

Questionnaire to evaluate usefulness and cognitive effort of the DSML4PTM

Please answer to the below sections as follows:

- section 1 and 2 **before** the introduction of DSML4PTM
- section 3, 4 and 5 **after** the introduction of DSML4PTM

Section 1: Questions on your general background

1.1 How old are you?	41
1.2 Select your highest achieved study degree	<input type="checkbox"/> Diploma degree <input type="checkbox"/> Bachelors degree <input type="checkbox"/> Masters degree <input checked="" type="checkbox"/> PhD
1.3 What's the field of your study degree?	Civil Engineering
1.4 What's your current job role/function?	Teacher University applied science

Section 2: Questions on modeling background

2.1 Have you ever dealt with any modeling languages (such as UML, BPMN, CMMN, DMN)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.2 Have you ever modelled any flow diagram?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.3 Have you ever dealt with the executability of modelling languages?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.4 What's your level of expertise in modeling Business Processes?	<input type="checkbox"/> Expert <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Beginner <input type="checkbox"/> None
2.5 What's your level of expertise in modeling Case Management?	<input type="checkbox"/> Expert <input type="checkbox"/> Intermediate <input type="checkbox"/> Beginner <input checked="" type="checkbox"/> None
2.6 What's your level of expertise in modeling Decision Logic (such as decision tables, business rules, decision models, Q-Charts)?	<input type="checkbox"/> Expert <input type="checkbox"/> Intermediate <input type="checkbox"/> Beginner <input checked="" type="checkbox"/> None
2.7 Which modelling languages did you hear of?	<input checked="" type="checkbox"/> BPMN <input type="checkbox"/> EPC <input type="checkbox"/> CMMN <input type="checkbox"/> Control Element Model <input checked="" type="checkbox"/> UML <input type="checkbox"/> Petri Net <input type="checkbox"/> DMN

	<input type="checkbox"/> SBVR <input type="checkbox"/> (SPARQL Inferencing Notation) <input type="checkbox"/> Document Model <input type="checkbox"/> Organization Model <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.8 Which modeling languages did you already use?	<input checked="" type="checkbox"/> BPMN <input type="checkbox"/> EPC <input type="checkbox"/> CMMN <input type="checkbox"/> Control Element Model <input checked="" type="checkbox"/> UML <input type="checkbox"/> Petri Net <input type="checkbox"/> DMN <input type="checkbox"/> SBVR <input type="checkbox"/> (SPARQL Inferencing Notation) <input type="checkbox"/> Document Model <input type="checkbox"/> Organization Model <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.9 Did you attend courses/trainings for any of these activities?	<input checked="" type="checkbox"/> Business processes modelling <input type="checkbox"/> Case management modelling <input type="checkbox"/> Decision logic modelling <input type="checkbox"/> Organization modelling <input type="checkbox"/> Documents/Knowledge modelling <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.10 Have you ever heard of any domain-specific modelling (DSML) approaches?	<input checked="" type="checkbox"/> Yes, (please specify) <i>ok</i> <input checked="" type="checkbox"/> No
2.11 Do you know the benefits of a domain-specific modeling language?	<input checked="" type="checkbox"/> Yes <i>ok</i> <input checked="" type="checkbox"/> No <input type="checkbox"/> Not sure

Section 3: Evaluation of the usefulness of DSML4PTM

3.1 Do you see the usefulness (for the domain) of the DSML4PTM?

☐ Yes, (please specify why and list at least 3 aspects that make it useful)

Simplicity in the modelling
Specific application for a domain
Given decision model
Reduction of mistakes

☐ No, (please specify why)

3.2 Do you see potential for improvement of the language or any missing aspects?

☐ Yes, (please specify aspects to be improved)

it is difficult to understand, where one should use a sentry or a gateway
The goal should be to eliminate the gateways for the simplicity

☒ No

3.3 What's your impression of the proposed language?

very interesting

Section 4: Evaluation of the cognitive effort of the DSML4PTM

<p>4.1 Did you have difficulties in understanding the DSML4PTM elements?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you encountered and list some suggestions for improving the understanding of language elements)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input checked="" type="checkbox"/> No</p>
<p>4.1 Did you have difficulties in understanding models (reference model and use case scenario) expressed in DSML4PTM?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you have encountered and list suggestions for improving the understanding of the models)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input checked="" type="checkbox"/> No</p>
<p>4.2 Did you have difficulties to adapt the proposed scenario?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you have encountered)</p> <p>.....</p> <p>The make is not different, it is necessary to study this before one can apply it / Some training is needed</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
<p>4.3 Do you think the applicability of the language should improve?</p>	<p><input type="checkbox"/> Yes, (please specify the aspects to improve in terms of the applicability)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>

	<p>No</p> <p>To early phase</p>
4.4 What is your impression on the ease-of-use of the modelling language?	<p>Good</p>

Section 5: Evaluation of the session/focus group

Very interesting. I have seen the possibility to transfer the idea to other projects.

5.2 Do you think the session should improve?

☐ Yes, (please describe aspects to improve)

5.3. Which target group would you recommend for the next evaluation session?

The users /
The developers

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Section 1: Questions on your general background

1.1 How old are you?	
1.2 Select your highest achieved study degree	<input type="checkbox"/> Diploma degree <input checked="" type="checkbox"/> Bachelors degree <input type="checkbox"/> Masters degree <input type="checkbox"/> PhD
1.3 What's the field of your study degree?	<i>Informatik</i>
1.4 What's your current job role/function?	<i>Wiss. Mitarbeiter</i>

Section 2: Questions on modeling background

2.1 Have you ever dealt with any modeling languages (such as UML, BPMN, CMMN, DMN)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.2 Have you ever modelled any flow diagram?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.3 Have you ever dealt with the executability of modelling languages?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.4 What's your level of expertise in modeling Business Processes?	<input type="checkbox"/> Expert <input type="checkbox"/> Intermediate <input checked="" type="checkbox"/> Beginner <input type="checkbox"/> None
2.5 What's your level of expertise in modeling Case Management?	<input type="checkbox"/> Expert <input type="checkbox"/> Intermediate <input checked="" type="checkbox"/> Beginner <input type="checkbox"/> None
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	<input type="checkbox"/> SBVR <input checked="" type="checkbox"/> (SPARQL Inferencing Notation) <input checked="" type="checkbox"/> Document Model <input checked="" type="checkbox"/> Organization Model <input type="checkbox"/> None <input checked="" type="checkbox"/> Others (please specify) <u>None, KPI</u>
2.8 Which modeling languages did you already use?	<input checked="" type="checkbox"/> BPMN <input type="checkbox"/> EPC <input checked="" type="checkbox"/> CMMN <input type="checkbox"/> Control Element Model <input checked="" type="checkbox"/> UML <input checked="" type="checkbox"/> Petri Net <input type="checkbox"/> DMN <input type="checkbox"/> SBVR <input checked="" type="checkbox"/> (SPARQL Inferencing Notation) <input checked="" type="checkbox"/> Document Model <input checked="" type="checkbox"/> Organization Model <input type="checkbox"/> None <input type="checkbox"/> Others (please specify) <u>KPI</u>
2.9 Did you attend courses/trainings for any of these activities?	<input type="checkbox"/> Business processes modelling <input type="checkbox"/> Case management modelling <input type="checkbox"/> Decision logic modelling <input type="checkbox"/> Organization modelling <input type="checkbox"/> Documents/Knowledge modelling <input type="checkbox"/> None <input checked="" type="checkbox"/> Others (please specify) <u>UML</u>
2.10 Have you ever heard of any domain-specific modelling (DSML) approaches?	<input checked="" type="checkbox"/> Yes, (please specify) <u>Ontologies, Matlab</u> <input type="checkbox"/> No
2.11 Do you know the benefits of a domain-specific modeling language?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure

Section 3: Evaluation of the usefulness of DSML4PTM

<p>3.1 Do you see the usefulness (for the domain) of the DSML4PTM?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify why and list at least 3 aspects that make it useful)</p> <ul style="list-style-type: none">- Common shared model for discussion- Base for automated verification- Base for Collaboration and integration- Easier modelling for domain experts not modelling experts <p><input type="checkbox"/> No, (please specify why)</p>
<p>3.2 Do you see potential for improvement of the language or any missing aspects?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify aspects to be improved)</p> <p>Catalogues or Reference data (ex. Def. Reba) should be externalized. For instance in an ontology or database</p> <p><input type="checkbox"/> No</p>
<p>3.3 What's your impression of the proposed language?</p>	<p>Very interesting, good graphics, not too many specific elements. It's still learnable in a reasonable amount of time</p>

Section 3: Evaluation of the usefulness of DSML4PTM

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<p>3.3 What's your impression of the proposed language?</p>	<p>Very interesting, good graphics, not too many specific elements. It's still learnable in a reasonable amount of time</p>

Section 4: Evaluation of the cognitive effort of the DSML4PTM

<p>4.1 Did you have difficulties in understanding the DSML4PTM elements?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you encountered and list some suggestions for improving the understanding of language elements)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input checked="" type="checkbox"/> No</p>
<p>4.1 Did you have difficulties in understanding models (reference model and use case scenario) expressed in DSML4PTM?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify the difficulties that you have encountered and list suggestions for improving the understanding of the models)</p> <p>Some modelling elements were not clear for me (ex. equal synchron tasks like the "Perform Rehd Conference")</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
<p>4.2 Did you have difficulties to adapt the proposed scenario?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify the difficulties that you have encountered)</p> <p>Difficult to choose between gateway and sentry for decisions and flow.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
<p>4.3 Do you think the applicability of the language should improve?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify the aspects to improve in terms of the applicability)</p> <p>I'm for continuous improvement, or in other words it's worth it.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Section 4: Evaluation of the cognitive effort of the DSML4PTM

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<p>4.1 Did you have difficulties in understanding models (reference model and use case scenario) expressed in DSML4PTM?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify the difficulties that you have encountered and list suggestions for improving the understanding of the models)</p> <p><i>Some modelling element's were not clear for me (ex. equal synchron tasks like the "Perform Rehearsal Conference")</i></p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p><input type="checkbox"/> No</p>
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	<p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
4.4 What is your impression on the ease-of-use of the modelling language?	<p>Abstractions, default values, ref extra replaceable processes, specific model elements, all this supports for me the ease-of-use.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Section 5: Evaluation of the session/focus group

5.1 How was the overall focus group experience?	<p>Good introduction. Small group enabled discussions.</p>
5.2 Do you think the session should improve?	<p><input checked="" type="checkbox"/> Yes, (please describe aspects to improve)</p> <p>Mix of group (other experts) Clinical experts</p> <p><input type="checkbox"/> No</p>
5.3. Which target group would you recommend for the next evaluation session?	<p>Hospital admin, doctor, insurance &</p>

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1.3 What's the field of your study degree?	Digital Health
1.4 What's your current job role/function?	Prof. Dr. → Lecturer

Section 2: Questions on modeling background

2.1 Have you ever dealt with any modeling languages (such as UML, BPMN, CMMN, DMN)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.2 Have you ever modelled any flow diagram?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.3 Have you ever dealt with the executability of modelling languages?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
2.4 What's your level of expertise in modeling Business Processes?	<input checked="" type="checkbox"/> Expert <input type="checkbox"/> Intermediate <input type="checkbox"/> Beginner <input type="checkbox"/> None
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	<input type="checkbox"/> SBVR <input type="checkbox"/> (SPARQL Inferencing Notation) <input type="checkbox"/> Document Model <input checked="" type="checkbox"/> Organization Model <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.8 Which modeling languages did you already use?	<input checked="" type="checkbox"/> BPMN <input checked="" type="checkbox"/> EPC <input type="checkbox"/> CMMN <input type="checkbox"/> Control Element Model <input checked="" type="checkbox"/> UML <input type="checkbox"/> Petri Net <input checked="" type="checkbox"/> DMN <input type="checkbox"/> SBVR <input type="checkbox"/> (SPARQL Inferencing Notation) <input type="checkbox"/> Document Model <input type="checkbox"/> Organization Model <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.9 Did you attend courses/trainings for any of these activities?	<input checked="" type="checkbox"/> Business processes modelling <input type="checkbox"/> Case management modelling <input type="checkbox"/> Decision logic modelling <input type="checkbox"/> Organization modelling <input type="checkbox"/> Documents/Knowledge modelling <input type="checkbox"/> None <input type="checkbox"/> Others (please specify)
2.10 Have you ever heard of any domain-specific modelling (DSML) approaches?	<input checked="" type="checkbox"/> Yes, (please specify) <i>Health (TU Dresden)</i> <input type="checkbox"/> No
2.11 Do you know the benefits of a domain-specific modeling language?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not sure

Section 3: Evaluation of the usefulness of DSML4PTM

3.1 Do you see the usefulness (for the domain) of the DSML4PTM?	<p><input checked="" type="checkbox"/> Yes, (please specify why and list at least 3 aspects that make it useful)</p> <p><i>Simplifies</i></p> <ul style="list-style-type: none">- simplifies the modeling process- Useful as communication tool for discussions with domain experts- Leads to use better process quality <p><input type="checkbox"/> No, (please specify why)</p> <p><i>But: It must provide automation gap the implementation bridge by providing some automation constructs</i></p>
3.2 Do you see potential for improvement of the language or any missing aspects?	<p><input type="checkbox"/> Yes, (please specify aspects to be improved)</p> <p><i>- modeling guidelines for using the new constructors</i></p> <p><input type="checkbox"/> No</p>
3.3 What's your impression of the proposed language?	<p><i>To early to judge 😊</i></p> <p><i>But it seems to be a very good start, at least</i></p>

Section 4: Evaluation of the cognitive effort of the DSML4PTM

<p>4.1 Did you have difficulties in understanding the DSML4PTM elements?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you encountered and list some suggestions for improving the understanding of language elements)</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p><input checked="" type="checkbox"/> No</p>
<p>4.1 Did you have difficulties in understanding models (reference model and use case scenario) expressed in DSML4PTM?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you have encountered and list suggestions for improving the understanding of the models)</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p><input checked="" type="checkbox"/> No</p>
<p>4.2 Did you have difficulties to adapt the proposed scenario?</p>	<p><input type="checkbox"/> Yes, (please specify the difficulties that you have encountered)</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <p><input checked="" type="checkbox"/> No</p>
<p>4.3 Do you think the applicability of the language should improve?</p>	<p><input checked="" type="checkbox"/> Yes, (please specify the aspects to improve in terms of the applicability)</p> <p>See P.A.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

	<p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
4.4 What is your impression on the ease-of-use of the modelling language?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Section 5: Evaluation of the session/focus group

5.1 How was the overall focus group experience?	<p>.....</p> <p>Very good, thank you!</p> <p>much stuff to think about it</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
5.2 Do you think the session should improve?	<p><input type="checkbox"/> Yes, (please describe aspects to improve)</p> <p>.....</p> <p>good contribution for DSMC</p> <p>for the health - domain</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input type="checkbox"/> No</p>
5.3. Which target group would you recommend for the next evaluation session?	<p>.....</p> <p>Proof of understanding with</p> <p>domain experts</p> <p>.....</p> <p>.....</p> <p>.....</p>