Teaching and learning in Ph.D. courses

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Important aspects of mathematics teaching and learning

Changes in the last decade

Present status
Important aspects of mathematics teaching and learning

Structural aspects of a Ph.D. programme in mathematics
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- Mathematics students typically need one or two years of Ph.D. level coursework before even identifying an area of research and another year before identifying a specific problem.
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- Students must display competence in at least two out of six broad areas by passing exams in these areas by the end of the first year of the programme. Failure to pass these exams leads to an exit from the programme.
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▶ Students must display competence in at least two out of six broad areas by passing exams in these areas by the end of the first year of the programme. Failure to pass these exams leads to an exit from the programme.

▶ Students typically do not choose an area or an advisor until their second year, and usually after they pass their qualifying exams.
The actual aspects of teaching and learning - a personal take

I would rather that a student experiment and take as many courses as possible even if a complete understanding is not possible in all of them.

A greater focus on assignments than exams.

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But other than such structural changes in the programme, the business of teaching and learning at the Ph.D. level has not changed. The number of students in the programme has doubled but classes remain small (less than twenty students) - we continue to teach on the blackboard.
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Present Status

I have already described the present status. Nothing has changed in the actual teaching methods. And that is, I believe, as it should be.