Individual grading in project assessments

Is the Examination Board responsible for setting up an assurance system for individual grading in projects?

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Introduction

All modules in the bachelor programme Industrial Design Engineering (IDE) have a project assignment component (varying from 5 – 10 EC), executed by groups of students and guided by (a) tutor(s). Groups sizes vary from 4 to 9 students. According to Davies [1] there are a lot of advantages of group work, like it stimulates deep and active learning, a higher level can be achieved than individual, you can learn from each other, etc. But there are also some negative points in group work, like how to deal with free riding, recognising individual contributions, good students feel themselves disadvantaged by "lower level" students, etc.

The focus in this poster will be on the following questions:
What are the possibilities for individual grading in projects and is the Examination Board responsible for an assurance system in individual project grading?
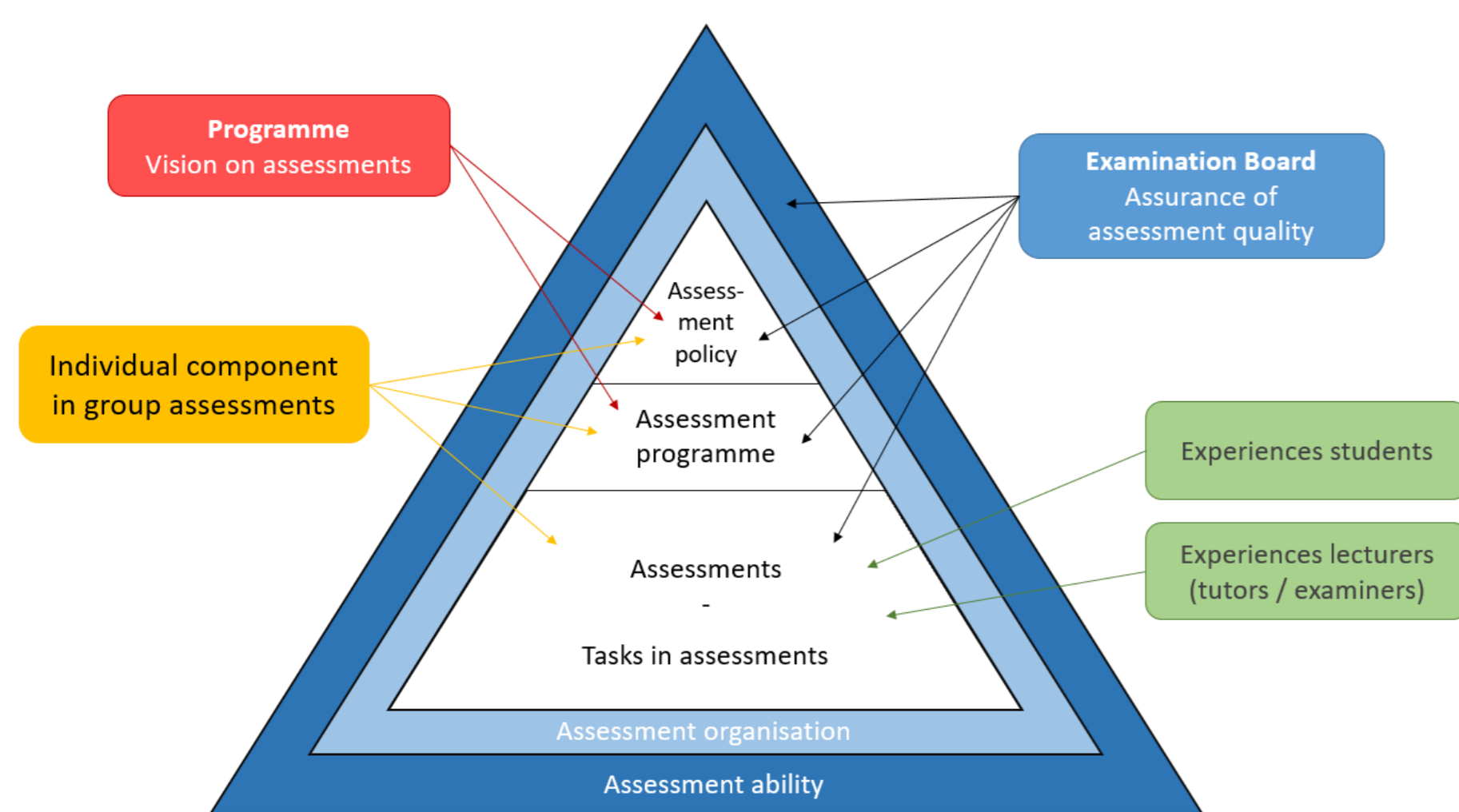

Analysis

The analysis focuses on the following aspects:
- Individual grading in project assessments
- Lectures (tutors/examiners) – experiences
- Students – experiences
- Programme – vision on assessments
- Examination Board – assurance of assessment quality

In the figure below the aspects are related to the different levels of the assessment pyramid.

Individual grading in project assessments

Grading of a group assessment [2][3]:
- One group grade: total group gets the same grade
  - But: Examiner(s) must assess that all group members have achieved the learning objectives!
- Group grade and individual grade: distinctions between group members can be made in the individual grade.

Different methods are available for individual assessment in groups [2][3], like:
- Co-assessment (lecturer and students)
- Peer assessment (students)
- Individual assessment (written/oral exam)
- Individual assessment in a group exam: enough time, question matrix

It depends on the project (e.g. learning goals, group size, type of project) which method is suitable for individual assessment.

Experiences of lecturers

Most important remarks of tutors/examiners that arise during project assessments:
- How to grade individual students? Especially the good and bad students.
- Discussion grade (in general) the same as group grade?
- How to deal with free riders? Problems often occur at the end of the project.
- How to deal with introverted students during project exams?

Experiences of students

Most important remarks/critical notes of students:
- Difficult to deal with free riders
- In discussions (project examination), introverted students are often lower graded (depending on the examiner?). Not fair regarding the amount of work done?
- Excellent students: difficult to get a high grade (>8.5) in a project exam.
- Difference in grading (different examiners).
- Examiners have different points of attention in examinations.

Programme – vision on assessments [4]

IDE has varied educational methods, like lectures, practicals, individual/group assignments, etc. This corresponds to the varied knowledge and skills offered in the programme. Projects are strongly embedded in the educational programme and students combine knowledge en skills (from all modules) to come to results. The educational vision of IDE is that all projects, except the project in module 1, should be assessed with a group and an individual component. Assessment during project examinations is divided in 1. group work, 2. integration aspect and 3. individual presentation/discussion.

Examination Board - Assurance of quality assessment

According to the WHW, the Examination Board is responsible for the assurance of the assessment quality. She is not responsible for delivering the instruments used in assessments; this is a task of the programme management.

An important question regarding grading of projects: *"Is an individual component in group assessment necessary for a good assessment quality?"*
- **YES** - Learning goals must be achieved by all students. Good rules and guidelines must be available for examiners, project coordinators, etc.
- **NO** - Assessment quality does not depend on an individual component in the grading. But there must be a some sort of check if all students have achieved the learning goals.

In the figure the communication lines are represented between the programme (director), the EB and students/ lecturers in a project exam.
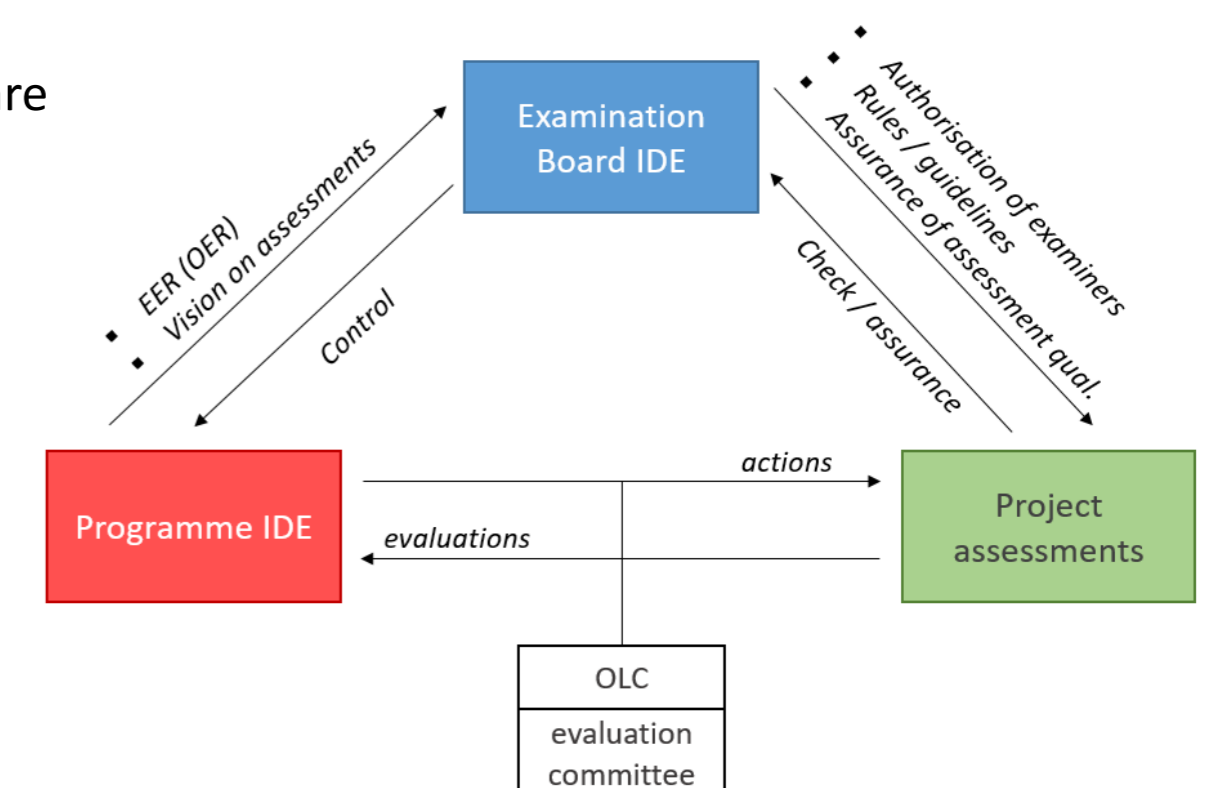
Guidelines from the Examination Board

The EB must assure that all individuals have achieved the required learning goals in a project. The EB is **not** responsible for setting up an assurance system for grading individuals in project work. Checking if individuals have achieved the learning goals can also be done in other ways than with an individual grading component. But an individual component is helpful in making distinctions between students. The EB can advise the programme management to set up some rules/guidelines which the examiners/project coordinators can use for grading groups and individuals.
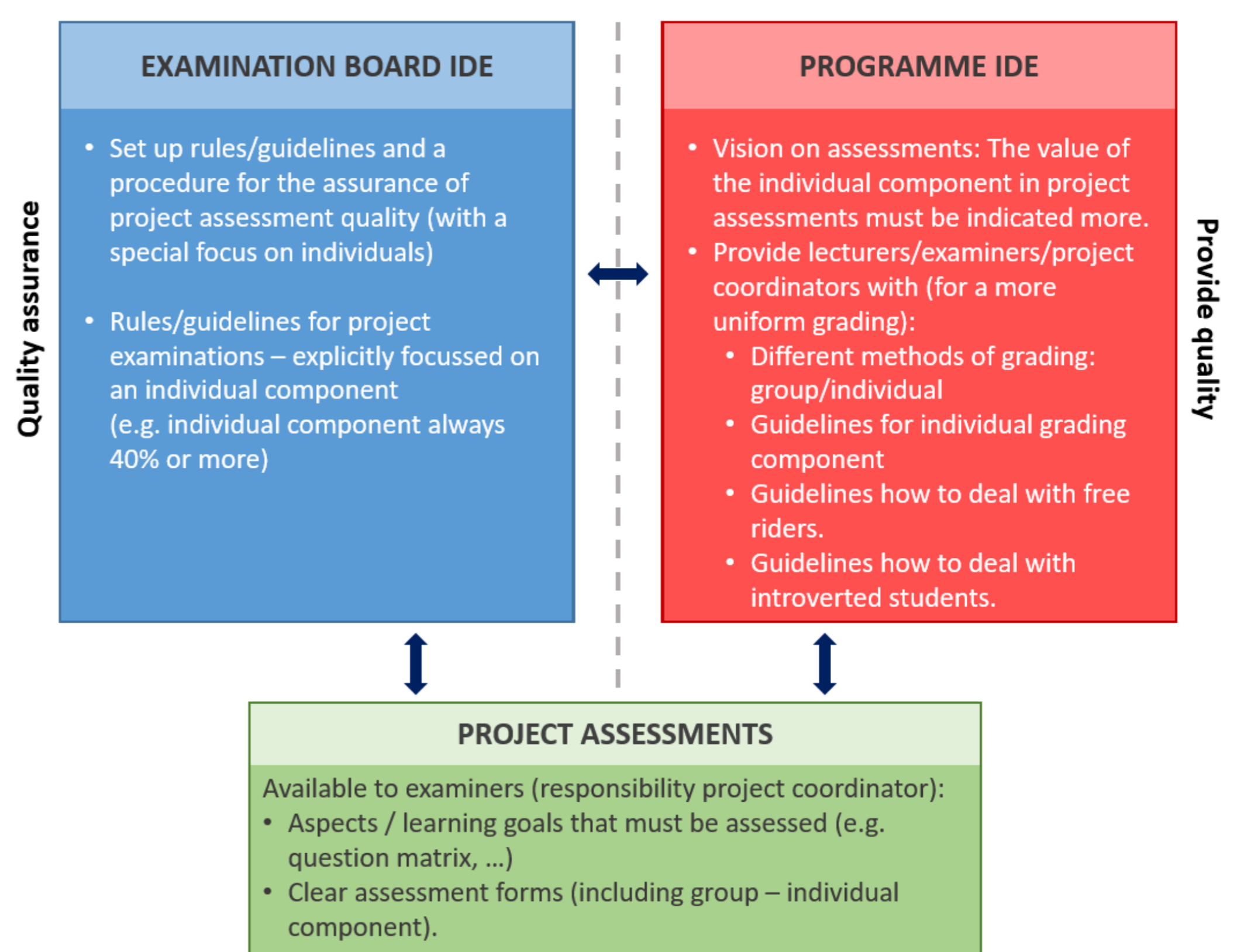
Suggestions

- A manual for lecturers, examiners, project/module coordinators, consisting of guidelines (see figure above) for project assessments would be an improvement for examiners.
- Using a rubric could be helpful in project grading. This option has not been researched and must be explored in the coming months.

References
[1] Davies, W.M.; *Groupwork as a form of assessment: common problems and recommended solutions*; 2009; Higher Education, 58 (4), 563-584.
[2] E. van de Veen; *Hoe maak ik een toetsopdracht?*; 2016, ISBN 978-90-825499-0-4
[3] H. van Berkel, A. Bax, D. Joosten-ten Brinke (red.); *Toetsen in het hoger onderwijs*; Bohn Stafelu van Loghum, 2017; 4e druk; ISBN 978-90-368-1678-6
[4] Critical reflection IDE, Faculty of Engineering, University of Twente, 2013

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