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Název

Assignment of external thesis (Process manual)

Popis a využití

- procesní manuál
- dokument se zabývá zadáváním a vedením závěrečných prací vedených ve spolupráci s externí firmou

Jazyk textu

- anglický

Autor (autoři)

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Oficiální stránka projektu:

- http://lasaris.fi.muni.cz/pps

Dostupnost výukových materiálů a nástrojů online:

- http://lasaris.fi.muni.cz/pps/study-materials-and-tools

Assignment of external thesis
Process manual

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Version 2.6

Introduction

This document describes the process of assignment, elaboration and evaluation of a thesis topic submitted by an industry partner of Faculty of Informatics. It should provide step-by step guidelines for all the participants through the whole process from the submission of a thesis topic to the completion of the thesis and successful handling of the results back to the industry partner. The aim is to improve the cooperation efficiency and to standardize the process. Process efficiency is measured by metrics and participants provide feedback which helps both the faculty and the industry partner to evaluate how successful the cooperation is.

Goals (why to follow the process):

- To provide standardized mechanism for assignment, elaboration and evaluation of external thesis topics proposed by industry partner
- To achieve win-win efficient cooperation with measurable results
- To provide feedback, which will help both sides to evaluate and improve cooperation to be more valuable

Objectives (how to achieve goals):

- Enable the partner to test the cooperation with the student and provide him insight into development process and used technologies

- Enable partner to leverage results of students work

- Provide valuable advisory for student

- Enable student to acquire good insight into partner's development process and used technologies

- Assure student's goals are aligned with Proposer's goals

- Set standardized communication between students and Advisor

- Set standardized periodic evaluation of the progress

- Assure all deliverables are properly handled to the Proposer

- Gather student's feedback about advisor

- Gather Proposer's feedback about student

Roles:

Proposer:
Proposer is a representative of an industry partner interested in submission of a thesis topic. In certain situations one person can represent both Proposer and Advisor roles.

Responsibilities:
- Submit a topic of diploma thesis
- Define time schedule of thesis, goals and expected results
- Interview student if necessary
- Agree with Supervisor/Advisor on student selection
- Assign Advisor for each topic

Supervisor:
Supervisor is usually a member of the faculty, an individual who is allowed to officially supervise Student's thesis.

Responsibilities:
- Approve topic proposed by Proposer
- Publish topic to university IS
- Interview and preselect Student
- Provide advisory to Student in formal aspects of thesis
- Supervise cooperation of the Student and the Advisor
- Approve Proposers request of Advisor change
- Submit his part of evaluation
- Handle any exceptional situations eventually terminate the process if something goes wrong
- Monitor Student's work and help them to comply with the faculty requirements (both formal and technical) on final theses
- Make sure that copyrights (or intellectual properties) are handled correctly – from both the faculty and Proposal points of view.

Advisor:
An individual chosen by Proposer supposed to help Student with technical aspects of the thesis. In certain situations one person can represent both Proposer and Advisor roles.

Responsibilities:
- Advise Student concerning technical aspects of thesis

- Make sure Student's goals are aligned with Proposer's goals
- Monitor Student's progress and keep Supervisor informed about it.
- Make sure deliverables meet requirements
- Submit feedback about Student
- Confirm that requested deliverables were delivered in requested quality
- Submit his part of thesis evaluation together with cooperation assessment
- Terminate process if something goes wrong

Student:
Student of university, interested in the submitted topic

Responsibilities:
- Choose a topic
- Pass an interview with Supervisor/Proposer/Advisor
- Consult desired goals and progress with Advisor
- Regularly report to Supervisor and Advisor
- Elaborate thesis according to Proposers and formal requirements
- Hand in finished thesis text to faculty administrative and requested deliverables to Proposer
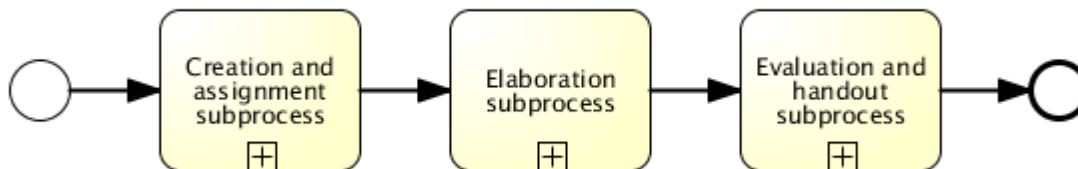- Write feedback about Advisor

Process efficiency metrics (KPI's)

- *Success rating* - how the Student achieved goals set by Proposer (filled by Advisor)
- *Deadline precession* – how the Student met deadlines (filled by Advisor)
- *Advisor rating* - how helpful Advisor was (filled by Student)
- *Communication rating* - efficiency of Student's communication between Student and Advisor (filled by Advisor, Student)
- *Knowledge gains* – knowledge acquired by Student during thesis elaboration (filled by Student)

Rating: 0 -15 pts

- F: failed completely
- D/E: lowest acceptable - very poor
- C: average
- A/B: excellent – as expected
- A+: overstep expectations significantly
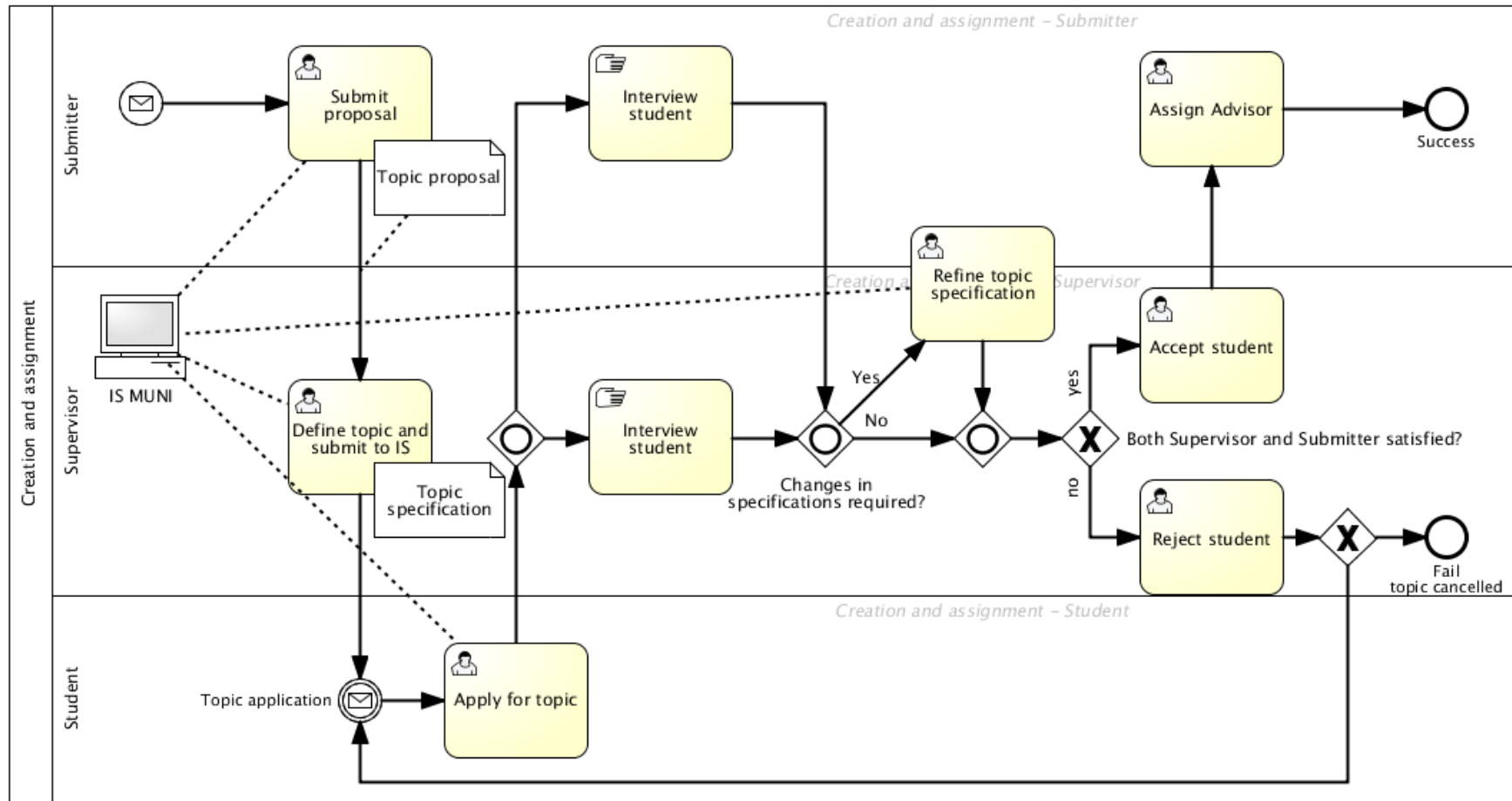
The process itself

The process consists of three basic sub-processes. There can be a termination inside each sub-process that terminates the whole process.

Creation and assignment sub-process table:

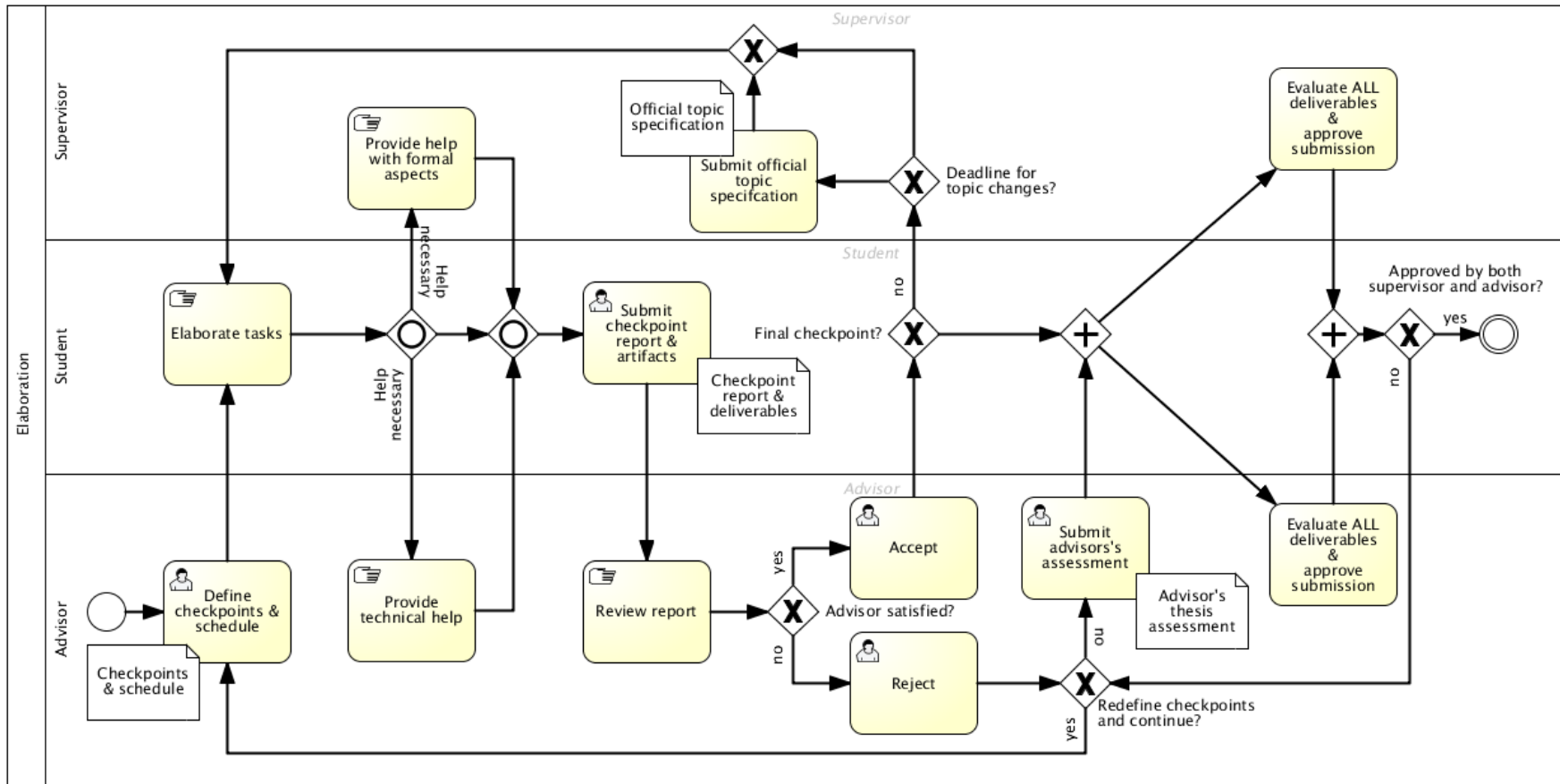| Process name	Creation and assignment sub-process
Description	Sub process is initiated by **Proposer**. **Proposer** posts *topic proposal* to particular **Supervisor**. If suggested, potential **Advisor** is assigned at this time. Proposal is refined by **Supervisor** and submitted to IS MUNI as *topic specification*. When a **Student** applies for the topic, both **Supervisor** and **Proposer or/and Advisor** interview Student to find out whether student's skills and interests match the *topic specification*. If necessary, some changes are made in *topic specification*. In case both of them are satisfied, **Student** is accepted and **Proposer** must assign **Advisor** if one is not assigned yet. In case **Student** is rejected, topic can be either canceled or offered to other students.
Inputs:	*Topic proposal*
Outputs:	*Topic specification*
Data objects:	*Topic proposal* consists at least of: • Goal of the thesis • Deliverables • Rough time schedule *Topic specification* has usual structure following faculty regulations.
Roles:	**Student, Supervisor, Proposer, Advisor**

Creation and assignment sub-process diagram:

Elaboration sub-process table:

Process name	Elaboration sub-process
Description	**Student** elaborates thesis in iterations with help of **Advisor** and **Supervisor**. **Advisor** defines *Checkpoints & schedule* for thesis elaboration, those are approved by **Supervisor**. Further **Student** elaborates defined tasks, consults formal aspects of thesis with **Supervisor** and technical aspects with **Advisor**. At the end of iteration the **Student** submits *Checkpoint report & deliverables* requested for particular checkpoint. **Advisor** reviews report and deliverables.
	In case **Advisor** is not satisfied, he either redefines checkpoints or after agreement of **Supervisor** terminates cooperation from his side and submits *Advisor's thesis assessment*, where he explains why **Student** did not succeed. In such case process can continue further, but without **Advisor** and his *Advisor's thesis assessment* is taken in account during thesis defense.
	In case **Advisor** is satisfied, he accepts the report. I there are more iteration planned sub-process proceeds to next iteration. The last iteration starts with faculty deadline for topic changes. Latest during final iteration **Supervisor** submits *Official topic specification*. In case Advisor accept report from the final checkpoint, all thesis deliverables (complete text + all developed artifacts) are evaluated by both **Advisor** and **Supervisor** who approve submission of completed thesis. If they approve, sub-process end, if not **Advisor** consider topic refinement same as above.
Inputs:	*Topic Specifications*
Outputs:	*Checkpoints and schedule*, *Official topic specification, Advisor's thesis assessment, Checkpoint reports & deliverables*

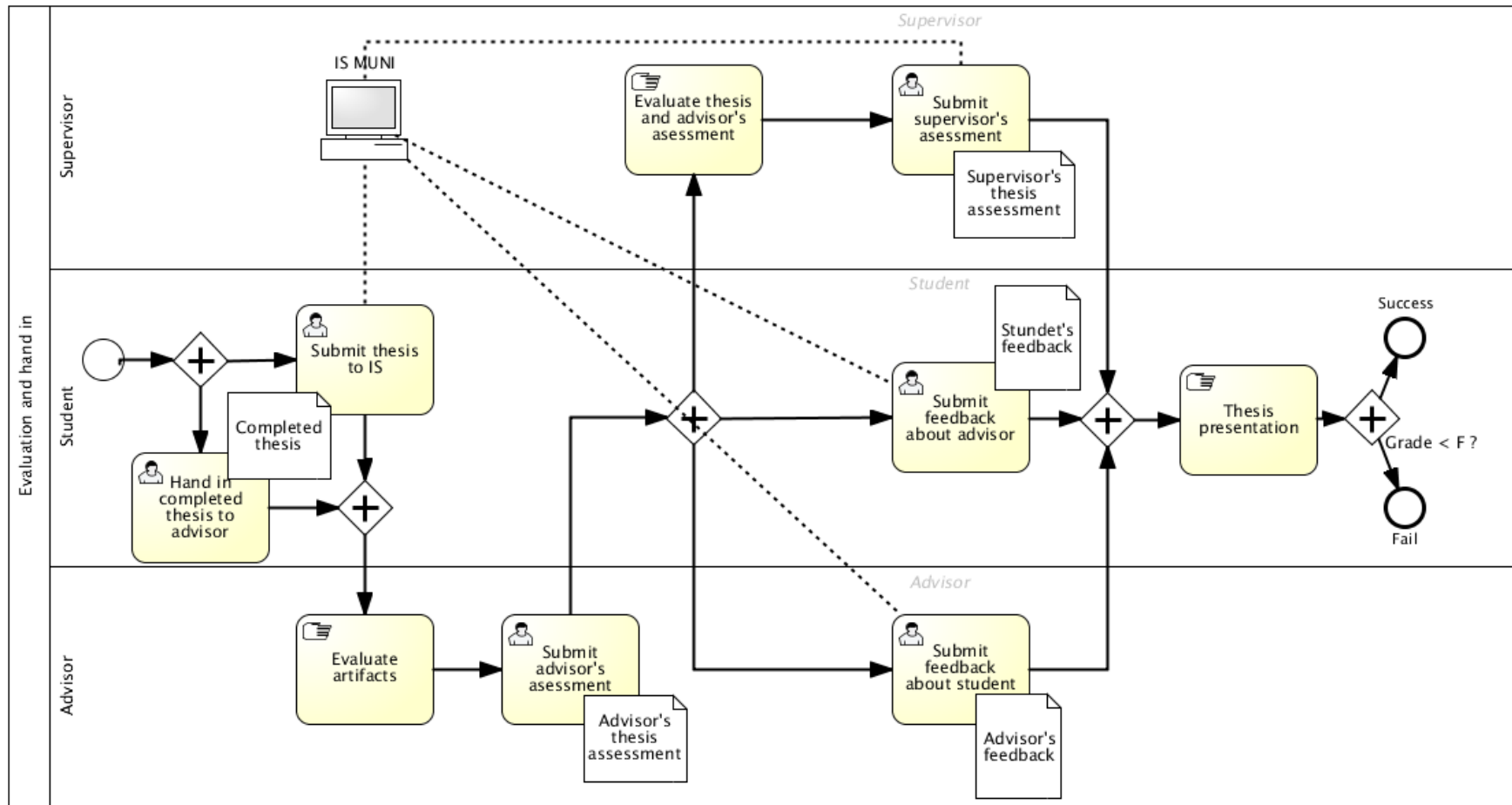| Data objects:	*Topic Specifications* and *Official topic specification* have usual structure following faculty regulations. *Checkpoints & schedule* describes: • All checkpoints and their time schedule • Tasks to be accomplished within each checkpoint • How tasks will be accomplished • Deliverables of each checkpoint • Deadline for checkpoint	*Checkpoint report & deliverables* contains: • Reports on how the tasks within a checkpoint were fulfilled and where the problems were • Student's intention for next checkpoint, if any • *Deliverables requested within the checkpoint* *Advisor's thesis assessment* consists at least of: • Evaluation of cooperation with student • Evaluation of deliverables quality and usability • Reason why cooperation was terminated in this phase of process.

Roles:	**Student, Supervisor, Advisor**

Elaboration sub-process diagram:

Hand in and evaluation sub-process table:

Process name	Hand in and evaluation sub-process
Description	Student's *Completed thesis* is submitted to IS MUNI and delivered to **Advisor**. **Advisor** evaluates delivered artifacts and submits *Advisor's thesis assessment*. The thesis is further evaluated by Supervisor who evaluates the thesis text and some of the deliverables, but takes in account *Advisor's thesis* assessment and submits his part of evaluation - *Supervisor's thesis assessment* to IS MUNI. At the same time Student writes *Student's feedback* about cooperation with Advisor and Advisor writes *Advisor's feedback* about Student. After that thesis is being presented and student receives a grade according to usual faculty process.
Inputs:	*Completed thesis*
Outputs:	*Advisor's thesis assessment, Supervisor's thesis assessment, Advisor's feedback , Student's feedback*
Data objects:	*Completed thesis* consists of: • thesis text meeting formal requirements for diploma thesis • deliverables requested by Proposer defined in *Thesis specifications* document • comments from Student describing gaps/problems of solution , if necessary *Supervisor's thesis assessment* has the usual form following faculty regulations. *Advisor's thesis assessment* consists of at least Evaluation of cooperation with student • Evaluation of deliverables quality and usability • Possibilities of further cooperation with student if there are any	*Student's feedback* should describe: • quality of provided help, how helpful was cooperation with Advisor/Supervisor • quality of topic specifications and how realistic they were • gains of topic elaboration, whether he/she has learned new things • Advisor rating, Communication rating, *Knowledge gains* *Advisor's feedback* should describe: • quality of cooperation with Student, how he was meeting deadlines and fulfilling goals • quality of deliverables • *Success rating, Communication rating, Involvement rating*
Roles:	Student, Supervisor, Advisor

Hand in and evaluation sub-process diagram:

Artifact responsibility matrix

RACI matrix for all involved roles and artifacts

(**R**esponsible, **A**ccountable, **C**onsulted, **I**nformed)	Proposer	Supervisor	Advisor	Student
Topic proposal	R	A	C	
Topic specification	A	R	C	
Official topic specification	I	A	R	C
Checkpoints & schedule	I	A	R	C
Checkpoint report & deliverables	I	C	C	A
Advisor's thesis assessment	A	C	R	
Supervisor's thesis assessment		A	C	I
Completed thesis - text		C	C	A
Completed thesis - artifacts		C	C	A
Student's feedback	I	I	I	A
Advisor's feedback	I	C	A	I

Detailed legend (http://en.wikipedia.org/wiki/Responsibility_assignment_matrix)