

Regulations for Literature Studies

Faculty of Medicine VU Amsterdam
Master programs Oncology & Personalized Medicine

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1 Introduction

The literature study is an important part of the Master's programs. The literature study involves different aspects and skills of scientific research, such as literature search strategy, critical evaluation and interpretation of presented data, report writing, and oral presentation. The regulations outlined below describe, in chronological order, the process of completing the literature study. The various phases of the process (see Chapter 3) will be supported by forms provided on Master Oncology and Master Personalized Medicine Forms - Vrije Universiteit Amsterdam (vu.nl). The student is responsible for finding a suitable location/supervisor and Amsterdam UMC assessor for the literature study and for the timely completion of all forms (including signatures).

Required forms

- Digital approval form:
 - https://fd20.formdesk.com/vuamsterdam/approvalform_minor_major_ScienceMasters
Survey Outline and survey outline assessment
- Digital Literature Study Evaluation:
 - https://fd20.formdesk.com/vuamsterdam/literature_study?get=1&sidn=f4bae0d008754e89944bcaaf7b8aba65
- Digital assessment form: https://fd20.formdesk.com/vuamsterdam/Assessment_form_internships_SMS

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2 General information

2.1 Length and credits

A literature study is an important part of the Master's programs. The literature study is rewarded with 9 ECTS (European Credit Transfer System) and accounts for 6 weeks. It can take longer than 6 weeks but extra credits cannot be obtained. To obtain the credits, the Literature Study Portfolio has to be successfully completed and graded (Chapter 4) within 6 months after the start of the literature study. If this requirement is not met, the literature study needs to be repeated with another subject.

2.2 Contents and requirements

Aim: The student is expected to learn to extract the main message out of a large number of publications and acquire an overview of the current knowledge of a certain research topic. A student is expected to learn to understand a research question, read relevant literature and make a timely survey of the literature including a critical evaluation of the publications. In addition, the student has to discuss their findings in an oral presentation.

To start a literature study, the student is required to have received approval for the topic and supervisor from the Examiner Internships/Literature Studies (ILS) after filling out the digital approval form. Note: The assessor needs to approve the request before the Examiner ILS can approve the request.

While it is allowed to do an internship and literature study within the same department, it is not allowed to do both on the same topic and/or under supervision of the same supervisor.

Preferably, the literature study is written in the format of a scientific review article, and at the discretion of the supervisor may be submitted as such to a scientific journal. However, in the latter case it should still be discernable what the contribution of the student was. The literature study has to be written in English and to receive the final mark an oral presentation is required. Duo literature studies are not allowed.

The topic of the literature study may be related oncology/personalized Medicine. The literature study can be performed at any chosen national or international renowned institute, provided it is approved by the Examiner ILS.

Supplementary conditions

The tasks performed by the student during the literature study cannot be considered as a replacement of an employee of the supervisor's department.

2.3 Supervision and guidance

The following forms of supervision and guidance during the literature study can be distinguished:

Examiner Internships/Literature Studies

The Examiner ILS is responsible for the approval of the internship and the application of the correct procedures with regard to the grading process. The examiner has the final responsibility for the assessment and the final grade and is responsible to benchmark and confirm the validity of the assessment done at the host institute. When a student has a grade lower than 6 or higher than 8.5, the examiner can contact the assessor to ask for a motivation of the assessment.

Assessor/Supervisor

The responsible assessor/supervisor of the literature study should be a PhD at the level of assistant professor (UD) and has to be approved by the Examiner ILS. The topic of the literature study has to be discussed with the student and within 2 weeks after approval the student needs to hand in an outline to the Master coordinator. This will facilitate the writing in a good structured way.

The student should approach the assessor regularly to evaluate the progression and discuss possible adjustments to the study, accordingly. This should be done at least once during the writing. Commonly, a final report that will be assessed has been reviewed twice. Considering the relatively short time span to perform this literature study it is requested to edit the concept versions within 5 working days. When there are indications that the student will fail the literature study, the assessor needs to contact the coordinator of the Master program.

Amsterdam UMC Assessor

The literature study needs to be verified by a second assessor from Amsterdam UMC. This Amsterdam UMC assessor needs to be invited by the student but has to be approved by the Examiner ILS and has to work at least at the level of assistant professor (UD). The second assessor will critically review the literature study report and give a mark based on the report without considering the writing process. For external literature studies the Amsterdam UMC assessor is also asked to serve as backup for questions of the student and/or the assessor.

3 Course of events during the literature study

Each student prepares a Literature Study Portfolio in which all required forms are present. The digital portfolio must contain the **Front page** and the **Survey Outline**. The **Literature Study Evaluation** must be filled in online on the webpage:

https://fd20.formdesk.com/vuamsterdam/literature_study/?get=1&sidn=7ed58c5819224c44afd3c3b3a9694954.

In addition, a **PDF** of the report has to be e-mailed to the Master coordinator. Only when the portfolio is complete the student will receive the credits for the literature study. The student is responsible for the timely completion (including signatures) of all forms. The portfolio must be e-mailed to the Master coordinator. The table below provides a time-line which the student has to follow to ensure successful completion of the literature study.

	Student	Assessor/Supervisor
1. Month before start	Apply for approval by filling out the digital Approval Form .	Accept the digital Approval Form .
2. Within 2 weeks after start	Hand in the Survey Outline to the Master coordinator.	Correct the Survey Outline . Assess the Survey Outline using the Assessment form in the Literature Study Portfolio. Send a copy to the Master coordinator.
3. Progression consult (at least once during the writing procedure)	Adjust the literature study according to the assessor's comments.	Evaluate the progression of the student and discuss possible adjustments of the literature study accordingly.
4. End of the literature study	Give an Oral Presentation . Send a pdf of the Report to your Amsterdam UMC assessor for the second assessment. Hand in a pdf of the Literature Study Portfolio together with a pdf of the Report to the Master coordinator. Fill out the Online Literature Study Evaluation .	Fill out the digital Assessment Form . Make use of the Rubrics (Appendix) and the Conversion Table (Appendix 2)

Digital Approval form: https://fd20.formdesk.com/vuamsterdam/approvalform_minor_major_ScienceMasters

Digital Assessment form: https://fd20.formdesk.com/vuamsterdam/Assessment_form_internships_ScienceMasters

Digital Evaluation form:

https://fd20.formdesk.com/vuamsterdam/literature_study/?get=1&sidn=3e987e1baa644075b4568c73aff61641

3.1 Month before the start of the literature study

Before starting the literature study, a student always has to ask for approval from the Examiner ILS via a digital **Approval Form** provided in the following link:

https://fd20.formdesk.com/vuamsterdam/approvalform_minor_major_ScienceMasters.

Hand in the form well in advance to obtain approval in time. A literature study can only be started after approval from the Examiner ILS. Note: The assessor needs to approve the request before the Examiner ILS can approve the request.

3.2 Within 2 weeks after start

A student has to write a Survey Outline describing the content, structure and main objectives of the literature study. The Survey Outline has to be discussed with the assessor and handed in to the Master coordinator. The assessor has to give an assessment for the outline, which will account for 10% of the final mark. The assessor may use the assessment form found in the Literature Study Portfolio as a place-holder before filling out the digital assessment form.

3.3 Progression consulting

At least once during the writing procedure there has to be a progression consult of the student with the assessor. When the assessor has indications that the survey may be insufficient, the student in agreement with the assessor should set learning goals for improvement. A report of this reflection needs to be signed by both and handed in at the Master coordinator. It will be added to the Literature Study Portfolio.

3.4 End of the literature study

The final assessment will be completed in the presence of both the supervisor(s) and the student. Afterwards, the examiner ILS must validate the assessment forms and assess whether it is up to VU-standard. The digital assessment form can be found at:

https://fd20.formdesk.com/vuamsterdam/Assessment_form_internships_ScienceMasters

This form consists of several criteria (see Appendix I and part 4. Literature study assessment) that reflect the Master program final qualifications.

After the assessment forms are filled in by the assessor, the student sends the digital PDF version of the report to the Amsterdam UMC assessor. In addition, the student sends a PDF of the Literature Study Portfolio and a PDF of the report to the Master coordinator.

To improve the quality of the literature study the student has to fill out the Online Literature Study Evaluation. This evaluation is also part of the Literature Study Portfolio. The evaluation can be found at:

https://fd20.formdesk.com/vuamsterdam/literature_study/?get=1&sidn=3e987e1baa644075b4568c73aff61641

4 Literature study assessment

For each part of the literature study a partial mark will be given based on specific criteria (See Appendix I). The final mark is calculated using the weight of 10%-20%-70% for the outline, the oral presentation and the final report, respectively.

When the average mark of any of the three assessment items of the literature study is insufficient (<5.5), the specific item that was insufficient should be redone. A maximum of 2 repeats is allowed for the presentation and the report.

4.1 Survey outline

After discussing the topic of study with the student and carefully explaining the objectives, the student should start with gathering literature and writing a preliminary outline of the report. This outline should give an indication that the student has understood the main objectives of the study and that the contents of the subsequent report covers the topic as expected by the assessor. This concept proposal is required since it is crucial for the whole writing procedure. Therefore, it comprises 10% of the final mark.

4.2 Oral presentation

An oral presentation concerning the literature study will be given to the research group of the supervisor. Emphasis has to be given on the capability of the student to answer questions and discuss the topic. This part comprises 20% of the final mark.

4.3 Report

A report of the literature study will have the format of a scientific review, common in the field of research. The report will be written in English and should be at least 5.000 words, consisting of the following subjects:

- Abstract;
- Introduction/Background with the aim of the study;
- Literature review;
- Discussion with conclusions and recommendations;
- References.

When necessary, supplementary data can be described in appendices. Agreements have to be made concerning criticism and judging of the report (for guidance on the assessment criteria, see the Assessment Criteria supplement). The assessor will receive a concept report, and they should give it back to the student, complete with written critics within a few days, which will be discussed with the student. The concept report can only be corrected twice, before the final report is handed in.

The report has to be finished within 6 months after the start of the literature study. The final mark for the literature study will not be registered when the student fails to hand in a digital version of the Literature Study and a complete Literature Study Portfolio. Since the report is the most important aspect of the end terms that need to be acquired during this part of the Master's programs, it will comprise 70% of the final mark.

The report will be checked for plagiarism by the Master coordinator and this will be sent to the Examiner ILS. The assessor can ask for a copy of this scan before submitting the digital final assessment form. The student has to send the report to the Amsterdam UMC Assessor for a second assessment. Within 20 working days, the Amsterdam UMC assessor has to fill in the independent assessment form. The independent assessment form can be found at:

https://fd20.formdesk.com/vuamsterdam/Independent_assessment_Science_Masters

When the mark is less than 1.5 point different between the independent assessor and the supervisor, the mark for the report will be the average of the two grades. When this difference is > 1.5 point, the report

will be sent to a second independent assessor who will also assess the report and provide a mark. The second independent assessor will be appointed by het examiner ILS. In this case the final mark will be the average of the three grades.

5 Additional information and guidelines

The performed literature study and the final report are at discretion of the host institution at which the placement is performed. When necessary, agreements about confidentiality can be made between internal assessors/examiners and external supervisors. The student can be co-author at the time of publication of their results, only if the results are sufficient.

Assessors are obliged to read and assess the full report. The student can be co-author at the time of publication of their results, when the supervisor deems the contribution sufficient.

The supervisor of the host institution will do all in their force to help the student to fulfil all components of the literature study assessment. Delay of any kind caused by the host institution is not appreciated. All Master students apply to the Vrije Universiteit Intellectual Property (IP) regulations (TTO VU VUmc valorisatie by Vrije Universiteit Amsterdam - issuu). If delay is expected because of IP questions the external supervisor is responsible for discussing the problem with the Master coordinator and Examiner internships/literature study in advance. Together, an appropriate solution will be discussed to minimize delay of the study program and risk for the host institution.

As stated above, there is a central registration, archive and accessibility to reports of internships and literature studies. These documents will be filed at a central place to be viewed in by next-generation Master students. Only after specific request of an assessor, it is possible not to file the report because of confidentiality of the data. This request has to be provided with a clear motivation.

6 Appendices

Appendix 1: Assessment criteria literature study Faculty of Medicine VU Amsterdam

This assessment matrix should be used as a guideline for literature study supervisors in the assessment of students enrolled in one of the Science Master programs of the Faculty of Medicine VU Amsterdam (Oncology / Personalized Medicine). The grades in the matrix are rounded grades.

Survey Outline			
<i>Insufficient (<5.5)</i>	<i>Sufficient (5.5-6.9)</i>	<i>Good (7.0-8.4)</i>	<i>Excellent (8.5-10)</i>
Process of writing			
The student is not able to translate the results and literature into coherent and effective writing within the required amount of time. The student needs a lot of help in this process.	The student is translating the results and literature into coherent and effective writing within the required amount of time. The student needs some guidance.	The student easily and independently translates the results and literature into effective writing.	The students easily and independently translates the results and literature into effective writing on the level of a peer-reviewed scientific paper.
Processing of literature			
The student is not able to gather and interpret the correct and relevant literature.	The student is able to gather and interpret literature relevant to their project.	The student is able to gather and interpret literature relevant to their project and put it into the context of other literature.	The student easily gathers and interprets relevant literature. The student is able to discern the quality of papers accurately and has a good impression of the scientific consensus.
Processing of results			
The student is incapable of interpreting the results and putting them in the context of relevant literature.	The student interprets the results sufficiently with the use of relevant figures and graphs. The student uses some relevant literature to support the results.	The student interprets the results accurately and uses figures and graphs to improve the report significantly. The student uses a variety of relevant literature to support and reflect on the results.	The student easily interprets the results and uses figures and graphs that are of high scientific standard. The student puts the results into context with the most relevant literature and accurately reflects on them.
Overall concept			
The student is not able to write a coherent report with a clear structure. The student uses flawed arguments to assess the research question.	The student is able to write a coherent and structured report. The student uses sufficient arguments to assess the research question.	The student is able to write a coherent report with good structure. The student answers the research question using arguments supported by the results and literature.	The student writes an excellent, coherent report with great structure. The student is able to answer the research question fully by using a variety of arguments supported by their results and relevant literature.
Oral presentation			
<i>Insufficient (<5.5)</i>	<i>Sufficient (5.5-6.9)</i>	<i>Good (7.0-8.4)</i>	<i>Excellent (8.5-10)</i>
Presenting skills			
The presentation is clearly too long or too short and difficult to follow. The public does not feel engaged Insufficient use of audiovisual aids.	The presentation meets the time standard. Clear manner of presenting. Appropriate use of audiovisual aids.	The presentation meets the time standard. Enthusiastic and clear presentation style. Good use of audiovisual resources. The slides support the presentation.	The presentation meets the time standard. Clear presentation with informative slides. Lively and enthusiastically presented. The presentation is engaging for the audience.

Presentation

<p>The structure is messy and cluttered. It lacks essential information. The argument is (sometimes) unclear. Little scientific justification.</p>	<p>Clear structure with introduction, methods, results and discussion. There is consistency. A clear overview of the research and the main results are given. Sufficient scientific justification.</p>	<p>Clear structure with introduction, methods, results and discussion. There is consistency. There is a good and clear overview of the research and the main results are well-discussed. The arguments put forward are logical, valid and scientifically substantiated.</p>	<p>Excellent structure with introduction, methods, results and discussion. There is consistency. There is a clear overview of the research and the main results are well discussed and placed in context by means of scientific literature. Arguments used are logical and valid. Clear conclusions and recommendations for future research are concrete and of high quality.</p>
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Discussion

<p>The student does not adequately address the questions from the audience. The answers are not clear and to the point.</p>	<p>Students answered questions from the audience and used their own data and scientific literature. The student gives adequate answers.</p>	<p>Students answered questions from the audience and used this as its own data and scientific literature. The student shows a good overview of the subject and put the questions in a broader context.</p>	<p>The student answers the questions from the public in a clear and appropriate manner showing an understanding of the subject and research field. The student carries out a lively discussion convincingly.</p>
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Report (writing process)

<i>Insufficient (<5.5)</i>	<i>Sufficient (5.5-6.9)</i>	<i>Good (7.0-8.4)</i>	<i>Excellent (8.5-10)</i>
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Process of writing

<p>The student is not able to translate the results and literature into coherent and effective writing within the required amount of time. The student needs a lot of help in this process.</p>	<p>The student is translating the results and literature into coherent and effective writing within the required amount of time. The student needs some guidance.</p>	<p>The student easily and independently translates the results and literature into effective writing.</p>	<p>The students easily and independently translates the results and literature into effective writing on the level of a peer-reviewed scientific paper.</p>
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Processing of literature

<p>The student is not able to gather and interpret the correct and relevant literature.</p>	<p>The student is able to gather and interpret literature relevant to their project.</p>	<p>The student is able to gather and interpret literature relevant to their project and put it into the context of other literature.</p>	<p>The student easily gathers and interprets relevant literature. The student is able to discern the quality of papers accurately and has a good impression of the scientific consensus.</p>
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Processing of results

<p>The student is incapable of interpreting the results and putting them in the context of relevant literature.</p>	<p>The student interprets the results sufficiently with the use of relevant figures and graphs. The student uses some relevant literature to support the results.</p>	<p>The student interprets the results accurately and uses figures and graphs to improve the report significantly. The student uses a variety of relevant literature to support and reflect on the results.</p>	<p>The student easily interprets the results and uses figures and graphs that are of high scientific standard. The students puts the results into context with the most relevant literature and accurately reflects on them.</p>
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Overall concept

The student is not able to write a coherent report with a clear structure. The student uses flawed arguments to assess the research question.	The student is able to write a coherent and structured report. The student uses sufficient arguments to assess the research question.	The student is able to write a coherent report with good structure. The student answers the research question using arguments supported by the results and literature.	The student writes an excellent, coherent report with great structure. The student is able to answer the research question fully by using a variety of arguments supported by their results and relevant literature.
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Report (content)

<i>Insufficient (<5.5)</i>	<i>Sufficient (5.5-6.9)</i>	<i>Good (7.0-8.4)</i>	<i>Excellent (8.5-10)</i>
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Abstract/summary

The summary is incomplete on one or more of the following: context, research question, methodology, results, conclusion. The findings answer the research question insufficiently.	The summary is understandable and contains all the components in a logical order: context, research question, methodology, results and conclusion. The findings answer the research question adequately.	The summary is understandable and easy to follow regardless of the literature study report. The summary contains all the components in a logical order: context, research question, methodology, results and conclusion. The findings answer the research question in a good, clear way.	The summary shows the essence of the research carried out and is easy to follow regardless of the literature study report. The research is summarized well. The summary includes a brief description of the context, research question, methodology, results and conclusion. The findings answer the research question in an excellent, clear manner.
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Introduction

The student formulates a research question, however, it is not clearly formulated and not clearly defined. Background information and scientific/social importance of the investigation are insufficient and are not described coherently. The introduction does not fully connect to the research questions. The student only uses few references.	The relevance of the research questions, the background, and the scientific/social importance of the research are described. The student sufficient scientific references. The introduction is a coherent whole, but remains somewhat superficial. The introduction is (almost) constructed according to the funnel model (from wide to narrow).	The student uses relevant scientific literature to introduce and support, the background information, scientific/social importance and the research question. This leads to new insights and the student ends up with a clear and defined research question. The introduction follows the funnel model (from wide to narrow) correctly.	The introduction consists of an in-depth analysis of the problem using relevant scientific credentials of high quality. This thorough analysis opens up new insights and logically follows the research question. The research question is clear and defined. There is great consistency in the text. The introduction is deepening, but also gives an overview of the study area. The introduction follows the funnel model (from wide to narrow) in an excellent manner.
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Discussion/Conclusion

The discussion is incomplete and does not contain all the essential elements as mentioned above. There is insufficient reference to relevant scientific literature. The conclusions give no or only partially answer to the research question.	The discussion includes all essential elements such as mentioned above. Adequate scientific references are used. The research question is sufficiently answered but the discussion is somewhat superficial.	The discussion includes all essential elements as mentioned above and describes them clearly. The student has sufficient knowledge to put the results in a broader context and makes good use of scientific literature. The research question is clearly answered. The student uses scientific references to reflect on their own research.	The student shows insight in the scientific field. Student presents a concise but complete evaluation of their findings in light of the theoretical background and recent scientific literature. Limitations are found and feasible solutions are proposed. The research question is coherently answered.
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Appendix 2: Nuffic Conversion Table for internships outside the Netherlands

See next page.

Grading systems in the Netherlands, the United States and the United Kingdom

Suggestions for grade conversion

Grading scales in different education systems are often misinterpreted and grading practices in other countries are easily misunderstood. The world of international student mobility is full of examples of students applying for admission to a university in another country and being refused on the grounds that their grades are not good enough, even if their grades are considered high by the standards in their own country's system. In most cases the problem simply comes down to a lack of information. Experience shows that this problem is significantly mitigated when institutions provide degree and diploma supplements, explaining the grading scale used. Ideally, these supplements should include the percentages for which grades are awarded at the institution so that the grades of the student concerned may be clearly understood.

This article identifies some of the main differences between the Dutch grading system, which is based on a numeric scale of 1 through to 10, and the letter grades used in the United States and the United Kingdom. The article concludes with a grade conversion table for these three countries.

The grading scale in the Netherlands

In the Netherlands, the traditional grading scale is from 1 through to 10, where 1 is the lowest and 10 the highest grade. The pass mark for a single subject is 6, but for school leaving examinations, where six or more subjects are examined, two 5s or one 4 may be condoned if compensated by high grades in other subjects. Grades 1 through to 4 are very rarely given, and the same is true for grades 9 and 10. The most common grades in both secondary and higher education are 6 and 7. Grading in secondary and higher education differs to the extent that high grades are slightly less frequent in secondary education than in higher education.

Data from 2010 on examination results for the pre-university stream (VWO¹) reveal the following distribution (in percentages) of the grades awarded:

10 =	0.1
9 =	2.4
8 =	12.5
7 =	34.3
6 =	38.5
5 =	10.7
4 =	1.4
3 =	0.08
2 =	0.01
1 =	0.0

¹ VWO = Voorbereidend Wetenschappelijk Onderwijs, or preparatory university education. This is the most selective of the three main streams in general secondary education in the Netherlands. The VWO diploma grants access to university education.

Grading culture

Grading practice in the Netherlands differs from that in the US and the UK inasmuch as the top grades (10 and 9) are rarely awarded, regardless of the actual achievements of a given group of students. This is part of the grading culture in the Netherlands. When the 1 through to 10 scale was officially introduced back to the late 19th century, it was decided that a 10 should only be awarded in cases of absolute perfection. Furthermore, as at the time it was felt to be almost blasphemous for mere mortals to be judging what constituted absolute perfection, a 10 was hardly ever awarded. A 9 was considered to be only a slightly less impossible goal to reach. With the advent of multiple choice testing and yes/no answers to questions, 10s and 9s actually came within reach of ambitious students. To this day, however, these grades are still very rarely awarded in oral examinations or open question testing, such as essays, presentations, project reports or dissertations.

This tradition is different from what is customary in the US, where high grades are awarded to reward and encourage rather than single out absolute perfection. Statistics show that North American educators have always been more generous in the awarding of grade As than their European counterparts. The danger in this practice is that it may lead to grade inflation, which in fact, has become a trend in American higher education over the past 30 years. Grade inflation may well be linked to a more competitive attitude in American higher education, where it is far more common for students to compete for scholarships and where admission to the best universities depends on having the best grades. By contrast, university admission in the Netherlands, as in most continental European countries, is not so much based on high grades as on having the right school leaving certificate. The type of secondary school attended and the type of examination subjects taken are accorded more importance than the individual grades obtained. In the Netherlands, secondary education is divided into different academic and vocational streams with differing educational aims. Of these, the pre-university stream (VWO) is the most selective, accounting for just 17% of the entire student population in secondary education. Consequently, the pre-university stream has always served as a selection mechanism in itself, and the examination results of individual students are considered to be less important than possession of the VWO diploma.

The wrong approach

When thinking about grade conversion, differences in culture and education systems as described above must be taken into account. If grading scales are simply placed side by side, and, starting from the top, each grade in one scale is equated to the grade in the corresponding position in the other scale, serious mismatches will be the result. If, for example, we placed the Dutch numeric scale side by side either the American or the British letter scale, a Dutch 10 would be equated to an American or British A, a 9 to a B, an 8 to a C and so on. While it may seem unlikely that anyone would take such an approach, conversions like these have been known to happen. There are examples of foreign universities requiring a 10 in all seven examination subjects on the Dutch VWO diploma, where it was apparently reasoned that, if 10 is the top grade awarded in the Netherlands, a top student from the Netherlands should have a 10 in each subject. In reality, the chance of attaining a 10 in all seven subjects is close to nil.

Frequency distribution

Clearly, this is not a realistic approach. If grades are to be compared fairly, grade conversion should instead be based on the frequency distribution of grades. Only when the percentages are known for the various grades awarded can grades from different systems be matched. Looking at the 2010 data on the highest-achieving VWO graduates for example, we know 12.5% were awarded a grade 8 (2.4% a grade 9 and 0.1% a grade 10). Therefore, in order to convert this properly to a grade under another country's grading system, we need to know which grade was awarded to the lower 12.5% of the top 15% of students in that system.

When analysing the frequency distribution of passes in the Dutch, American and British grading systems, the

pattern that emerges is that the two most common grades in the Dutch system are at the lower end of the scale of pass grades (6 and 7), while the two most common grades in the American and British systems are to be found at the higher end (A and B). In Dutch secondary education, grades 6 and 7 are awarded in 39% and 34% of cases respectively. In the UK, A* and A are awarded in 27% of cases and the B in 26%.² National percentages for high school examination grades in the US are not available, but the occurrence of A and B in undergraduate studies at American universities is about 40% (and even higher in postgraduate education).³

Conversion table

The following table is based on the data available for secondary education examinations in the Netherlands and the UK. For the US, the grades are taken from academic transcripts of undergraduate programmes issued by American universities.

Note: In pre-university education (*General Certificate of Education*) in the UK, grades run from A*, A, B, C, D to E. In the US, pass grades normally only include A, B, C and D. In the British system the asterisk (*) is only used in relation to a grade A, as the highest grade possible. In the US system, the * is not used, but schools and universities may use + or - to differentiate grades.

NL	UK	US
10	A*	A+
9.5	A*	A+
9	A*	A+
8.5	A*	A+
8	A	A
7.5	A-	A
7	B	B+
6.5	C	B
6	D	C
5.5	E	D
5	F	F
4	F	F
3	F	F
2	F	F
1	F	F

² The distribution of grades obtained by GCE A-level graduates in 2011 is as follows:
A* = 8.2% B = 25.6% D = 15.1%
A = 18.8% C = 23.6% E = 6.5% U (unclassified) = 2.2%.
(source: Joint Council for Qualifications).

³ These percentages are taken from a sample of 50 academic transcripts issued by American universities and submitted to Nuffic.



FACTSHEET

In the UK, honours bachelor's degrees are awarded with a class, indicating the overall performance of the graduate during the programme and at examinations. Classes are normally divided into four categories: first class honours (1), second class honours, upper division (2.i), second class honours, lower division (2.ii), and third class honours (3rd). In the following table lists the classes and the percentages of graduates awarded each class, next to the grades to which they correspond in the Dutch grading system (the class percentages are rounded off to the nearest multiple of 5).⁴

UK honours bachelor's degree	corresponding Dutch grade
First class (ca. 15%)	grades 8, 9 and 10
Second class, upper division (ca. 50%)	7 to 8
Second class, lower division (ca. 30%)	6 to 7
Third class (ca. 5%)	5.5 to 6

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⁴ Statistics are taken from the Higher Education Statistics Agency in the UK.

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Programme Management

Administrating international mobility programmes (scholarships) and institutional cooperation programmes.

Information Services

Providing information about higher education systems in the Netherlands and in other countries; providing credential evaluation services; providing information in the Netherlands about studying abroad, and in other countries about studying in Holland; promoting Dutch higher education in other countries; encouraging international mobility.

Expertise

Conducting studies into international cooperation in higher education; providing information to expert groups and consultation forums; transferring our knowledge of international cooperation in higher education through courses and seminars.

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