Making XML files for the new IDC of CESSDA:

## Mandatory and recommended fields

Minutes from the CDG meeting at Essex, 5-6 September 2001

The **D**ata **D**ocumentation Initiative and the development of new data access and dissemination software in the age of the web make it necessary to consider how the CESSDA IDC should be developed in the future.

The CESSDA/IDC main use of metadata is geared towards **possibilities to search for and locate information**, basically from the substantive content of metadata. This naturally means that we for the IDC concentrate on a limited amount and specific types of elements from the DDI DTD.

The DDI DTD as such is marked by the fact that it is also intended to drive software, so it covers a lot of (methodological) details, that is of less relevance for the present purpose.

At the CESSDA DDI workshop in Essex it was a core topic to try to define the status of every element of the DDI standard if used as a CESSDA standard for documentation. As background material for the discussions, examples and procedures from the various CESSDA archives that has experience from working with DDI were collected and put together for comparison. The aim was to define

a realistic least common denominator for the CESSDA archives, a DDI Light or the minimum that everybody has to put in English language so as to make cross archive substantive searches possible

a set of strongly recommended fields constituting the basic information on any dataset.

So elements were classified as **mandatory**, **recommended** or **optional**. Theese three groups of elements were (loosely) defined in the following way:

A **mandatory** element will exclude a dataset from publication, if it cannot be filled in. Mandatory elements have to be filled in, without them a dataset becomes just numbers without any identifying or information value.

A **recommended** element implies a **strong recommendation**. Recommended elements convey additional substantive content and formal indicators that situate each hit in time and space, and research context as well.

An **optional** element is everything else. Some of these elements will be of substantial interest to give a good description of a dataset. However, to communicate content and facilitate search they are regarded as less important. This means that the Expert seminar accepted some obvious consequences

Methodological information is played down

Section 1 Document description is played down and will for display purposes to a large degree be excluded

Data availability / access is played down

Below the final list of mandatory / recommended / optional elements are summarised:

## Mandatory / recommended elements - CDG, meeting in Essex, 5 September 2001

DDI Codebook Outline - Fields		Comment	Recommedation
0.0 codeBook	(ATT == version)		
1.0 docDscr*	(ATT == )	The Document Description should consist of bibliographic information describing the DDI-compliant document itself as a whole. Since the Document Description section is used to identify the DDI-compliant file within an electronic resource discovery environment, this section should be as complete as possible.	
1.1 citation?	(ATT == MARCURI)		
1.1.1 titlStmt	(ATT == )		
1.1.1.1 titl	(ATT == )	Contains the full authoritative title of the marked-up codebook. The marked-up codebook title will in most cases be identical to the title for the data collection (2.1.1). A full title should indicate the geographic scope of the data collection as well as the time period covered	Mandatory
1.1.1.2 subTitl*	(ATT == )		
1.1.1.3 altTitl*	(ATT == )		
1.1.1.4 parTitl*	(ATT == )	Title translated into another language	Recommended for 2.language
1.1.1.5 IDNo*	(ATT == agency)	Unique string or number (producer's or archive's number) for the marked-up document. An "agency" attribute is supplied	Mandatory
1.1.2 rspStmt?	(ATT == )		
1.1.2.1 AuthEnty*	(ATT == affiliation)	The AUTHOR in the Document Description should be the individual(s) or	
1.1.2.2 othId*	(ATT == type, role, affiliation)	organization(s) directly responsible for the intellectual content of the DDI version, as distinct from the person(s) or organization(s) responsible for the intellectual content of the earlier paper or electronic edition from which the DDI edition may have been derived.	
1.1.3 prodStmt?	(ATT == )		
1.1.3.1 producer*	(ATT == abbr, affiliation, role)	The producer of the marked-up document is the person or organization with the financial or administrative responsibility for the physical processes whereby the marked-up document was brought into existence	Recommended
1.1.3.2 copyright?	(ATT == )		Recommended
1.1.3.3 prodDate*	(ATT == date)		Mandatory
1.1.3.4 prodPlac*	(ATT == )		
1.1.3.5 software*	(ATT == date, version)		
1.1.3.6 fundAg*	(ATT == abbr, role)		
1.1.3.7 grantNo*	(ATT == agency, role)		
1.1.4 distStmt?	(ATT == )		

1.1.4.1 distrbtr*	(ATT == abbr, affiliation, URI)	The organization designated by the author or producer to generate copies of particular marked-up documentation including any necessary editions or revisions.  A URI attribute is included to provide an URN or URL to the ordering service or download facility on a website.	Recommended
1.1.4.2 contact*	(ATT == affiliation, URI, email)		
1.1.4.3 depositr*	(ATT == abbr, affiliation)		
1.1.4.4 depDate*	(ATT == date)		
1.1.4.5 distDate?	(ATT == date)		
1.1.5 serStmt?	(ATT == URI)		
1.1.5.1 serName*	(ATT == abbr)		
1.1.5.2 serInfo*	(ATT == )		
1.1.6 verStmt*	(ATT == )		
1.1.6.1 version?	(ATT == type, date)		
1.1.6.2 verResp?	(ATT == affiliation)		
1.1.6.3 notes*	(ATT == type, subject, level, resp, sdatrefs)		
1.1.7 biblCit?	(ATT == format(APA, MLA, Chicago[suggested])	Complete bibliographic reference containing all of the standard elements of a citation that can be used to cite the marked-up document	Recommended
1.1.8 holdings*	(ATT == location, callno, URI)		
1.1.9 notes*	(ATT == type, subject, level, resp, sdatrefs)		
1.2 guide?	(ATT == )		
1.3 docStatus?	(ATT == )		
1.4 docSrc*	(ATT == MARCURI)	The <docsrc> element encodes bibliographic information describing the source codebook, with the same structure as 1.1</docsrc>	
1.4.1 titlStmt	(ATT == )		
1.4.1.1 titl	(ATT == )	The full authoritative title of the source document.	Recommended
1.4.1.2 subTitl*	(ATT == )		
1.4.1.3 altTitl*	(ATT == )		
1.4.1.4 parTitl*	(ATT == )		
1.4.1.5 IDNo*	(ATT == agency)	Unique string or number (producer's or archive's number) for the source document. The "agency" attribute is important.	Recommended
1.4.2 rspStmt?	(ATT == )	Responsibility for the creation of the source document.	
1.4.2.1 AuthEnty*	(ATT == affiliation)	The person, corporate body, or agency responsible for the source document's substantive and intellectual content	Recommended

1.4.2.2 othId*	(ATT == type, role, affiliation)		
1.4.3 prodStmt?	(ATT == )	Production statement for the source document.	
1.4.3.1 producer*	(ATT == abbr, affiliation, role)	The producer of the source document. Use attribute to distinguish stages in process	Recommended
1.4.3.2 copyright?	(ATT == )	Copyright statement for the source document	Recommended
1.4.3.3 prodDate*	(ATT == date)		
1.4.3.4 prodPlac*	(ATT == )		
1.4.3.5 software*	(ATT == date, version)		
1.4.3.6 fundAg*	(ATT == abbr, role)		
1.4.3.7 grantNo*	(ATT == agency, role)		
1.4.4 distStmt?	(ATT == )	Distributor of the source document. Names and addresses may be specified, and other archives may be co-distributors. A URI attribute is included to provide an URN or URL to the ordering service or download facility on a website.	
1.4.4.1 distrbtr*	(ATT == abbr, affiliation, URI)		
1.4.4.2 contact*	(ATT == affiliation, URI, email)		
1.4.4.3 depositr*	(ATT == abbr, affiliation)		
1.4.4.4 depDate*	(ATT == date)		
1.4.4.5 distDate?	(ATT == date)		
1.4.5 serStmt?	(ATT == URI)	Series statement for the source document. The URI attribute is provided to point to a central Internet repository of series information.	
1.4.5.1 serName*	(ATT == abbr)		
1.4.5.2 serInfo*	(ATT == )		
1.4.6 verStmt*	(ATT == )		
1.4.6.1 version?	(ATT == type, date)		
1.4.6.2 verResp?	(ATT == affiliation)		
1.4.6.3 notes*	(ATT == type, subject, level, resp, sdatrefs)		
1.4.7 biblCit?	(ATT == format(APA, MLA, Chicago[suggested])		
1.4.8 holdings*	(ATT == location, callno, URI)	Information concerning either the physical or electronic holdings of the cited work.	
1.4.9 notes*	(ATT == type, subject, level, resp, sdatrefs)		
1.5 notes*	(ATT == type, subject, level, resp, sdatrefs)		

DDI Codebook Outlin	ne - Fields	Comment	Recommedation
2.0 stdyDscr+	(ATT == access)	The Study Description consists of information about the data collection, study, or compilation that the DDI-compliant documentation file describes.	
2.1 citation+	(ATT == MARCURI)	Citation for the data collection described by the marked-up documentation. If dataproducer is not the documentation producer, then the "source" attribute should be used to distinguish.	
2.1.1 titlStmt	(ATT == )		
2.1.1.1 titl	(ATT == )		Mandatory in the original language
2.1.1.2 subTitl*	(ATT == )		
2.1.1.3 altTitl*	(ATT == )		
2.1.1.4 parTitl*	(ATT == )		Mandatory at least in English (UK)
2.1.1.5 IDNo*	(ATT == agency) (M)		Mandatory
2.1.2 rspStmt?	(ATT == )		
2.1.2.1 AuthEnty*	(ATT = affiliation)(R)	The person, corporate body, or agency responsible for the data collection's substantive and intellectual content. Repeat the element for each author, and use the affiliation attribute if available	Mandatory (recommended in English)
2.1.2.2 othId*	(ATT == type, role, affiliation)		
2.1.3 prodStmt?	(ATT == )		
2.1.3.1 producer*	(ATT == abbr, affilation, role)	The producer of the data collection is the person or organization with the financial or administrative responsibility for the physical processes whereby the data collection was brought into existence. Use the role attribute to distinguish different stages of involvement in the production process.	Recommended
2.1.3.2 copyright?	(ATT == )	Copyright statement for the data collection.	Recommended
2.1.3.3 prodDate*	(ATT == date)		
2.1.3.4 prodPlac*	(ATT == )		
2.1.3.5 software*	(ATT == date, version)		
2.1.3.6 fundAg*	(ATT == abbr, role)		
2.1.3.7 grantNo*	(ATT == agency, role)		
2.1.4 distStmt?	(ATT == )		
2.1.4.1 distrbtr*	(ATT == abbr, affiliation, URI)	The organization designated by the author or producer to generate copies of a particular data collection including any necessary editions or revisions. Names and addresses may be specified, and other archives may be co-distributors. A URI attribute is included to provide an URN or URL to the ordering service or download facility on a website.	Mandatory (recommended in English)
2.1.4.2 contact*	(ATT == affiliation, URI, email)		

(ATT == abbr, affiliation)		
(ATT == date)		
(ATT == date)		
(ATT == URI)		
(ATT == abbr) (M) Vocabulary		Mandatory if appropriate (recommended in English)
(ATT == )		
(ATT == )		
(ATT == type, date)	"release", "version" or "edition" may signal different levels of processing. Need a	Mandatory
(ATT == affiliation)	controlled vocabulary. To describe the character of the processing of a study, <notes> could be used.</notes>	
(ATT == type, subject, level, resp, sdatrefs)		
(ATT == format(APA, MLA, Chicago [suggested])	Complete bibliographic reference	Recommended
(ATT == location, callno, URI)		
(ATT == type, subject, level, resp, sdatrefs)		
(ATT == )		
(ATT == )	Subject information describing the data collection's intellectual content.	
(ATT == vocab(LCSH, MeSH[suggested]), vocabURI) (M)	Words or phrases that describe salient aspects of a data collection's content. Can be used for building keyword indexes and for classification and retrieval purposes. A controlled vocabulary can be employed.	Recommended  Vocabulary: recomendation to map to ELSST
(ATT == vocab(LCSH, MeSH[suggested]), vocabURI) (M)	Indicates the broad substantive topic(s) that the data cover.	Recommended Vocabulary to be developed
		(Collaboration of archives integrating presently used archive standards)
(ATT == date)	An unformatted summary describing the purpose, nature, and scope of the data collection, special characteristics of its contents, major subject areas covered, and what questions the PIs attempted to answer when they conducted the study. A listing of major variables in the study is important here.	Mandatory (mandatory also in English - but could be a shorter version)
(ATT == )	Information about a study's chronological and geographic coverage and unit of analysis.	
(ATT == event(start end single), date, cycle) (M) ISO		Mandatory if applicable
(ATT == event(start end single), date, cycle) (M) ISO		Mandatory
	(ATT == date)  (ATT == date)  (ATT == uRI)  (ATT == abbr) (M) Vocabulary  (ATT ==)  (ATT == type, date)  (ATT == type, subject, level, resp, sdatrefs)  (ATT == format(APA, MLA, Chicago [suggested])  (ATT == type, subject, level, resp, sdatrefs)  (ATT ==)  (ATT ==)  (ATT == vocab(LCSH, MeSH[suggested]), vocabURI) (M)  (ATT == vocab(LCSH, MeSH[suggested]), vocabURI) (M)  (ATT == date)  (ATT == date)  (ATT == event(start end single), date, cycle)  (M) ISO  (ATT == event(start end single), date, cycle)	(ATT = date) (ATT = date) (ATT = abbr) (M) Vocabulary (ATT =) (ATT =) (ATT =) (ATT = friliation) (ATT = type, date) (ATT = friliation) (ATT = type, subject, level, resp, sdatrefs) (ATT = format(APA, MLA, Chicago [suggested]) (ATT = type, subject, level, resp, sdatrefs) (ATT =) (ATT = vocab(LCSH, MeSH[suggested]), vocabURI) (M)  Words or phrases that describing the data collection's intellectual content. Can be used for building keyword indexes and for classification and retrieval purposes. A controlled vocabulary can be employed.  (ATT = vocab(LCSH, MeSH[suggested]), vocabURI) (M)  Indicates the broad substantive topic(s) that the data cover.  (ATT = date)  An unformatted summary describing the purpose, nature, and scope of the data collection, special characteristics of its contents, major subject areas covered, and what questions the Pls attempted to answer when they conducted the study. A listing of major variables in the study is important here.  (ATT =)  Information about a study's chronological and geographic coverage and unit of analysis.

2.2.3.3 nation*	(ATT == abbr) ISO 3166	This tag should to be renamed	Mandatory
			The use of ISO 3166 for the abbr attribute is mandatory, too
2.2.3.4 geogCover*	(ATT == )	Information on the geographic coverage of the data.	Recommended
			Vocabulary? Awaits further developement
2.2.3.5 geogUnit*	(ATT == )	Lowest level of geographic aggregation covered by the data.	
2.2.3.6 anlyUnit*	(ATT == unit(individual, family, household,		Recommended
	group, institution/ organization, administrative unit)		Vocabulary to be developed on the basis of the SRM (SRM: Thesaurus of Social Research Methodology http://www.niwi.knaw.nl/nl/srm/srm.htm)
2.2.3.7 universe*	(ATT == level study/file/record/ variable)(sugg.), clusion(I E))		Recommended
2.2.3.8 dataKind*	(ATT == )		
			Vocabularyto be developed, based on SRM
2.2.4 notes*	(ATT == type, subject, level, resp, sdatrefs)		
2.3 method*	(ATT == )		
2.3.1 dataColl*	(ATT == )		
2.3.1.1 timeMeth*	(ATT == method(panel, cross-section, trend,		Recommended
	time-series [suggested])		Vocabulary to be developed, based on SRM
2.3.1.2 dataCollector*	(ATT == abbr, affiliation)	This refers to the entity collecting the data, not to the entity producing the documentation.	Recommended
2.3.1.3 frequenc*	(ATT == freq(monthly, quarterly[suggested])		
2.3.1.4 sampProc*	(ATT == )	May include reference to the target sample size and the sampling fraction.	Recommended
			Vocabulary to be developed, based on SRM
2.3.1.5 deviat*	(ATT == )		
2.3.1.6 collMode*	(ATT == )(telephone interview, mail		Recommended
	questionnaire[suggested])		Vocabulary to be developed, based on SRM
2.3.1.7 resInstru*	(ATT == type(structured, semi-structured, unstructured[suggested])		

2.3.1.8 sources?	(ATT == )		
2.3.1.8.1 dataSrc*	(ATT == )		
2.3.1.8.2 srcOrig*	(ATT == )		
2.3.1.8.3 srcChar*	(ATT == )		
2.3.1.8.4 srcDocu*	(ATT == )		
2.3.1.8.5 sources*	(ATT == )		
2.3.1.9 collSitu*	(ATT == )(cooperativeness of R, duration of interview, number of call-backs[suggested])		
2.3.1.10 actMin*	(ATT == )(follow-up visits, supervisory checks, historical matching, estimation[suggested])		
2.3.1.11 ConOps*	(ATT == agency)		
2.3.1.12 weight*	(ATT == )	Describe here the criteria for using weights in analysis of a collection. If a weighting formula or coefficient was developed, provide this formula, define its elements, and indicate how the formula is applied to data.	Mandatory in the language of the dataset Recommended in english
2.3.1.13 cleanOps*	(ATT == agency)		
2.3.2 notes*	(ATT == type, subject, level, resp, sdatrefs)	additional information about the methodology and processing involved in a collection, including error notes	
2.3.3 anlyInfo?	(ATT == )		
2.3.3.1 respRate*	(ATT == )		
2.3.3.2 EstSmpErr*	(ATT == )		
2.3.3.3 dataAppr*	(ATT == )(response variance, nonresponse rate, testing for bias, interview and response bias, confidence levels, question bias[suggested])		
2.3.4 stdyClas?	(ATT == type)	Generally used to give the data archive's class or study status number, which indicates the processing status of the study. May also be used as a text field to describe processing status.	
2.4 dataAccs*	(ATT == )		
2.4.1 setAvail*	(ATT == media)	The "media" attribute may be used in combination with any of the subelements	
2.4.1.1 accsPlac*	(ATT == URI)	Use the URI attribute to provide a URN or URL for the storage site or the actual address from which the data may be downloaded.	Recommended
2.4.1.2 origArch?	(ATT == )		
2.4.1.3 avlStatus*	(ATT == )(available; unavailable because embargoed for a period of time, superseded, new edition imminent[suggested])	It is anticipated that a controlled vocabulary will be developed for this element.	Recommended
2.4.1.4 collSize?	(ATT == )(machine-readable documentation, data dictionary, data definition statements, data collection instrument[suggested])		Recommended

2.4.1.5 complete?	(ATT == )		
2.4.1.6 fileQnty?	(ATT == )		
2.4.1.7 notes*	(ATT == type, subject, level, resp, sdatrefs)		
2.4.2 useStmt*	(ATT == )	Information on terms of use for the data collection.	
2.4.2.1 confDec?	(ATT == required(yes no), formNo, URI)	used to determine if signing of a confidentiality declaration is needed to access a resource.	
2.4.2.2 specPerm?	(ATT == required(yes no), formNo, URI)	used to determine if any special permissions are required to access a resource	
2.4.2.3 restrctn?	(ATT == )	Any restrictions on access to or use	Recommended
2.4.2.4 contact*	(ATT == affiliation, URI, email)		
2.4.2.5 citReq?	(ATT == )		
2.4.2.6 deposReq?	(ATT == )		
2.4.2.7 conditions?	(ATT == )		
2.4.2.8 disclaimer?	(ATT == )		
2.4.3 notes*	(ATT == type, subject, level, resp, sdatrefs)		
2.5 othrStdyMat*	(ATT == )		
2.5.1 relMat*	(ATT == )		
2.5.1.1 citation*	(ATT == MARCURI)		
2.5.2 relStdy*	(ATT == )		
2.5.2.1 citation*	(ATT == MARCURI)		
2.5.3 relPubl*	(ATT == )		
2.5.3.1 citation*	(ATT == MARCURI)		
2.5.4 othRefs*	(ATT == )		
2.5.4.1 citation*	(ATT == MARCURI)		
2.6 notes*	(ATT == type, subject, level, resp, sdatrefs)		
3.0 fileDscr*	(ATT == URI, sdatrefs, methrefs, pubrefs, access)		
3.1 fileTxt?	(ATT == )		
3.1.1 fileName?	(ATT == )		Mandatory
3.1.2 fileCont?	(ATT = )	Abstract or description of the file. A summary describing the purpose, nature, and scope of the data file	
3.1.3 fileStrc?	(ATT == type(rectangular hierarchical  relational))	Use attribute	

3.1.3.1 recGrp*	(ATT == recGrp, rectype, keyvar, recidvar)	Used to describe record groupings if the file is hierarchical or relational.	
3.1.3.1.1 labl*	(ATT == level, vendor)	Used to the degree that it is resonable	
3.1.3.1.2 recDimnsn?	(ATT == level)		
3.1.3.1.2.1 varQnty?	(ATT == )		
3.1.3.1.2.2 caseQnty	(ATT == )		
3.1.3.1.2.3 logRecL?	(ATT == )		
3.1.3.2 notes*	(ATT == type, subject, level, resp, sdatrefs)	The attributes for notes permit a controlled vocabulary to be developed (type and subject), the level of the DTD to which the note refers to be identified (study, file, variable, etc.), and the author of the note to be indicated (resp).	
3.1.4 dimensns?	(ATT == )	Dimensions of the overall file.	
3.1.4.1 caseQnty*		To be used for rectangular files only.	Recommended
3.1.4.2 varQnty*			Recommended
3.1.4.3 logRecL*	(ATT == )		
3.1.4.4 recPrCas*	(ATT == )		
3.1.4.5 recNumTot*	(ATT == )		
3.1.5 fileType?	(ATT == charset(us-ascii, ebcdic, unicode UTF-8[suggested])	Types of data files include raw data (ASCII, EBCDIC, etc.) and software- dependent files such as SAS datasets, SPSS export files, etc.	
3.1.6 format?	(ATT == )(lrecl, card-image, delimited, free format[suggested])	Physical format of the data file: Logical record length format, card-image format (i.e., data with multiple records per case), delimited format, free format, etc.	
3.1.7 filePlac?	(ATT == )		
3.1.8 dataChck*	(ATT == )	A controlled vocabulary may be developed for this element in the future.	
3.1.9 ProcStat?	(ATT == )		
3.1.10 dataMsng?	(ATT == )(standardized across collection, present because of merging[suggested])	give general information about missing data	
3.1.11 software*	(ATT == date, version)		
3.1.12 verStmt?	(ATT == )		
3.1.12.1 version?	(ATT == type, date)		
3.1.12.2 verResp?	(ATT == type, date)		
3.1.12.3 notes*	(ATT == type, subject, level, resp, sdatrefs)		
3.2 notes*	(ATT == type, subject, level, resp, sdatrefs)		
4.0 dataDscr*	(ATT == )		
4.1 varGrp*	(ATT == type(Section Multiple response  Grid  Display Repetition  Subject  Version  Iteration	A group of variables that may share a common subject, arise from the interpretation of a single question, or are linked by some other factor.	Recommended

	Analysis Pragmatic Record File Randomized Ot her), var, varGrp, name, sdatrefs, methrefs, pubrefs, access)		
4.1.1 labl*	(ATT == level, vendor)		Recommended
4.1.2 txt*	(ATT == level)		
4.1.3 defntn?	(ATT == )	Rationale for why the variables are grouped in this way.	
4.1.4 universe?	(ATT == level(study/file/variable)(sugg.), clusion)		
4.1.5 notes*	(ATT == type, subject, level, resp, sdatrefs)		
4.2 var*	(ATT == name, wgt, wgt-var, qstn, files, vendor, dcml, intrvl(contin discrete), rectype, sdatrefs, methrefs, pubrefs, access)	This element describes all of the features of a single variable in a social science data file.	Mandatory
4.2.1 location*	(ATT == StartPos, EndPos, width, RecSegNo, fileid)		
4.2.2 labl*	(ATT == level, vendor)		Mandatory
4.2.3 imputation?	(ATT == )	"the process by which one estimates missing values for items that a survey respondent failed to provide," and if applicable in this context, it refers to the type of procedure used.	
4.2.4 security?	(ATT == date)(public, subscriber, need to know[suggested])		
4.2.5 embargo?	(ATT == date, event(notBefore notAfter), format)		
4.2.6 respUnit?	(ATT == )(respondent, proxy, interviewer[suggested])	who provided the information contained within the variable	
4.2.7 anlysUnit?	(ATT == )(individual, family, household, group, institution/organization, administrative unit [suggested])		
4.2.8 qstn*	(ATT == qstn, var, seqNo, sdatrefs)		Recommended
4.2.8.1 preQTxt*	(ATT == )		
4.2.8.2 qstnLit*	(ATT == )		
4.2.8.3 postQTxt*	(ATT == )		
4.2.8.4 forward*	(ATT == qstn)		
4.2.8.5 backward*	(ATT == qstn)		
4.2.8.6 ivuInstr*	(ATT == )		
4.2.9 valrng*	(ATT == )		
4.2.9.1 range*	(ATT == UNITS(INT REAL)(sugg.), min, minExclusive, max, maxExclusive)		

4.2.9.2 item*	(ATT == UNITS(INT REAL)(sugg.), VALUE)		
4.2.9.3 key?	(ATT == )		
4.2.9.4 notes*	(ATT == type, subject, level, resp, sdatrefs)		
4.2.10 invalrng*	(ATT == )	Values for a particular variable that represent missing data, not applicable responses, etc.	
4.2.10.1 range*	(ATT == UNITS(INT REAL)(sugg.), min, minExclusive, max, maxExclusive)		
4.2.10.2 item*	(ATT == UNITS(INT REAL)(sugg.), VALUE)		
4.2.10.3 key?	(ATT == )		
4.2.10.4 notes*	(ATT == type, subject, level, resp, sdatrefs)		
4.2.11 undocCod*	(ATT == )		
4.2.12 universe*	(ATT == level, clusion)		?
4.2.13 TotlResp?	(ATT == )		
4.2.14 sumStat*	(ATT == wgtd(wgtd not-wgtd), weight, type (mean medn mode vald invd min max stdev))	One or more statistical measures which describe the responses to a particular variable and may include one or more standard summaries	Recommended
4.2.15 txt*	(ATT == level)		
4.2.16 stdCatgry*	(ATT == URI)(industry codes, employment codes, social class codes[suggested])		
4.2.17 catgryGrp*	(ATT == missing(Y/N), missType(inap., DK, no answer[suggested], catgry, catGrp)	A description of response categories that might be grouped together.	
4.2.17.1 labl*	(ATT == level, vendor)		
4.2.17.2 catStat*	(ATT == type, URI)		
4.2.17.3 txt*	(ATT == level)		
4.2.18 catgry*	(ATT == missing(Y/N), missType(inap., DK, no answer[suggested], country(suggested: ISO3166 standard for nation codes), sdatrefs)	A description of a particular response	
4.2.18.1 catValu?	(ATT == )		
4.2.18.2 labl*	(ATT == level, vendor)		
4.2.18.3 txt*	(ATT == level)		
4.2.18.4 catStat*	(ATT == type(freq percent crosstab), URI)		
4.2.19 codInstr*	(ATT == )		
4.2.20 verStmt*	(ATT == )		Recommended
4.2.20.1 version?	(ATT == type, date)		
4.2.20.2 verResp?	(ATT == affiliation)		

4.2.20.3 notes*	(ATT == type, subject, level, resp, sdatrefs)	
4.2.21 concept*	(ATT == vocab(LCSH, MeSH[suggested], vocabURI)	
4.2.22 derivation?	(ATT == var)	
4.2.22.1 drvdesc?	(ATT == )	
4.2.22.2 drvcmd?	(ATT == syntax)	
4.2.23 varFormat?	(ATT == type(character numeric), formatname,	
	schema(SAS SPSS IBM ANSI ISO XML- Data other), category(date   time   currency   other), URI)	
4.2.24 notes*	(ATT == type, subject, level, resp, sdatrefs)	
4.3 notes*	(ATT == type, subject, level, resp, sdatrefs)	
5.0 otherMat*	(ATT == type, level(data/datafile/studydesc/study), URI)	
5.1 lab1*	(ATT == level(record variable/category), vendor)	
5.2 txt?	(ATT == level(record variable/category))	
5.3 notes*	(ATT == type, subject, level(record variable/category), resp, sdatrefs)	
5.4 table*	(ATT == )	
5.5 citation?	(ATT == MARCURI) NOTE: full tree for citation element omitted for reasons of space.	
5.6 otherMat*	(ATT = type, level, URI) NOTE: otherMat is recursively defined to 5.0.	