



ANNUAL REPORT

Academic year 2022-2023

Examination of Board of the Transdisciplinary Master-
Insert Programme at the University of Twente

May 21st, 2024

COLOFON

EXAMINATION BOARD
Transdisciplinary Master-Insert Programme

DATE
May 21st, 2024

AUTHORS (IN ALPHABETICAL ORDER)
Dr. R.P.A. Loohuis MBA (secretary)
prof.dr.ir. G.R.B.E. Römer (chairman)

CONTRIBUTORS
Drs. L. Chapel
Drs. W.D.J. Vlas
L.M. Franke

APPROVED BY:
Examination Board on May 21st, 2024

POSTAL ADDRESS
Postbus 217
7500 AE Enschede
Email: examinationboard-set-me@utwente.nl

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PREFACE

This annual report of the Examination Board of the Trans Disciplinary Master-Insert programme (TDMI) provides an overview of the actions undertaken in the academic year 2022-2023. The TDMI is a semester programme started, as a three-year pilot, in 2019. Due to the time span, the pilot status and the number of students, it was decided to report the activities, and accounts for its activities, over period of three academic years, instead of annually. The Examination Board ME/SET defines the function of its (annual) reports as a means in a Plan-Do-Check-Act (PDCA) cycle. This report is based on factual and verifiable information.

03 June 2024

ABBREVIATIONS

BKO	Basis Kwalificatie Onderwijs (see UTQ)
BMS	Behavioural, Management and Social sciences (Faculty)
EC	European Credit
ECTS	European Credit Transfer System
ExBo	Examination Board
ET	Engineering Technology (Faculty)
EER	Education and Examination Regulations
PDCA	Plan-Do-Check-Act
R&R	Rules and Regulations
TDMI	Transdisciplinary Master Insert
UCT	University College Twente
UT	University of Twente
UTQ	University Teaching Qualification

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1 TRANSDISCIPLINARY MASTER-INSERT

The Transdisciplinary Master-Insert (TDMI), which started as a pilot programme in 2019, offers students the opportunity to develop transdisciplinary skills making them capable of embarking on societal or industrial challenges in a professional way. Connecting science to society, students collaborate with a variety of real-world stakeholders on addressing complex societal and industrial challenges. Using tools and techniques from across disciplines, students learn to work in transdisciplinary ways collaboratively and develop themselves personally and professionally. As students participate in this extracurricular programme, they become part of a unique community of transdisciplinary professionals and earn a unique Certificate on Shaping Responsible Futures that is complementary to their master's programme.

The curriculum of the Master-Insert is designed for master students from all academic disciplines and is based on three core pillars: real-world challenges, transdisciplinarity, and self-directed learning. It consists of three challenge packages (10 EC each) built on six modules (5 EC each) and is preferably to be pursued full-time (in Quartile 2 and Quartile 3 of the academic year), ideally prior to starting a Master graduation assignment. Flexible and individualized learning paths are offered to those students who cannot integrate the full-time Master-Insert into their study programmes.

The Transdisciplinary Master-Insert starts in November of the academic year and all educational activities will take place in the DesignLab at the University of Twente. The DesignLab is a collaborative ecosystem for innovative change makers that connects science and society. Students and researchers from all across the University of Twente, other educational institutions, and governments and companies, work together in a transdisciplinary way on (educational) projects and research that are focussed on responsible design and citizen Science.

The programme can accommodate max. 30 students every year. The admission is based on intrinsic motivation. To apply, students need to submit a personal motivation letter elaborating their interest and the relevance of this programme for their endeavours. Following their application, students are invited for an interview with the academic staff.

2 EXAMINATION BOARD OF THE TDMI

2.1 Status and responsibilities of the Examination Board

Because the Transdisciplinary Master Insert (TDMI) is not a full educational programme at the University of Twente, nor does it award a degree, an Examination Board is not mandatory according to the Dutch Act on Higher Education and Scientific Research (*Wet op het hoger onderwijs en wetenschappelijk onderzoek*, WHW). However, educational quality is considered highly important. Therefore, the choice was made to establish an Examination Board for the TDMI, which *acts according to the spirit of the WHW*. Given the innovative character of the learning process in this TDMI program, the Examination Board decided to focus on the quality of novel assessment practices & assessment policy in relation to this unique learning process. The TDMI assessment focusses on both summative and formative assessment however formative assessment practices dominate the program to ensure sufficient reflexivity and ongoing skill development, see paragraph 3.7 in this document for more details. The Examination Board of TDMI is formally hosted in the Faculty of Engineering Technology of the University of Twente.

The Examination Board is the body that objectively and professionally assesses whether a student meets the conditions as described in the Education and Examination Regulations (EER) with regard to the knowledge, insight and skills required to obtain a degree. To this end, the Examination Board awards certificates, appoints examiners, safeguards assessment quality, decides on students' requests for exemptions to the EER and takes disciplinary action in case of fraud.

The Examination Board TDMI acts in the spirit of the Rules and Regulations (R&R) of the Examination Board of the programme *Mechanical Engineering* of the Faculty of Engineering Technology (ET). Those R&R serve as a regulatory framework for the Examination Board TDMI, and the Examination Board acts to the spirit of those R&R.

2.2 Members of the Examination Board and those involved

In the academic year 2022-2023, the Examination Board TDMI consisted of the following members (in alphabetical order):

- Drs. Leonie Chapel; external member; February 1st, 2020 – present
- Dr. Raymond Loohuis, MBA; secretary; Sept. 1st, 2019 – present
- Prof.dr.ir. Gert-Willem Römer; chair; Sept. 1st, 2019 - present

Lotte Franke acts as a management assistant (registrar) of the Examination Board and is not a formal member.

The members jointly carry out responsibilities and tasks within the board, while one member (dr. Loohuis) is also specifically involved in the TDMI programme. Drs. Chapel is (also) appointed as an external member.

Prof dr.ir. K. Visscher (Klaasjan) as of 1 February 2021 the Program Director as well as advisor to the Examination Board.

Expertise of the Examination Board members

The professionalism of the Examination Board is safeguarded by the experience of its members. The chair of the TDMI, Examination Board, prof.dr.ir. Römer, also chairs two other examination boards. Drs. Chapel is Educational Expert/Consultant on teaching for higher order thinking, authentic learning and competence assessment, responsible for Educational Quality portfolio and member of Examination Board in nanotechnology. Dr. Loohuis was the vice chair of the BMS MSc Examination Board and as senior fellow learning and teaching, has expertise in the area of responsible interdisciplinary educational innovation, for instance skills education and challenge based learning.

Furthermore, the Chair of the Examination Board TDMI participates in meetings of the University wide *Platform of Examination Boards*. This platform regularly discusses best practices of/for Examination Boards, as well as aims at harmonizing rules and guidelines of examinations and quality assurance, which overarch the various educational programs at the University of Twente.

All these various expertise areas of its members, is contribute to a well-balanced functioning of this Examination Board.

2.3 Mandates

The Examination Board has not delegated tasks, so no mandates are in place. Administrative aspects, such as registration of grades is handled by the Educational Support unit of the Faculty of Engineering Technology (ET).

2.4 Website

General information of the Examination Board, such as its members, as well as guidelines on how to approach the board, are published at:

<https://www.utwente.nl/en/education/master/programmes/transdisciplinary-master-insert/examination-board-tmi/>

2.5 Documentation and archiving

Minutes, agenda's, student requests and other documents, such as mandates and decisions taken of/by the Examination Board are archived by the secretary of the Examination Board and are stored in the JOIN system of the University of Twente. The access is restricted to members of the Examination Board while the secretary are granted all user rights, with restricted access only for members of the Examination Board. Decisions of the Examination Board are documented in the minutes, drafted by the management assistant.

3 ACTIVITIES OF THE EXAMINATION BOARD

This section provides a brief overview of a few major advisory and policy-related tasks that the Examination Board, in addition to its regular tasks, fulfilled.

3.1 Appointment of Examiners

The Examination Board formally appoints examiners who design and administer tests and determine the results. Examiners shall have an UTQ certificate (University Teaching Qualification, in Dutch: BKO, Basis Kwalificatie Onderwijs) or equivalent to qualify for this appointment. Two examiners have been responsible for each course. Besides, the assessment of the Personal Development Plans and Reflection Reports has been taken out of the Transdisciplinary Working and Futurism courses and is done on program level.

The Examination Board appointed all examiners who were suggested by the programme director. The following examiners have been appointed for the year 2022-2023:

Table 1: Appointed examiners

201900226	Transdisciplinary working Dr.ir. Robert-Jan den Haan (Assistant Professor ET; UTQ almost completed) Dr. Evgeni Aizenberg (Assistant Professor ET; UTQ in progress)
201900227	Societal Leadership Dr. Andreas WExBoer (Associate Professor BMS; UTQ) Dr. Corelia Baibarac-Duignan (Assistant Professor BMS; UTQ in progress) Prof.dr.ir. Klaasjan Visscher (Full Professor BMS; SUTQ)
201900228	Creative Intelligence Dr. Jelle van Dijk (Associate Professor ET; UTQ) Dr. Asli Guney (Assistant Professor ET; UTQ started)
201900229	Systems thinking Dr. Brendan Sullivan (Assistant Professor ET; UTQ almost completed) Dr.ir. Kostas Nizamis (Assistant Professor ET; UTQ)
201900230	Change making Dr. Desirée van Dun (Assistant Professor BMS; UTQ) Dr. Pauline Weritz (Assistant Professor BMS; UTQ in progress) Dr. Raymond Loohuis (Senior Lecturer BMS; SUTQ)
201900231	Futurism Dr. Cristina Zaga (Assistant Professor ET; UTQ almost completed) Dr. Corelia Baibarac-Duignan (Assistant Professor BMS; UTQ in progress)

3.2 Meetings

The dates of the meetings of the Examination Board (or in which the Examination Board was involved) are: 13-09-2022, 18-10-2022, 22-11-2022, 31-01-2023, 07-03-2023, 16-05-2023, 20-06-2023, 29-08-2023. Because there were, to date, no student requests to be discussed during the Examination Board meetings, the meetings were primarily used to discuss policy and assessment quality of the TDMI as stated in the introduction. Furthermore, the Examination Board decided to establish its own Rules and Regulations (R&R) to make it more fit with the objectives and assessment policy of this program. The meetings take place in the DesignLab or via MS-Teams.

3.3 Meetings with lecturers and students

The Examination Board had meetings with (or joined meetings of) lecturers and students, providing an additional source of independent and objective information on actual the assessment of students. These meetings included, the kick-off and introduction meeting of new students, evaluation sessions on the TDMI, as a whole, individual courses, as well as of assessment; and last-but-not least, certificate ceremonies.

During the evaluation sessions with lecturers, examiners and the program director, the Examination Board informed the examiners, lecturers about relevant issues. The most important issues included:

- formative and summative assessment in the TDMI programme,

- the validation and reliability of the assessments,
- topics mentioned by students in the evaluation regarding the alignment between learning goals, activities and assessment.

These sessions are viewed as an important activity as they spared a fruitful discussion leading into a better shared understanding about assessment practices and thereby contribute to the overall improvement of quality of assessment in the program.

3.4 Certificates awarded

Table 2 below shows the number of certificates awarded to students enrolled in the TDMI program during the academic year 2022-2023. As the number of students enrolled in the program are (too) small, statistical analysis of the numbers is unreliable. Also, the lecturers/students ratio is quite high. The Examination Board recommends the program to reconsider its assessment methods in case the ratio decreases significantly, but ensuring assessment quality in the case assessment methods are adapted to allow to host more students.

*Table 2: Certificates awarded**

Nº. of students	2022-2023
Fulle certificates awarded	6
Partial certificates awarded	4

* As of 2021-2022 students can opt to only enrol in a few (not all) modules of the TDMI.

3.5 Cases handled

As shown in Table 3, no fraud cases, nor requests and complaints or appeals were handled by the Examination Board. The Examination Board makes sure that students can find their way to the Examination Board in case of a request. However, the number of students in the master insert program remain s—until now— so low that issues are satisfactory dealt with by examiners and program management.

Table 3: Number of cases handled by the Examination Board

	2022-2023
Nº. fraud cases	0
Nº. requests	0
Nº. complaints & appeals	0

4 CONCLUSIONS

The Examination Board of the TDMI concludes that the balance between formative and summative assessment in the TDMI is appropriate given the rationale of this master insert. The validation and reliability is sufficient but it remains a necessity to explore solid foundations for transdisciplinary teaching in which learning (i.e. group work assignments) and the assessment of what has been learned, is combined. Therefore, the Examination Board remains tightly involved to seek and evaluate assessment methods in this master insert together with the program management. The Examination Board considers itself therefore as a driving force in establishing quality standards for novel assessments in transdisciplinary and interdisciplinary learning in higher education

Overall, the Examination Board concludes that assessment policies in each module are coherent and balanced to achieve the program intended learning outcomes.