

DISCIPLINA MODELO DE DETECÇÃO DE INTERFERÊNCIAS

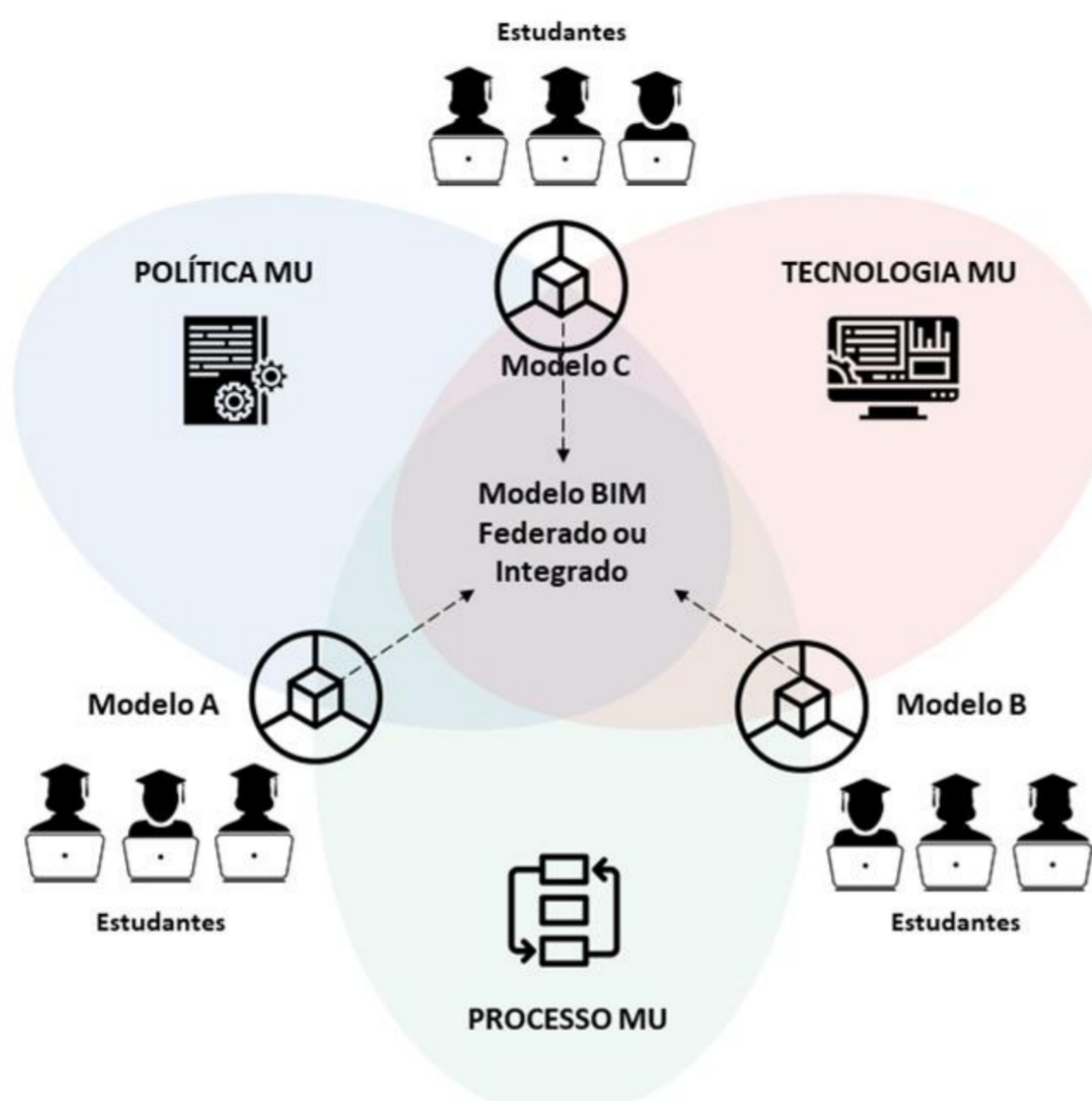


Fernanda A. Machado 1
Paula P. Mota 2
Lorena C. S. Moreira 3
Regina C. Ruschel 4

Modalidade: Planejamento de inserção de BIM na educação

ATIVIDADES

Dois tipos de competências são possíveis: a de conhecimento e a de habilidades. O conhecimento pode ser desenvolvido por discussões e seminários. As habilidades são competências de execução ou de domínio. A competência de execução gera uma habilidade instrumental (treinamento individual com tutoriais). As competências de domínio são essencialmente técnicas (análise e simulação) e funcionais (colaboração).

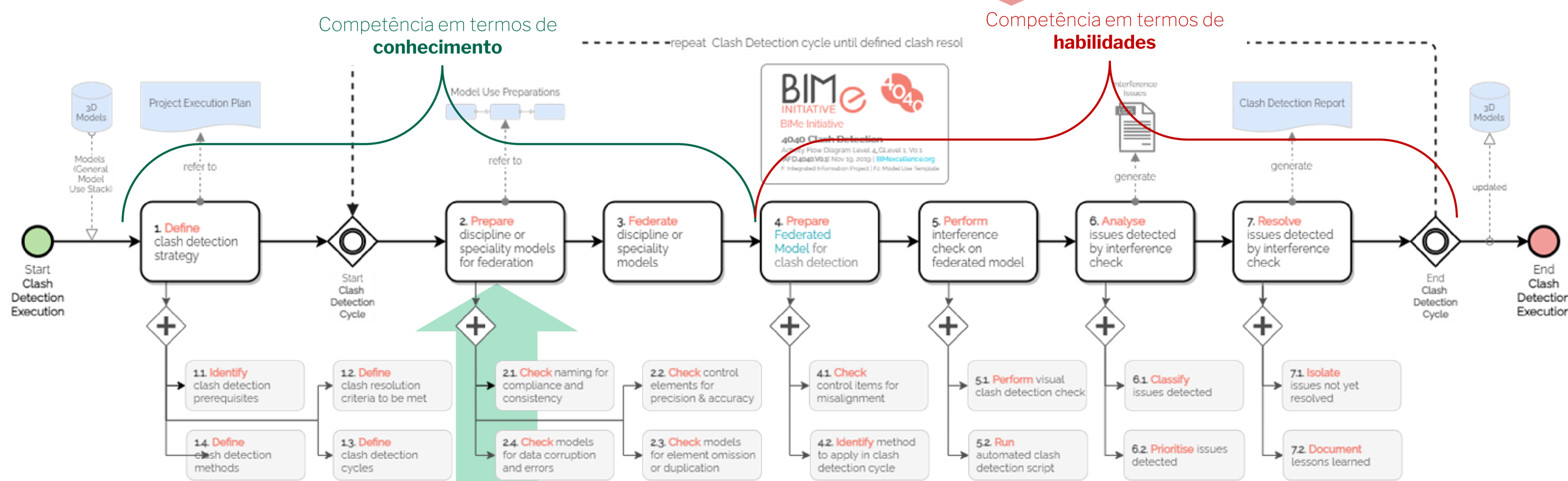


INTRODUÇÃO

Esse estudo apresenta a abordagem para educar, avaliar e assistir usos do BIM por meio do Templates de Uso do Model (Model Use Templates - MUT) da BIM Excellence Initiative (BIME). Propomos que o programa da disciplina modelo seja organizado pelas macro etapas do fluxo de atividade.

PROGRAMA DA DISCIPLINA

<https://bimdictionary.com/en/clash-detection/1>



Prepare discipline or speciality models for federation

- Define the File Naming Convention for each discipline model (*Level 3 Activity - included for reference*)
 - Check the file names of each discipline or speciality model for compliance against *defined* File Naming convention
- Define the elements within discipline or speciality models to be used as Control Elements (*Level 3 Task - included for reference*)
 - Check Control Elements within discipline or speciality models for accuracy and precision
- Check discipline or speciality models for element omission or duplication
- Check discipline or speciality models for data corruption and errors
 - Define the Data Schema for model components within each discipline model (*Level 3 Task - included for reference*)
 - Check components and systems of discipline or speciality models for compliance with *defined* Data Schema

DESENVOLVIMENTO

O professor deve preparar um **dataset** abarcando modelos com erros de não-conformidade. Ademais, os modelos devem incluir questões de todos os tipos de interferências (hard, soft e temporal). Os erros devem ser plausíveis de identificação por diferentes tipos de verificação: visual ou por **script**.

BIBLIOGRAFIA

O referencial teórico listado no template é a bibliografia básica da disciplina.

Dessa forma tem-se uma abordagem holística e representativa da prática de Detecção de Conflitos. Assim orientamos para fugir da compreensão desse uso de forma restrita e instrumental. A disciplina modelo pode ser desenvolvida em graduação, extensão ou em especialização lato sensu.

AGRADECIMENTOS

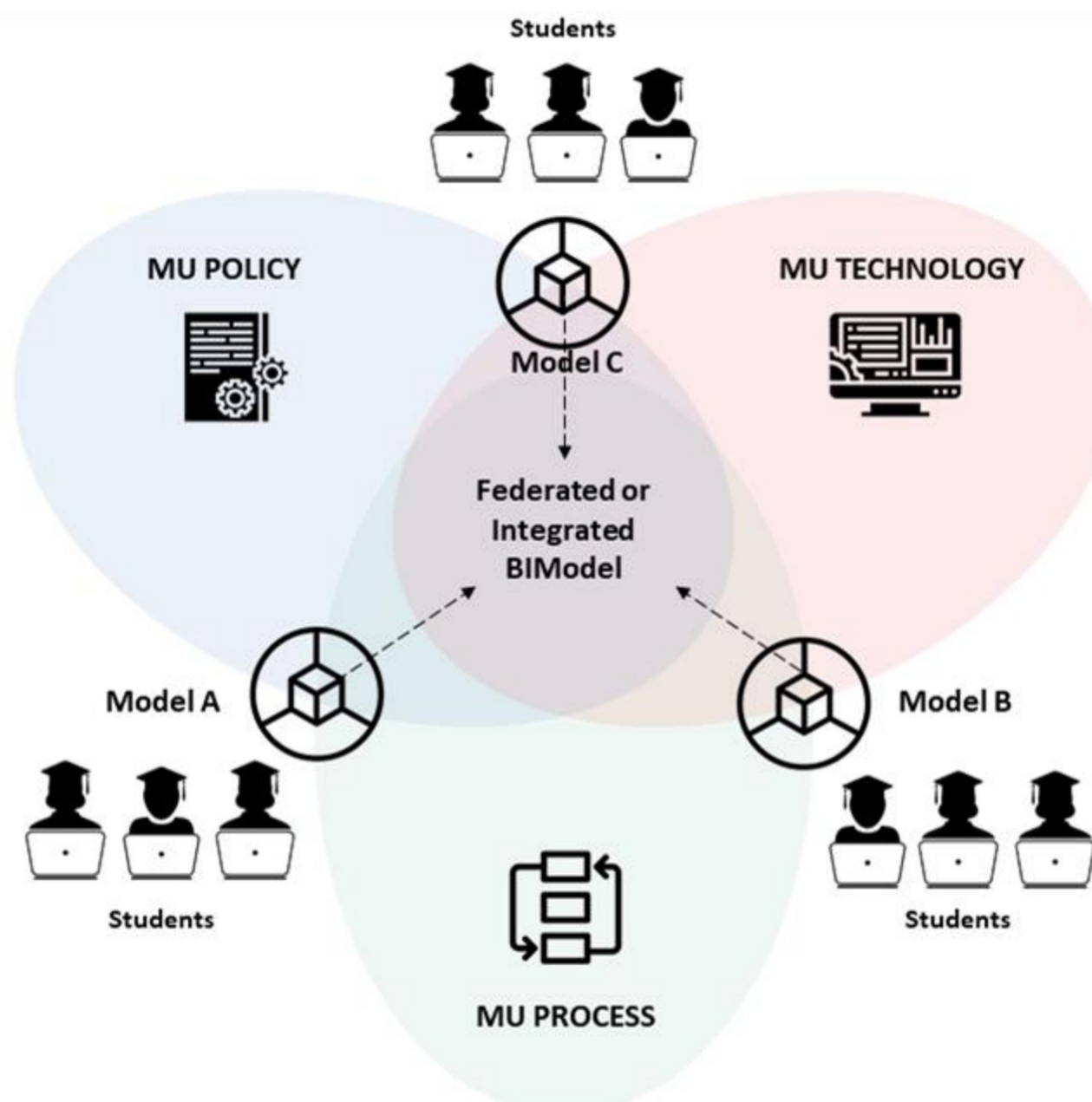
BIM Excellence Initiative (BIMEi) e Groupe BIM du Québec (GBQ).

TEMPLATE CLASS TO TEACH CLASS DETECTION

Modality: Planning the incorporation of BIM in education

ACTIVITIES

Two types of competency assessment are possible: knowledge and skills. Knowledge can be developed through discussions and seminars. Skills covered are associated with execution or domain skills. The execution competence generates an instrumental skill that can be provided through individual online training with tutorials. Domain skills are essentially technical (analysis and simulation) and functional (collaboration).



Fernanda A. Machado 1
Paula P. Mota 2
Lorena C. S. Moreira 3
Regina C. Ruschel 4

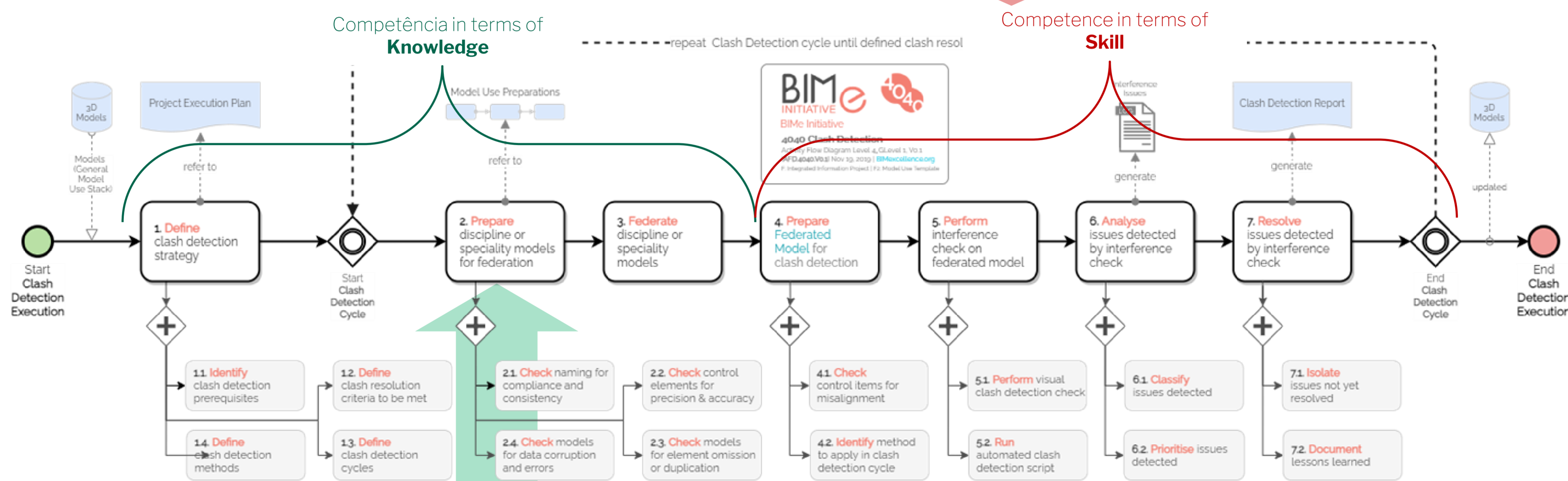
1- AUTODESK, fernanda.machado@autodesk.com
2- SIPPRO, paula.mota@sipropro.eng.br
3- UFBA, lorenasm@ufba.br
4- UNICAMP, ruschel@unicamp.br

INTRODUCTION

This study presents the approach to educate, evaluate and assist Model Users using templates (Model Use Templates - MUT) of the BIM Excellence Initiative (BIME). We propose to organize the class program by the macro stages of the activity flow.

CLASS PROGRAM

<https://bimdictionary.com/en/clash-detection/1>



Prepare discipline or speciality models for federation

- Define the File Naming Convention for each discipline model (*Level 3 Activity - included for reference*)
 - Check the file names of each discipline or speciality model for compliance against *defined* File Naming convention
- Define the elements within discipline or speciality models to be used as Control Elements (*Level 3 Task - included for reference*)
 - Check Control Elements within discipline or speciality models for accuracy and precision
- Check discipline or speciality models for element omission or duplication
- Check discipline or speciality models for data corruption and errors
 - Define the Data Schema for model components within each discipline model (*Level 3 Task - included for reference*)
 - Check components and systems of discipline or speciality models for compliance with *defined* Data Schema

DEVELOPMENT

The teacher should prepare a dataset including models with various errors (non-compliant naming, positioning, content). The models must also include issues of all types (hard, soft, and temporal interferences). Errors must be plausible to be identified by different types of verification: visual or script.

BIBLIOGRAPHY

The bibliography listed in the template is the basic bibliography of the course.

In this way, there is a holistic and representative approach the Clash Detection. Thus, we advise escaping this model's understanding in a restricted and instrumental way. One can develop the class at the level of graduation, extension, or continuing education. Being an undergraduate class, it can be mandatory or elective.

ACKNOWLEDGMENT

BIM Excellence Initiative (BIMEi) and Groupe BIM du Québec (GBQ).