

Mastermind Europe

Manual

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Introduction

In the Mastermind Europe project, we have developed Guiding Tools and Key Forms to help academic Master's coordinators to see if and how they can improve their admission criteria and procedures to enhance the international and diverse nature of their classroom.

The Guiding Tools are concise brochures with information – from practice and literature – on one specific aspect of the Mastermind Europe approach, like "Subject-Related Knowledge & Skills" or "Language Requirements". The Key Forms are forms that can be filled in by Master's coordinators as an aid to analyse their present admission practice and to identify things that they may want to change.

In this Users' Manual, we go step-by-step through the Key Forms and Guiding Tools, explaining and giving examples of how they can be used. The Mastermind Europe experts are available to advise academic master's coordinators further and to give feedback on the way they use the Forms and Tools, comparing with numerous other master's programmes on which they have similar data.

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The Mastermind Europe Matrix Form

Let us start with the key purpose of admission. The key purpose of the admission process is to determine if an applicant student is qualified to be admitted to a master's programme.

We have analysed and dissected the question if a student is qualified into four **core questions** that distinguish between a) criteria, b) levels/norms, and c) assessment mechanisms & assessment scores and into three **categories of criteria** (plus language competence).

These categories and key questions appear in the Mastermind Europe Matrix Form.

How do you a) know (= assessment mechanisms): b) if students are good enough (= norms/levels), c) in the things that they need to be good at (= criteria). Into a logical order: 1) Criteria, 2) Norms/levels, 3) Assessment mechanisms (with 4) assessment scores)				
	1 Criteria	2 Norms / levels	3 Assessment mechanisms	4 Assessment scores
In plain language:	What you are looking for		What you are looking at	
Substance-Related Knowledge & Skills ¹				
General Academic Competencies ²				
Personal Competencies & Traits ³				
Language competence				

¹ In PIAAC: Professional & Technical Skills

² In PIAAC: Generic cognitive skills

³ In PIAAC: Socio-emotional skills

The Mastermind Europe Matrix Form helps to establish a precise relation between what you're looking at and what you're looking for in admission. It allows you to identify the most problematic aspects in admission: the things that you want to change most urgently.

☞ Look at all elements of admission for your own Master's programme and place each of these in the Matrix. You may have several admission requirements in one category, e.g. in Subject Related Knowledge & Skills. That is why we have included three empty rows for each category. If you use the digital version of the Matrix, you can add rows if you need more than three. It will require some critical reflection – and sometimes discussion – to put pieces of information in the right cell of the Matrix. For deciding of the right column (key question), remember:

- 'Criteria' relate to what the applicants need to be good at (like math or text analysis or group work).
- 'Levels' relate to how good applicants need to be in a specific field (like 'can perform specific (defined) statistics operations', or 'can discover logical errors in a complex text', or 'can mediate successfully in discussions between scientists and social scientists'; to give just a few examples).
- 'Assessment mechanisms' can relate to a wide variety of methods: standardised tests, your exams, interviews, rating of prior HE institution. Anything that is used in your case.

After you have filled in the Mastermind Europe Matrix Form, do feel free to ask our opinion on how you have placed your admission information in the Form. We have collected a broad set of these Forms and could help you clarify – as an advice only.

☞ The third step in the Mastermind Europe Matrix Form – after filling it in and critically examining it – is to identify the elements that you find most in need of improvement. Maybe you have none, because the Matrix has confirmed to you that your admission process is quite alright in terms of the criteria and core questions. But if the Matrix Form has helped you to realize that you want to improve some of the elements, the next step is to highlight the relevant cells or rows. In the online digital version of the Matrix Form, you can do so with the aid of pull-down menus. The highlighted elements constitute your change agenda – if you decide that these issues are important and urgent enough to warrant further action. For this further action, you may find the **Mastermind Europe Two-Column-Table** of use.

The Mastermind Europe Two-Column-Table

The Two-Column-Table helps to look more precisely at the most problematic aspects: what the nature of the problem is and how it can be addressed in the context of your master's programme.

Admission element	What can you say about it?
Requirement is ...	<i>What 'key question' columns are involved?</i>
What criterion is involved	
What level is applied	
How satisfactory is this practice	
Possible conclusions in terms of articulation of criteria/levels	<i>You want to use the info in the Quick Reference Guide: conceptual framework and existing tests / assessment mechanisms</i>
Possible conclusions in terms of choice of testing mechanisms	
Possible conclusions in terms of transparency	
Possible conclusions in terms of monitoring and counselling	

Let us give an example:

Suppose you require 'basic science' (a subject related knowledge & skill), but without really identifying what specific knowledge or skill the applicants really must possess. 'Basic science' is a very broad term, after all. Suppose you see this as a problem.

☞ You can then take an empty TCT and label it with 'basic science'. The TCT helps you to analyse what you mean by 'basic science', what lack of specific 'science' knowledge or 'science' skills would really prevent students from success. It helps you to identify good yardsticks by which you can measure if they have that specific science knowledge or skill.

Subject requirement: Basic science	What can you say about it?
Requirement is: a Bachelor's degree covering basic sciences with good grades in key courses	It is a statement about subject related knowledge & skills, but of a fairly general nature
What criterion is involved	It is unclear what is understood by 'basic sciences': math, physics, other natural sciences. What subject areas are most important.
What level is applied	It is unclear what 'good grades' means.
How satisfactory is this practice	Possible answers: <ul style="list-style-type: none"> - We are satisfied, no change - We want to change in some ways, see next rows.
Possible conclusions in terms of articulation of criteria/levels	<ul style="list-style-type: none"> - We need to define and/or give examples of key courses. We need to explain 'good grades'. We need to identify the core body of knowledge we want, and which Handbook chapters or MOOCs cover that. or <ul style="list-style-type: none"> - We feel unable to articulate precisely what we are looking at; it has to stay (inter)subjective.
Possible conclusions in terms of choice of testing mechanisms	We will add a MOOC or a pre-entry Summer Course as a means to fulfil this criterion in addition to 'having had a course during the Bachelor's'.
Possible conclusions in terms of transparency	We will put the info on the MOOC or Handbook chapters on our website.
Possible conclusions in terms of monitoring and counselling	We will keep track which is the better predictor: Bachelor's courses, MOOC, or pre-entry Summer Course.

It also helps you to articulate what an improved row for 'basic science' would look like, with better articulated 'levels' and appropriate assessment mechanisms.

The same applies in the other groups of categories: suppose that you regularly require a 'Motivation statement' and use that in the assessment of applicants – but can't articulate for which criterion (at what level) you use the Motivation statement: you look **at** the Motivation statement, but can't say what you are looking **for**.

👉 You can then take an empty TCT and label it with 'Motivation statement'. The TCT helps you state more precisely what you want the Motivation statement for:

- Making implicit convictions more explicit, you may find the Motivation statement suitable to assess more and different criteria.
- Or you may start to question if it really makes sense to use Motivation statements.

Personal requirement: Motivation statement	What can you say about it?
One professor reads all motivation statements	This is a subjective and qualitative testing mechanism
What criterion is involved	That may be unclear: to the university, to the applicants, and even to the professor.
What level/norm is applied	That may be equally unclear.
How satisfactory is this practice	Possible answers: <ul style="list-style-type: none"> - We are satisfied, no change - We want to change in some ways, see next rows.
Possible conclusions in terms of articulation of criteria/levels	<ul style="list-style-type: none"> - We need to explain what PCTs we look for in the Motivation statement, using the PCT framework (see Guiding Tool PCT) or <ul style="list-style-type: none"> - We feel unable to articulate precisely what we are looking for
Possible conclusions in terms of choice of testing mechanisms	We will articulate more precisely <u>what</u> criteria we are looking for in the Motivation statement, or We will have more than one professor involved in the assessment and/or have a protocol for the assessment, or We will stop using Motivation statements because we are unable to state what we are looking for, or We will stop using Motivation statements, because we think Motivation statements are not reliable enough.
Possible conclusions in terms of transparency	We need to explain better to students what we are looking for
Possible conclusions in terms of monitoring and counselling	We need to include Motivation statements in our Student success monitoring system, to see if it predicts success (better than other indicators).

Again, this may help you to describe the 'improved admission reality' that you see as desirable after using this form – unless you decide that the possible improvements are not important enough or too difficult to realise.

Taken together, these tools help master's coordinators to articulate precisely what the entrance competencies of the programme are in terms of subject-related knowledge & skills, general academic competencies, and personal competencies and traits. We jokingly call these entrance competencies learning incomes because they are the counterpart to the learning outcomes. Defining these learning outcomes helps with admission, but it helps also to tune the curriculum to the intended learning outcomes.

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Some key choices

Once you have identified – using the Two Column Tables – all the elements in your admission process that you want to change, you can enter most of them in new copy of the Mastermind Europe Matrix Form. Before you do that, it is useful to be clear about a number of choices regarding Master's admission.

☞ You can use the Form underneath to articulate these choices, adding new rows for choices which we didn't identify for you:

Do you see Master's admission rather as a mechanical process, in which the elements are measured and counted; or rather as a holistic process, in which the elements are weighed and then the whole is weighed?		
<input type="checkbox"/> Rather as a mechanical process	<input type="checkbox"/> Rather as a holistic process	
Is your programme non-selective (all qualified applicants are admitted) or selective (of those qualified, only the best are admitted)?		
<input type="checkbox"/> Yes:	<input type="checkbox"/> No	<input type="checkbox"/> Yes, but not specified
Do you have one or more 'admission deadlines' and how are the admission quota (number of places) divided over these deadlines? Or do you have ongoing admission on a first-come-first-serve basis?		
<input type="checkbox"/> One:	<input type="checkbox"/> More: - .. - ..	<input type="checkbox"/> Ongoing admission
Do you have quota for applicants per country or applicants per subject background?		
<input type="checkbox"/> Yes, countries: - Max ... % per country - Other:	<input type="checkbox"/> Yes, disciplines: - Max ... % per discipline - Other:	<input type="checkbox"/> No
Do you want to create a balanced group in specific general academic and/or personal competencies?		
<input type="checkbox"/> Yes, general academic competencies: -	<input type="checkbox"/> Yes, personal competencies or traits: -	<input type="checkbox"/> No
Do financial considerations play a role? Is there pressure to be lenient if there are insufficient applications?		
<input type="checkbox"/> Yes		<input type="checkbox"/> No
For qualitative (subjective) assessment mechanisms, do you have more than one assessor to organise intersubjectivity?		
<input type="checkbox"/> Yes; indicate below for each relevant assessment mechanism, how many administrative staff and/or academics take part in the assessment: - <i>Item, no of adm. no of academics</i>		<input type="checkbox"/> No
What is the overriding purpose of the admission process?		
<input type="checkbox"/> To establish likelihood of successful graduation	<input type="checkbox"/> Other considerations, such as likelihood of success in work after graduation or legal provisions.	

The Mastermind Europe Matrix 2.0

☞ In the new copy of the Matrix form, you can enter the data on your admission process **after** you have made the chances deemed necessary.

In the column 1 “Criteria”, you can add flag (sign) if you don’t want to use this criterion a part of your admission decision, but as a signal for the student or the programme itself⁴.

In the column “3 Assessment mechanism”, you can add a flag (sign) for the number of academics and/or administrative staff involved in making assessments which are subjective by nature.

	1 Criteria	2 Norms / levels	3 Assessment mechanisms	4 Assessment scores
In plain language:	What you are looking for		What you are looking at	
Substance-Related Knowledge & Skills⁵				
General Academic Competencies⁶				
Personal Competencies & Traits⁷				
Language competence				

⁴ For instance, that the student should/must take certain electives, or should pay extra attention to certain academic or personal skills, or may find some post-graduate lines of work less suited to his/her competencies.

⁵ In PIAAC: Professional & Technical Skills

⁶ In PIAAC: Generic cognitive skills

⁷ In PIAAC: Socio-emotional skills

Not all aspects of the admission process that you may want to change, can find a proper place in this Matrix 2.0. For one thing, admission does not stand on itself; it is embedded in the whole chain of relations between the students and your university: from branch marketing & recruitment through admission & enrolment, financial, social educational support to graduate, transition to employment and alumni services. And it is embedded in the life cycle of the master's programme: from external need for its graduates, degree profile, learning outcomes, curriculum back to admission requirements.

You will find more information on these aspects in Guiding Tool 1b Contextually Coherent Admission Framework.

Still open issues:

- Required changes on your website
- Admission elements that stimulate/motivate applicants or turn them off

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