients of information to active participants in research and professional practice (Rowe et al., 2012). These placements foster the development of technical competencies, critical thinking, and problem-solving skills, while also helping students explore career pathways and build professional identities (Patrick et al., 2008; Kolb, 1984).

As internships grow in scope and significance, the demand for effective assessment methods that reflect the complexity of workplace learning has increased. Traditional grading approaches often fall short in capturing the nuanced performance and development of students in real-world contexts (Boud & Falchikov, 2007). Consequently, educational institutions are increasingly adopting structured evaluation tools, such as rubrics, to ensure transparency, consistency, and developmental feedback during internship assessment (Brookhart, 2013; Reddy & Andrade, 2010).

A rubric is a scoring guide that articulates expectations for an assignment by listing criteria and describing levels of quality for each (Andrade, 2005). In higher education, rubrics have gained widespread use due to their ability to communicate standards, enhance grading objectivity, and promote student self-regulation (Panadero & Jonsson, 2013; Hafner & Hafner, 2003). Empirical studies suggest that rubrics increase fairness, reduce anxiety, and help students understand what is required for success (Jonsson, 2014; Panadero, 2017). When introduced early and used regularly, rubrics encourage goal setting, reflective thinking, and deeper learning (Panadero & Romero, 2014; Zimmerman, 2002). In addition, rubrics support formative assessment practices by guiding discussions between students and educators, enabling timely and actionable feedback (Carless & Boud, 2018; Fraile et al., 2017).

However, despite their pedagogical value, rubrics are not without limitations. Vague or generic descriptors such as "adequate" or "emerging" can lead to confusion and subjective interpretation (Dawson, 2017; Sadler, 2009). When multiple learning objectives are grouped under one criterion, students may struggle to discern which component influenced their score (Jonsson & Svingby, 2007; Panadero et al., 2013). Furthermore, inconsistencies in how instructors interpret and apply rubrics may reduce inter-rater reliability and impact students' perceptions of fairness (Rezaei & Lovorn, 2010; Brookhart, 2018).

Although rubrics are increasingly used to make internship evaluations more transparent and consistent, little is known about how students actually experience these assessments. Prior research suggests that unclear rubric structures and inconsistent application by supervisors can lead to confusion, demotivation, and perceptions of unfairness. Moreover, within the biomedical sciences program at Hasselt University (UHasselt), there is limited insight into how rubrics are used as learning tools, and whether they succeed in supporting student development throughout the internship trajectory. This gap in understanding forms the starting point of the present study.

The biomedical sciences program at UHasselt integrates three internships into its curriculum, designed to gradually foster student independence and professional growth. Students undertake a five-week internship during the third year of the

bachelor's program, a nine-week junior internship in the first master's year, and a 28-week senior internship in the final master's year. Across these internships, students are assessed using standardized rubrics that evaluate key competencies such as planning, independence, teamwork, accuracy, and communication. While the rubric structure is consistent, its application evolves with the complexity of the internship stage. Rubrics serve both summative and formative purposes, including a mandatory midterm evaluation during the junior and senior internships.

Given their central role in assessment and learning within the internship pathway, rubrics warrant closer examination from the learner's perspective. Existing literature offers insight into how rubrics function in general educational contexts, but little is known about how students in the biomedical sciences perceive, interpret, and use rubrics during internships. Understanding their experiences is essential for optimizing feedback processes, improving clarity of expectations, and supporting self-regulated learning. While a single focus group was also conducted with supervisors, its purpose was to contextualize student responses, not to assess supervisor practices directly.

This study explores how rubric-based internship evaluation is experienced by students in the biomedical sciences program at Hasselt University. A multi-method approach was adopted to address this aim. First, a systematic literature review synthesizes existing evidence on rubric use in higher education. Second, a student survey collected both quantitative and qualitative data regarding rubric use during the junior and senior internships. Finally, two focus groups, one with students and one with supervisors, provided in-depth perspectives on the students' experiences of rubric application. Together, these methods aim to identify strengths, challenges, and opportunities for improvement within the current assessment framework, contributing to a more transparent, equitable, and student-centered evaluation process.

2. Methodology

2.1 Nature and scope of the research

This study employed a qualitative research design supported by descriptive quantitative data. The objective was to explore how students experience rubric-based assessment during internships in the biomedical sciences program at Hasselt University. Rather than aiming for statistical generalization, the study focused on gaining in-depth insights to inform improvements in the design, communication, and application of the current evaluation framework.

2.2 Internship structure and evaluation tool

The biomedical sciences curriculum at Hasselt University includes three mandatory internships: a five-week internship in the third year of the bachelor's program, a nine-week junior internship in the first year of the master's program, and a 28-week senior internship in the second master's year. These internships are designed to gradually develop student independence, from guided introduction in the bachelor phase to full scientific autonomy in the senior phase.

Each internship is supervised by a daily supervisor who oversees day-to-day progress and provides detailed feedback. A principal (or institutional) supervisor ensures the scientific quality of the project and is responsible for the formal evaluation. For external internships, an institutional supervisor from UHasselt is also involved. Senior internships additionally involve a second examiner, who follows progress and evaluates the final thesis and defense.

The assessment tool used across all internships relies on standardized rubrics introduced in 2017 and updated iteratively based on feedback. These rubrics assess student performance across several domains: the internship process, written

report, and presentation. Evaluation criteria include planning, independence, accuracy, safety, teamwork, insight, and communication, each scored on a 1–5 scale. All rubrics used for these evaluations are provided in the supplementary materials (Supplementary figure 1).

Although the rubric structure remains consistent across all stages, the interpretation of the scores changes according to the student's academic level. A unique, underlying scoring system adjusts expectations accordingly: for instance, a score of 3 in planning corresponds to a higher final grade in the bachelor internship than in the senior internship. This underlying system is not visible to students or supervisors during the evaluation. Certain rubric items are weighted more heavily, and criteria exist that can trigger automatic failure if scored below a predefined threshold. After the rubric is filled in via a Qualtrics form, the system calculates a final score out of 20. Supervisors may adjust this score with justification, subject to coordinator approval. For scores below 10 or above 18 out of 20, explanatory comments are mandatory. Each rubric also includes an open feedback field for qualitative remarks.

During the junior and senior internships, a mandatory midterm evaluation is conducted. Both the student and the supervisor complete the rubric independently and discuss their evaluations in a feedback meeting. The student summarizes this meeting in a short-written report. This formative moment aims to help students reflect on their development and identify growth opportunities before the final evaluation.

2.3 Systematic review

2.3.1 Search strategy

A systematic literature search was conducted to identify relevant studies on rubrics in higher education and their relationship to assessment, feedback, and self-regulated learning. The databases ERIC and ScienceDirect were used. ERIC specializes in education-focused research, while ScienceDirect offers broader access to health and social science literature.

Searches were limited to peer-reviewed journal articles published in English between 2010 and 2025. Only primary empirical research was included. Eligible studies focused on the use of rubrics in higher education, specifically their role in assessment, feedback practices, or student learning. Studies outside the scope of higher education or those lacking empirical data were excluded.

Search terms were grouped under three key themes, self-regulated learning, rubrics, and higher education, and combined using Boolean operators. Table 1 presents the search terms used.

Table 1. Key concepts and search terms

Self-regulation	**Rubric**	**Higher education**
Self-regulation	Rubric	Higher education
Self-monitoring	Rubrics	HE
Self-directed learning	Marking rubric	
Self-management	Marking grid	
	Evaluation tool	

The Boolean combinations of search terms were applied in both databases. Table 2 lists the search strings and the number of results retrieved.

2.3.2 Screening and evaluation process

The combined search yielded 379 articles. After removing duplicates, 356 unique records remained. A preliminary screening of titles and abstracts excluded 302 articles that did not meet the inclusion criteria. The remaining 54 full-text articles were assessed in detail, and 43 were excluded

Table 2. Search combinations and results

Search NO	Search terms	ERIC results	ScienceDirect results
S1	Self-regulation or self-management or self-monitoring or self-directed learning	282.374	1.000.000+
S2	Rubric or rubrics or marking rubric or marking grid or evaluation tool	129.703	1.000.000+
S3	Higher education or HE	464.748	1.000.000+
S4	S1 and S2 and S3	18	361

due to insufficient empirical data or limited relevance to rubric use in higher education. In total, 11 articles were included in the final review. The complete screening flowchart is presented in the supplementary materials (supplementary figure 2).

2.4 Survey design and distribution

To explore student perceptions of rubric use, a custom survey was developed. It included both closed Likert-scale questions (1–5) and open-ended questions, partially adapted from the Emotion and Motivation Self-Regulation Questionnaire. Two academic reviewers assessed the survey's clarity and relevance. The full list of survey questions, including both closed and open-ended items, is provided in supplementary table 1.

The survey was distributed via Blackboard, Hasselt University's learning platform. Participation was voluntary and anonymous. Respondents provided informed electronic consent prior to participation. Forty students completed the survey: 20 who had finished the junior internship and 20 currently enrolled in the senior internship. Four responses from students in a pilot industrial internship were excluded due to their participation in an alternative evaluation track.

2.5 Focus group protocol and execution

To obtain qualitative insights, two semi-structured focus groups were conducted. The first group consisted of five students from different stages: three from the second master's research track, one from the clinical track, and one from the first master's year. The second group included four daily supervisors and three professors involved in rubric design or evaluation.

Participants were invited via email and joined either on campus or online via Google Meet. Each session lasted approximately 60 minutes and was audio-recorded with participant consent. Written informed consent was obtained in advance (supplementary figure 3). To ensure transparency and replicability, the full protocol used for the focus group sessions is available as supplementary table 2 (students) and 3 (supervisors).

The student group discussed their familiarity with the rubric, the clarity of its expectations, and how they used feedback. The supervisor group shared their approaches to applying the rubric and challenges related to scoring consistency and interpretation.

2.6 Data analysis

Open-ended survey responses and transcripts from the focus groups were analyzed using inductive thematic analysis in NVivo 15. The analysis followed Braun and Clarke's six-phase framework, beginning with familiarization, initial coding, and subsequent theme development. Codes were generated through repeated readings of the data and iteratively organized into a

shared codebook, ensuring conceptual coherence across data sources.

To enhance intersubjectivity and reliability, coding was conducted independently by the first researcher and subsequently verified by a second researcher. Discrepancies were discussed and resolved through consensus, with revisions made to the codebook as necessary. This process ensured that themes reflected a shared interpretation rather than individual bias.

The final themes emerged through abstraction and grouping of related codes and were aligned with the central research questions. For example, under the theme "Clarity of expectations and communication," recurring codes included rubric introduction, student-initiated discovery, and shifting expectations. Within "Structure and interpretation of the rubric," representative codes included bundled criteria, vague descriptors, and unclear weighting. These themes provided the analytical structure for the presentation of results.

Descriptive statistics from the closed survey items were generated using Microsoft Excel. Patterns and contrasts across data sources (survey, student focus group, and supervisor focus group) were examined to develop a holistic view of rubric-related experiences within the internship program.

3. Results

This chapter presents the findings of the study in three main parts: the results of the systematic review, the student survey, and the focus group discussions. These three complementary data sources were selected to provide a comprehensive understanding of how rubrics are perceived, used, and evaluated within the context of biomedical sciences internships at UHasselt. The systematic review explores the existing literature on rubrics in higher education and identifies evidence-based practices that can inform improvements to the current assessment rubric. The survey provides a structured, quantitative and qualitative overview of student perceptions within the UHasselt context, while the focus groups offer in-depth insights from both students and supervisors regarding their experiences and suggestions for future refinement.

The structure of the results chapter follows four recurring themes, each addressed across all three parts of the study. These themes are: (1) Clarity of expectations and communication, referring to how well rubrics communicate what is expected of students and how they are introduced; (2) structure and interpretation of the rubric, which examines the internal coherence and usability of rubric criteria; (3) feedback and evaluation practices, focusing on how rubrics support the provision and reception of feedback; and (4) monitoring of progress and student self-regulation, which explores how rubrics facilitate self-assessment and guide learning over time. These four categories were derived from the central research objectives and were informed by previous research emphasizing transparency, alignment, formative feedback, and student autonomy.

3.1 Systematic review

Rubrics are structured scoring tools used in education to outline assessment criteria and performance levels. In higher education, they are increasingly employed to enhance transparency, improve grading consistency, and promote formative learning (Jonsson & Svingby, 2007; Brookhart, 2013). Rubrics help clarify expectations for students and serve as guides for both instruction and feedback. They also encourage self-regulation by allowing students to assess their own progress against predefined criteria (Andrade, 2005; Panadero & Jonsson, 2013). Given these strengths, rubrics have proven particularly valuable in complex learning environments like internships, where learning is often individualized and assessment can be subjective (Dawson, 2017).

To establish a theoretical foundation and understand how rubrics are applied in higher education, a systematic review of peer-reviewed literature was conducted. This review aimed to synthesize empirical findings on the effectiveness of rubrics in fostering clarity, supporting self-regulation, improving feedback, and guiding learning. The goal was to evaluate whether existing evidence could inform and support enhancements to the internship assessment rubric used at UHasselt.

3.1.1 Results of the systematic review

Clarity of expectations and communication

Several studies demonstrated that rubrics play a key role in clarifying expectations for students. Gezie et al. (2012) conducted a qualitative study with 34 social work students and found that rubrics reduced ambiguity and increased satisfaction with grading by explicitly stating what was required. Wang (2017) reported similar findings in an experimental study involving 80 Chinese English as a Foreign Language (EFL) writing students. Students perceived rubrics as essential tools that reduced uncertainty, particularly when subject-specific knowledge was still developing. Panadero and Romero (2014), in an experimental study with 218 pre-service teachers, found that rubrics promoted fairness by making assessment criteria transparent. However, they also noted that the pressure to meet specific rubric expectations could induce performance anxiety. Karaman (2024), through a mixed-methods design with 79 teacher trainees, revealed that rubrics helped students identify performance standards and set learning goals, especially when their use was scaffolded through instructor feedback.

Structure and interpretation of the rubric

The effectiveness of rubrics largely depends on their internal design. Fraile et al. (2023) demonstrated in a quasi-experimental study with business students that rubrics with clearly segmented descriptors contributed to higher performance and better self-evaluation. However, poorly designed rubrics that bundle several learning objectives into a single criterion often cause confusion. Panadero et al. (2013), comparing rubrics and self-assessment scripts in a study of 85 psychology students, concluded that while rubrics enhanced learning, their prescriptive format limited student autonomy. Krebs et al. (2022) found that rubrics reduced cognitive load and improved accuracy in self-assessment only when criteria were well defined and free of vague terminology. These findings underscore the importance of specific and non-ambiguous wording in rubric design.

Feedback and evaluation practices

Karaman (2024) found that rubrics were significantly more effective when used in combination with instructor feedback. Students who received annotated rubric feedback performed better and were more engaged. Panadero and Romero (2014) similarly emphasized the importance of accompanying rubric scores with explanations. Fraile and Medina (2023) showed that co-creating rubrics with students improved both engagement and self-efficacy in a cohort of 134 management students. Miknis et al. (2020) provided a practical case from a programming course in which rubric-aligned instruction and feedback drastically reduced failure rates—from over 75% to 36%. Velasco-Martinez and Diaz-Barriga (2017) warned, however, that inconsistent implementation of rubrics among instructors could lead to uneven assessment practices and diminished student trust.

Monitoring of progress and student self-regulation

Several studies highlighted the role of rubrics in fostering self-regulation and autonomous learning. Fraile, Panadero, and

Pardo (2017) explored rubric co-creation with 65 sport sciences students. While quantitative measures of self-regulated learning did not significantly increase, students reported greater ownership and clarity. Wang (2017) and Karaman (2024) both found that students used rubrics to monitor progress and structure their learning over time. Panadero et al. (2013) cautioned that over-reliance on rubrics without reflective tasks might lead to superficial compliance rather than deep learning. Researchers also noted the potential of digital integration: rubrics embedded in online portfolios allowed students to visualize learning trajectories and maintain continuity across learning modules.

3.1.2 Conclusion of the systematic review

This systematic review demonstrates that rubrics, when well-designed and contextually implemented, can significantly enhance student learning, performance clarity, and self-regulated behaviour in higher education. Their primary strengths lie in providing transparent expectations, facilitating consistent and constructive feedback, and promoting independent goal setting. Rubrics were especially effective when paired with instructor dialogue, used iteratively across tasks, or co-constructed with learners.

However, several challenges were identified. Rubrics that combine multiple competencies into single items obscure targeted feedback and hinder meaningful interpretation. Vague descriptors such as "adequate" or "always" decrease reliability and may create performance anxiety. Moreover, inconsistencies between instructors in the application and interpretation of rubrics can undermine perceived fairness. A consistent theme across studies was the added value of pairing rubrics with written or digital feedback systems that support long-term monitoring of student progress.

In sum, the evidence suggests that rubrics work best not as static checklists, but as dynamic tools integrated into formative feedback processes. These findings provide a valuable framework for critically examining and refining the UHasselt internship rubric in the light of best practices and identified pitfalls.

3.2 Survey results

To investigate how students experienced the use of the internship assessment rubric in practice, a survey was administered to students enrolled in the junior and senior internships in biomedical sciences. The survey captured both quantitative and qualitative insights into how students used the rubric, how they perceived its clarity and structure, and how they engaged with it during feedback and reflection. In total, 40 valid responses were analysed.

Clarity of expectations and communication

This section examines how students engaged with the rubric at the start of their internship, how clearly, they understood its content, and whether they received sufficient explanation from supervisors or coordinators. Figure 1A displays the frequency with which students consulted the rubric at the beginning of their internship. Two-thirds of respondents reported referring to it often or always, suggesting that most students actively used the rubric to orient themselves. One-third engaged with it only occasionally or not at all, indicating variability in how students incorporated the tool into their early internship preparation.

The next figure (figure 1B) presents students' perceptions of the rubric's clarity. Three-quarters of the participants described the rubric as clear or very clear, while only a few found it difficult to interpret. These responses suggest that students generally understood the rubric's language and structure.

Figure 1C captures whether students felt the rubric had been adequately explained at the beginning of the internship. Half agreed that the introduction was sufficient, whereas the other half expressed uncertainty or disagreement. These results point to inconsistent communication practices surrounding the rubric's use.

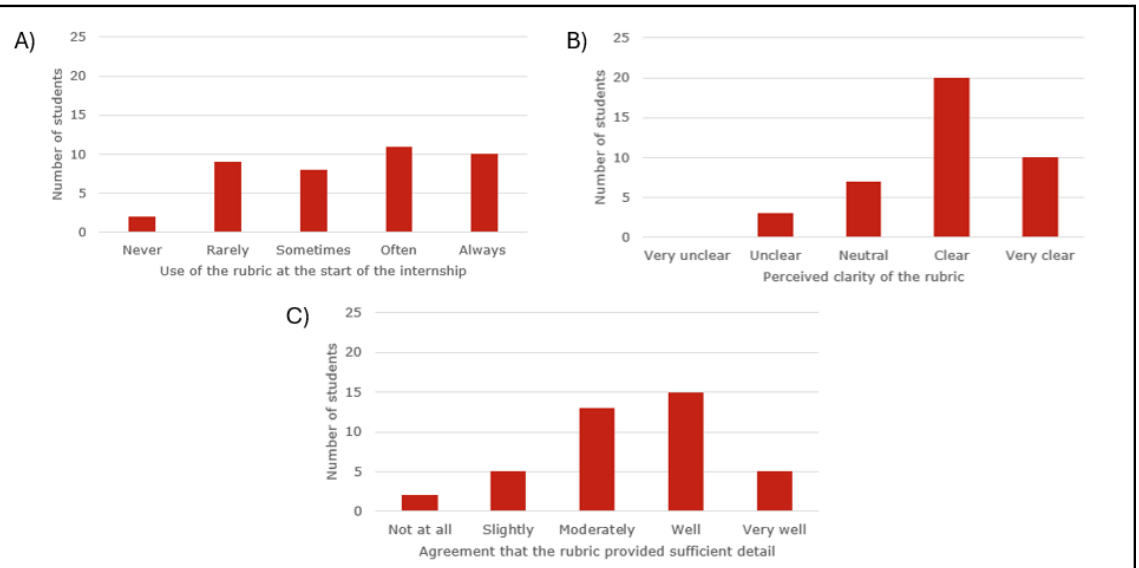


Figure 1: Student responses on clarity of expectations and communication of the rubric. Survey responses from students (n = 40) using a 5-point Likert scale. A. Extent to which students consulted and used the rubric at the start of their internship to understand expectations and evaluation criteria. B. Perceived clarity and comprehensibility of the rubric at the beginning of the internship. C. Degree to which students felt they received sufficient explanation and information about the rubric at the start of the internship.

Open responses highlight the impact of this inconsistency. Some students reported discovering the rubric independently, often without formal introduction. One student noted, "I only realised the rubric was online because I searched for it myself." Others recalled that the rubric was mentioned briefly during orientation but never contextualised.

Multiple respondents recommended improvements, including a short video or summary document, visual milestone checklists, and integration of the rubric into early supervisory meetings.

Structure and interpretation of the rubric

The following section focuses on how students interpreted the rubric structure and wording, and whether they considered it sufficiently detailed. Figure 2 presents student evaluations of the rubric's level of detail.

Approximately two-thirds agreed that the rubric provided enough information to understand what was expected, while one-quarter responded neutrally and a small number disagreed. These responses suggest that although the rubric met the needs of most students, a significant group remained unsure of how to translate its content into practice.

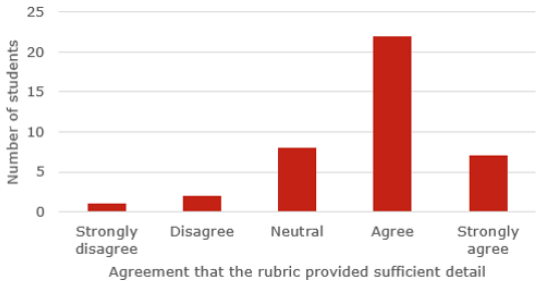


Figure 2: Student evaluation of the level of detail provided by the rubric. Survey responses from students (n = 40), measured on a 5-point Likert scale. The figure shows the level of agreement with the statement that the rubric provided enough detail to understand what was expected during the internship.

Many students pointed out that several rubric items grouped multiple competencies, such as planning and communication, within a single row. This made it difficult to determine which sub-skill influenced the score. One respondent wrote, "You get one score for two things. If I do well in one and not in the other, how am I supposed to know what to improve?" Students also criticised the use of vague or overly rigid terms like "adequate" or "always." Such wording created uncertainty about performance thresholds. One student asked, "If I make one mistake, does that mean I cannot get a 4 anymore?"

Several responses emphasised that the rubric's phrasing lacked precision and failed to capture gradations in performance. In addition, many students indicated that they did not understand how the final internship score was derived from the rubric. Some assumed that certain criteria were weighted more heavily, but no clear explanation had been given. Others questioned whether supervisors applied the rubric consistently across different internship settings.

Feedback and evaluation practices

This section explores how students used the rubric in feedback contexts, particularly during the mid-internship evaluation. Figure 3A shows how students responded to the statement that the rubric helped them reflect on their performance and adapt their behaviour. Three-quarters responded positively, indicating that most students used the rubric as a tool for self-reflection during their internship.

Despite this generally positive view, students described significant variation in how feedback was delivered. Some received detailed feedback in structured sessions, often based directly on the rubric. Others described brief, informal discussions with little connection to the rubric criteria. One respondent remarked, "We talked for ten minutes, and then it was over, no notes, no rubric, just a general impression."

In addition, most students evaluated the feedback received during the intermediate evaluation as useful (Figure 3B). However, open-ended responses revealed that the depth and quality of this feedback varied depending on how supervisors facilitated the session.

The lack of written feedback emerged as a recurring concern. Many students indicated that they could not recall the content of verbal feedback, especially when given in a high-pressure setting.

Several avoided taking notes during the session to avoid appearing impolite. One student noted, "Everything was said in the moment. Afterwards, I couldn't remember what to work on."

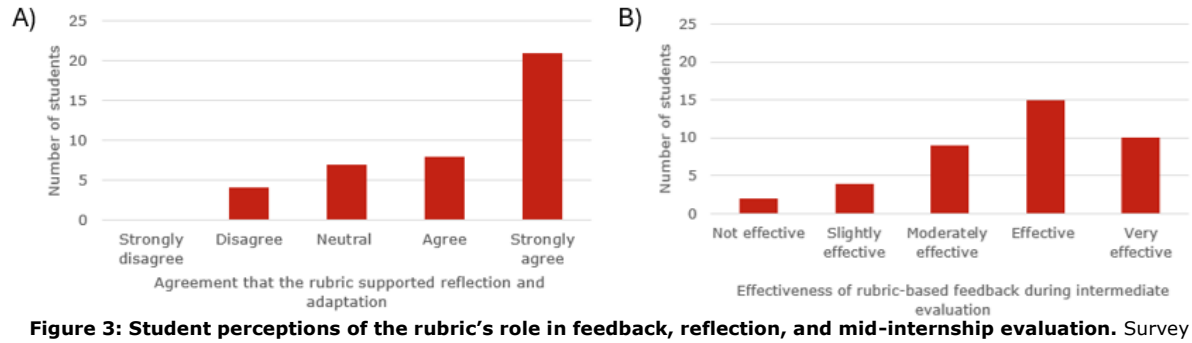


Figure 3: Student perceptions of the rubric's role in feedback, reflection, and mid-internship evaluation. Survey data from students (n = 40), collected using a 5-point Likert scale. A. Agreement with the statement that the rubric helped students reflect on their performance and adapt based on feedback received. B. Perceived effectiveness of feedback during the intermediate evaluation meeting in helping students understand their strengths and areas for improvement.

Multiple students proposed solutions to this problem. Some recommended receiving a completed version of the rubric after the evaluation. Others suggested developing a shared digital feedback tool, where both student and supervisor could document reflections and comments. These suggestions indicate that students value feedback but need more consistent and accessible ways to engage with it.

Monitoring of progress and student self-regulation

The final section focuses on how students use the rubric to guide their learning, track their development, and regulate their behaviour throughout the internship.

Figure 4 shows that most students agreed that the rubric helped them set objectives and reflect on their progress. Many reported using the rubric weekly to assess their own growth or to prepare for meetings with their supervisor.

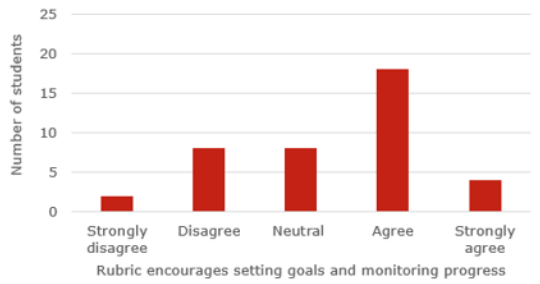


Figure 4: Student perceptions of the rubric's role in supporting progress monitoring and self-regulated learning. Survey responses from students (n = 40), measured using a 5-point Likert scale. The figure shows agreement that the rubric encouraged students to set personal learning goals and monitor their progress.

Several students expressed concern that their efforts to improve over time were not always reflected in the rubric scores. One respondent stated, "I worked much harder in the second half, but my score stayed the same." Others recommended incorporating a progress tracking section into the rubric, either as a reflective log or as a supervisor commentary field, to better capture developmental changes.

Students also shared mixed views on whether evaluation results should carry over into future internships. While some supported the idea of continuity, others worried that prior performance might bias new supervisors. A frequently proposed alternative was to allow students to write a personal development reflection at the end of each internship. This would enable them to build on earlier experiences without being constrained by previous scores. As one student explained, "Let me decide what to bring forward. That way, I stay in control of my learning process."

3.3 Focus groups results

Two focus group sessions, one with students and one with supervisors, were conducted to explore how the internship rubric is experienced in practice. These sessions provided deeper insight into how the rubric is interpreted, communicated, and used during feedback and evaluation.

Clarity of expectations and communication

Participants reflected on how the rubric was introduced at the beginning of the internship and to what extent it helped clarify expectations. Some students noted that they had easy access to the rubric and appreciated its potential to structure the internship. Others reported that it was insufficiently emphasized during the early stages. A few mentioned only discovering the rubric midway through the internship. One student recalled, "I didn't even know there was a rubric until we were a few weeks in." This inconsistency was linked to varied practices among supervisors.

Supervisors stated that they generally shared the rubric via email or uploaded it to the platform, but many did not review it in detail with students. Some believed students should take initiative to consult the rubric independently, while others saw benefits in explaining it explicitly. Supervisors varied in their practices, with

some assuming the rubric was self-explanatory.

Both groups noted that although the rubric remains the same across bachelor, junior, and senior internships, expectations shift across these levels. Students observed that these shifts were not clearly communicated. In several cases, students relied on informal peer guidance. Supervisors indicated that while they intuitively adjust expectations, these adjustments are not always explicitly conveyed.

Some students described positive experiences in which the rubric was actively discussed at the start. They indicated that these discussions helped clarify what was expected and supported their planning. One student noted, "In my senior internship, we went over the rubric in the first week, I knew exactly what to focus on."

Structure and interpretation of the rubric

Participants reflected on how they interpreted the content and structure of the rubric. Several students indicated that they appreciated the structured format, which made performance criteria more explicit. The format also facilitated comparison and discussion with supervisors. However, others noted difficulties related to specific wording and item grouping. The term "always" was frequently mentioned as problematic. Students interpreted it as overly rigid. A participant asked, "Does making one mistake mean I can't get a 4?" Supervisors acknowledged this concern and pointed out that such language could be intimidating or lead to overly cautious scoring.

Some rubric items were described as combining multiple sub-competencies, even when technically separated. For example, students noted overlap between criteria like technical execution and autonomy. These overlaps made it difficult for students to determine which specific aspects affected their evaluation. Supervisors reported similar experiences. They noted that in some cases, a student's performance on one sub-aspect skewed the score for the entire criterion.

Another area of uncertainty concerned how rubric scores were converted into final grades. Students expressed frustration over a lack of transparency in how numeric scores were calculated. Some were unsure whether all items were weighted equally. Supervisors confirmed that explanations of the scoring process were not always detailed and suggested that more transparency could help manage student expectations.

In contrast to these challenges, both students and supervisors valued the rubric's role in making evaluation more systematic. Students reported that the rubric allowed them to see where they stood and helped them set concrete goals. Supervisors highlighted its usefulness in team-based evaluations and when comparing student performance over time.

Feedback and evaluation practices

Participants shared their experiences with feedback during the internship, especially in the context of the mid-internship evaluation. Many students found this evaluation moment helpful and described it as a moment to reflect and adjust. Some students described a detailed, collaborative evaluation process in which the rubric was discussed item by item. One participant explained, "We went through the rubric together, and I could respond to their comments, it was a real dialogue."

Students also reported considerable variation in how these evaluations were conducted. Some evaluations lasted only a few minutes and did not reference the rubric directly. Supervisors confirmed that the format and depth of evaluation differed depending on time constraints and individual habits. Some focused more on overall impressions, while others adhered closely to rubric structure.

The need for written feedback was highlighted across both focus groups. Students expressed difficulty recalling verbal feedback, particularly when given under time pressure or emotional stress. One student noted, "I really wanted something to take with me, even just a bullet list." Supervisors generally expected students to take notes but acknowledged that formalizing the process could increase clarity and accountability. Some supported introducing a shared digital template to summarize feedback.

Feedback tone and framing were also discussed. Students indicated that feedback was most helpful when phrased constructively and delivered respectfully. Supervisors emphasized the importance of building a positive rapport and avoiding feedback that felt punitive. They described how the rubric could serve as a neutral structure to facilitate constructive dialogue.

Monitoring of progress and student self-regulation

Participants discussed the extent to which the rubric supported learning and progress monitoring. Some students reported actively using the rubric throughout the internship to guide self-reflection and goal setting. One student stated, "I used the rubric as a checklist, what do I want to do better next week?" Others used the rubric only at formal evaluation points.

Supervisors observed variation in student engagement with the rubric. While some students took ownership of their learning and used the rubric proactively, others needed more encouragement. Several participants noted that a clearer framework for tracking progress might support less independent students.

Students reported that their efforts to improve were not always visible in the final score. They described investing more time or refining specific skills without seeing changes in their evaluation. Supervisors responded that expectations rise with each internship and that maintaining the same rubric score can reflect growth. However, this logic was not always communicated.

Participants discussed whether feedback from previous internships should be shared with future supervisors. Some students saw this as helpful for continuity, while others feared being judged based on past performance. Supervisors expressed similar concerns. One said, "If I know someone struggled last time, I might look for it again," while another preferred a clean slate. Multiple participants supported a student-authored reflection as a compromise, allowing students to carry forward relevant insights while framing their own narrative.

The focus group results describe varied experiences with the rubric and reveal both practical challenges and opportunities for enhancement. Students and supervisors highlighted inconsistencies in communication, evaluation practices, and interpretation but also emphasized the rubric’s role in promoting structure, dialogue, and goal-directed learning.

An integrated overview of the key findings across the literature review, student survey, and focus group discussions is presented in table 3. This visual summary highlights how the four central themes emerged across all data sources.

4. Discussion

This study aimed to examine how rubric-based assessment is experienced by students during internships within the biomedical sciences curriculum at Hasselt University. Building on the observation that rubrics play a central role in both summative and formative evaluation across all internship phases, the study focused on how students interpret, engage with, and use rubrics in practice.

Table 3: Overview of key findings across methods

Theme	Literature review	Survey findings	Focus group insights
Clarity of expectations and communication	Rubrics clarify expectations when transparently introduced (Gezie et al., 2012; Panadero & Romero, 2014)	50% felt rubric was not clearly introduced; 33% rarely consulted it early	Many students only discovered the rubric mid-internship; supervisors varied in whether they explicitly introduced it
Structure and interpretation of the rubric	Vague language and bundled criteria limit clarity (Dawson, 2017; Panadero et al., 2013)	Some criteria seen as too broad or vague; confusion about weighting	"Always" perceived as unrealistic; unclear scoring logic; supervisors acknowledged challenges with overlapping criteria
Feedback and evaluation practices	Rubrics most effective when paired with detailed feedback and dialogue (Carless & Boud, 2018; Fraile & Medina, 2023)	Mixed experiences with feedback depth; lack of written feedback noted	Some supervisors offered detailed sessions; others provided short verbal impressions; shared concern about lack of documentation
Monitoring of progress and self-regulation	Rubrics support self-regulated learning, especially when embedded in feedback cycles (Zimmerman, 2002; Panadero, 2017)	Most used rubric for goal-setting and self-reflection; frustration over unchanged scores despite improvement	Supervisors note that constant scores can reflect growth, but this is not always communicated; students suggest progress-tracking fields or reflective components

Drawing on insights from a systematic literature review, a student survey, and two focus groups, this research explored how effectively the rubric supports clarity of expectations, self-regulated learning, constructive feedback, and perceptions of fairness throughout the internship trajectory.

The results suggest that while rubrics are broadly valued by students, several practical and structural barriers limit their potential. At the same time, there are clear opportunities for improving how rubrics are introduced, interpreted, and applied.

Clarifying expectations and fostering communication

A consistent theme across all data sources is that rubrics offer substantial benefits in clarifying expectations, if introduced and explained appropriately. The systematic review confirmed that rubrics help demystify assessment standards and promote fairness when transparently implemented (Gezie et al., 2012; Panadero & Romero, 2014). Survey results supported this conclusion, with a majority of students agreeing that the rubric provided them with clear guidance during their internship. Focus group participants also acknowledged the rubric's potential in this regard, particularly when it was introduced at the beginning of the internship.

However, the results also revealed that this clarity is not guaranteed. Nearly half of the survey respondents felt the rubric was not adequately explained, and several students in the focus groups reported discovering the rubric only partway through their internship. Supervisors often assumed that students would review the rubric independently, but this hands-off approach contributed to inconsistent experiences. These findings echo previous research highlighting the importance of early, guided discussions of rubric content (Panadero & Jönsson, 2013).

To address this gap, institutions should consider embedding structured rubric discussions into the start of each internship, potentially supported by visual aids, summary documents, or brief instructional videos. These tools could help ensure that all students begin with the same baseline understanding of expectations.

Interpreting and using the rubric effectively

The structure and wording of rubrics significantly affect how students and supervisors interpret and apply them. Findings from the systematic review emphasized the importance of well-segmented descriptors and the dangers of vague or bundled criteria (Fraile et al., 2023; Panadero et al., 2013). These issues were echoed in both the survey and focus group data, where students voiced frustration about unclear terminology and overlapping competencies.

Students frequently mentioned that they were unsure how specific rubric items contributed to their overall score, and they expressed doubts about whether supervisors applied the rubric consistently. Supervisors, in turn, admitted to difficulties interpreting certain descriptors and to personal differences in scoring styles. While the rubric was appreciated for its structure, its practical application revealed interpretive challenges that reduced its perceived fairness.

These findings highlight the need for calibration sessions among supervisors, during which they can align their interpretations and discuss ambiguous criteria. Additionally, students may benefit from annotated versions of the rubric with examples of expected behaviors per score level. Such practices have been shown to improve transparency and reduce subjectivity in grading (Karaman, 2024).

Feedback practices and formative use

Rubrics serve a dual role: summative assessment and formative guidance. This duality was clearly reflected in the results. The systematic review emphasized that rubrics are most effective when used as part of a feedback loop rather than as static checklists (Panadero & Romero, 2014; Fraile & Medina, 2023). Survey respondents largely agreed that the rubric helped them reflect on their progress and make adjustments, and the focus groups confirmed that the mid-internship evaluation was generally seen as useful.

Nonetheless, many students described the feedback process as inconsistent. Some received detailed, rubric-based feedback in structured meetings; others participated in brief, unstructured conversations. A common frustration was the lack of written feedback. Without documentation, students struggled to recall what had been discussed, which reduced the effectiveness of the evaluation. Supervisors often assumed that students would take notes, while students expected a more formal summary.

This disconnect suggests a need for clearer guidelines on feedback delivery. Implementing a shared digital tool or template for documenting midterm evaluations could enhance feedback retention and foster mutual accountability. Making written feedback a standard part of the process would help reinforce learning and support reflective practice.

Supporting student growth and autonomy

One of the rubric's intended purposes is to support students in monitoring their progress and regulating their own learning. The survey results were generally positive in this regard: most students reported using the rubric to set goals and track development. The systematic review similarly identified rubrics as useful scaffolds for self-regulated learning, especially when paired with feedback or digital tools (Wang, 2017; Fraile & Medina, 2023).

However, focus group discussions revealed that the rubric's ability to support growth was limited by how it was framed and applied. Some students felt their improvement was not visible in their final scores, particularly if they started at a lower performance level. Supervisors clarified that expectations rise progressively across the internship trajectory, implying that maintaining the same rubric score over time may in fact reflect developmental progress. However, this rationale was not systematically communicated to students, potentially leading to misinterpretations regarding their growth and performance.

Students expressed a desire for a more personalized way to track progress. Suggested improvements included adding a progress section to the rubric or allowing students to write a development reflection at the end of each internship. Such changes

could help make learning gains more visible and meaningful.

4.1 Limitations, strengths and future directions

This study was conducted within the specific context of the biomedical sciences program at UHasselt, which may limit the generalizability of the findings to other academic settings. However, this focused scope aligns with existing literature that emphasizes the importance of context-specific investigations when evaluating educational tools such as rubrics. The relatively small number of focus group participants is another limitation, although the sample included a balanced representation across the first and second master's year and different specializations, enhancing its relevance. Lastly, bachelor students were not included in the data collection. This was a deliberate choice, as the study aimed to capture how students engage with rubric-based feedback after having already completed at least one internship experience.

Despite these limitations, the study's mixed-methods design enabled rich triangulation of insights. A strength of this research lies in its integrated approach, combining literature, student perspectives, and supervisor experiences, which allowed for a nuanced evaluation of both the structure and practical application of the internship rubric.

Future research could benefit from longitudinal tracking of how students interact with the rubric across all three internship phases. It would also be valuable to compare perceptions across different faculties or universities to assess how contextual factors shape rubric effectiveness. Finally, piloting a revised version of the rubric, featuring improved clarity in wording, transparent grading logic, and built-in tools for developmental feedback, would allow for targeted evaluation of the proposed improvements in practice.

5. Conclusion

This study confirms that rubrics can be powerful instruments for promoting clarity, fairness, and student self-regulation, especially when they are transparently communicated, well-structured, and thoughtfully integrated into feedback processes. Within the biomedical sciences internship pathway at UHasselt, the rubric is widely used and appreciated by both students and supervisors. However, its full potential is not yet realized due to inconsistent implementation, unclear terminology, and variability in feedback delivery.

To improve the rubric's impact, several concrete actions are recommended based on the study's findings. First, clear and structured introduction of the rubric at the start of each internship should become standard practice, supported by tools such as summary sheets or short instructional videos. Second, vague descriptors should be revised in favor of specific, observable criteria, and items combining multiple competencies should be separated or more clearly explained. Third, introducing a transparent scoring explanation, such as a student-facing grading matrix, can improve trust and understanding.

Moreover, its formative value could be increased by embedding reflective tools directly within the rubric, such as progress tracking fields or student-authored development reflections. A shared digital space for documenting midterm evaluations and feedback could help make learning progress more visible and actionable.

Ultimately, the goal should not be to replace human judgment, but to support more meaningful, student-centered learning experiences through clear communication, consistent evaluation practices, and scaffolded reflection. These enhancements would allow the rubric to evolve from a

static assessment tool into a dynamic support for learning and professional development.

6. Policy implications for the biomedical sciences program

The findings of this study offer several actionable recommendations for educational policy within the biomedical sciences program at Hasselt University. First, the implementation of a standardized, structured introduction to the rubric at the start of every internship, preferably integrated into orientation sessions, could help ensure that all students begin with a clear understanding of expectations. Second, rubric criteria should be revised to improve wording precision and to unbundle competencies that currently obscure targeted feedback. Third, developing a digital feedback platform that supports written midterm documentation and optional student reflections can enhance transparency, encourage dialogue, and better track individual learning progress. These small, scalable changes can significantly strengthen the program's formative learning culture and ensure that rubrics evolve from evaluation tools into authentic instruments for professional development.

7. Author contribution

This thesis was conceptualized, designed, and written by the author, Jenthe Kowalewski, as part of the educational master's program at Hasselt University. The author was responsible for designing the research approach, developing the survey, conducting the systematic review, organizing and facilitating the focus groups, and analyzing all data. The entire manuscript, including its theoretical framework, methodology, and interpretation of results, was authored independently.

Kris Janssens provided conceptual guidance and critical feedback throughout the research process. Her suggestions significantly contributed to refining the research design and interpreting the findings.

Editorial and linguistic support was provided by OpenAI's language model ChatGPT, which was used to refine grammar and sentence structure in accordance with academic writing conventions. The final content and interpretations are the sole responsibility of the author.

8. References

Andrade, H. (2005). Teaching with rubrics: The good, the bad, and the ugly. *College Teaching*, 53(1), 27–30. https://doi.org/10.3200/CTCH.53.1.27-30

Boud, D., & Falchikov, N. (2007). *Rethinking assessment in higher education: Learning for the longer term*. Routledge.

Brookhart, S. M. (2013). *How to create and use rubrics for formative assessment and grading*. ASCD.

Brookhart, S. M. (2018). Appropriate criteria: Key to effective rubrics. *Frontiers in Education*, 3, 22. https://doi.org/10.3389/feduc.2018.00022

Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, 43(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354

Dawson, P. (2017). Assessment rubrics: Towards clearer and more replicable design, research and practice. *Assessment & Evaluation in Higher Education*, 42(3), 347–360. https://doi.org/10.1080/02602938.2015.1111294

Fraile, R., Panadero, E., & Pardo, R. (2017). Co-creating rubrics: The effects on self-regulated learning, self-efficacy and performance of establishing assessment criteria with students. *Studies in Educational Evaluation*, 53, 69–76.

https://doi.org/10.1016/j.stueduc.2017.03.003

Fraile, R., & Medina, J. A. (2023). The influence of co-created rubrics on self-efficacy and engagement: A study with management students. *Assessment in Education: Principles, Policy & Practice*, 30(1), 97–116. https://doi.org/10.1080/0969594X.2022.2131460

Fraile, R., Panadero, E., & Romero, M. (2023). Better rubric, better learning? The impact of rubric design on self-assessment accuracy and performance. *Assessment & Evaluation in Higher Education*, 48(4), 456–472. https://doi.org/10.1080/02602938.2022.2119814

Gezie, A., Khaja, K., Chang, V. N., Adamek, M. E., & Johnsen, M. B. (2012). Rubrics as a tool for learning and assessment: What do baccalaureate students think? *Journal of Teaching in Social Work*, 32(4), 421–437. https://doi.org/10.1080/08841233.2012.705241

Hafner, J. C., & Hafner, P. M. (2003). Quantitative analysis of the rubric as an assessment tool: An empirical study of student peer-group rating. *International Journal of Science Education*, 25(12), 1509–1528. https://doi.org/10.1080/0950069022000038268

Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education*, 40(2), 350–367. https://doi.org/10.1080/03075079.2013.842221

Jonsson, A. (2014). Rubrics as a way of providing transparency in assessment. *Assessment & Evaluation in Higher Education*, 39(7), 840–852. https://doi.org/10.1080/02602938.2013.875117

Jonsson, A., & Svingby, G. (2007). The use of scoring rubrics: Reliability, validity and educational consequences. *Educational Research Review*, 2(2), 130–144. https://doi.org/10.1016/j.edurev.2007.05.002

Karaman, P. (2024). Using rubrics for reflective practice and student growth: A mixed-methods exploration. *Teaching in Higher Education*, 29(1), 56–73. https://doi.org/10.1080/13562517.2023.2252649

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Krebs, A., Zwickl, B. M., & Finkelstein, N. (2022). The role of rubrics in supporting student self-assessment and metacognition in laboratory education. *Physical Review Physics Education Research*, 18(1), 010129. https://doi.org/10.1103/PhysRevPhysEducRes.18.010129

Miknis, R. A., McKinney, J. P., & Girardeau, K. E. (2020). Increasing success rates through rubric-aligned instruction in introductory programming. *Information Systems Education Journal*, 18(5), 26–36.

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8, 422. https://doi.org/10.3389/fpsyg.2017.00422

Panadero, E., & Jonsson, A. (2013). The use of scoring rubrics for formative assessment purposes revisited: A review. *Educational Research Review*, 9, 129–144. https://doi.org/10.1016/j.edurev.2013.01.002

Panadero, E., & Romero, M. (2014). To rubric or not to rubric? The effects of self-assessment on self-regulation, performance and self-efficacy. *Assessment in Education: Principles, Policy & Practice*, 21(2), 133–148. https://doi.org/10.1080/0969594X.2013.877872

Panadero, E., Romero, M., & Strijbos, J.-W. (2013). The impact of a rubric and self-assessment on self-regulated learning and academic achievement. *Assessment & Evaluation in Higher Education*, 38(6), 719–733. https://doi.org/10.1080/02602938.2012.674485

Patrick, C. J., Peach, D., & Pocknee, C. (2008). *The WIL report: Work Integrated Learning – A national strategy for WIL in Australian universities*. Queensland University of Technology.

Rezaei, A. R., & Lovorn, M. (2010). Reliability and validity of rubrics for assessment through writing. *Assessing Writing*, 15(1), 18–39. https://doi.org/10.1016/j.asw.2010.01.003

Reddy, Y. M., & Andrade, H. (2010). A review of rubric use in higher education. *Assessment & Evaluation in Higher Education*, 35(4), 435–448. https://doi.org/10.1080/02602930902862859

Rowe, A. D., Mackaway, J., & Winchester-Seeto, T. (2012). But I thought you were doing that–clarifying the role of the host supervisor in experience-based learning. *Asia-Pacific Journal of Cooperative Education*, 13(2), 115–134.

Sadler, D. R. (2009). Indeterminacy in the use of preset criteria for assessment and grading. *Assessment & Evaluation in Higher Education*, 34(2), 159–179. https://doi.org/10.1080/02602930801956059

Smith, C., Ferns, S., & Russell, L. (2019). Placement performance and assessment: The need for consistency and consensus. *International Journal of Work-Integrated Learning*, 20(3), 209–222.

Velasco-Martinez, L., & Diaz-Barriga, A. (2017). Teachers' beliefs and practices in the use of rubrics: The case of a university in Mexico. *Revista Mexicana de Investigación Educativa*, 22(73), 747–771.

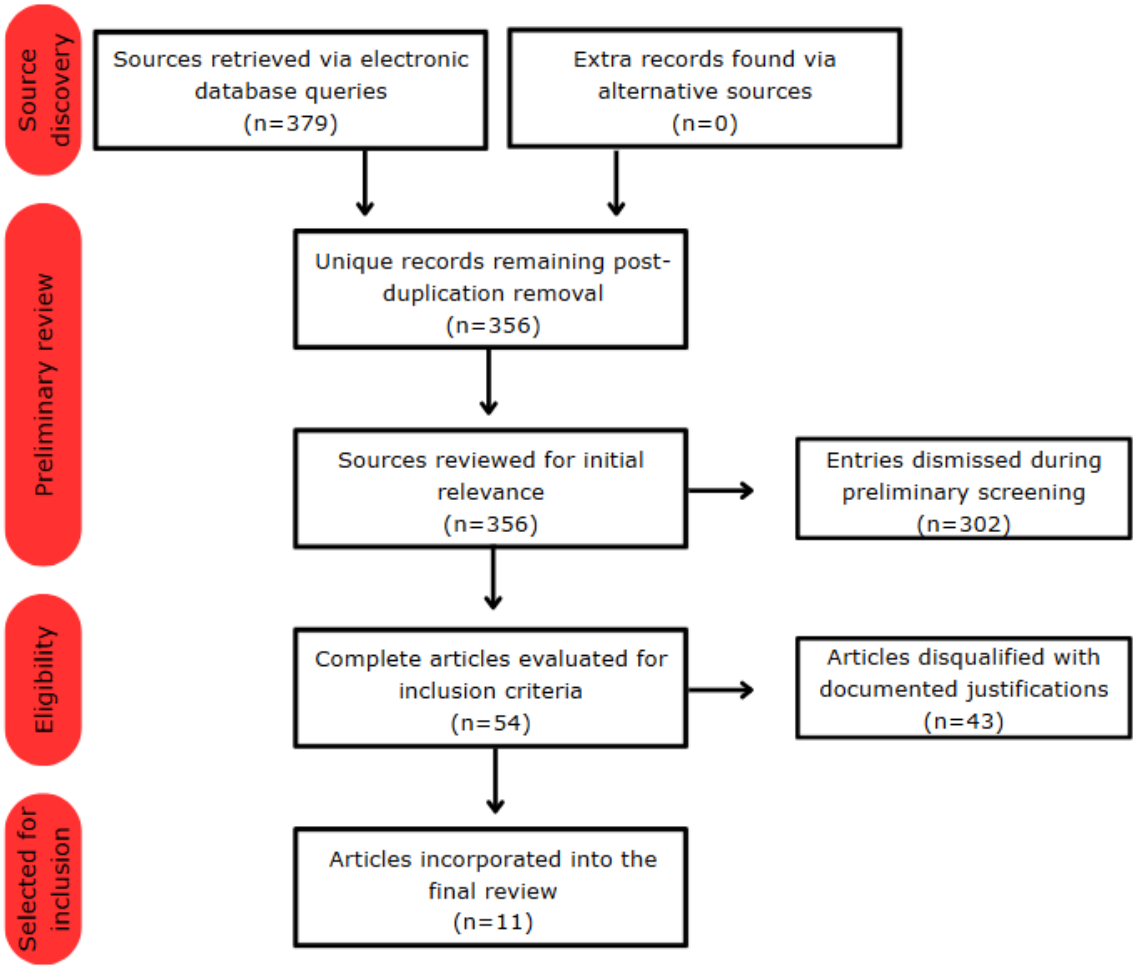
Wang, W. (2017). The impact of using rubrics and checklist on students' performance and anxiety in English writing. *English Language Teaching*, 10(3), 193–201. https://doi.org/10.5539/elt.v10n3p193

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

9. Supplementary materials

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	Can independently perform experiments based on a protocol, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

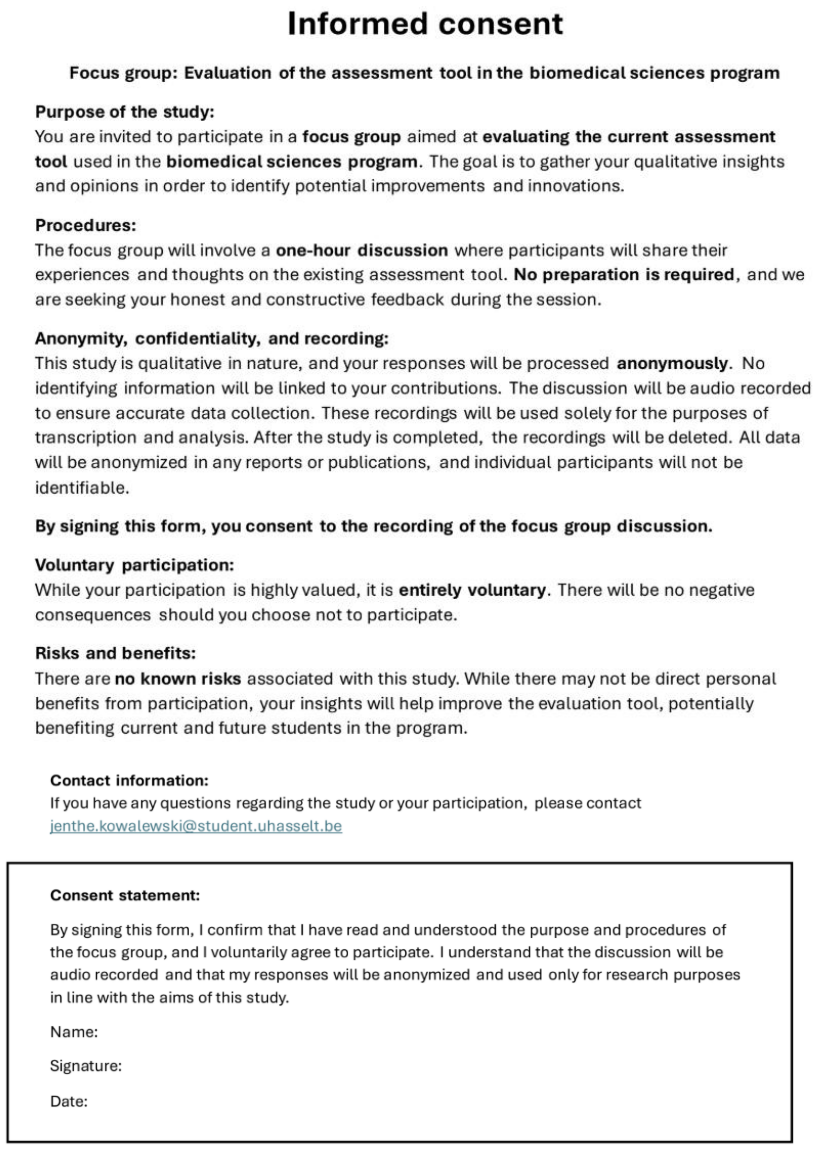
Supplementary figure 1: Rubric used for internship evaluation across academic levels. This figure presents the standardized rubric applied during the bachelor, junior, and senior internships in the biomedical sciences program at Hasselt University. The rubric assesses multiple domains, including planning, independence, teamwork, accuracy, safety, insight, and communication, with scores ranging from 1 to 5 (6). The rubric structure remains consistent across internships, while interpretation and grading logic vary depending on the internship level. The rubric shown pertains specifically to the internship process and is used in three of the four specializations offered within the biomedical sciences program at UHasselt.



Supplementary figure 2: Screening flowchart for the systematic literature review. This PRISMA-style flowchart outlines the identification, screening, eligibility, and inclusion phases of the systematic review process. Of 379 initially retrieved articles, 11 met the final inclusion criteria after duplicates were removed and titles, abstracts, and full texts were screened according to predefined eligibility standards.

Supplementary table 1: Survey questions distributed to internship students. This table contains the complete list of survey items, both closed and open-ended, used to explore students' experiences with the internship rubric. The items addressed clarity of expectations, feedback practices, rubric structure, and the promotion of self-regulated learning. Likert-scale questions were scored from 1 (strongly disagree) to 5 (strongly agree).

Question number	Question text	Question type	Thematic category
Q1	What type of internship are you currently enrolled in?	Likert-scale	General
Q2	Did you complete your bachelor's degree at UHasselt?	Likert-scale	General
Q3	To what extent did you consult and use the rubrics at the start of your internship to understand what was expected of you and how you would be evaluated? (Scale: 1 = Not at all, 5 = Completely)	Likert-scale (1-5)	Clarity of expectations
Q4	In your opinion, how clear and understandable were the rubric at the start of your internships? (Scale: 1 = Very unclear, 5 = Very clear)	Likert-scale (1-5)	Clarity of expectations
Q5	To what extent did you receive sufficient explanation and information about the rubrics at the start of your internship? (Scale: 1 = Not at all, 5 = Completely)	Likert-scale (1-5)	Clarity of expectations
Q6	What suggestions do you have for making the rubrics more visible and accessible at the start of the internship?	Open-ended	Clarity of expectations
Q7	The rubric provides enough detail for me to understand what is expected of me during my internship. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Clarity of expectations
Q8	The rubric encourages me to set personal learning goals and monitor my progress effectively. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Monitoring and self-regulation
Q9	Can you identify any specific areas where you feel the rubric has been particularly effective in guiding your learning and development?	Open-ended	Monitoring and self-regulation
Q10	Explain how the rubric helps you set specific and challenging goals during your internship, or why it may not be helpful.	Open-ended	Monitoring and self-regulation
Q11	Have you encountered any difficulties or challenges in understanding or using the rubric during your internship? (Scale: 1 = No, not at all, 5 = Yes, a lot)	Likert-scale (1-5)	Clarity of expectations
Q12	Which difficulties or challenges in understanding or using rubric during your internship, have you experienced? Please describe.	Open-ended	Clarity of expectations
Q13	Do you believe that incorporating more frequent self-assesments, using the rubric, would enhance your academic performance? (Scale: 1 = Not beneficial, 5 = Highly beneficial)	Likert-scale (1-5)	Monitoring and self-regulation
Q14	Do you focus more on avoiding mistakes and meeting the rubric's requirements, or on using the rubric to understand various levels of proficiency and work towards improvement? (Scale: 1= avoid mistakes, meet the requirements, 5 = understand various levels of proficiency, work towards improvement)	Likert-scale (1-5)	Monitoring and self-regulation
Q15	How effective do you find the feedback provided through the rubric during your intermediate evaluation meeting in helping you understand your progress and areas for improvement? (Scale: 1 = Not effective at all, 5 = Extremely effective)	Likert-scale (1-5)	Feedback and evaluation
Q16	Explain how the feedback from the rubric during the intermediate evaluation meeting supported your ability to regulate your progress, or why it may not have been helpful.	Open-ended	Feedback and evaluation
Q17	Do you believe the rubric-based feedback during your intermediate evaluation meeting could be improved in any way to better support your progress? If so, please provide specific suggestions.	Open-ended	Feedback and evaluation
Q18	The rubric's structure is intuitive and easy to follow during my internship evaluations. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Clarity of expectations
Q19	The evaluation tool provides clear and actionable feedback that helps me improve my performance. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Clarity of expectations
Q20	The rubric helps me to reflect on my performance and adapt to feedback. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Monitoring and self-regulation
Q21	The rubric encourages me to think critically about my learning process and how I can improve. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Monitoring and self-regulation
Q22	The rubric's feedback helps me understand my strengths and areas for improvement in a constructive manner. (Scale: 1 = Strongly disagree , 5 = Strongly agree)	Likert-scale (1-5)	Monitoring and self-regulation
Q23	Do you actively use the feedback (both rubric and written) from previous internships to improve in future internships? (Scale: 1 = Never, 5 = Always)	Likert-scale (1-5)	Monitoring and self-regulation
Q24	In what ways do you use the feedback (both rubric-based and written) from previous internships to improve in future internships?	Open-ended	Feedback and evaluation
Q25	What suggestions or innovations would you propose to improve the rubric to help students monitor their progress and enhance their learning process?	Open-ended	Feedback and evaluation



Informed consent

Focus group: Evaluation of the assessment tool in the biomedical sciences program

Purpose of the study:
You are invited to participate in a **focus group** aimed at **evaluating the current assessment tool** used in the **biomedical sciences program**. The goal is to gather your qualitative insights and opinions in order to identify potential improvements and innovations.

Procedures:
The focus group will involve a **one-hour discussion** where participants will share their experiences and thoughts on the existing assessment tool. **No preparation is required**, and we are seeking your honest and constructive feedback during the session.

Anonymity, confidentiality, and recording:
This study is qualitative in nature, and your responses will be processed **anonymously**. No identifying information will be linked to your contributions. The discussion will be audio recorded to ensure accurate data collection. These recordings will be used solely for the purposes of transcription and analysis. After the study is completed, the recordings will be deleted. All data will be anonymized in any reports or publications, and individual participants will not be identifiable.

By signing this form, you consent to the recording of the focus group discussion.

Voluntary participation:
While your participation is highly valued, it is **entirely voluntary**. There will be no negative consequences should you choose not to participate.

Risks and benefits:
There are **no known risks** associated with this study. While there may not be direct personal benefits from participation, your insights will help improve the evaluation tool, potentially benefiting current and future students in the program.

Contact information:
If you have any questions regarding the study or your participation, please contact
jenthe.kowalewski@student.uhasselt.be

Consent statement:

By signing this form, I confirm that I have read and understood the purpose and procedures of the focus group, and I voluntarily agree to participate. I understand that the discussion will be audio recorded and that my responses will be anonymized and used only for research purposes in line with the aims of this study.

Name:

Signature:

Date:

Supplementary figure 3: Informed consent form for focus group participants. The figure displays the standardized informed consent form provided to all focus group participants. These forms covered the study's objectives, confidentiality assurances, the voluntary nature of participation, and data usage, in line with ethical research guidelines.

Supplementary table 2: Protocol for the student focus group used to explore perceptions of rubric-based internship evaluation. This table outlines the thematic structure and guiding questions used in the student focus group. The protocol was designed to investigate how students enrolled in the biomedical sciences program at Hasselt University experienced the internship evaluation rubric. Key topics included the rubric's clarity at the start of the internship, its role in supporting self-regulation and feedback use, the perceived value of the midterm evaluation, the fairness and consistency of scoring practices, and students' suggestions for future improvement. Each section contains a central question, clarifying prompts, and optional bonus questions used to deepen the discussion. The focus group included five participating students (n = 5), representing both master's years and different specialization tracks.

Theme	Main question	Follow-up prompts
1. Initial experience with the rubric	How clear and useful was the rubric at the start of your internship?	• Did you understand what was expected of you? Did the rubric help you get started with clear goals? • Did you consult the rubric before the internship? Why or why not? In what way? • Were the different performance levels clearly distinguishable? • How could the rubric's introduction be made clearer or more visible to students?
2. Self-regulation and feedback us	To what extent did the rubric and the feedback received help you guide your own development?	• Did the rubric support goal-setting and reflection during the internship? • Did you use feedback from earlier internships? If so, how? • How could we encourage students to apply feedback between internships?
3. Role of the midterm evaluation	How helpful was the midterm meeting and the feedback you received?	• Did it help you understand your performance and areas for improvement? • Was concrete and usable advice provided? Was the rubric actively used during the conversation? • What could improve the usefulness of the midterm evaluation for students? • What did you change or improve after the midterm discussion?
4. Fairness and consistency of evaluation	Did you find the evaluation based on the rubric fair and consistent?	• Did the scores make sense compared to the expectations? Did it feel like students were evaluated in the same way? • Were the criteria applied consistently by supervisors? • What could increase transparency and trust in the assessment process?
5. Suggestions and improvement ideas	If you could redesign the rubric and evaluation system freely, what would you change?	• How could the rubric, feedback process, or evaluation system be improved to better support students? • What is currently missing in the system? What would have helped your growth most effectively?

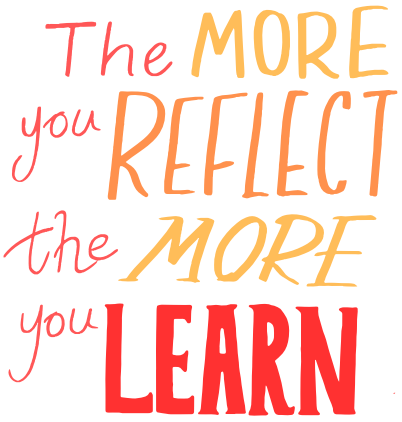
Supplementary table 3: Protocol for the supervisor focus group exploring the practical use of the internship evaluation rubric. This table presents the thematic structure and key discussion prompts used during the focus group with internship supervisors in the biomedical sciences program at Hasselt University (n = 7). The focus group aimed to explore how supervisors interpret and use the evaluation rubric across internship stages, how they deliver feedback and support student self-regulation, and what improvements they recommend for increasing transparency, fairness, and efficiency in the evaluation process. Each topic includes a main guiding question and three follow-up prompts used to facilitate discussion.

Theme	Main question	Follow-up prompts
1. Use and interpretation of the rubric at the start of the internship	To what extent is the rubric used as a reference for supervision and assessment at the beginning of the internship?	• Do you already consider rubric criteria when preparing for student supervision at the start? • Was sufficient information available to help you interpret and use the rubric effectively at the start of the internship? • Would you find it helpful to receive a student's final score or feedback from their previous internship in advance?
2. Observation, feedback, and self-regulation during the internship	When providing feedback during the internship, do you actively link your comments to the rubric criteria?	• How do you support students who struggle with self-reflection or independent learning? • What is your view on providing written feedback? How feasible is it in your current context? • What barriers do you observe in students' use of feedback?
3. Practical experience with the rubric during midterm evaluations	How do you experience using the rubric during midterm evaluation discussions?	• How do you prepare for the midterm conversation, and is the rubric part of this preparation? • Do students seem to accurately self-assess their growth compared to your observations? • What could help students make better use of midterm feedback?
4. Fairness, consistency, and interpretation of scores	How do you interpret the performance levels described in the rubric?	• Are internal agreements made within research groups regarding how to apply the rubric? • Do you ever feel a mismatch between your personal evaluation and the score derived from the rubric? • What could improve transparency and consistency in final scoring?
5. Suggestions for optimizing the evaluation Tool	What would you change in the current evaluation process to better support accurate and meaningful assessment of student performance?	• What support would help you conduct evaluations more efficiently or effectively? • If you could redesign the rubric, what would you add or remove? • Do you see any opportunities for digital tools within the evaluation process?

Creatief ontwerp

Internship reflection and progress journal

Bachelor - Junior - Senior
Biomedical Sciences
Hasselt University



UHASSELT
KNOWLEDGE IN ACTION

Content of this journal

UHASSELT
KNOWLEDGE IN ACTION

Personal information

Please complete the information below at the start of your internship. This page provides basic details to identify your journal and track your internship period.

Name of student:
Student number:
Start date of the journal:
End date of the journal:

This journal was developed by Jenthe Kowalewski as part of a master's thesis titled "Reading between the lines of the rubric" for the Educational Master in Health Sciences at Hasselt University (2024–2025).

About this journal

1. Why this journal exists

This Internship Reflection and Progress Journal is an official component of the internship program in both the bachelor and master of Biomedical Sciences at Hasselt University. It was developed based on feedback from students and supervisors, who expressed the need for more clarity, structure, and continuity in how internships are experienced and evaluated.

In particular, students reported that they are often unsure when and how to reflect effectively. Supervisors, on the other hand, indicated that students tend to take too few notes during critical feedback moments, meaning important learning opportunities are lost.
This journal aims to solve both problems. It is designed to become your personal learning companion throughout your internship trajectory. Use it actively, use it regularly, and use it for yourself.

2. Purpose

The main goal of this journal is to help you:

- Develop reflective skills and take ownership of your learning,
- Capture feedback, both positive and constructive, as it happens,
- Work with the internship rubric before, during, and after each stage,
- Monitor your own growth over time, and
- Build the habit of self-directed professional development.

This journal is not just an academic requirement, it is your personal notebook, feedback logbook, and progress tracker all in one. You are encouraged to bring your laptop or tablet to feedback moments and supervision meetings. Use this journal to write down what is said, not just criticisms, but also compliments and observations. Reflection is not only about what you can improve, but also about understanding and reinforcing what you do well.

3. Structure and use

Each internship stage (bachelor, junior, senior) includes three major reflection points:

- Before the internship
  - You describe your expectations and initial goals.
  - You are also asked to fill in the rubric yourself, based on what you expect from your own performance. This acts as a self-assessment baseline.
- During the internship
  - You document feedback received, both formally and informally.
  - Use this section to note what supervisors tell you, what you notice in practice, and how you respond.
  - During the midterm evaluation (junior and senior internships), you will again complete the rubric yourself, and your supervisor will do the same.
  - In this journal, you will record both rubrics, yours and your supervisor's, and briefly reflect on the differences.
- After the internship (after receiving your rubric)
  - You reflect on the final evaluation and rubric you receive.
  - How does it compare to your initial expectations and your midterm evaluation?
  - What changed? Where did you grow? What surprised you?
  - You will again record the final rubric (student and supervisor versions) in this journal.

Note: By consistently comparing your rubrics (expectations, midterm, final), you gain powerful insight into your evolution, not just within a single internship, but across your entire academic journey.

> *"We do not learn from experience... we learn from reflecting on experience."*
> *– John Dewey*

4. Submission and feedback process

Annual submission
You are required to submit your journal each academic year in June, after completing your internship for that year. Submissions go through the student platform (digital learning environment).

Deadline: End of June (exact date to be communicated annually).

Peer feedback and go/no-go decision
Your journal will be reviewed by a Master student in the Educational Master in Health Sciences, as part of a structured peer feedback system. These reviewers are trained in giving constructive, developmental feedback, and they benefit from this process as part of their own learning trajectory. Each journal is also reviewed for formal approval ("go/no-go") by a designated faculty member who is not involved in internship supervision. In case of a "no-go", you will be invited to revise your journal with clear guidance.

5. What you will find in this journal

At the end of this document, you'll find:

- The official internship rubric for bachelor, junior, and senior stages,
- A fully completed example journal, to illustrate how you might approach each section. This is purely illustrative, your reflections should always be authentic and personal.

6. Why this matters

This journal is not about ticking boxes. It's about taking your learning seriously. You are training to become a biomedical professional, someone who can learn from feedback, take initiative, grow from challenge, and think critically. Use this journal as your professional diary, your feedback memory, and your personal growth portfolio. It is not only for your teachers, it is, first and foremost, for you.

Checklist

How to use this checklist

This checklist gives you a clear overview of when and what you are expected to complete in this journal throughout your internship journey. Each section of the journal includes moments before, during, and after the internship. Some stages also include a midterm evaluation, where you are expected to actively use this journal during your feedback meeting.
At the end of each academic year, you must submit your updated journal via the student platform. You will receive peer feedback and a go/no-go decision. Use this checklist as your personal roadmap. Tick off each task as you complete it, and always bring your journal to evaluation moments.

Bachelor internship

Before the internship

- Fill in general information
- Indicate if your internship takes place at UHasselt or elsewhere
- Describe your expectations and what you're looking forward to
- Identify which skills or competencies you hope to develop
- Review the bachelor rubrics (presentation, process, report)
- Answer the reflection questions based on your rubric reading
- Mark any unclear rubric elements you want to discuss

During the internship (around week 2-3)

- Write down informal and formal feedback you received
- Reflect on what went well and what was challenging
- Describe how you responded to feedback
- Note any compliments and strengths your supervisor shared
- Complete the rubric clarity check

After the internship (within 2 weeks of receiving rubric)

- Mark your supervisor’s final rubric scores in the rubric pages
- Reflect on your final rubric results
- Identify surprises and explain your results
- Write your overall reflection on growth and future focus
- Add personal notes for your junior internship

Checklist

Junior internship

Before the internship

- Fill in general information + select your graduation track
- Write your personal learning goals
- Reflect on how you want to approach things differently than during your bachelor internship
- Select one or more rubric domains to focus on (presentation / process / report)
- Review the correct rubric version for your track (Track A or Track B)
- Reflect on which elements of the rubric are clear, unclear, or important to you

Midterm evaluation

Before the meeting:

- Fill in your own rubric scores (Track A or B)
- Bring this journal to the evaluation meeting

During the meeting:

- Review your supervisor's rubric
- Copy their scores into your journal (use colour or symbols)
- Take notes on feedback, strengths, points for improvement

After the meeting:

- Write your short reflection report
- Identify differences in perception
- Note key actions you plan to take moving forward

After the internship (within 2 weeks of receiving rubric)

- Mark your supervisor's final rubric scores in the rubric pages
- Reflect on your final evaluation compared to the midterm
- Write your final overall reflection
- Add future goals or notes for the senior internship

Checklist

Senior internship

Before the internship

- Fill in general information + graduation track
- Write your goals and expectations
- Reflect on your intended professional role
- Identify which rubric domain(s) you want to focus on most
- Reflect on strengths from previous internships
- Review your rubric version (Track A or B)
- Reflect on familiar, challenging or unclear rubric elements

Midterm evaluation

Before the meeting:

- Fill in your own rubric scores (Track A or B)
- Bring this journal to the evaluation meeting

During the meeting:

- Review your supervisor's rubric
- Copy their scores into your journal (use colour or symbols)
- Take notes on feedback, strengths, points for improvement

After the meeting:

- Write your short reflection report
- Reflect on feedback impact and differences in scoring
- Plan concrete improvement actions for the remainder of the internship

After the internship (within 2 weeks of receiving rubric)

- Record your supervisor's final rubric scores in the rubric pages
- Reflect on final results and comparison with the midterm
- Describe where you grew and what remained stable
- Write your overall reflection on yourself as a professional
- Complete your end-stage reflection

The end

- Complete the end-stage reflection and prepare yourself for your future career

Bachelor internship

1. Before the internship

To be completed before the start of your internship.
Please complete this section in the week before your internship starts. This helps you prepare your goals and expectations.

1.1 General information

Do you complete your bachelor internship at Hasselt University?

- YES O
- NO O

→ If no, please indicate your host institution:_____

Internship location / research group:_____

Project title / topic :

_____

_____

Daily supervisor: _____

Promotor: _____

Country (if abroad): _____

Start date – End date: _____

1.2 Your expectations and goals

What are your expectations for this internship:

_____

_____

_____

_____

_____

Bachelor internship

What are you most looking forward to:

Which skills or competencies do you hope to develop:

Are there any aspects of the rubric you are unsure about or would like clarification on before starting:

Which criteria from the rubric do you want to focus on improving during this internship:

1.3 Getting to know the rubric

During your internship, you will be evaluated on three domains: process, report and presentation. Take a few minutes to review the rubrics for bachelor internships.

Bachelor internship

1.3.1 Rubric process

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported	
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication	
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present	

Bachelor internship

1.3.2 Rubric report

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Bachelor internship

1.3.3 Rubric presentation

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Without reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful."*
> *– Margaret J. Wheatley*

Bachelor internship

1.3.4 Reflect on the rubric

Now reflect on the following:
After reading the rubric, which evaluation criteria seem most important to you:

Which terms or elements are unclear or new to you:

Choose 1 or 2 criteria (from any of the rubrics) that you want to pay special attention to during your internship. Why:

Are there parts of the rubric that you feel unsure about, or would like to discuss with your supervisor at the start:

You may highlight, annotate, or mark any parts of the rubric that raise questions. Bring this journal to your kickoff meeting, and don't hesitate to ask your supervisor about what's expected.

Bachelor internship

2. During the internship

To be completed during your internship (week 2–3).
Use this section to note feedback moments and reflect on your progress.

2.1 Mid-internship reflections

What are some examples of feedback you have received so far (formally or informally):

What went well in the first half of your internship? (e.g. tasks, communication, lab skills...):

What challenges or areas for improvement have been mentioned to you:

How are you responding to feedback? Can you describe any actions you took as a result:

Bachelor internship

Have you made progress on the rubric criteria you identified before the internship:

2.2 Compliments and strengths

Supervisors often give feedback that highlights strengths.
What compliments have you received so far:

What do these tell you about your professional attitude or competencies:

Bachelor internship

2.3 Rubric clarity check

Are there any elements of the rubric that you find unclear or difficult to interpret now that you're in the internship:

- YES O
- NO O

→ If yes, which ones:

_____

_____

_____

_____

_____

Would you like extra guidance or explanation:

_____

_____

_____

_____

_____

> *"Knowing yourself is the beginning of all wisdom."*
> *– Aristotle*

Bachelor internship

3. After the internship

To be completed after the internship
Complete this section within 2 weeks of receiving your final rubric. Reflect on your results and prepare for your next step.

3.1 Evaluation results

Final score/grade? _____/20

Please mark the scores your supervisor assigned you directly on the rubric on the next pages. Use colour to clearly indicate the score per criterion. You may also add brief comments or annotations next to individual items if needed.

Bachelor internship

3.1.1 Rubric process

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported	
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication	
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present	

Bachelor internship

3.1.2 Rubric report

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Bachelor internship

3.1.3 Rubric presentation

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Reflection turns experience into insight."*
> *– John C. Maxwell*

Bachelor internship

3.2 Reflection on your evaluation

What stands out to you in your final rubric:

Which criteria were stronger than expected:

Were there any lower scores or remarks that surprised you:

What do you think contributed most to the results you received:

What feedback would you like to carry forward to your next internship:

Bachelor internship

3.3 Overall reflection

What did you learn about yourself during this internship:

What skills or attitudes do you feel you improved on:

What would you like to approach differently in your junior internship:

Has this internship influenced your thoughts on your future master's specialization:

Bachelor internship

3.4 Notes for the future

Use this space for personal notes, reminders, or tips for your next internship:

Need inspiration?

- What surprised me most about this internship?
- A moment I learned from but didn't expect…
- Something I thought I was bad at, but turned out okay...

Bachelor internship

"You don’t learn to walk by following rules. You learn by doing, and by falling over."
– Richard Branson

Junior internship

Welcome to the junior internship phase

Congratulations on completing your bachelors degree!
You are now entering the master's phase of your academic journey in Biomedical Sciences at Hasselt University.
This stage brings new opportunities, new challenges, and for many of you, a specialization. From this point forward, your internship experience will be shaped by the graduation track you have chosen.

New to the program?

If you are joining Hasselt University for the first time as a master student, welcome! You may not have completed a bachelor internship here, but from now on, this journal will serve as your personal reflection tool. Simply start with the junior internship section that follows.

Specializations and rubrics

From the junior internship onward, the process rubric is different depending on your specialization.
There are two distinct tracks used in this journal:

- Track A: for students in BEN, MHD, and EHS
- Track B: for students in Clinical Biomedical Sciences (KBW)

Only the **process rubric** differs between tracks. The report and presentation rubrics are the same for all students. Please make sure to always complete the correct rubric version for your track. These are clearly labelled at the top of each rubric page.

> *"Feedback is the breakfast of champions."*
> *– Ken Blanchard*

Junior internship

What does this mean for you?

When filling in your journal:

- Please make sure you are using the correct rubric version for your specialization.
- Only fill in the rubrics marked for your track (track A/track B)
- If you’re not sure which rubric to use, check with your academic coordinator.

Use this next stage to reflect more deeply, apply feedback more strategically, and build on the foundation you developed during your bachelor internship. Let’s continue, with your junior internship.

Junior internship

1. Before the internship

To be completed before the start of your internship.
Please complete this section in the week before your internship starts. This helps you prepare your goals and expectations.

1.1 General information

Are you an international student starting with the Junior internship at Hasselt University:

- YES O
- NO O

Your specialization (graduation track):

- BEN O
- EHS O
- MHD O
- KBW O

Internship location / research group: _____

Project title / topic:

_____

_____

Daily supervisor: _____

Promotor: _____

Country (if abroad): _____

Start date – End date: _____

Junior internship

1.2 Your expectations and goals

What are your personal goals for this internship:

_____

_____

_____

_____

_____

What do you hope to do differently or better than during your previous internship (if applicable):

_____

_____

_____

_____

_____

Which rubric domain(s) do you want to improve in most:

- Presentation O
- Process O
- Report O

Why:

_____

_____

_____

_____

_____

What are you still uncertain about going into this internship:

_____

_____

_____

_____

_____

Junior internship

What kind of feedback would be most helpful for you:

1.3 Getting to know your rubric

Please take time to review the correct set of rubrics for your specialization. Make sure you are looking at:

- Track A (BEN/MHD/EHS)
- Track B (KBW)

Now reflect:
Do you understand the meaning of each criterion:

Which 1 or 2 criteria do you want to pay particular attention to:

Do you have any questions about how one or more items will be interpreted:

Junior internship

2. Midpoint reflection (tussentijdse evaluatie)

To be completed in 3 steps: before, during and after your midterm evaluation meeting.

The midterm evaluation is a crucial checkpoint. It allows you and your supervisor to align your views, set priorities for the final internship weeks, and engage in open feedback. This journal is an active part of that process, you are expected to bring it to the evaluation meeting.

2.1 Step 1 - Before the meeting

Fill in your own rubric self-evaluation.
Go to the junior rubric on the next pages, Track A or B and mark your own scores for process and report.

This helps you prepare for the discussion and reflect critically on your own performance.

> *"Feedback is a gift. Ideas are the currency of our next success."*
> *– Jim Trinka & Les Wallace*

Junior internship

2.1.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback		
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly, **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Junior internship

2.1.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback		
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Junior internship

2.1.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Junior internship

2.1.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Mistakes are always forgivable, if one has the courage to admit them."*
> *– Bruce Lee*

Junior internship

2.2 Step 2 - During the meeting

Your supervisor will bring their own completed version of the rubric to the midterm evaluation.
During the conversation, you will:

- Look at your supervisor’s scores, and
- Mark their scores yourself on the second rubric copy included in this journal on the next pages. Make sure you use the correct track.

This means that you are responsible for accurately recording your supervisor’s scores in your own journal.
We recommend that you:

- Use colour.
- Pay attention to where your scores align, and where they don’t.

This active marking process helps you internalize the feedback, rather than just hearing it.

Junior internship

2.2.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback		
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly, **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Junior internship

2.2.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback		
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Junior internship

2.2.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, ...)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Junior internship

2.2.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Growth is never by mere chance; it is the result of forces working together."*
> *– James Cash Penney*

Junior internship

Use the space below to note down important feedback, suggestions, strengths, or concerns discussed during your evaluation. Try to write during the meeting, this helps prevent forgetting key points later.

What were your main strengths according to your supervisor:

What areas do you still need to work on:

Were any expectations clarified:

Were any misunderstandings addressed:

Junior internship

2.3 Step 3 - Short reflection report

To be completed shortly after the midterm meeting

How did your self-evaluation compare to your supervisor's rubric scores:

Were there any surprises or differences in perception:

What feedback had the most impact on you:

How do you plan to act on the feedback in the remaining internship period:

What concrete steps will you take to grow in one of the rubric domains:

Junior internship

3. After the internship

To be completed after the internship
Complete this section within 2 weeks of receiving your final rubric. Reflect on your results and prepare for your next step.

3.1 Final evaluation details

Final score/grade? _____/20

Please mark the scores your supervisor assigned you directly on the rubric on the next pages (correct track). Use colour to clearly indicate the score per criterion. You may also add brief comments or annotations next to individual items if needed.

> *"Practice doesn't make perfect. Reflective practice makes perfect."*
> *– Linda Finlay*

Junior internship

3.1.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback		
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly, **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Junior internship

3.1.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback		
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Junior internship

3.1.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, ...)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Junior internship

3.1.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

Junior internship

3.2 Reflection on your evaluation

What stands out to you in your final rubric results:

Which domains improved since the midterm evaluation:

What remained unchanged or still needs improvement:

What are you most proud of:

How did your actions or mindset influence your final outcome:

Junior internship

3.3 Overall reflection

What did you learn about yourself during this internship:

_____

_____

_____

_____

_____

How have you grown in terms of skills, mindset, or attitude:

_____

_____

_____

_____

_____

What feedback will you carry forward to your senior internship:

_____

_____

_____

_____

_____

What are your goals for your next internship and beyond:

_____

_____

_____

_____

_____

Junior internship

3.4 Notes for the future

Use this space for personal notes, reminders, or tips for your next internship:

Need inspiration?

- What surprised me most about this internship?
- A moment I learned from but didn't expect…
- Something I thought I was bad at, but turned out okay…

Junior internship

"Feedback turns effort into excellence."

Senior internship

Welcome to the senior internship phase

You've made it to the final internship of your Biomedical Sciences program at Hasselt University, congratulations!
The senior internship is more than just the last phase of your academic training. It is an opportunity to apply everything you've learned, to act more independently, and to show how you've grown — not only in knowledge, but also in mindset, communication, professionalism, and responsibility.
This internship prepares you for your future career or further academic steps. It challenges you to take initiative, reflect deeply, and function as a nearly-graduated biomedical scientist.

Reminder: specializations and rubric tracks

Just like in the junior internship, your evaluation rubrics in this journal depend on your chosen graduation track.
There are two rubric tracks:

- Track A – BEN, MHD, or EHS

Use the Track A Process rubric for your midterm and final evaluations.

- Track B – KBW

Use the Track B Process rubric, specifically designed for the clinical track.
The presentation and report rubrics are the same for all students across tracks. Please double-check that you always fill in the rubric pages that match your specialization. The rubric pages are clearly marked as "Track A" or "Track B".

This is your chance to look back, move forward, and close the loop of your internship experience. Use this journal to gather everything you've learned, about your work, and about yourself.

Let's begin.

Senior internship

1. Before the internship

To be completed before the start of your internship
Set clear intentions, define your learning goals, and reflect on your growth so far.

1.1 General information

Your specialization (graduation track):

- BEN O
- EHS O
- MHD O
- KBW O

Internship location / research group: _____

Project title / topic:

_____

_____

Daily supervisor: _____

Promotor: _____

Country (if abroad): _____

Start date – End date: _____

Senior internship

1.2 Your expectations and goals

What are your personal goals for this internship:

_____

_____

_____

_____

_____

What kind of professional role would you like to grow into during this internship:

_____

_____

_____

_____

_____

Which rubric domain(s) do you want to improve in most:

- Presentation O
- Process O
- Report O

Why:

_____

_____

_____

_____

_____

What strengths from previous internships will you bring into this one:

_____

_____

_____

_____

_____

Senior internship

What kind of feedback or support do you hope to receive:

1.3 Engaging with the rubric

Please take time to review the correct set of rubrics for your specialization.
Make sure you are looking at:

- Track A (BEN/MHD/EHS)
- Track B (KBW)

Now reflect:
What parts of the rubric feel most familiar or achievable to you:

What parts do you think will be most challenging:

Are there rubric elements you still want to clarify with your supervisor before starting:

Senior internship

2. Midpoint reflection (tussentijdse evaluatie)

To be completed in 3 steps: before, during and after your midterm evaluation meeting.

The midterm evaluation is a crucial checkpoint. It allows you and your supervisor to align your views, set priorities for the final internship weeks, and engage in open feedback. This journal is an active part of that process, you are expected to bring it to the evaluation meeting.

2.1 Step 1 - Before the meeting

Fill in your own rubric self-evaluation.
Go to the junior rubric on the next pages, Track A or B and mark your own scores for process and report.

This helps you prepare for the discussion and reflect critically on your own performance.

> *"Feedback turns effort into excellence."*

Senior internship

2.1.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	Can independently perform experiments based on a protocol, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Senior internship

2.1.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback	Can independently perform an activity, adjusts his/her work after feedback	
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Senior internship

2.1.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, ...)?	No	Yes
Does the length of the report meet the guidelines (max 25p exclusive supplementals)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes
Is the essence of the work (M&M, results) selected for the report, are side issues in the supplementals?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Senior internship

2.1.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Know little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

Senior internship

2.2 Step 2 - During the meeting

Your supervisor will bring their own completed version of the rubric to the midterm evaluation.
During the conversation, you will:

- Look at your supervisor's scores, and
- Mark their scores yourself on the second rubric copy included in this journal on the next pages. Make sure you use the correct track.

This means that you are responsible for accurately recording your supervisor's scores in your own journal.
We recommend that you:

- Use colour.
- Pay attention to where your scores align, and where they don't.

This active marking process helps you internalize the feedback, rather than just hearing it.

> *"What we learn to do, we learn by doing."*
> *– Aristotle*

Senior internship

2.2.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	Can independently perform experiments based on a protocol, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Senior internship

2.2.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback	Can independently perform an activity, adjusts his/her work after feedback	
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Senior internship

2.2.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 25p exclusive supplementals)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes
Is the essence of the work (M&M, results) selected for the report, are side issues in the supplementals?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Senior internship

2.2.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Know little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

Senior internship

Use the space below to note down important feedback, suggestions, strengths, or concerns discussed during your evaluation. Try to write during the meeting, this helps prevent forgetting key points later.

What were your main strengths according to your supervisor:

What areas do you still need to work on:

Were any expectations clarified:

Were any misunderstandings addressed:

Senior internship

2.3 Step 3 - Short reflection report

To be completed shortly after the midterm meeting

How did your self-evaluation compare to your supervisor's rubric scores:

Were there any surprises or differences in perception:

What feedback had the most impact on you:

How do you plan to act on the feedback in the remaining internship period:

What concrete steps will you take to grow in one of the rubric domains:

Senior internship

3. After the internship

To be completed after the internship
Complete this section within 2 weeks of receiving your final rubric. Reflect on your results and prepare for your next step.

3.1 Final evaluation details

Final score/grade? _____/20

Please mark the scores your supervisor assigned you directly on the rubric on the next pages (correct track). Use colour to clearly indicate the score per criterion. You may also add brief comments or annotations next to individual items if needed.

> *"Honest feedback is a gift — receive it with curiosity, not defensiveness."*
> *– Sheila Heen*

Senior internship

3.1.1 Rubric process - Track A

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	Can independently perform experiments based on a protocol, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported		
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives	Good understanding of the project and it's broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication		
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present		

Senior internship

3.1.2 Rubric process - Track B

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes	
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project	
Independence	Cannot perform a simple activity independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple activity independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple activity independently after one supervised execution, adjusts his/her work after feedback	Can independently perform an activity, adjusts his/her work after feedback	
GCP: operates in line with guidelines, integrity, accuracy	Mistakes are made regularly for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records → Needs constant supervision	Small mistakes are made for the following aspects: accurate reporting, interpretation and verification, protects confidentiality of records	Follows the guidelines: accurate reporting, interpretation and verification, protects confidentiality of records			
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, has difficulties defining problems and possible alternatives	Understands the project, can identify links, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives	Good understanding of the project and its broader context, identifies links, defines problems and suggests alternatives, summarizes results and comes up with plans for follow up
Functioning in team Team attitude: is polite, is on time, keeps work area clean, reports when materials are used up or broken	Cannot collaborate with lab partner and/or team, no team attitude	Difficult collaboration with lab partner and/or team, team attitude is limited	Decent collaboration with lab partner and team, decent team attitude	Good collaboration with lab partner and team, good team attitude		
Communication	Difficult communication with patients, team and collaborators, message is mostly unclear and unstructured	Proper communication with patients, team and collaborators, message is mostly clear and structured	Professional communication with patients, team and collaborators, clear and structured message, tries to listen actively	Professional communication with patients, team and collaborators, clear and structured message, listens actively and asks questions to clarify understanding of person's point of view and reasoning		

Senior internship

3.1.3 Rubric report - Track A and B

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 25p exclusive supplementals)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes
Is the essence of the work (M&M, results) selected for the report, are side issues in the supplementals?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Senior internship

3.1.4 Rubric presentation - Track A and B

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Know little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Time spent in self-reflection is never wasted – it is an intimate date with yourself."*
> *– Paul TP Wong*

Senior internship

3.2 Reflection on your evaluation

What stands out to you in your final rubric results:

Which domains improved since the midterm evaluation:

What remained unchanged or still needs improvement:

What are you most proud of:

How did your actions or mindset influence your final outcome:

Senior internship

3.3 Overall reflection

What did you learn about yourself during this internship:

How have you grown in terms of skills, mindset, or attitude:

What feedback will you carry forward to your future career:

What are your goals for your future career:

Senior internship

3.4 Notes for the future

Use this space for personal notes, reminders, or tips for your next internship/future career:

Need inspiration?

- What surprised me most about this internship?
- A moment I learned from but didn't expect…
- Something I thought I was bad at, but turned out okay…

Senior internship

"The goal is not to be perfect by the end. The goal is to be better tomorrow."
– Simon Sinek

At the end of your internships

End-stage reflection: Preparing for your career

How have you changed since your very first internship:

What habits or skills do you now feel confident in:

What kind of professional do you see yourself becoming:

What feedback or lesson from this internship will you carry into your first job:

> *"Self-reflection is the school of wisdom."*
> *– Baltasar Gracián*

UHASSELT
KNOWLEDGE IN ACTION

The end

"Learning never ends. Internships teach you how to learn from life, not just from books."

Example of how to fill in your journal

This is a **fictional, illustrative example** of how to fill in your **journal.** The following pages are meant to guide and inspire you when completing your own journal. They show one possible way to reflect on your internship experience, provide responses to feedback, and engage with the rubric. Please note that all names, details, and experiences described are entirely fictional.

Do not copy these answers. Your internship is unique, and your reflections should be too.
Use this example to:

- Understand what is expected at each stage (before, during, and after the internship),
- See how to engage with the rubric in a meaningful way,
- Learn how to write clear, honest, and personal reflections.

Reflection is not about being perfect. It's about being aware of how you learn and grow.

Bachelor internship

1. Before the internship

To be completed before the start of your internship.
Please complete this section in the week before your internship starts. This helps you prepare your goals and expectations.

1.1 General information

Do you complete your bachelor internship at Hasselt University?

- YES O
- NO O

→ If no, please indicate your host institution:___/_____

Internship location / research group: BIOMED – Immunology and Inflammation Lab

Project title / topic : Exploring cytokine profiles in autoimmune disease models

Daily supervisor: Dr. L. Willems

Promotor: Prof. T. Janssen
Country (if abroad): _____/_____

Start date – End date: 05/02/2025 – 18/04/2025

1.2 Your expectations and goals

What are your expectations for this internship:
I expect to gain hands-on experience with cell culture, ELISA, and data interpretation. I also hope to understand better how research teams operate and how lab planning works in real life.

Bachelor internship

What are you most looking forward to:
Working independently on a real project, learning new lab techniques, and getting feedback from experienced researchers.

Which skills or competencies do you hope to develop:

- Lab skills (especially sterile technique and ELISA)
- Scientific reporting
- Time management
- Interpreting experimental results

Are there any aspects of the rubric you are unsure about or would like clarification on before starting:
I'm a bit unsure about the expectations for the 'scientific depth' in the report. Also, how detailed the presentation needs to be is not completely clear to me.

Which criteria from the rubric do you want to focus on improving during this internship:

- Structuring a clear and logical lab report
- Taking more initiative in solving small problems
- Becoming more confident during oral presentations

1.3 Getting to know the rubric

During your internship, you will be evaluated on three domains: process, report and presentation. Take a few minutes to review the rubrics for bachelor internships.

Bachelor internship

1.3.1 Rubric process

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, tries to adjusts schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported	
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, has difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication	
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present	

Bachelor internship

1.3.2 Rubric report

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, results and conclusion	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of a thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defined	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and complete	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Bachelor internship

1.3.3 Rubric presentation

Was the duration of the presentation 10±1 min? **YES / No**

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Without reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful."*
> *– Margaret J. Wheatley*

Bachelor internship

1.3.4 Reflect on the rubric

Now reflect on the following:
After reading the rubric, which evaluation criteria seem most important to you:

- Taking initiative during lab work
- Reflective thinking in the report
- Clear communication of results (written and oral)

Which terms or elements are unclear or new to you:
'Scientific maturity' and ‘ownership of learning’, I would like more clarification on how these are demonstrated.

Choose 1 or 2 criteria (from any of the rubrics) that you want to pay special attention to during your internship. Why:

- Time management: I know this is a challenge for me, and I want to improve.
- Reflective learning: Because it's new to me and seems essential for growth.

Are there parts of the rubric that you feel unsure about, or would like to discuss with your supervisor at the start:
Yes, I want to ask how they define 'scientific maturity' and how to show it clearly during the internship.

You may highlight, annotate, or mark any parts of the rubric that raise questions. Bring this journal to your kickoff meeting, and don’t hesitate to ask your supervisor about what’s expected.

Bachelor internship

2. During the internship

To be completed during your internship (week 2–3).
Use this section to note feedback moments and reflect on your progress.

2.1 Mid-internship reflections

What are some examples of feedback you have received so far (formally or informally):

- I was too hesitant in the first week, but I'm improving.
- Good pipetting technique.
- I need to plan my day better to avoid rushing in the afternoon.
- My lab notebook could be more structured.

What went well in the first half of your internship? (e.g. tasks, communication, lab skills...):

- I quickly picked up how to perform an ELISA independently.
- I asked for help when needed.
- I communicate clearly with my supervisor.

What challenges or areas for improvement have been mentioned to you:

- Better time planning in the lab.
- Being more assertive during lab meetings.
- Structuring my lab notes more consistently.

How are you responding to feedback? Can you describe any actions you took as a result:

- I created a daily checklist and started writing my notes during the experiment instead of afterward.
- I made a planning board in the lab notebook.
- I tried to speak at least once in each lab meeting.

Bachelor internship

Have you made progress on the rubric criteria you identified before the internship:
Yes, especially on initiative and communication. I'm still working on report structure and time management.

2.2 Compliments and strengths

Supervisors often give feedback that highlights strengths.
What compliments have you received so far:

- “You're very precise with your lab work.”
- “You pick up techniques quickly.”
- “Nice job staying calm during unexpected results.”

What do these tell you about your professional attitude or competencies:
That I can work independently and with attention to detail, which are important traits for research. I feel more confident in my technical abilities now.

Bachelor internship

2.3 Rubric clarity check

Are there any elements of the rubric that you find unclear or difficult to interpret now that you're in the internship:

- YES O
- NO O

→ If yes, which ones:

- Still not fully sure what qualifies as 'scientific maturity'
- Unsure about how much background theory to include in the report

Would you like extra guidance or explanation:

Yes, I would like an example of a good bachelor report and more feedback on my first report draft.

> *"Knowing yourself is the beginning of all wisdom."*
> *– Aristotle*

Bachelor internship

3. After the internship

To be completed after the internship
Complete this section within 2 weeks of receiving your final rubric. Reflect on your results and prepare for your next step.

3.1 Evaluation results

Final score/grade? 14/20

Please mark the scores your supervisor assigned you directly on the rubric on the next pages. Use colour to clearly indicate the score per criterion. You may also add brief comments or annotations next to individual items if needed.

Bachelor internship

3.1.1 Rubric process

Planning / organization	Does not meet deadlines, waits for instructions	Meets deadlines, waits for instructions	Meets deadlines, tries to make a daily schedule, has difficulties with adjusting the schedule	Meets deadlines, tries to make a daily schedule, adjusts to adjust schedule if needed, thinks ahead	Meets deadlines, makes a daily schedule, adjusts schedule if needed, thinks ahead, prioritizes
Effort/willingness to learn	Is not motivated, does not take notes or ask questions, does not ask for help when needed	Seems indifferent, asks few questions, does not always ask for help when needed	Is motivated, listens active, asks questions, asks for help when needed	Very motivated, listens active, asks questions, asks for help when needed, takes initiative, asks for work	Extremely motivated, interest goes beyond the project
Independence	Cannot perform a simple protocol independently, needs constant supervision, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after multiple supervised executions, has difficulties adjusting his/her work after feedback	Can perform a simple protocol independently after a few supervised executions, adjusts his/her work after feedback	Can perform a simple protocol independently after one supervised execution, adjusts his/her work after feedback	
Accuracy, safety, equipment handling Also includes correct sample labeling and data storage, waste handling	Does not respect safety regulations, handles equipment incorrect, does not report mistakes → needs constant supervision	Safety regulations are respected, handles equipment correctly most of the time, regularly prepares solutions incorrect, messy work area, does not always report mistakes	Safety regulations are respected, handles equipment correctly **Most of the time:** accurately prepared solutions, clean work area, mistakes are reported	Safety regulations are respected, handles equipment correctly, accurately prepared solutions, clean work area, mistakes are reported	
Insight, problem solving ability	Mistakes are made concerning basic knowledge/background, has difficulty understanding the project	Has difficulty understanding the project, cannot identify links, cannot identify problems and propose possible alternatives	Understands the project, can identify links, searches for protocols, difficulties defining problems and possible alternatives	Understands the project, can identify links, searches for protocols, defines problems, has difficulties suggesting possible alternatives	Good understanding of the project and it's broader context, searches for protocols, identifies links, defines problems and suggests alternatives
Functioning in team Team attitude: is polite, is on time, keeps lab clean, reports when materials are used up or broken, refills tipboxes	Cannot collaborate with lab partner and/or team, no team attitude, difficulties with communication	Difficult collaboration with lab partner and/or team, team attitude is limited, inconsistent communication	Decent collaboration with lab partner and team, decent team attitude, proper communication	Good collaboration with lab partner and team, good team attitude, professional communication	
Lab book taking → title, date, experimental design, protocol, observations, results, conclusion)	Incomplete or incorrect, unorganized, difficult to interpret	Mainly complete and accurate, not well-organized, frequently difficult to interpret	Complete and accurate, organized, interpretable	Complete and accurate, highly organized, easy interpretable, information such as reagents, equipment, sample/data storage is present	

Bachelor internship

3.1.2 Rubric report

Are the correct scientific terms used on average?	No	Yes
Is the number of spelling mistakes limited?	No	Yes
Are sentences concise and well-constructed (linking words, verbs, …)?	No	Yes
Does the length of the report meet the guidelines (max 15 pages)?	No	Yes
Is the Vancouver style correctly used for references in the text and the reference list?	No	Yes

ABSTRACT	**Abstract** → Contains background, aims, result & conclusion	No abstract	Poorly reported, multiple parts are missing (background, aims, result, conclusion)	Reasonably reported, some parts are missing (background, aims, results or conclusion)	Reasonably reported, contains background, aims, results and conclusion, but different parts are not in proportion to each other	Well reported and clear, comprises background, aims, result and conclus	Excellently reported, clear and concise, comprises background, aims, results and conclusion	Publishable quality
INTRODUCTION	**Introduction** → contains background, unknown, experimental approach, relevant references	No introduction	Poorly reported, little relevance to the topic, does not contain relevant background, superficial literature search	Poorly reported, contains relevant background, basic literature search	Reasonably reported, contains relevant background, sufficient literature search	Well reported and clear, relevant background, evidence of thorough literature search	Excellently reported, clear and concise, relevant background, clear evidence of a thorough literature search	Publishable quality
	Problem statement	Not clearly stated		Present, but not to the point **and** relevance is missing	Present, but not to the point **or** relevance is missing	Clear, to the point and relevance is stated		
MATERIALS & METHODS	**Material & methods** → description of the methods, materials and statistics	No M&M	Poorly reported, poorly described, methods missing	Reasonably reported, not concise, information is missing, statistic methods are not defined	Reasonably reported, not concise or statistic methods are not defined	Well reported and clear, well described, statistic methods defin	Excellently reported, clear and concise, clearly described, statistic methods clearly defined	Publishable quality
RESULTS	**Presentation of results** → Figures: correct graph type and labeling of axes, readable, statistical info. Legend: title, experimental info, techniques, statistical info → Tables: labeling of columns and rows, readable, statistical info, title	Results poorly presented in figures and tables, legends are not present or incomplete	Results poorly presented in figures and tables, legends contain inaccuracies	Results presented in figures and tables, legends are sufficiently clear, but contain inaccuracies	results clearly presented in figures and tables, legends are clear	Figures are interpretable without text, legends are clear and co	Publishable quality	
	Description of results → description of all results present in figures & tables, cross references to figures and tables	Not present	Poorly reported, essential results are missing, results are poorly described and structured	Reasonably reported, some results are not (sufficiently) described, logical order is missing	Reasonably reported, results are sufficiently described, logical order is missing	Well reported and clear, results are adequately described and ordered	Excellently reported, clear and concise, results are clearly described and ordered	Publishable quality
DISCUSSION	**Discussion** → summary of main results, comparison to literature, future perspectives, main conclusion and implication, relevant references	Not present	Poorly reported, results are poorly compared to literature, not well structured, superficial literature search	Reasonably reported, not all main results are compared to literature or argumentation is superficial, sufficient literature search	Reasonably reported, results are discussed and compared to literature, argumentation is not always clear, sufficient literature search	Well reported and clear, results are discussed and compared to literature, clearly structured, evidence of a thorough literature search	Excellently reported, clear, concise and structured, results are discussed and compared to literature, strong argumentation, clear evidence of a thorough literature search	Publishable quality

Bachelor internship

3.1.3 Rubric presentation

Was the duration of the presentation 10±1 min? Yes / No

Content → content present on the slides and how this is explained	insufficient coverage of the subject, the different sections of the presentation are not balanced	coverage of the subject is missing depth or is incomplete, the different sections of the presentation are not balanced	Adequate coverage of the content, the different sections of the presentation are balanced	Full coverage of the subject, selection of relevant results, the different sections of the presentation are well balanced	Comprehensive, full coverage of the subject, good selection of relevant results, the different sections of the presentation are well balanced	
Slides	Unclear or overloaded slides, little structure, important citations are missing	Slides not always clear or are overloaded, structure is mostly missing, citations are missing	Clear slides, good structure, proper citations are used	Clear and attractive slides, good structure, proper citations are used	Excellent, clear and attractive, good structure, **creative**, proper citations are used	
Posture and persuasiveness	Closed posture, sloppy, unmotivated, presentation is mechanical	Closed posture, tries to connect to the audience, presentation is mechanical	Open posture, connects with audience, eye contact, posture and behavior are good but not consistent	Enthusiastic, enjoyable, open posture, frequent eye contact	Excellent, compelling, enjoyable	
Oral delivery	Sloppy language, unintelligible, no scientific language, monotonous, distracting pacing	Understandable, limited use of scientific language, monotonous, too fast or slow	Understandable, mostly scientific language, use of intonation, too fast or slow	Understandable, mostly scientific language, good use of intonation, appropriate pacing	Clear and understandable, scientific language, natural flow, good use of intonation, excellent pacing	
Discussion: knowledge → Correctness	Knows little about the topic, cannot correctly answer most trivial questions	Has a basic understanding of the topic, can only answer trivial questions	Has sufficient understanding of the topic, can answer most of the questions correctly	Has good understanding of the topic, can answer the questions	Has very good understanding of the topic, gives a correct answer to all questions	Excellent, has extensive knowledge of the topic, gives a correct answer to all questions, elaborates on the topic
Discussion: response to questions → structure/thinking process	Answers are unstructured, does not indicate exploration of the issue, no direct answer to the questions	Answers are unstructured but answer the questions, indicates an attempt of exploration of the issue	Structured answers to the questions, explores and explains the issue	Well-structured answers, to the point, explores, explains and expands upon the issue	Well-structured answers, to the point, fully explores, explains and expands upon the issue, incorporated critical thinking skills	

> *"Reflection turns experience into insight."*
> *– John C. Maxwell*

Bachelor internship

3.2 Reflection on your evaluation

What stands out to you in your final rubric:

- Higher score on process than I expected
- My report score was slightly lower than I hoped

Which criteria were stronger than expected:

- Communication with supervisor
- Taking initiative in problem-solving

Were there any lower scores or remarks that surprised you:

I got feedback that my discussion section lacked depth and that I didn't refer to literature enough—this surprised me because I thought I had done enough.

What do you think contributed most to the results you received:

Being proactive in the lab and asking for feedback regularly. But I underestimated how detailed the report needs to be.

What feedback would you like to carry forward to your next internship:

- Start writing earlier and leave more time for feedback rounds
- Use more recent scientific sources in my writing
- Dare to propose ideas more during meetings

Bachelor internship

3.3 Overall reflection

What did you learn about yourself during this internship:

That I enjoy working in a lab environment, but I still need to grow in reporting and critical thinking.

What skills or attitudes do you feel you improved on:

- Lab techniques
- Self-confidence
- Professional communication

What would you like to approach differently in your junior internship:

- Ask for mid-stage feedback on my writing
- Be more structured from day one
- Clarify rubric expectations at the start

Has this internship influenced your thoughts on your future master's specialization:

Yes. I thought I wanted to do molecular biology, but now I'm more interested in immunology and translational research.

Bachelor internship

3.4 Notes for the future

Use this space for personal notes, reminders, or tips for your next internship:

- Bring notebook to every feedback moment
- Ask your supervisor to review your discussion early
- Don't be afraid to ask “stupid” questions, better than making wrong assumptions
- Plan your week on Monday morning
- Keep a Word doc open with key lit references from the start
- You're more capable than you think, just take initiative

_

Need inspiration?

- What surprised me most about this internship?
- A moment I learned from but didn’t expect…
- Something I thought I was bad at, but turned out okay…