# Classification View Team – a selection of emails that regards ISCED in relation to the model

## Email from Dan Gillman to Hilde 2014-09-09,

 **Attachment: Classification Fragments.pptx**

Sorry this has taken me so long. First, I was able, finally, to see the natural way to include fragments and their mappings to statistical classifications in Neuchâtel. Fragments can be described just as statistical classifications can, and the mapping is done through the use of correspondence tables. This is simple, probably everyone else saw this possibility right away, but I guess I had to go through several steps first.

There is a shortcoming with Neuchâtel, though. We need to add a relationship on Classification Item to itself so we can account for the structure – the relationships each Item may have with others. They are only deducible from some code structure that may not exist in the current model. Plus, there is the need to map some Items to parents that cross over a Level.

 I worked this out through an example in a PowerPoint file I have attached. There, I used a made up example for carpentry tools. I hope it is not too detailed. I included a fragment that is attached to the end of the bottom level.

 Let me know if this is useful.

 Yours,

 Dan

## Email from Hilde to Classification group 2014-09-11

**Attachments: Classification Fragments.pptx, What is special with ISCED.docx**

Dear all,

I am happy to invite you to a virtual meeting with the purpose of discussing The International Standard Classification of Education (ISCED) in relation to the DDI4 classification view currently under development, as agreed at the Classification View Team meeting the 10th of September.
I am also very happy that Achim Wackerow has agreed to take part in a virtual meeting with the group on this topic.

It would be good if this meeting could be held sometime in September (except in the week of 15th September which would not be possible for us).

Please respond to the doodle poll at <http://doodle.com/fdr6kiwaney5zsr8> to indicate your availability for this meeting.

I tried to avoid timings that would start earlier than 7AM or later than 23PM for somebody. The exception is the date of Wednesday the 24th of September.

There is then planned a regular group meeting at 13:00PM CET (please correct me if I am wrong). An idea could be to have a longer meeting on that day, including a broader ISCED discussion, starting a half hour earlier than planned and lasting somewhat longer than a regular meeting.

This alternative applies only if you think this would make sense.

The planned meeting will be set up either as a goto meeting by Mary if this is possible, or as

an Adobe Connect meeting by me. I’ll get back to you later with the link to the virtual meeting room.

The background to discuss ISCED is that is that this classification seems to be special compared to other classifications in several ways, and that there is interest that the DDI4 model under development should take ISCED into consideration.
I have tried to describe what I believe to be the main differences in the document ‘What is special with ISCED’ that I forwarded to you yesterday.
This is again attached to this email. Dan Gillman has currently been looking into the ISCED use-case and has kindly provided a powerpoint presentation ‘Classification Fragments’ that describes possible handling of ‘fragments’ (Dan’s terminology) or ‘cross-classification variables’( ISCED terminology), using a different example. Dan has also identified some implication of this for the Neûchatel terminology model that are specified by in his presentation.

For the forthcoming meeting, please read my document and let me know if you agree with my interpretations of what makes ISCED special.

If we agree on what is special with ISCED compared to other classifications, this could be used for deriving implications for the model currently under development, and perhaps for existing models?

Dan has already been focusing the fragment or cross-classification issues. Please familiarize yourself with Dan’s proposal. Do you think other issues would need to be addressed aswell, and if so, how?

Looking forward to the planned meeting, and please feel free to provide input and discuss in advance.

 Best wishes,

Hilde

## Email from Hilde to Classification group 2014-09-23

**Attachments: Challenges with ISCED mappings for Norway.docx, ISCMAP13\_NO\_100914**

### Dear all,Please find attached some material for the planned ISCED meeting.This is an almost final draft of the ISCED 2011 mapping developed in collaboration between Statistics Norway, UiS and the OECD - now at evaluation by Eurostat.As you see this table contains the names of national educational programmes, which is the unit to be coded (column D), ISCED 2011 3-digit code (column P), ISCED 1997 alphanumerics (column O), values on a set of variables that represent proxy criteria for the coding of ISCED, and more.From the challenges described in the 'Challenges with ISCED 2011 mapping for NORWAY.docx' we realise how important these mappings- and the transparency they offer is for projects and coders using ISCED.In ISCED, the mappings are regarded as part of the standard. Question for the meeting about ISCED and the classification model: Would it be a goal that the Classification model contain structures that cover building of similar mappings, and if yes, how?Best wishes,Hilde

### Email from Hilde to Classification group 2014-09-24

### Dear all,I would prefer that more things are clarified before the classification model is decided on.In my view the new DDI Classification model should be able to cover the ISCED case well, so this needs to be looked further into by all. I am looking forward to the planned meeting with Achim and the Classification group on the ISCED case. This meeting is planned but not yet scheduled.Other things that would be good to know before the classification model is decided on is for example what Comparison should be in the new DDI? Would we need a new element 'Coding map', in addition to comparison, to cover complex coding specifications like the official ISCED mappings?It would also be good if it could be decided (perhaps on a broader- or higher level than the group level?) what the definitions and relationships of central elements should be, for example Level ,Code/Value, as mentioned by Helen in her email below.In short, in my view this work would require some more time.Best wishes,Hilde

## Email from Flavio to Classification group 2014- 09- 24

### I agree. What I meant is that we should start with GSIM and extend it as necessary to cover the examples rather than trying to reconcile what we have in Drupal with GSIM and the examples. But again, this is just a proposal.Flavio

## **Email from Dan to Classification group 2014-09-25**

Comment,HO: There was a virtual meeting with the group on the 24th. I was not feeling well so I did not take part in that meeting.

Group,

My homework was to list changes we need to make to the GSIM Classification Model (Neuchâtel) in order to satisfy needs of DDI. As far as I can tell, there are 3 changes necessary (unless I am forgetting something, which has a high probability of occurring). These are

1)      Add attribute to Statistical Classification – indicator for Fragments (re-usable hierarchies). It makes sense to use Statistical Classification for Fragment since a Fragment has the same structure as a Statistical Classification.
2)      Lift Map and Correspondence Table to be linked at Node and Node Set, respectively, rather than Classification Item and Statistical Classification, where they currently sit. The relationships between CT and NS should mirror the relationships between Map and Node. They currently don’t.
3)      Add an attribute to the relationship between Designation and Node to indicate what kind of Designation is being related. Designations come in kinds: term (alphanumeric strings that correspond to words in some natural language), code (non-linguistic alpha-numeric strings associated with categories), name (alphanumeric strings that correspond to names of things in natural language, e.g., Saturn), pictograms (graphic symbols that convey meaning), etc.

I think Fragments and the use of Correspondence Tables and Maps to link them appropriately to Statistical Classifications is sufficient to handle the requirements imposed by ISCED. There may be some case I don’t understand that renders this incomplete, but it seems to be on the right track and a partial solution at worst.

Yours,
Dan

## Email from Helen to Dan and Classification group 2014-09-26

Hi Dan,

Thanks for sending this through already! I just have a couple of questions/clarifications for each point...
Firstly, overall, are these changes that we want to put forward as things that need to be updated in GSIM, or suggestions for things that could be implemented in DDI4 that build on what is already available in GSIM? As, if the former, I'm not sure whether there is actually an avenue to pursue providing feedback to GSIM itself?

For the specific points:

1) Is this for the ISCED scenario? If so, I know during our discussions we've started to refer to what ISCED calls 'variables' as 'fragments' (to differentiate between them and the GSIM variables), but DDI also uses the term Fragment for a particular purpose already - could we run into the same problem of have two different 'fragments'?

2) We don't need to push this forward, it is already included in GSIM v1.1. In the Neuchatel annex it still refers to Correspondence Table and Map in reference to Statistical Classifications and Classification Items, but in the wider GSIM model we have already 'lifted' the links up to the Node Set and Node objects. You can see it in this picture of Clickable GSIM: [http://www1.unece.org/stat/platform/display/GSIMclick/Concepts+Group](http://www1.unece.org/stat/platform/display/GSIMclick/Concepts%2BGroup)

3) Does this need to be an attribute of the relationship between the Designation and Node (is that actually possible?) or is it an attribute of the Designation itself? Ie, Could the Node "Australia" be associated with a Designation "AU" which is typed as "Abbreviation" - Would the Designation of "AU", type = "Abbreviation" be used in any other way? Would the use of AU as the chemical symbol for Gold be a different Designation to AU as an Abbreviation for Australia?

Sorry if that doesn't make sense - Its a little rushed!

Helen

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## Email from Dan to Helen and the group 2014-09-27

## Helen,

I am not proposing changes to GSIM. These additions are for DDI-4.

1)      ISCED is the one example we know that needs fragments, but there may be others. I expect so. If the term “fragment” is already in use, let’s propose something else. I need to think about what might make sense to me. Others should feel free to chime in.

2)      OK. Maybe we should make sure the relationships are consistent.

3)      First, each use of AU as a designation has the underlying concept associated with it. But, the dual usage is a homograph. I agree the GSIM modelers made instantiated relationships out of bounds. However, conceptually that is what is needed. A designation can appear in many statistical classifications, and it may have a different role in each. For instance, what is a short label in one classification may be a long label in another. See my responses in red appended by your question below.

 I hope this helps.

As for a replacement for fragment, my first question is how is fragment used elsewhere in DDI? We could use “classification fragment”, “hierarchy fragment”, or “concept system fragment”, however each of those is a mouthful. MS-Word suggests “sliver” as a synonym for fragment. That might work. Merriam-Webster on-line suggests the following as synonyms: [cantle](http://www.merriam-webster.com/dictionary/cantle), [shred](http://www.merriam-webster.com/dictionary/shred), [tatter](http://www.merriam-webster.com/dictionary/tatter); [end](http://www.merriam-webster.com/dictionary/end), [leftover](http://www.merriam-webster.com/dictionary/leftover), [oddment](http://www.merriam-webster.com/dictionary/oddment), [remainder](http://www.merriam-webster.com/dictionary/remainder), [remnant](http://www.merriam-webster.com/dictionary/remnant), [stub](http://www.merriam-webster.com/dictionary/stub); [portion](http://www.merriam-webster.com/dictionary/portion), [section](http://www.merriam-webster.com/dictionary/section), [segment](http://www.merriam-webster.com/dictionary/segment); [chip](http://www.merriam-webster.com/dictionary/chip), [flake](http://www.merriam-webster.com/dictionary/flake), [shard](http://www.merriam-webster.com/dictionary/shard), [shatter](http://www.merriam-webster.com/dictionary/shatter), [shiver](http://www.merriam-webster.com/dictionary/shiver), [sliver](http://www.merriam-webster.com/dictionary/sliver), [splinter](http://www.merriam-webster.com/dictionary/splinter); [clipping](http://www.merriam-webster.com/dictionary/clipping), [paring](http://www.merriam-webster.com/dictionary/paring), [shaving](http://www.merriam-webster.com/dictionary/shaving); [atom](http://www.merriam-webster.com/dictionary/atom), [crumb](http://www.merriam-webster.com/dictionary/crumb), [dribble](http://www.merriam-webster.com/dictionary/dribble), [fleck](http://www.merriam-webster.com/dictionary/fleck), [flyspeck](http://www.merriam-webster.com/dictionary/flyspeck), [grain](http://www.merriam-webster.com/dictionary/grain), [granule](http://www.merriam-webster.com/dictionary/granule), [molecule](http://www.merriam-webster.com/dictionary/molecule), [morsel](http://www.merriam-webster.com/dictionary/morsel), [mote](http://www.merriam-webster.com/dictionary/mote), [nubbin](http://www.merriam-webster.com/dictionary/nubbin), [nugget](http://www.merriam-webster.com/dictionary/nugget), [particle](http://www.merriam-webster.com/dictionary/particle), [patch](http://www.merriam-webster.com/dictionary/patch), [scruple](http://www.merriam-webster.com/dictionary/scruple), [snip](http://www.merriam-webster.com/dictionary/snip), [snippet](http://www.merriam-webster.com/dictionary/snippet), [speck](http://www.merriam-webster.com/dictionary/speck), [tittle](http://www.merriam-webster.com/dictionary/tittle). Many of these are possibilities. Let’s hear from the group.

Yours,

Dan

##  Email from Hilde to Classification group 2014-09-29

### Dear all,

Please find some comments from me regarding the current draft of the Classification view below.

Thank you very much, Dan for providing a proposal for handling ISCED in the current model as well as to you, Helen for updating the view.

I agree with you, Dan that the complementary dimensions or cross-classification variables of ISCED should be regarded as reusable objects in the model.
These object would form part of a whole (the Statistical classification).

Dan calls the cross-classification variables of ISCED ‘fragments’ and suggest them be usages of Statistical classifications, as they have the same properties (please correct me if I’m wrong).
However, as far as I can see, in ISCED, the cross-classification variables are all one-dimensional. “Levels of education”, the two variants of “Orientation”, “Position in the national degree structure” have only one classification level each.
For this reason these objects could, but need not, be viewed as statistical classifications?
If they were made a different object (for example called Segment) in the model or view, wouldn’t their relationship to the statistical classification they make up part of (in this case ISCED) be made more explicit?
Wouldn’t Segment have a relationship to Level as well as to Item of the classification? Do you think it would make sense to explore this possibility?

A second comment regards which comparison possibilities DDI should offer that could be useful for the classification view.
For ISCED (and other possible classifications that require that for example national units are coded into an international framework, like legal marital status, relationship status or religious denominations) a grid like mapping structure that allows to add a variety of dimensions related to the coding of the units into the classification would be of great help (the dimensions could for example represent the recommended classification code for each unit, their value related to each of the possible classification Segments (or Fragments), their value on a set of variables that are not part of the classification, but needed to be able to code the unit into it etc.

In addition, objects are needed that makes it possible to compare versions or variants of a classification.

In my view it is important that comparisons and other objects of general use for DDI are decided on a higher or broader basis than that of each view.
This applies for comparison possibilities, but perhaps also for other objects and relationships in our model that currently is not yet in DDI?

I hope you are interested that we continue to discuss this in meetings for some time still.
Achim would not have time for a virtual meeting on ISCED just now, but he is interested in our work and suggests that he and Arofan could have a virtual meeting with us in November, in case any open issues in our work need further clarification.

In my view it could also be useful to get some input on our work from people with experience from the ISCED/UOE education survey ‘stakeholder’ side, for example:

Michael Bruneforth: <https://www.bifie.at/user/bruneforth-michael>

Bo Sundgren: <http://www.statistics.su.se/om-oss/kontakt/institutionens-medarbetare/bo-sundgren/sundgren-bo-1.106912>

If you prefer to send in the current version of the Classification view to the project manager just now, will you please call it a draft, and include any comments - including mine above?

Looking forward to hearing from you. Will we meet again on Wednesday October 8th?

Kind regards,

Hilde

## Email from Helen to Classification group 2014-10-02

**Attachments: GSIM conceptual mapping.xlx, DDI4\_FINAL.pdf**

### Hi Everyone,I've had a go at updating the diagram we had (have included both visio and pdf versions, and the spreadsheet of changes that we want to put forward.I hope the diagram is clear, I've tried to move it around a little to get it a bit clearer, and also try and add some more of the semantics and the cardinalities for the relationships based on what is in GSIM. Hopefully it is clear!I have also added a few other relationships that we didn't discuss - namely the 'self referential' relationships on the Statistical Classification and the Node. Not sure whether we need them or not (also I might have missed one on Node Set if we do include them).I've also updated a few points in the spreadsheet, of changes that we need to put forward.As of today I'm now on leave, so Flavio, hopefully these two files will be enough to put forward to the Modelling team for creating our view?Thanks again everyone for your time over the last month or so! I'll be back at work on Thursday 22nd, but won't likely be checking my emails between now and then.Helen

### Email from Hilde to Classification group 2014-10-02

### Dear all,Thank you very much for sending this through, Helen.However, it is not completely clear to me how ISCED can be described by the current version of the model, so below are some questions for you Dan and others:1) ISCED can be said to be composed of a set of non-hierarchical cross-classification variables or Fragments (name proposed by Dan).According to Dan, these can be viewed as statistical classifications in themselves.The cross-classification variables of ISCED (or fragments) 'Levels of education', 'Orientation' etc. are related to each other and make up a whole that is the ISCED classification.It is not yet clear to me how this relationship is covered by the current model. Perhaps Dan could explain?- Wouldn't a fragment have a relationship to a classification item or range of item of another fragment? For example the fragment 'Orientation' applies at 'Levels of education' codes 2-8?- and also to the level of the whole ISCED classification. For example 'Orientation' applies at the second level of the full ISCED classification.2) Can the official ISCED mappings be described, and if so, how?Helen, wish you a good vacation.I'll be out of office till October 7th, not reading emails.Best wishes,Hilde