

Fostering Self-regulated Learning with Tools that support Coaching Relationships

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Introduction

Coaching is increasingly being used in educational programs as an approach to support students' learning and development. At UVA, students meet with coaches regularly during the pre-clerkship, clerkship and post-clerkship phases of the curriculum. To support and facilitate coaching interactions during the clinical phases of the curriculum, we created new tools to provide:

- Access to student performance data in formats that are meaningful to learners and coaches.
- A structure & process to promote students' skills as self-regulated learners and to facilitate coaching conversations that result in the creation of useful, individualized learning plans.

Coaching conversations are designed to model reflective feedback cycle



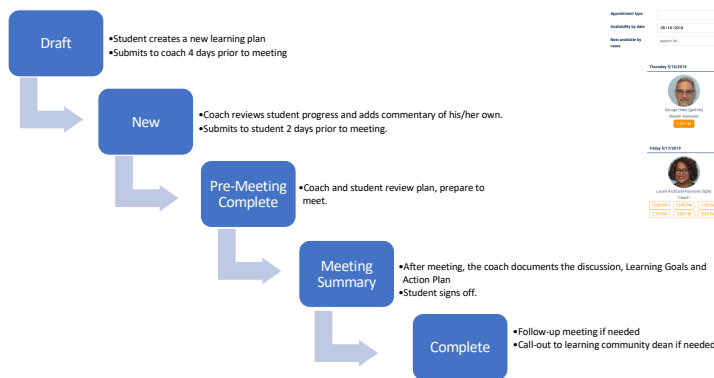
Stage of Implementation

The Coaching Program was implemented in July 2017. The following applications/solutions were developed and deployed to support the program:

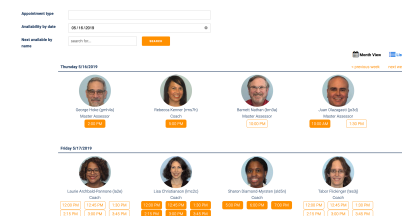
- Data visualizations of learners' clinical performance - OSCE assessments, clerkship grades and narratives, as well as data from Entrustable Professional Activities assessments.
- A simple scheduler/calendar to manage logistic and administrative issues.
- Learning Plans to facilitate students' reflective dialog, capture discussions of coaching meetings, and document individualized learning plans in a consistent manner.

Tools that support the process

Learning Plan Workflow



Scheduling



Next Steps

- Continued improvement of data visualizations to make the review of this data user-friendly for students and coaches.
- Formal evaluation of the content of the learning plans and determination of the impact of the use of plans/coaching on learner performance and skills in self-regulated learning

Selected References

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- Sargeant J, Armon H, Driessen E, et al. Evidence-informed facilitated feedback: the R2C2 feedback model. *MedEdPORTAL*. 2016;12:10387. <https://doi.org/10.15766/mep.2374-8265.10387>
- Zimmerman BJ. Self-Regulated learning and academic achievement: An overview. *Educational Psychologist*. 1990; 25:1, 3-17. DOI: [10.1207/s15326985ep2501_2](https://doi.org/10.1207/s15326985ep2501_2)

Technology

- **Progressive web applications**: .NET, TypeScript
- **Dashboards**: ChartJS, Plot.ly, Python, Pandas, Flask, Microsoft SSIS
- **Development methodology**: Lean DevOps

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