

Version 1.00

Project no. 619347

## EAGLE- EnhAnced Government LEarning

Objective ICT-2013.8.2 Technology-enhanced learning

c) Holistic learning solutions for managing, reaching and engaging

learners in the public administrations

Small-scale Collaborative Project (STREP) FP7-ICT-2013-11

## www.fp7-eagle.eu

## Deliverable. 4.5

# Item generation templates based on 3 iterations

WP 4 – LEARNING – OER Learning for e-Enabling Lead Participant: LIST

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# Glossary

Attitude	'Attitudes' are conceived as the motivators of performance, the basis for continued competent performance. They include values, aspirations and priorities. "cognitive and relational capacity" (e.g., flexibility, pragmatism, initiative, engagement, commitment). If skills and knowledge are the components [of a competence], attitudes are the glue, which keeps them together
Competence	demonstrated ability to apply knowledge, skills and attitudes for achieving observable results
Construct map	describes all skills and knowledge related to a specific competence and assigns them to different levels of proficiency
Knowledge	Knowledge is a familiarity, awareness or understanding of a human, such as facts, principles, descriptions, or theories, which is acquired through experience or education
Learning need	a competence shortfall (gap) between current and expected competence to perform a task or an activity
Skill	it means the ability to apply knowledge and use know-how to complete tasks and solve problems. $\dots$ skills are described as cognitive ( $\dots$ ) or practical ( $\dots$ )
Task model	a task model defines a unique combination of cognitive skills required to support proficiency claims within a specific ranges/levels of the construct map.
Item template	An item template is a representation of an item with the specification of elements (variables) that can be modified under certain conditions so as to generate multiple items from one template.
Isomorphic items	Items with differences that are incidental to the construct and therefore that can be assumed to share similar psychometric properties.



# 1 Introduction

EAGLE's main objective is to equip employees in rural local government with a holistic training solution based on Open Educational Resources (OER) and Open Source (OS) tools, supporting the development of critical transversal EAGLE competences such as:

- Information literacy (IL) Information literacy is a set of skills, knowledge, and attitudes requiring learners to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." (based on ACRL 2000 standards)
- ICT/Digital literacy (DL): While ICT literacy can be used in a similar way than digital literacy, it usually focuses a bit more on the mastery of technical skills, collected in frameworks for end-users and ICT professionals. Digital literacy takes into account the social software perspective (Dalsgaard 2006), where consuming and producing are interwoven operations, including related aspects of attitude, self-image, criticality, identity and reputation management, e-safety etc. This understanding is very important for the EAGLE approach, therefore in this document is adopted the term digital literacy for the critical transversal competences addressed.
- Change management (CM): Change management competences are those competences necessary to implement the transition of individuals, teams, and organisations to a desired future state. It incorporates the organisational tools that can be utilised to help individuals make successful personal transitions resulting in the adoption and realization of change.

Work package 4 (WP4) for which this deliverable has been prepared, aims to design a proficiency-based curriculum for local government employees at different levels, in order to enable them to learn at workplace in an self-managed way, using an OER-based learning environment for enhancing their work practice. For that purpose the curriculum will be focused in the development of the above mentioned competences.

The deliverable 4.1 has provided specifications associated to the expected competences EAGLE users should have to use the OEP for enhancing their work practice. In this deliverable 4.5 we aim to design tasks associated with the construct maps defined in D4.1.

We focus on Information literacy skills and define mechanisms to address the design of item types together with the associated task models and cognitive aspects that underlie the completion of the defined tasks.

In the deliverable we present the methodology we used, the design and implementation choices we made, the task modelling, and item template definition mechanisms. In this deliverable we show existing material and the initial evaluation of assessment item templates. In the next iteration we will propose specific item templates specifically designed for the Assessment Item Generation platform.

# 2 State of the Art – Assessment item Generation process

In the context of the European project EAGLE we aim to support the development of assessment items to support so-called 21<sup>st</sup> Century skills for the public administration (PA) from the formative assessment perspective.

We propose using a process that can support the generation of assessment items from the definition of construct maps.

## 2.1 Top down vs. bottom-up approaches to assessment item generation

We call those AIG approach bottom-up, when a so-called knowledge extract of a source (i.e., text or domain model) is used to build a question. Bottom-up strategies represent, however, very different approaches with various levels of automation, various variable sources, and various levels of quality.

While Gierl et al. (Gierl & Lai, 2012) only uses manually created templates and variables generated from the definition of mathematical equations (e.g., x is an integer between 1 and 10), Karamanis et al. (Karamanis, Ha, & Mitkov, 2006) and Moser et al (Moser, Gütl, & Liu, 2012) generate questions from texts, and Foulonneau & Grouès (2012), Linnebank (Linnebank, Liem, & Bredeweg, 2010) (B. Liu, 2009), and Papasopoulos (Papadopoulos et al., 2009) from semantic models in domains of medicine, history and environment and computer science. Finally, Zoumpatianos et al. (Zoumpatianos, Papasalouros, & Kotis, 2011) suggest generating choice questions from rules using a *Semantic Web Rule Language* (SWRL).

Most of these approaches, however, are triggered by the source rather than by a learning objectives or constructs. Karamanis et al. (2006) assess the quality of questions obtained through AIG by asking experts to identify the questions which could be delivered without edit (Karamanis et al., 2006).

Nevertheless, the quality of the generated items mainly depends on linguistic features (Ruslan Mitkov, Ha, & Karamanis, 2006) and distractors effectiveness (Foulonneau & Grouès, 2012) rather than on the quality of the items to adequately measure a construct (i.e., the skill or knowledge that is being assessed).

Top-down approaches, such as the one described by Luecht (Luecht, 2013) follow an engineering process: construct maps describe the skill and knowledge claim on the different performance levels reflecting different proficiency claims on a score scale; a task model defines a unique combination of cognitive skills (i.e., procedural skills) applied to declarative knowledge objects required to support proficiency claims within a specific ranges/levels of the construct map. It is an implicit set of instructions that provides knowledge and skill requirements to be reflected by an item template. An item template is an expression of those demands with the inclusion of item content. Items are varied by means of variables in the stem, options and auxiliary information (Gierl & Haladyna, 2013a; Gierl & Lai, 2013; Lai & Gierl, 2013).

The top-down and the bottom-up approaches are complementary but not integrated.



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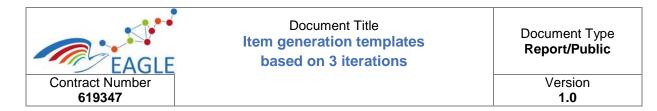
# 2.2 The processes associated with the generation of different types of variables

The generation of cloze questions is particularly popular to support language learning. Existing sentences have to be selected from texts. A set of transformations are then applied. Heilman et al. propose syntactic transformations to turn declarative sentences into questions, ranked through a logistic regression model (Heilman, 2011). Aldabe et al. focus on syntactic as well as morphosyntactic transformations (Aldabe, Lopez de Lacalle, Maritxalar, Martinez, & Uria, 2006). Perez-Beltrachini et al. generate grammar exercises based on a description of the syntax and semantics of natural language sentences (Perez-Beltrachini, Gardent, & G., 2012).

In choice items and cloze questions including options, a core difficulty is represented by the generation of distractors, i.e., incorrect option which should be credible alternatives to the correct answer option (Haladyna, 2013). The random selection of siblings in the semantic graph can provide relevant distractors (Foulonneau, Ras, & Latour, 2011; Linnebank et al., 2010). In domain model based approaches, Foulonneau et al. apply semantic similarity metrics for improving the generation of distractors based on the graph structure of the domain model (Foulonneau, Grouès, Ras, & Mayer, 2012). In text-based item generation, Brown et al. (2005) selects single word term distractors from word frequency analysis, while Mitkov et al. (R. Mitkov, Ha, Varga, & Rello, 2009) and Gütl et al. identify semantic relations from the WordNet lexical dataset (C. Gütl, Lankmayr, & Weinhofer, 2010). For grammatical distractors, Chen et al. define rules to modify the form and tense of a word (Chen, Liou, & Chang, 2006). In order to select multi-word distractors, Mitkov et al. select noun-phrases with the same head as the answer (R. Mitkov et al., 2009), while Gütl et al. split the phrase into n-grams and randomly select the longest related n-grams in a phrase using WordNet (C. Gütl et al., 2010).

Finally, Aldabe et al. propose using Latent Semantic Analysis (LSA) (Aldabe & Maritxalar, 2010), while Moser et al. (Moser et al., 2012) propose extending this approach in particular with an analysis of Stylometry (Holmes, 1998).

Therefore, while the processes associated with the generation of various variables typically use NLP approaches to generate similar knowledge extracts from texts, authors have also proposed using graph-based metrics such as WordNet based similarity metrics through shortest path calculation (R. Mitkov et al., 2009), Gütl et al., 2010). On the other hand, semantic similarity metrics to generate distractors from a semantic graph (Foulonneau et al., 2012) must be complemented by NLP based approaches in order to avoid discrepancies in encoding patterns typically when multiple labels are associated with the same concepts. Only Liu et al. propose a mixed approach (NLP and semantics) consisting in extracting concepts from text and creating a conceptual graph structure, before generating items (M. Liu, Calvo, Aditomo, & Pizzato, 2012).



Text-based variable extraction processes have mainly been applied on the English language. A few works have addressed Chinese and Basque (Aldabe et al., 2006) for instance. The availability of resources for German are only starting to develop (Christian Gütl et al., 2011). While some authors have proposed assigning metrics to items based on the item structure ((Alsubait, Parsia, & Sattler, 2012; Foulonneau & Grouès, 2012)), their work is focusing on semantic models. There is a lack of assigning such metrics to the AIG process based on both text and semantic models in order to predict as much as possible the item or feedback quality and efficiency from the structure before a psychometric calibration takes place.

## 2.3 Conclusion of literature review

The bottom up approach does not support pedagogically-driven item design. It makes it very difficult to have a qualitative approach to items.

We therefore use an enhanced AIG process which makes use of both bottom-up and top down approaches.

# 4 The EAGLE assessment methodology

D4.1 has identified core competences related to public administration employees and proposed frameworks for their evaluation in a formative assessment context. EAGLE portal users will be able to author tests manually as a social activity where users will be able to author items for other learners.

We aim to implement mechanisms to facilitate test and item authoring through tools:

- 1) to author formative tests, i.e., test and item authoring mechanisms
- 2) to support test authors in the creation of higher quality items
- 3) to generate tests (and items) automatically

Test generation is not expected to support the assessment of all constructs and skills however. We therefore aim to identify in this document an initial set of skills and item types that can be considered for generation.

In order to transform item types into item templates, we propose a structure for the item templates that is compatible with the EAGLE Assessment Item Generation process.

In order to determine the initial set of item types we used D4.1 as a basis. We then investigated existing OER sources for test items related to information literacy.

As a results of this analysis, we present the AIG process, the assessment methodology, an initial set of item types, and an initial item template structure.

In the next project phase we intend to 1) assess the technology readiness for the generation of items on this initial set of models and complete or replace the item types sets accordingly and 2) refine the Assessment Item Generation process including the item template structure.

#### 2.4 Selection of core skills to generate items

In this document we aim to analyse skills related to information literacy in order to determine item templates that can be used for generating tests in the context of EAGLE.

For the EAGLE context, we propose two types of constructs should be investigated for generation:

#### 1- Items on learning content comprehension.

This construct is related to the ability of public administration employees to learn from information sources that they have access to, including Open Educational Resources from the EAGLE portal.

It is related to ACRL Standard 3 "*Evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system*", Section 3.1 "Summarizes the main ideas to be extracted from the information gathered" defined as "to read the text and selects main ideas, to restate textual concepts in his/her own words and to select data accurately, to identify verbatim material that can be then appropriately quoted". Indeed the ability to understand the OER and make use of its content is critical to the learning process in PA. The EAGLE portal is expected to include OERs from a variety of sources.



The ability of learners to understand their content and find relevant content from these OERs is critical. We therefore need to investigate whether items can be usefully generated from OER content to assess the ability of learners to retrieve relevant information and understand it. As opposed to classic text comprehension items, items need to relate to particular cognitive processes involved in the learning process.

#### 2- Items on access to information

According to D4.1 relevant information literacy skills for public administration employees are in particular related to:

- a. "*Define and articulates the need for information*" (D4.1 section 6.4.1): ACRL standards 1, 2, 5 (mainly standard 2).
- b. Accesses needed information effectively and efficiently (D4.1): ACRL standard 2.
- *c.* Understands many of the economic, legal and social issues surrounding the use of information (D4.1 section 6.4.1): ACRL standards 3, 4, and 5 (mainly standard 3).

In the context of EAGLE information literacy should be considered in the context of learning resources available at the work place: whereas some of the skills related to information literacy on the EAGLE portal, many of the competencies still apply to other sources available from the workplace environment. It is therefore possible to then define items with variable sources from workplace documents rather than only the EAGLE portal.

# 2.5 Research of existing items from Public administrations and OER repositories

If there is no "right" IL assessment approach, the selection of an assessment tool is a complex issue (Oakleaf and Kaske, 2009). To achieve this task, we have reviewed existing assessment tools in order to select or design the most relevant for creating item templates, aligned with the content and format of previous WP4 tasks (construct maps, etc.) (Eagle's DOW).

Following Luecht's approach (2013), a weak theory - "combination of outcomes from research, theory, and experience" - has guided our review: ACRL and other librarian's professional and academic publications as well as commercially and institutionally assessment tools have been investigated.

To narrow our results, we only focused on tools with specific types of interactions: choice (as Multiple Choice Questionnaire, MCQ), match items, closed questions, and ordering items. Therefore, rubrics and self-assessment tools have not been considered.



Although the specific types of interaction selected for Eagle (especially MCQ) may not perfectly "assess the effectiveness of *student*<sup>1</sup> search skills in real life situations" (Dunn, 2002, p.28), MCQ are quick and easy to administer and relevant for most of the IL lower level skills we aim for Eagle's end-users.

Most resources we found were MCQ. Although we aim to support other types of interactions if needed, we propose an initial template model with MCQ interactions.

## 2.6 Item and test template modelling

We then defined the initial structure of:

- 1) The test templates to automatically compose tests from a set of items
- 2) The item templates that implement item tasks in order to specify variables.

The items need to be generated in multiple languages. We have the possibility to either create one item template with a linguistic variable or various item templates, one for each language. The first option implies however that variables are embedded in other variables. For instance if a variable is defined in the stem and the stem itself is represented by a variable for which the value depends on the language then it is necessary to create embedded variables which would be represents an additional level of complexity. Moreover, minor features may have to be modified for display when the label has various lengths for instance. Finally multilinguality is often related to cultural biases. When the EAGLE platform is used in many different countries it is possible that cultural differences lead to slight modifications of the content of items according to the linguistic and cultural environment of the targeted learners (Van de Vijver, 2004). As a consequence we opted for the design of distinct templates for each language. However, the templates need to include metadata that contain the necessary elements to retrieve them and relate them to versions of the same template in various languages.

<sup>&</sup>lt;sup>1</sup> We assume that this argument is also relevant for Eagle's public, public administration officers.

# 3 Research of existing items from Public administrations and OER repositories - A multi-criteria review of IL assessment tools

If the design of IL items from scratch would have been ideal, this option has been quickly abandoned because of the lack of resources (time, content experts' availability, item designers' availability, etc.). Therefore, the optimal assessment tool for Eagle has to combine the following advantages:

- Allow to assess Information Literacy.
- Be aligned with the ACRL standard which has been used to define the IL construct maps.
- Be scientifically valid.
- Be based on an MCQ, match items, ordering items, or closed questions.
- Fit with Eagle's context, meaning relevant for a Public Administration audience.

## 3.1 Existing solutions

Two institutional assessment tools and three commercial standardized tests have been selected after our review, based on a metasearch (for example Blevens, 2012) through librarian publications:

- the South Dakota Information Literacy Exam (Leibiger & Schweinle, 2008).
- the Bay Area Community Colleges Information Competency Assessment Exam (BACC, 2003),
- the Project SAILS test (2006),
- the Information Literacy Test from James Madison University (Madison Assessment, 2012),
- the iCritical Thinking from ETS (2015). This last tool has been reviewed due to his context fit, despite its irrelevant format (real based task, i.e., task based on real life situations).

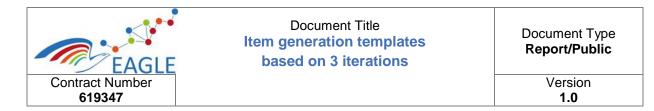
Other assessment tools had also been identified by Mery, Newby and Ke. (2011) but they were either no more available, or not relevant for our objective (type of interaction, availability, etc.)

The Table 1 below illustrates the results of each tool according to the criteria previously mentioned. For each criterion, three "scores" are possible: green for a criterion completely managed, yellow for a criteria partially managed and red for a criterion not managed.



## TABLE 1. REVIEW OF IL ASSESSMENT TOOLS

Test name	Construct assessed	ACRL standard alignment	Validity proof	Assessment type	Fit with Eagle's context	Availability
lskills (ETS) 15 tasks	Critical thinking in digital environment	4/5 (4 absent)	Yes	Real-world task	High: student target but with business issues	Few examples may be found via appendix links.
Project Sails 45 to 55 items	IL	4/5 (4 absent)	Yes (with IRT)	MCQ	Low: student target with classical library issues	Large samples of items are available but for "internal use only". Use, adaptation or modification of the test questions implies to contact the Project SAILS team.
Information Literacy Test (ILT) 60 items	IL	4/5 (4 absent)	Partially for individual assessment	MCQ	Low: student target with classical library issues	Not found
South Dakota Information Literacy Exam 20 items	IL	Informatio n not available	Yes (with IRT)	MCQ	Low: student target with classical library issues	Few examples may be found via appendix links.



Based on this table review's results, few conclusions can be drawn.

If the best option remains the use of the existing Project Sails' items sets (5 criteria completely managed and one partially managed), other tests have interesting characteristics. For example, the Iskills test is the only test that match the context-fit criteria because of its real-word based tasks. But the other side of the coin is its cost and its availability.

As a corollary of the predominance of the Higher Education IL literature, IL tests we reviewed have been built for students.

As a common rule, none of the reviewed test is related to the Standard 4 of the ACRL because it is agreed that these skills are hard to assess with classical tests.

The good results for the construct and the validity criteria are only consequences of our strict review.

We will now detail the salient features of the selected tool, the Project Sails.

#### 3.2 Features of the Project Sails items set

As a first mandatory characteristic, the Project Sails measures the **construct** it is supposed to measure: Information Literacy.

This tool has also strict guarantees about its scientific **validity**. The SAILS group chose item response theory (IRT) as their method for data analysis. The Project SAILS group has gathered items responses from students over a three-year development phase and communicates about its high item reliability using the Rasch software, Winsteps. Concerning item reliability, all estimates are greater than .80.

As mentioned in a Projects Sails publication (2006), "because **ACRL standards** were so widely used", designing items set related to ACRL was common sense. This decision is in accordance with our choice to design construct maps (Eagle Task 4.1) related to ACRL.

According to the **assessment type criteria**, note that the Project Sails item bank consist of approximatively 150 multiple choice items. For real test, cohort or individuals had to answer 45 to 55 questions.

The Project Sails items sets have been originally built for undergraduate students. This student target illustrate that the items **cannot fit directly with Eagle's specific needs**.

Finally, regarding its **availability**, although the Project Sails is only intended for Canadian or Us students (or English speaking student out of America) and costs approximately 5 dollars per test, **large samples of items are available on the internet**. Due to copyright issues these items could not be used per se but they will provide us a rich information about the way (content and format) we may build our own items.



## **3.3** Reusability of existing assessment tools

Apart from its important advantages (construct assessed, ACRL alignment, validity cues, free and large availability), the Project Sails items set has one severe limitation, its low fit with Eagle context/audience which is a weakness in every tool we reviewed.

We will therefore consider Project Sails items as a guidance to help Eagle's item designers to build their own local version of items.

The SAILS project provides assessment skills sets for students according to the ACRL standard<sup>2</sup>. There are eight skill sets based on ACRL framework. The SAILS items are classified according to the skill they measure.

- Developing a Research Strategy
- Selecting Finding Tools
- Searching
- Using Finding Tool Features
- Retrieving Sources
- Evaluating Sources
- Documenting Sources
- Understanding Economic, Legal, and Social Issues

## **3.4** First iteration of selection of items

The ACRL standard 2 (Access information) is assessed through 75 items in the Project Sails<sup>3</sup>.

We made an initial selection provides 27 common types of items (MCQ with or without images, text to analyse, etc.) from 7 different skill sets detailed below. Each original skill set may cover several standards but as mentioned, we only kept items related to Standard 2. The selection was made by 2 experts. They represent a wide range of item types.

The initial selection is presented as Annex A.

It presents

- Searching (7 items selected)
- Selecting Finding Tools (5 selected)
- Retrieving Sources (2 selected)
- Documenting Sources (2 selected)
- Using Finding Tool Features (4 selected)
- Evaluating Sources (3 selected)
- Developing a Research Strategy (4 selected)

The full list of items We also present the full standard subscales numbers (Appendix C).

<sup>&</sup>lt;sup>2</sup> <u>https://www.projectsails.org/SkillSets</u>

<sup>&</sup>lt;sup>3</sup> SAILS (2012). Appendix D. Project Sails Test Items. *Results of the Standardized Assessment of Information Literacy Skills (SAILS) for Gadsden State Community College Administration: GSCC Fall 2011*. Report Date: June 2012. pp 154-205. Available at https://www.gadsdenstate.edu/qep/documents/SAILS2011\_000.pdf. May, 5th 2015.



# 4 EAGLE test models

In the context of the EAGLE project, public administration employees can navigate across Open Educational Resources in different languages, from different sources. Our hypothesis is that difficulties arise from learning information literacy. As presented in D4.1 information literacy for public administration employees can be derived from the ACRL framework that mainly addresses library-centric information literacy tasks. EAGLE portal related information literacy skills are well adapted to this context, although its social nature and multimedia content make it necessary to take into consideration the various components of the EAGLE portal and their specificity. Information can be retrieved on a variety of tools and functionalities of the platform rather than only database-like interfaces.

In the EAGLE context we define the following issues related to information literacy:

- Using the EAGLE portal, including the various EAGLE portal functionalities, i.e., search/retrieval, as well as social media components of the portal. It is possible to extend this issue to information sources at the disposal of Public Administration employees.
- Understanding the content of Open Educational Resources.

## 4.1 EAGLE tests

In the context of EAGLE, tests can be

- Related to an OER
- Be integrated to the EAGLE portal as standalone Open Educational Resources

They can be either created manually or generated from one or more learning resource(s).

We aim to use formative assessment to support the public administration employees in ensuring that:

- The public administration employee has a good understanding of the Open Educational Resources, including
  - the concepts included in the OER
  - the meaning of the textual content of the Open Educational Resources
- The public administration employee has a good understanding of the learning information sources at his/her disposal
  - the EAGLE portal
  - $\circ\,$  other learning information sources at the disposal of public administration employees.

While he/she is browsing the EAGLE portal the public administration employee can find assessment items attached to Open Educational Resources or recorded in the portal as Open Educational Resources. While browsing the EAGLE portal, the learner will be able to request tests on the resources to self-assess his understanding, increase his understanding of the resource, and improve his learning experience.

The user to can retrieve standalone tests or use tests associated to OERs from the EAGLE portal and trigger a test to support a process of formative assessment. Finally the EAGLE portal user can create tests for other users, as a social functionality of the portal.



## 4.2 Formative assessment

Assessment tools can be used in multiple contexts, including diagnostic, summative and formative. As opposed to diagnostic and summative assessment the scoring in formative assessment is less important than the completion of the item and potentially the associated feedback.

Various types of feedbacks can be implemented, including hints and references to relevant learning content for the learner to study again the concepts he does not master sufficiently as evidenced by the item or test he/she just took.

In the context of EAGLE, tasks are defined as formative tasks and items as formative items. Whenever possible a formative feedback can be added to the item. The creation of tests by peers (other EAGLE portal users) also represents a formative activity, since it is part of the EAGLE learning experience.

## 4.3 Formative tests in EAGLE

In EAGLE we define 2 types of tests:

- Standalone formative tests on learning information literacy. This includes either tests on the EAGLE portal or tests on other information sources at the disposal of public administration employees, including items on information literacy related to the functionalities of the EAGLE portal or other relevant information sources.

- OER comprehension test (with fact items), including either text comprehension items or terminology items.

These tests can be created manually. However the EAGLE platform will also provide a facility to generate the tests as a basis for tests authors. Test authors will then be able to modify the tests before publishing them on the EAGLE platform.

Although feedback can have a very important role in formative assessment, the functionality is addressed in the assessment item generation framework but it is not taken into consideration in the first iteration of the Assessment Item design.

## 4.4 The generation of tests

Tests are in principle created manually. However a "Automatically Generate Test" functionality will be provided so as to facilitate the task of test authors. The test generation functionality will use one or more Open Educational Resources as input, process them, generate test items and compose one or more tests that the test author can the modify, delete, reorganize or complete with manually authored items.

Tests will be generated from a test generation interface. They will take one or more OER as input.

Following the findings of D4.1, items should use primarily ChoiceItem interactions (multiple choice quiz-like questions), although other types of items may be generated. Items must be generated in French, English and German although not all types of items can be generated in all languages, depending on the OER and the available technologies.



The test can be delivered through the TAO platform. The test takers receive as feedback the correct answer and a score at the end of the test. We expect that the assessment item generation process will help formative assessment scale to the many Open Educational Resources that will be made available to public administration employees.

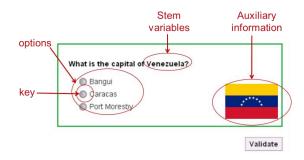


# 5 EAGLE item types

EAGLE item types should be created in the context of the assessment item generation process. They are defined according to the definition of construct maps, evidence models, partial cognitive models, and task models. They can then be implemented as item templates, i.e. the technical implementation of item types.

## 4.1 The assessment item generation process

Assessment Item Generation mechanisms consists in the automatic or semi-automatic creation of test items. Items are created from an item template. The item template describes variables in the stem, options, and auxiliary information (Gierl and Lai 2013). The various components of an item are shown inFigure 1, using an MCQ item as example.



# FIGURE 1 - THE DEFINITION OF VARIABLES IN AN ITEM TEMPLATE FROM FOULONNEAU ET AL. (2014)

Wilson (2009) describes a construct map as "a well thought out and researched ordering of *qualitatively different levels of performance focusing on one characteristic*". A construct map describes a competence which can be broken down into knowledge, skills, and attitudes<sup>4</sup>. A competence represents the ability to apply knowledge and use skills to complete tasks and solve problems. We consider that Proficiency claims can be applied to any of the components of competences, skills, knowledge or attitudes. They can then be evaluated.

Gierl (2012) states that "a task model is a set of instruction that provides knowledge and skills requirements to be expressed on an item template, whereas an item template is an expression of those demands with the inclusion of item content".

A task model defines combinations of cognitive activities interacting with knowledge objects. This defines the knowledge and skill requirements that should be implemented in the design of the item template.

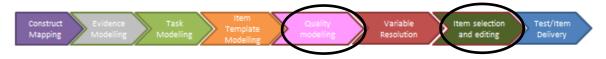
An item template is a representation of an item with the specification of elements (variables) that can be modified under certain conditions so as to generate multiple items from one template. A task model can be used as a basis for the creation of multiple item templates.

The following figure shows the different modelling steps to derive the models for generating items. The process is adapted from the engineering process of Luecht (Luecht 2013). We

<sup>&</sup>lt;sup>4</sup> See EAGLE deliverable D4.1



have enriched the model proposed by Luecht with a stage dedicated to the specification of a quality model associated with the item template and a stage dedicated to the implementation of this quality model for the selection of items, either to be included in an item bank or to be selected for tests (Figure 2).





The quality model of items is composed of :

1) measurable characteristics of an item (such as the distance between options) through a process which we name Item Feature Analysis and

2) psychometric properties of the item which in principle can be resolved through a calibration process.

The measurable characteristics of an item can be analysed either manually (e.g., Sonnleitner, 2008) or automatically (e.g., Pfeiffer et al., 2015). Our hypothesis is that they can support the selection of high quality items created as a result of the assessment item generation process. Indeed a major drawback of assessment item generation is the quality of the generated items. Through the definition of the important measurable characteristics of items (quality model) together with item templates, and the effective analysis of the generated items through Item Feature Analysis using a combination of natural language and semantic based metrics, we aim to support the selection of the highest quality items for being included in the item bank and/or for manual selection and calibration.

Items generated from the same template may share the same psychometric properties when the variables defined in the template are considered incidental to the construct (Sonnleitner, 2008). The template then creates isomorphic items, i.e. items with similar psychometric properties. In this case psychometric properties do not have to be re-calculated for each item generated from the same template. Only a "parent item", used as a representative of all items generated with the same template can in this case be calibrated, with the possibility to determine the psychometric properties of all items generated from the same template.

Finally a cognitive model may be associated to a task to explain the cognitive processes involved in the resolution of this task. No cognitive model can be complete. It depends on the state of knowledge of the cognitive processes involved in the resolution of particular problems and the completion of particular tasks. Nevertheless task models are always implicitly or explicitly based on cognitive models that test authors have in mind, i.e., the cognitive processes which are assumed to be involved in the resolution of a particular task. The documentation of the cognitive model can drive the design of both the task model and the quality model.



## 4.2 Initial set of Item types defined for EAGLE

We define 2 types of constructs for the EAGLE context:

- 1- The public administration employee has a good understanding of the Open Educational Resources, including
  - o 1.1 the concepts included in the OER
  - 1.2 the meaning of the textual content of the Open Educational Resources
- 2- The public administration employee has a good understanding of the learning information sources at his/her disposal
  - 2.1 the EAGLE portal
  - 2.2 other learning information sources at the disposal of public administration employees.

We define therefore the following Constructs:

#### C1: Learning Text comprehension

C1 is composed of Profiency claims (PC):

PC1.1 – knowledge of technical vocabularies

PC1.2 – learning text comprehension

#### Construct C2: Access to needed information effectively and efficiently

This is composed of Profiency claims related to Access to information in various environments.

PC2.1 – Access to needed information effectively and efficiently (Skill as defined in D4.1)

PC2.1a access to needed information effectively from the EAGLE portal

PC2.1b access to needed information effectively from social functionalities

PC2.1c access to needed information effectively from professional databases

We therefore describe preliminary Proficiency claims related to information literacy together with the related evidence models, task models, and item types.

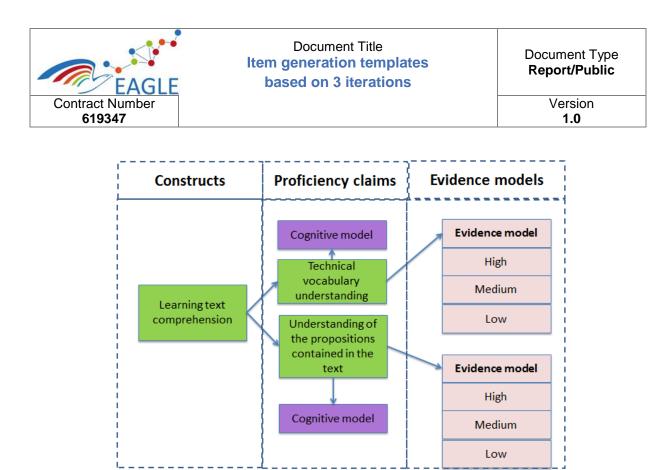


FIGURE 3 - PROFICIENCY CLAIMS RELATED TO CONSTRUCT 1

Figure 3 presents the constructs defined for EAGLE construct 1 together with the skills or proficiency claims which compose the constructs.

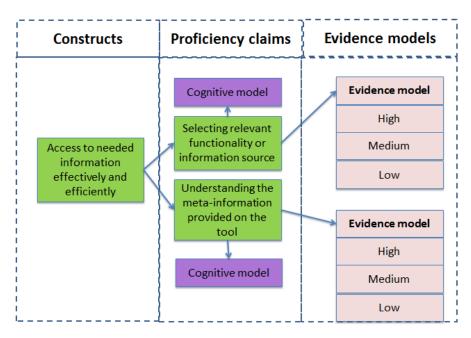


FIGURE 4 - PROFICIENCY CLAIMS RELATED TO CONSTRUCT 2



Figure 4 presents the constructs defined for EAGLE construct 2 together with the proficiency claims which compose the constructs.

We then propose related Evidence models.

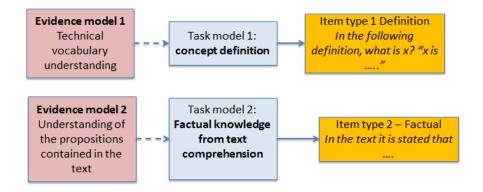


FIGURE 5 - TASK MODELS AND ITEM TYPES FOR PROFICIENCY CLAIMS RELATED TO CONSTRUCT 1

Figure 5 and Figure 6 summarise the item types defined for EAGLE constructs 1 and 2. Related task models have been designed for the corresponding proficiency claims.

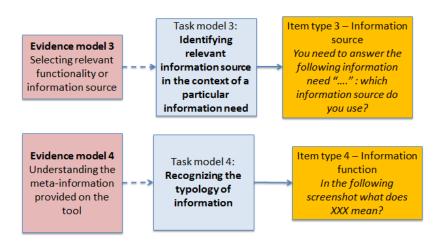


FIGURE 6 - TASK MODELS AND ITEM TYPES FOR PROFICIENCY CLAIMS RELATED TO CONSTRUCT 2

In the above graph we define "item types" which only describe the characteristics and structure of the item templates. Each of the item types defined for EAGLE can have one or multiple item templates each supporting an instantiation of the item type in a particular language (e.g., English vs. French version of Item type 1).



Each item type has a corresponding quality model. Figure 7 represents the quality model associated with Item type 1. Psychometric properties are not known because no calibration process is planned at this stage and possible at the scale targeted by the assessment item generation approach taken by EAGLE. However, item characteristics can be analysed through the Item Features Analysis module.

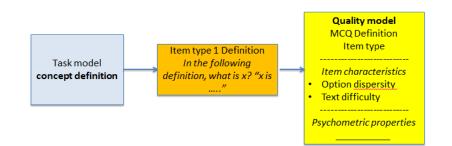


FIGURE 7 - QUALITY MODEL FOR EAGLE ITEM TYPE 1

## 4.2.1 Construct map C1 – Learning text comprehension

The Construct map "learning text comprehension" is composed of the following skills:

- Technical vocabulary understanding (passive knowledge)
- The understanding of the propositions contained in a text.

#### C1 - PC1.1 Proficiency claim: Technical vocabulary understanding

We aim to create a task for learners to demonstrate their ability to provide definitions of technical concepts.

• Technical vocabulary understanding (passive knowledge)

#### Learning process and cognitive model associated with vocabulary learning

Our hypothesis is that in the case the knowledge of technical concepts related to the domain of public administration is similar to other vocabulary learning processes, including in foreign language learning, although the mechanism and sequence of vocabulary acquisition may differ.

As presented in Deane et al. (2014) the acquisition of vocabulary can be active or passive. Choice items are used to assess passive knowledge rather than active knowledge of the vocabulary.

Deane et al., (2014) propose a 4-stages sequence for vocabulary learning that is expected to be more plausible for vocabulary acquired implicitly rather than for vocabulary explicitly learned from a vocabulary list of dictionary.



Version 1.0

- Familiarization with patterns of usage.
- Development of appropriate semantic memory representations
- Development of appropriate conceptual representations
- Consolidation of conceptual representations with world knowledge

#### Evidence model

#### Proficiency claim: Technical vocabulary understanding

Level	Evidence
High level of command	active knowledge of the vocabulary, including the development of conceptual representations and consolidation of conceptual representations with world knowledge
Medium level of command	the semantic memory representation of the vocabulary
Low level of command	the familiarization with patterns of usage of the concept



## Task models

Deane et al. (2008) propose item types for vocabulary learning with the following constraints.

Learning domain	Learning outcome	Constraints for a corresponding task
Vocabulary	Familiarization with patterns of usage.	Candidate can answer based only on implicit knowledge of common usage of the term
Vocabulary	Development of appropriate semantic memory representations	Provides just enough information to strongly and unambiguously activate a single topic or concept
Vocabulary	Development of appropriate conceptual representations	Candidate can make basic definitional inferences, primarily to hypernym relations

In the corresponding EAGLE task, we target the "*Development of appropriate semantic memory representations*" which is deemed sufficient to understand a technical concept in the context of either a learning resource or a professional situation. Choice items allow for testing passive knowledge of vocabulary and technical concepts (PC1.1).

#### Task model 1: concept definition

Identify a concept from its definition.

The public administration employee should be invited to choose between multiple options and identify the correct concept to which the definition applies.



#### Item types

For task model 1, we define item type 1

Item type 1
Category: vocabulary
Construct type: definition
Interaction type: 3 options MCQ
Stem: In the following definition, what is x? "x is"

## The associated quality model

The item difficulty for Item type 1 "In the following definition, what is x?" is related to

- the learner's development of an appropriate conceptual representation
- how clear and unambiguous is the definition
- *how difficult is the definition to read and understand*
- the number and closeness of options.

The associated measurable characteristics shall include:

- how related are the distractors to the key
- the text features through text difficulty metrics

#### Example item designed according to item type 1 :

"In the following definition, what is \_\_\_\_?"

"\_\_\_\_\_\_ are non-mandatory acts issued by the European Commission, the Council of the European Union, or the European Central Bank which suggest a certain form of conduct to those to whom they are addressed without imposing any legal obligations."

- A decision
- A recommendation
- A directive



This type of items can be either created manually or automatically generated from a suitable data source. In the Eurovoc data source<sup>5</sup> the concept definition states "Recommendations are non-mandatory acts issued by the European Commission, the Council of the European Union, or the European Central Bank which suggest a certain form of conduct to those to whom they are addressed without imposing any legal obligations."

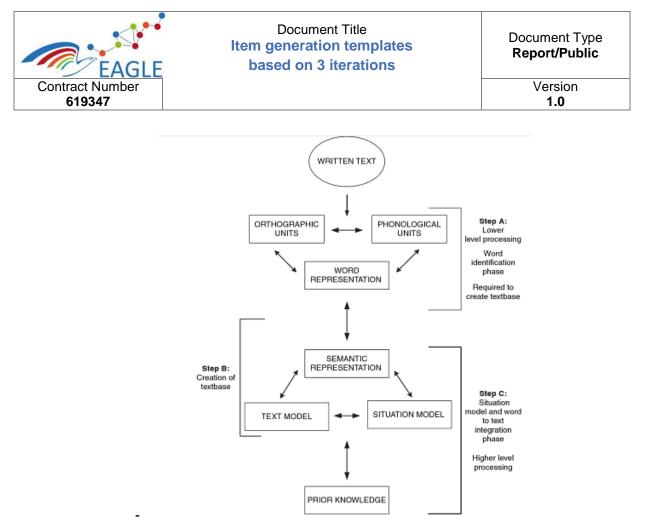
## 4.2.2 C1 - PC1.2 Factual knowledge from text comprehension

## Cognitive model on learning text comprehension

Leighton et al. (2011) base their analysis of text comprehension cognitive model on a constructivist approach. They detail the relation between the text and various levels of representation (Figure 8).

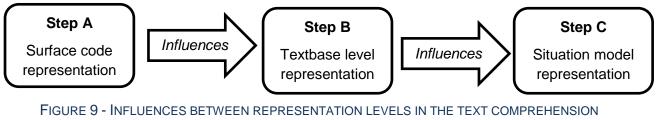
- Step A a "surface code" representation based on the wording and syntax of the text
- Step B a "textbase level of representation [...] based on "explicit text propositions and localized inferences needed to establish text cohesion"
- Step C a "situation model representation" based on background knowledge structures and reader goals.

<sup>&</sup>lt;sup>5</sup> http://eurovoc.europa.eu/drupal/?q=request&uri=http://eurovoc.europa.eu/2927



- FIGURE 8 - OVERVIEW OF THE CONSTRUCTION-INTEGRATION MODEL PROPOSED BY LEIGHTON ET AL. (2011) P.80

It should be noted in Figure 8 the textbase representation (Step B) requires the surface code understanding (Step A). For instance it is considered that without understanding the words and syntax of a sentence it is not possible to understand a text proposition. Difficulties in understanding the surface code can be compensated by either localized inferences (Step B) or background knowledge (Step C) for instance on the expected meaning of a sentence in a particular context. We therefore do not consider a "requirement" but a strong influence of Step A on Step B and of Step B on Step C (Figure 9). They represent different levels of text comprehension but there no strict requirement to understand lower levels of representation to understand a higher level of representation. The learning process do not necessarily follow the sequence of Step A – Step B - Step C. The level of difficulty of text comprehension items cannot be only derived from the representation level, the item is related to.



COGNITIVE MODEL



Sonnleitner (2008) therefore relates the difficulty of text comprehension items to

- the mental model of the text created by the reader when interpreting propositions or "idea units". The construction of the mental model is described as the comprehension of words and the relation established between them (Sonnleitner, 2008). It is therefore related to the textbase level of representation. It however also depends on the reader's background knowledge and goal, thus the situation model representation of the text.
- the importance of the text characteristics to determine item difficulty, including linguistic features such as the density of specific parts of speech for instance. This is particularly related to the surface code representation and textbase level representation.
- the relation between the text and the question.

In the context of EAGLE we only aim to provide questions related to explicit text propositions. However we propose an associated quality model that takes into consideration aspects of the mental model (idea units) as well as text characteristics, which are rather related to the surface code representation of the text but which does influence the textbase level representation that is projected in the reader's mental model.

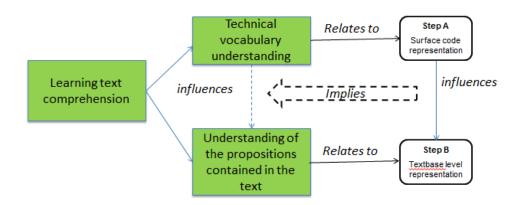


FIGURE 10 - INFERENCE ON PROFICIENCY CLAIMS AND THE ASSOCIATED COGNITIVE MODEL

The Learning Text Comprehension construct (C1) therefore requires both the understanding of vocabulary (Proficiency claim 1.1) which is part of the Surface Code representation understanding (Step A) and the Understanding of the propositions contained in the text (Proficiency claim 1.2), that is rather related to the Textbase Level Representation of the text (Step B), as shown in Figure 3. But assessing Proficiency claim 1.2 is dependent on the assessing Proficiency claim 1.1. The relation between steps involved in the creation of mental model of the text therefore entails an influence relation between the Proficiency claims (Figure 10).



## **Evidence model**

Proficiency claim : Understanding of the propositions contained in the text

Level	Evidence
High level of command	Comprehension of words and the relation established between them across multiple propositions.
	Ability to make inferences from the information contained in the text.
Medium level	Active knowledge of the semantics of words inside the text
of command	Active knowledge of the relation established between words in the text inside individual propositions.
Low level of	Passive knowledge of the semantics of words inside the text.
command	Passive knowledge of the relation established between words in the text inside individual propositions.

#### Task model

Because of the formative assessment context of EAGLE and the focus on text comprehension rather than linguistic comprehension, the task model we aim to implement is expected to assess the understanding of explicit statements from the text. This should require *Active knowledge of the relation established between words in the text inside individual propositions*. In certain cases the statements may be "paraphrased" and/or extracted from a non textual representation of information, such as a graph or a table. As stated in Leighton et al. (2011) there is no framework that clearly presents the evaluation of text comprehension through various levels of inferences. We therefore intend to implement as much as possible assessment mechanisms on elements of the cognitive model that can be reliably measured.

The most common text comprehension items are Choice items that relate to the content of the text. We therefore propose an item type on text content.



## The item types

### Item type 2

Category: comprehension

Construct type: factual knowledge

Interaction type: choice items with 3 options

Stem : In the text it is stated that ....

It should be not that the factual knowledge may be extracted either from a text chunk or from another type of information representation including a table or graphic for instance.

## The associated quality model

The item difficulty for Item type 1 on factual knowledge is related to

- the difficulty of the vocabulary, i.e., how new the concepts to understand are to the reader according to his mental model
- the text features (e.g., coherence, syntactic difficulty ...)
- the inferences required to answer the questions
- the number and closeness of options

Associated measurable characteristics shall therefore include:

- how related are the options to the key
- the text features through text difficulty metrics

From the item types defined above it is possible to create item models (including definition of variables) and item templates (including resolution mechanisms). The specification of EAGLE item templates is described in the next section.



## 6 Item templates

Templates support the generation of assessment items by providing the layer and immutable content of items, as well as a definition of the variables.

Templates have a structure. They follow the definition of tasks to assess a construct.



Gierl proposes a structure of item types for MCQs as illustrated on Figure 11, including:

- A Stem
- Options (including the answer id and label)
- Key (correct answer id among the options)
- Auxiliary information

To this model we need to add

- The feedback.

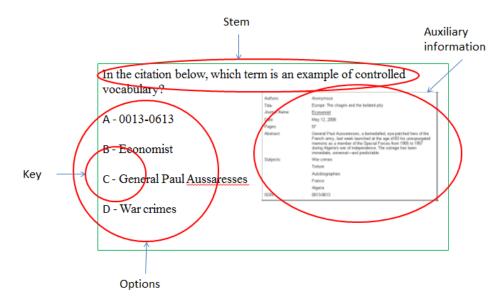


FIGURE 11 - ITEM STRUCTURE AND COMPONENTS IN AN INFORMATION LITERACY ITEM FROM THE SAILS PROJECT (ITEM 582 ON ACRL FRAMEWORK *Objective: 2.2.3.4 Skill Set: Searching*)

## 1.1 The item structure

We therefore propose the following structure for 4 types of interactions: Choice items, match items, open questions, and inline choice items (i.e., cloze questions with gap options).



Version 1.0

Section	Choice item (simple or multiple) components
Stem space	A Stem
	Auxiliary information
Answer space	Options (including the answer id and label): i.e., correct answer and distractors
Answer	Key (s) (correct answer(s) id among the options)
Feedback	The feedback

Section	Match item components
Stem space	A Stem
-	Auxiliary information
Answer space	Series 1 (some may not be included in any match)
-	Series 2 (some may not be included in any match)
Answer	Matches (composed of pairs of elements)
Feedback	The feedback

Section	Open question item
Stem space	A Stem
	Auxiliary information
Answer	Range of possible answers (or rules to identify them)
Feedback	The feedback



Version 1.0

Section	Inline choice items
Stem space	A Stem
	Text
	Auxiliary information
Answer space	Gaps (including the answer id and label): i.e., correct answer and distractors
Answer	Matches (composed of pairs of elements)
Feedback	The feedback

Variables can be included in any of these sections

#### The stem space

Gierl et al. (2008) include a distinction between stems in case multiple variables are included in the stem. We consider that the stem is the question or instruction to follow.

The stem space can include the stem as well as auxiliary information and the text of a cloze question for instance.

## Options

Options can be fixed (always the same options, e.g., "yes", "no", "unknown") or they can be variables. They include an id and a label. One or multiple of them are correct responses (Keys), the others are distractors.

Gierl et al. (2008) include a distinction between options according to the variable resolution method applied (Figure 12).

# **Categories in the Item Model Options**

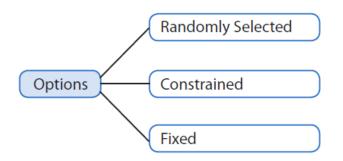


FIGURE 12 - GIERL ET AL. (2008) OPTION CATEGORIES



### Auxiliary information

Auxiliary information is usually an external resource, it can be a multimedia resource. It can have multiple types of relations with the stem (Foulonneau et al., 2014):

- stimulus needed by the candidate to answer the item,
- illustration or contextual information of the item stem topic
- support to help the candidate answer the question

## Feedback

Feedbacks may be dependent on options or matches selected. For instance a candidate may provide an erroneous match among 4 matches to find in an item and the feedback can be provided on the specific match for which an erroneous answer was given by the candidate.

#### The answer section

For certain interactions, the answer media (e.g when it is a map) is predefined and represents a part of the item structure.

Multimedia resources can also be present in the answer section, e.g., as options or media support of the answer (e.g., as a map where candidates have to position elements) (Foulonneau et al., 2014). However they are in this case part of the answer section and not of the Stem section of the item.

The answer is the correct answer or the range of correct answers. Different possible answers either enumerated or defined through rules can be described and potentially associated with scoring mechanisms.

## 6.5 Item models

Item models include the type of interaction, the structure of the items and the specific characteristics of the variables.



Version 1.0

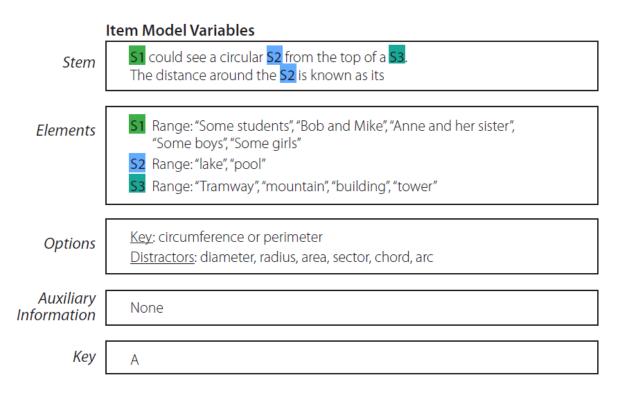
### Model #1: Stem: Independent; Options: Randomly Selected; Auxiliary Information: None

The students could see a circular lake from the top of a Tramway. The distance around the lake is known as its

- A. circumference
- B. diameter
- C. radius
- D. area

### FIGURE 13 - GIERL ET AL. (2008) ITEM MODEL

Whereas Gierl et al. (2008) consider the random selection vs. the constrained selection of options (Figure 12), we consider the variable resolution mechanisms with constraints as well as the implementation of optimization mechanisms to improve the selection of variables.



### FIGURE 14 - GIERL ET AL. (2008) MODEL WITH THE DEFINITION OF VARIABLES

According to Gierl et al., (2008) an item model (Figure 13) contains the representation of an item together with the definition of its structure and variables (Figure 14) as well as constraints on the selection of variables and dependencies between variables (Figure 15)

Version 1.0

### Plausible Stem-by-Option Combinations in the Item Model Taxonomy

	Stem			
Options	Independent	Dependent	Mixed	Fixed
Randomly Selected	$\checkmark$	~	$\checkmark$	$\checkmark$
Constrained	$\checkmark$	$\checkmark$	$\checkmark$	N/A
Fixed	$\checkmark$	$\checkmark$	$\checkmark$	N/A

FIGURE 15 GIERL (2008) DEFINITION OF STEM VARIABLES AND OPTIONS

### 6.6 Item templates

Therefore from the item models we derive 1 item template structure and multiple variable resolution processes.

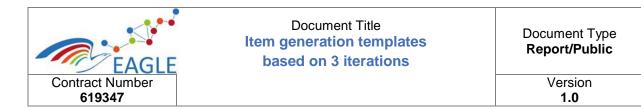
An item template is composed of an XML file with 4 sections. Each value is either mandatory (M) or optional (O).

TemplateMetadata			
Identifier	М	URI	
TaskModel	0	Identifier of the task model implemented in the template	
InteractionType	М	From the QTI list (see below)	
ConstructType	0	From a local list	
		ItemMetadata	
MetadataElement	М	URI (item property from TAO BUT should not be sensitive to any installation)	
MetadataValue	0	String, including {} for variable identification – to be parsed and resolved.	
ItemLayer			
AssessmentItem	М	XML content of the QTI item, including {} for variable placeholders	

The above template model is to be refined according to the type of variables and resolution processes needed, as defined in the next phase.

The assessment item layer includes the XML serialization of the item with {} for variable placeholders.

The metadata section is structured in the same manner as the IMS-QTI usage data mechanism, i.e., as a dictionary which can include any metadata element according to the type of item under consideration.



Different types of variables and variable resolution processes may be implemented.

### Variable Definitions

The Variable definition section describes a list of variables. The Variable resolution section describes the processes that are executed to resolve the variables.

Variable			
Identifier	М	URI	
Туре	М	From local list	
AssociatedProcess	0	From local list	
Range	0	A list of possible values, comma separated	

### Types of variables

We distinguish between multiple types of variables:

- Identifier variables: variables which uniquely identify a resource. These are preferably URIs
- Semantic variables: variables which correspond to a concept, identified by a URI, for which it is possible to have multiple labels
- Numeric variables: integer or float
- Textual variables: String without relation to a semantic URI
- Multimedia variables (resources from other sources, typically as auxiliary information such as a text or picture used as stimulus for a question), they can have constraints including resolution and size to be integrated in the item

### Identifier Variable

Semantic Variable			
Language	0	ISO 639-1 code for the language of the concept of relation label	

Multimedia Variable			
Language	0	ISO 639-1 code for the language of the concept of relation label	
MinSize	0	If picture IxI If text nb of characters	



Version 1.0

		If video Or weight Unit to be defined
MaxSize	0	If picture IxI If text nb of characters If video then length Or weight Unit to be defined
Dcmi:type	0	See list of values below
SupportedMimeType	0	Multiple mime types may be supported

Numeric Variable			
ValueRange	0	An interval (e.g.[ 1 – 10])	

Text Variable			
Language	M	ISO 639-1 code for the language of the concept of relation label	
MinSize	0	Number of characters	
MaxSize	0	Number of characters	

### Variable Dependencies

Dependencies can be provided as a set of rules that limit the value range of variables. Dependency constraints: the verification of constraints representing the relations between variables. This also makes the selection of a variable dependent on the previous resolution of another variable. The variable dependency mechanism can therefore enforce a particular ordering of the resolution process.

Dependency			
DependencyStatement	0	Dependence between variables: e.g., as concept1="xxx" then concept2= "yyyy"	
RelatedVariable	0	Variable whose value is restricted by the dependency statement	



### Variable Resolution and Optimization

We have defined two main types of processes.

- Initialization processes, which can be either creation or retrieval processes
  - Creation processes: can generate the data from a particular set of parameters. It is typically implemented by a programme, either as a Web service or as a standalone programme.
  - Retrieval processes aim to retrieve a variable from an external source through a query interface. Different types of retrieval processes can be implemented according to the type of variables.
- Optimization processes have no specific property but they will be processed at a different stage of the template processing mechanism.

Creation process		
Identifier	Μ	URI
parameters	0	String representing the various parameters to send to the creation process
outcomeVariableIdentifier	0	Identifiers of the outcome variables for the process

Semantic Retrieval process			
Identifier	М	URI	
datasource	0	A SPARQL endpoint	
graph	0	Graph to specify for querying the semantic datasource	
query	М	A SPARQL query	
outcomeVariableIdentifier	0	Identifiers of the outcome variables for the process	

Multimedia Retrieval process		
Identifier	М	URI
datasource	0	Digital library access point reference
query	M	Query to execute on the access point to retrieve multimedia resources
outcomeVariableIdentifier	0	Identifiers of the outcome variables for the process
		Text Retrieval process
Identifier	М	URI
datasource	0	Access point to a text variable source



Version 1.0

query	Μ	Query to execute on the access point to retrieve text chunks
outcomeVariableIdentifier	0	Identifiers of the outcome variables for the process
Optimization process		
Identifier	М	URI
outcomeVariableIdentifier	0	Identifiers of the outcome variables for the process

Two mechanisms ought to be applied to variables either at the occasion or after the resolution step:

Optimization processes can be applied to variables to remove certain options, for instance to enforce the highest possible semantic similarity between distractors and the correct option.

### Lists of possible values

InteractionType:

- ChoiceInteraction
- orderInteraction
- associateInteraction
- matchInteraction
- gapMatchInteraction
- inlineChoiceInteraction
- textEntryInteraction
- extendedTextInteraction
- hottextInteraction
- hotspotInteraction
- selectPointInteraction
- graphicOrderInteraction
- graphicAssociateInteraction
- graphicGapMatchInteraction
- positionObjectInteraction
- sliderInteraction
- drawingInteraction
- fileUpload

### ConstructType

- vocabulary
- grammar
- comprehension
- fact



Version 1.0

## Variable type

- String
- Integer
- Float
- URI
- Multimedia



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# 7 Conclusion

The aim of this deliverable was to provide a comprehensive overview of the item templates creation strategy and the selection process to identify relevant parent items. Based on a review of existing items on information literacy and the use of an innovative item template design approach we propose item models that support the constructs defined in D4.1.

Authoring items is a complex task which requires defining precisely constructs, i.e., competences that need to be evaluated; creating tasks and mechanisms to measure competences as a combination of skills, knowledge , and attitudes; understanding at least partially the cognitive processes behind the resolution of particular tasks; and defining tasks and items without introducing biases. Biases can lead test takers with a high level of competence to perform poorly or be misled or test takers with a lower level of competence to perform well (e.g., socio-cultural biases or biases related to the cognitive profile of test-takers). The quality of assessment items is usually measured through a calibration process, in order to ensure that there is no bias in the items and that they help adequately assessing a particular construct through a distinction between test takers with a high and a low level of competence. We propose following an engineering process in the authoring of test items, as described by Gierl & Haladyna (2013a) so as to enable the semi-automatic generation of assessment items. We expect that this approach can also provide a framework for item authors, especially in a social context to author test items of the highest possible quality in a formative context.

In the next project phase we intend to 1) assess the technology readiness and available variable sources for the generation of items on this initial set of item types and complete or replace the item type sets accordingly, 2) refine the Assessment Item Generation process including the item template structure, and 3) explore relevant feedback mechanisms for item types defined for EAGLE.

The assessment of the technology readiness and availability of sources for the generation of test items will allow defining the set of templates that can be used for assessment item generation using the semi-automated process described in Section 4.4. The construct maps defined in D4.1 and the item models described in D4.5 can also be used for item authoring either through a social process or by learning specialists.

From this initial selection we have to select relevant item types according to the following criteria:

- The applicability of information literacy task to either the OER platform or the work environment of Public administrations ' employees
- The risks related to the AIG mechanisms that can be used to resolve variables: if the quality of the generated items is deemed insufficient, then the cost of manual editing may surpass the cost of initial item authoring
- The ability to define isomorphic item templates. Our objective should be to define a mix of isomorphic and non isomorphic item templates.

From the item types defined in this deliverable it will be possible in the next phase to investigate the feasibility of the generation process and subsequently create item models (including definition of variables) and item templates (including resolution mechanisms).

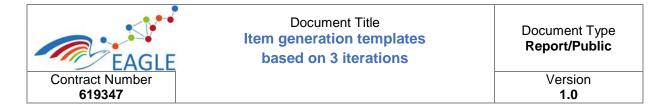


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# A. Appendix – Selected items from the SAILS project

# Items selection for Eagle

The ACRL standard 2 (Access information) is assessed through 75 items in the Project Sails<sup>6</sup>.

The following selection provides 27 common types of items (MCQ with or without images, text to analyse, etc.) from 7 different skill sets detailed below. Each original skill set may cover several standards but as mentioned, we only kept items related to Standard 2.

- Searching
- Selecting finding tools
- Retrieving sources
- Documenting sources
- Using finding tool features
- Evaluating sources
- Developing a research strategy.

### 1. Skill Set selection: Searching (7 items selected)

Question 14. You have to find articles on raising children. Which search is more comprehensive? **CHOOSE ONE ANSWER** Keyword: raising children Subject heading: child rearing *Objective: 2.2.3.<sup>7</sup>2 Skill Set: Searching* 

39. If you wanted to search for a topic that has several synonyms (for example, young people, adolescents, teenagers, teens), which operator would you use?

### CHOOSE ONE ANSWER

Adj And Near Not Or *Objective: 2.2.4.2 Skill Set: Searching* 

88. You need to find reliable information about treatments available for AIDS. Which of these sources would be the most reliable?

### CHOOSE ONE ANSWER

Foltz, Daniel. "The latest in AIDS treatments." American Public Health Journal. 46 January 2008 424-439. McSpiritt, Elizabeth. "Developing new treatments for AIDS." American Journal of Public Health. 91 August 9, 2011 375-390.

<sup>&</sup>lt;sup>6</sup> SAILS (2012). Appendix D. Project Sails Test Items. *Results of the Standardized Assessment of Information Literacy Skills (SAILS) for Gadsden State Community College Administration: GSCC Fall 2011*. Report Date: June 2012. pp 154-205. Available at <a href="https://www.gadsdenstate.edu/qep/documents/SAILS2011\_000.pdf">https://www.gadsdenstate.edu/qep/documents/SAILS2011\_000.pdf</a>. May, 5<sup>th</sup> 2015.

<sup>&</sup>lt;sup>7</sup> The numbering refers to the ACRL documents: the first digit is the ACRL standard, the second is the ACRL performance indicator, the third is the ACRL outcome, and the fourth is the ACRL objective.



Perez, Alejandra. "Trends in AIDS treatment." Journal of Community Health. 22 Winter 1998 212-227. Rhodes, Phillip. "New treatments for AIDS." Community Health Journal. 44 Summer 2008 90-105. Rosch, Leah. "AIDS: What we know about treating AIDS." The Journal for American Public Health. 17 Fall 2009 18-33.

Objective: 2.4.1.3 Skill Set: Searching

196. You are writing a 20-page research paper. Your search on your topic has retrieved more than 500 articles. What is the best course of action?

### CHOOSE ONE ANSWER

Do not revise the search, because the number of articles is good.

Revise the search to retrieve fewer results.

Revise the search to retrieve more results.

Objective: 2.4.1.1 Skill Set: Searching

230. You are writing a paper on economic development in China. You search a research database by typing in, "economic development in China" and retrieve no results. Which of the following actions would help you retrieve a good number of relevant results?

CHOOSE ONE ANSWER Add search terms.

Omit one of the search terms. Try searching for: econ\* and dev\* and Chin\* Try searching for: economic development and China Try searching for: economic development China *Objective: 2.2.5.3 Skill Set: Searching* 

582. In the citation below, which term is an example of controlled vocabulary?

Authors:	Anonymous
Title:	Europe: The chagrin and the belated pity
Journal Name:	<u>Economist</u>
Date:	May 12, 2008
Pages:	57
Abstract:	General Paul Aussaresses, a bemedalled, eye-patched hero of the French army, last week launched at the age of 83 his unexpurgated memoirs as a member of the Special Forces from 1955 to 1957 during Algeria's war of independence. The outrage has been immediate, universal—and predictable.
Subjects:	War crimes
	Torture
	Autobiographies
	France
	Algeria
ISSN	0013-0613

### **CHOOSE ONE ANSWER**

0013-0613 Economist General Paul Aussaresses Special Forces War crimes *Objective: 2.2.3.4 Skill Set: Searching* 

604. A search for HIV in a research database returns almost 140,000 results. How would you reduce your results to articles that were published from 2007 onwards in English?

#### **CHOOSE ONE ANSWER**

Because the articles are presented chronologically, page through until the last 2006 article appears and then look through the rest to eliminate the foreign language ones.

Repeat the search with the terms "HIV AND >=2007"

Repeat the search with the terms "HIV AND 2007 to present"

There is no way to set these limits, so one must go through each retrieved record.

Use the Limits option in the research database to set the publication dates and languages.



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Objective: 2.2.5.3 Skill Set: Searching

### 2. Skill Set selection: Selecting Finding Tools (5 selected)

19. What is a list of books, journal articles, or other materials about a certain topic?
CHOOSE ONE ANSWER
Bibliography
Keyword
Library catalog
Research database
Subject heading
Objective: 2.1.3.4 Skill Set: Selecting Finding Tools

140. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Anyone can add information to it.

#### **CHOOSE ONE ANSWER**

This statement is true about both the academic library and the Web. This statement is true about the academic library. This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 

518. What time period does this source cover? AUTHOR Smith, James, 1950-Colonial America: An Encyclopedia of Social, Political, and Cultural History. TITLE IMPRINT Dansville, NY : Modern Reference, c2008. DESCRIPT'N 4 v. : ill., maps ; 29 cm. NOTE Includes bibliographical references and indexes. NOTE Topics include: African Americans -- Agriculture and extractive industries -- Salem witch trials -- Arts, culture, and intellectual life --British colonies -- Cities and settlements -- Dutch colonies -- Economy, business, and labor -- European Americans -- French colonies -- Health and medicine -- Native Americans (American Indians) -- Politics, law, and government -- Religion -- Spanish Colonies -- Women and gender issues --Transatlantic trade -- Race and ethnicity. SUBJECT United States -- Civilization -- To 1783 -- Encyclopedias. 53287722 OCLC# ISN/STD # GBA556770 bnb. LCCN 2002143235. CALL # E162 .S692 2006

#### **CHOOSE ONE ANSWER**

1600-1783 1610-1710 1783-1865 1950 to the present 2006 *Objective: 2.1.3.8 Skill Set: Selecting Finding Tools* 

523. All of the following criteria are useful when identifying a resource to use for your research except: **CHOOSE ONE ANSWER** 

The author's bias. The author's credibility. The format of the resource. How up-to-date the resource is. Who the author is. *Objective: 2.3.1.2 Skill Set: Selecting Finding Tools* 

584. If you want to locate good journal articles on a specific topic, which of these is the best way to start?



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### CHOOSE ONE ANSWER

Page through journals. Use a research database. Use the library catalog. *Objective: 2.1.3.5 Skill Set: Selecting Finding Tools* 

### 3. Skill Set selection: Retrieving Sources (2 selected)

29. If you find a citation to a journal article online, but the whole article is not online, what is the best way to get the article?

### **CHOOSE ONE ANSWER**

Contact the author of the article and ask for a copy. Search the library catalog for the article title. See if the library subscribes to the journal in print. You can't get the article.

229. What is the best way to obtain the item in this database record?

Pennsylvania public-private partnership formed to curtail pregnant women smoking
Health & Medicine Week; 8/16/2008, p1214, 3p
Article
Citation PDF Full Text (209K)

### **CHOOSE ONE ANSWER**

Click on "Citation" to obtain the full text. Click on "PDF Full Text" link. Click on the journal title (the "source" link) to obtain the full text. Request this item through interlibrary loan. Search your library catalog for the journal title and, if it is available, obtain it in print at your library.

### 4. Skill Set selection: Documenting Sources (2 selected)

40. The citation below refers to what? Gertz , Bill. "Depressions, Recessions, and Inflation." The Ledger.August 13, 2007, Section: Business, Pg. D7 CHOOSE ONE ANSWER

Book Chapter within a book Encyclopedia article Newspaper article Periodical article

193. Identify the type of resource referenced in the following database record.

Title:	Richard Nixon: Crisis in the White House.
Authors:	Smith, Mary
Source:	<u>American Historγ;</u> Dec 2007, Vol. 27 Issue 5, p767, 6p.
ISSN:	0145-2096
Accession Number:	13002552

#### CHOOSE ONE ANSWER Book

Book chapter



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Government document Magazine or journal article Newspaper article

### 5. Skill Set selection: Using Finding Tool Features (4 selected)

42. If you need to know what chapters are in a book, which part of the book provides the best information? **CHOOSE ONE ANSWER** 

Cover of the book Endnotes Glossary Introduction Table of Contents

62. You're writing a paper on Indira Gandhi and your professor has told you that Gandhi is mentioned in a book that you have. What part of the book will direct you to the right pages for the passage(s) on Indira Gandhi? **CHOOSE ONE ANSWER** 

Bibliography Footnotes Index Preface Title page *Objective: 2.2.6.4 Skill Set: Using Finding Tool Features* 

71. While searching the Web using a search engine, you would like to limit the results to items in the English language that are less than three years old. Which of the following links on the search engine home page would be the most effective option for conducting a search of this type?

**CHOOSE ONE ANSWER** About Advanced Search Customize Settings Simple Search Site Map

259. Research databases vary in their search protocols. For example, one database may use an asterisk (\*) as a truncation symbol while another database uses a question mark (?). What is the most efficient way to identify search protocols appropriate to the retrieval system?

#### CHOOSE ONE ANSWER

Look at the database search help screen. Type in different symbols until you get good results. Work through the database tutorial on searching. Objective: 2.2.5.1 Skill Set: Using Finding Tool Features

### 6. Skill Set selection: Evaluating Sources (3 selected)

150. If you need an eyewitness account of the public reaction to a speech given in the 19th century, which type of source would be most likely to provide that information?

CHOOSE ONE ANSWER

Primary source Secondary source Tertiary source *Objective: 2.1.4.1 Skill Set: Evaluating Sources* 



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534. All of the following criteria are useful for evaluating a magazine article except: CHOOSE ONE ANSWERThe author's point of view.The number of pages.When the article was written.Who wrote the article.

535. You have been assigned a short paper topic that will require you to locate up-to-date facts about the planets in our solar system. Which of the following resources are the most useful?

#### CHOOSE ONE ANSWER

Bibliography and encyclopaedia Dictionary and Web site Encyclopaedia and world atlas Science textbook and world atlas Web site and almanac *Objective: 2.4.1.4 Skill Set: Evaluating Sources* 

Objective: 2.4.1.2 Skill Set: Evaluating Sources

### 7. Skill Set selection: Developing a Research Strategy (4 selected)

203. Your instructor tells your class about a research consultation service available at the library. What would be the best way to find out more about this service?

#### **CHOOSE ONE ANSWER**

Consult the campus newspaper. Consult the library's online catalog. Consult the library's Web site. Consult the university's course catalog. Consult the university's Web site. *Objective: 2.3.3.5 Skill Set: Developing a Research Strategy* 

237. Which of the following best describes a "periodical publication containing original research reports?" CHOOSE ONE ANSWER

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) *Objective: 2.2.2.4 Skill Set: Developing a Research Strategy* 

532. Which of the following is the least effective way to keep track of the articles that you find in a database search?

#### **CHOOSE ONE ANSWER**

E-mail a list of the articles to yourself. Export a list of the articles into a bibliographic management tool. Save a list of the articles to your portable drive. Write down a list of the articles. *Outcome: 2.5.5 Skill Set: Developing a Research Strategy* 

548. What is the best thing to do when you need help with library research? **CHOOSE ONE ANSWER** Ask at the circulation desk. Ask the person shelving books. Call the circulation desk. Call the reference desk. *Objective: 2.3.3.3 Skill Set: Developing a Research Strategy* 



### 8. Appendix A. Standard 2: full list of items

14. You have to find articles on raising children. Which search is more comprehensive?CHOOSE ONE ANSWERKeyword: raising childrenSubject heading: child rearingObjective: 2.2.3.2 Skill Set: Searching

19. What is a list of books, journal articles, or other materials about a certain topic?
CHOOSE ONE ANSWER
Bibliography
Keyword
Library catalog
Research database
Subject heading
Objective: 2.1.3.4 Skill Set: Selecting Finding Tools

21. To find books about the American poet Maya Angelou, which search is the most effective? **CHOOSE ONE ANSWER** 

Author: Angelou Subject: Angelou Title: Angelou *Objective: 2.2.4.1 Skill Set: Searching* 

22. What is a computer system that shows what journal articles have been published on a certain topic? CHOOSE ONE ANSWER

Bibliography Keyword Library catalog Research database Subject heading *Objective: 2.3.2.2 Skill Set: Selecting Finding Tools* 

25. Most books in academic libraries are arranged by their call numbers. Which statement best describes books with the same or similar call numbers?

#### **CHOOSE ONE ANSWER**

They are all on the same or similar subjects. They are all the same size. They were all acquired by the library at the same time. They were all written by the same author. *Objective: 2.3.2.1 Skill Set: Retrieving Sources* 

29. If you find a citation to a journal article online, but the whole article is not online, what is the best way to get the article?

#### **CHOOSE ONE ANSWER**

Contact the author of the article and ask for a copy. Search the library catalog for the article title. See if the library subscribes to the journal in print. You can't get the article. *Objective: 2.3.1.1 Skill Set: Retrieving Sources* 

39. If you wanted to search for a topic that has several synonyms (for example, young people, adolescents, teenagers, teens), which operator would you use?

### CHOOSE ONE ANSWER

Adj And



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Near Not Or *Objective: 2.2.4.2 Skill Set: Searching* 

40. The citation below refers to what? Gertz, Bill. "Depressions, Recessions, and Inflation." The Ledger. August 13, 2007, Section: Business, Pg. D7

**CHOOSE ONE ANSWER** Book Chapter within a book Encyclopedia article Newspaper article Periodical article *Objective: 2.3.2.4 Skill Set: Documenting Sources* 

42. If you need to know what chapters are in a book, which part of the book provides the best information? **CHOOSE ONE ANSWER** 

Cover of the book Endnotes Glossary Introduction Table of Contents *Objective: 2.2.6.4 Skill Set: Using Finding Tool Features* 

44. The citation below refers to what? Gertz , Bill. (2007). "Depressions, Recessions, and Inflation." Business Cycles, 24 (1): 28-30.

CHOOSE ONE ANSWER Book Chapter within a book Encyclopedia article Newspaper article Periodical article Objective: 2.3.2.4 Skill Set: Documenting Sources

49. The citation below refers to what? Gertz , Bill. (2007). "Depressions, recessions, and inflation." In Manusov, Valerie and Harvey, John H., (Eds), Business Cycles in the United States Economy. Cambridge University Press: New York. Pages 93-114.

**CHOOSE ONE ANSWER** Book Chapter within a book Encyclopedia article Newspaper article Periodical article *Objective: 2.3.2.4 Skill Set: Documenting Sources* 

59. You're searching a database for a low-fat recipe for pasta with either shrimp or chicken. Which search demonstrates the proper use of nesting to get many search results that are very relevant?

#### CHOOSE ONE ANSWER

Noodles or (pasta and shrimp) or chicken and low-fat (Noodles or pasta) and (shrimp or chicken) and low-fat Noodles or pasta and (shrimp or chicken) and low-fat (Noodles or pasta) and shrimp or (chicken and low-fat) Noodles or pasta and shrimp or chicken and low-fat *Objective: 2.2.4.4 Skill Set: Searching* 

60. The citation below refers to what? Gertz , Bill. Business Cycles in the United States Economy. New York: Viking, 2007.

**CHOOSE ONE ANSWER** Book



Version 1.0

Chapter within a book Encyclopedia article Newspaper article Periodical article *Objective: 2.3.2.4 Skill Set: Documenting Sources* 

62. You're writing a paper on Indira Gandhi and your professor has told you that Gandhi is mentioned in a book that you have. What part of the book will direct you to the right pages for the passage(s) on Indira Gandhi? **CHOOSE ONE ANSWER** 

Bibliography Footnotes Index Preface Title page *Objective: 2.2.6.4 Skill Set: Using Finding Tool Features* 

71. While searching the Web using a search engine, you would like to limit the results to items in the English language that are less than three years old. Which of the following links on the search engine home page would be the most effective option for conducting a search of this type?

CHOOSE ONE ANSWER About Advanced Search Customize Settings Simple Search Site Map Objective: 2.2.5.2 Skill Set: Using Finding Tool Features

88. You need to find reliable information about treatments available for AIDS. Which of these sources would be the most reliable?

### CHOOSE ONE ANSWER

Foltz, Daniel. "The latest in AIDS treatments." American Public Health Journal. 46 January 2008 424-439. McSpiritt, Elizabeth. "Developing new treatments for AIDS." American Journal of Public Health. 91 August 9, 2011 375-390.

Perez, Alejandra. "Trends in AIDS treatment." Journal of Community Health. 22 Winter 1998 212-227. Rhodes, Phillip. "New treatments for AIDS." Community Health Journal. 44 Summer 2008 90-105. Rosch, Leah. "AIDS: What we know about treating AIDS." The Journal for American Public Health. 17 Fall 2009 18-33.

Objective: 2.4.1.3 Skill Set: Searching

90. You are writing a paper on the legal rights of women in pre-Civil War America. Which of the following sources would be most appropriate?

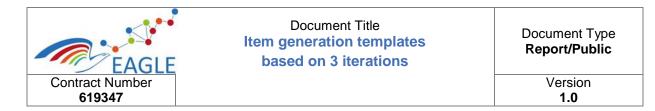
#### **CHOOSE ONE ANSWER**

Bell, Theresa. "Women and Their Rights Under the Law." Price Law Journal. May 1982 340-355. Hardesty, Julia. "Women's Rights Under the Law." The Journal for the Study of Law. 15 Fall 1850 210-25. Ross, Barbara. "Laws and the Rights of Women." Journal of Legal Trends. 44 Summer 1999 90-105. Smith, Catherine. "The Law and Women's Rights." Journal of the Legal System. 38 January 1967 100-15. Whitacre, Sarah. "The Lawful Rights of Women." Journal of Law and Legislation. 71 Winter 2001 15-30. *Objective: 2.4.1.3 Skill Set: Searching* 

108. You need to write a paper on the effects of the European Union on France. If you conduct a search for the term "European Union" that requires it to be next to, in the same sentence as, or within a specified number of words from the term "France," what type of search are you conducting?

### **CHOOSE ONE ANSWER**

Associated Boolean Coupled Phrase Proximity *Objective: 2.2.4.3 Skill Set: Searching* 



139. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language.Given the preceding definitions, what can you say about the following statement?Statement: All its resources are free and accessible to students.

#### CHOOSE ONE ANSWER

This statement is true about both the academic library and the Web.

This statement is true about the academic library.

This statement is true about the Web.

This statement is true of neither the academic library nor the Web.

Objective: 2.1.3.6 Skill Set: Selecting Finding Tools

140. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Anyone can add information to it.

#### **CHOOSE ONE ANSWER**

This statement is true about both the academic library and the Web.

This statement is true about the academic library.

This statement is true about the Web.

This statement is true of neither the academic library nor the Web.

Objective: 2.1.3.6 Skill Set: Selecting Finding Tools

141. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Has material for everyone, including shoppers, support groups, fans, scholars, students, hobbyists, businesses.

#### **CHOOSE ONE ANSWER**

This statement is true about the Web. This statement is true about the academic library. This statement is true about both the academic library and the Web. This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 

142. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Information is selected for inclusion based on explicit criteria, such as authoritativeness.

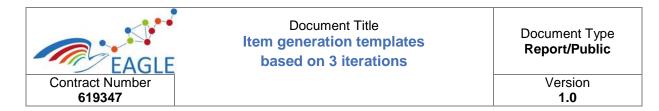
### **CHOOSE ONE ANSWER**

This statement is true about both the academic library and the Web. This statement is true about the academic library. This statement is true about the Web. This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 

150. If you need an eyewitness account of the public reaction to a speech given in the 19th century, which type of source would be most likely to provide that information?

#### **CHOOSE ONE ANSWER**

Primary source Secondary source Tertiary source *Objective: 2.1.4.1 Skill Set: Evaluating Sources* 



192. If you want to obtain a book or article that is not available at your local library, which of the following statements is most accurate about your options?

### CHOOSE ONE ANSWER

The library offers a variety of ways to help you obtain items it doesn't own, but you will be required to pay a fee to use these services. The library offers a variety of ways to obtain items it doesn't own. Some of these options may be free, while others may require a fee.

Your only option is to ask the library to purchase the item on your behalf.

Your only option is to obtain the item yourself, for example by going to another library or purchasing the item. *Objective: 2.3.3.2 Skill Set: Retrieving Sources* 

193.	Identify the	type of resource	ce referenced in	the following	g database record.
1/0.	i denting the	ejpe or ressert			, and abe record.

Title:	Richard Nixon: Crisis in the White House.
Authors:	Smith, Mary
Source:	<u>American Historγ</u> ; Dec 2007, Vol. 27 Issue 5, p767, 6p.
ISSN:	0145-2096
Accession Number:	13002552

CHOOSE ONE ANSWER Book Book chapter Government document Magazine or journal article Newspaper article Objective: 2.5.3.1 Skill Set: Documenting Sources

194. What is the best way to obtain the item in this library catalog record?

Authors:	<u>Lawrence, Jerome, 1915-</u>		
Title:	Inherit the wind / by Jerome Lawrence and Robert E. Lee		
Publisher Info:	New York : Dramatists Play Service, 1958		
LOCATION	<b>CALL #</b>	<b>STATUS</b>	
Main Library	PS3523.A934 l6 1958	Available	
Description:	104, [2] p. : ill ; 20 cm		
OCLC# LCCN:	1601421 58000893		

### CHOOSE ONE ANSWER

Click on the author's name to obtain the full text. Click on the call number to obtain the full text. Search a periodical database for an online copy of this item. Use the call number to locate the item in your library. *Objective: 2.3.3.1 Skill Set: Retrieving Sources* 

195. Which part of the following library catalog record would be used to locate this government document in the library?



Authors:	United States. Congress. Sentate. Committee on Commerce, Science, and Transportation. Subcommittee on Aviation		
Title:	International aviation relations		
Publisher Info:	Washington : U.S. G.P.O. : For sale by the U.S. G.P.O., Supt. of Docs., Congressional Sales Office, 2006		
Description:	iii, 103p. : ill. ; 23 cm		
Series:	United States, Congress, Senate, S. hrg. ; 104-637		
Note:	Distributed to some depository libraries in microfiche		
Shipping list no.:	97-0097-P		
Includes bibliographical r	eferences		
Sudoc #:	Y 4.C 73/7:S.HRG.104-637		
OCLC #:	36324337		
ISBN:	0160538629		
LCCN:	gp 97057621		

### CHOOSE ONE ANSWER

ISBN: 0160538629 LCCN : gp 97057621 OCLC #: 36324337 Shipping list no.: 97-0097-P Sudoc # : Y 4.C 73/7:S.HRG.104-637 *Objective: 2.3.2.1 Skill Set: Retrieving Sources* 

196. You are writing a 20-page research paper. Your search on your topic has retrieved more than 500 articles. What is the best course of action?

### CHOOSE ONE ANSWER

Do not revise the search, because the number of articles is good. Revise the search to retrieve fewer results. Revise the search to retrieve more results. *Objective: 2.4.1.1 Skill Set: Searching* 

197. Identify the type of resource referenced in the following database record.

Title:	Richard Nixon: Crisis in the White House.
Authors:	Smith, Mary
Source:	<u>American History</u> , 1998, pp. 429-38.
Publisher Info:	Fairfax, Va.: George Mason University Press; distributed by University Publishing Associates, Lanham, Md. and London
Publication Date:	1998
Editor:	Jones, John, ed.
ISBN:	1-32000-604-1
Accession Number:	0034880

### CHOOSE ONE ANSWER

Book Book chapter Government document Magazine or journal article



Version 1.0

Newspaper article Objective: 2.5.3.1 Skill Set: Documenting Sources

199. Which of the following statements most accurately describes the use of documentation or citation styles, for example, APA, MLA?

### **CHOOSE ONE ANSWER**

All disciplines use the same documentation style for formal written papers.

There are many documentation styles, and they vary by discipline.

There are many documentation styles, and they vary by education levels, such as high school, college undergraduate, graduate and doctoral.

There are many documentation styles, and which style you use depends on the format of the source being cited, such as books and articles.

Objective: 2.5.3.3 Skill Set: Documenting Sources

203. Your instructor tells your class about a research consultation service available at the library. What would be the best way to find out more about this service?

#### CHOOSE ONE ANSWER

Consult the campus newspaper. Consult the library's online catalog. Consult the library's Web site. Consult the university's course catalog. Consult the university's Web site. *Objective: 2.3.3.5 Skill Set: Developing a Research Strategy* 

214. If you need an article or book that is not available online or in your library, what is the best course of action for obtaining the source?

### **CHOOSE ONE ANSWER**

Complete a purchase request form at the library. Consult with staff at the circulation desk. Submit an interlibrary loan request. Write the publisher requesting a copy. *Objective: 2.3.3.4 Skill Set: Retrieving Sources* 

# 216. Which of the following call numbers comes immediately after the call number LC 1087.3 .H24? **CHOOSE ONE ANSWER**

LC 1087 .H25 LC 1087.24 .A33 LC 1087.31 .B83 LC 1087.4 .B38 LC 1088 .L11 Objective: 2.3.2.1 Skill Set: Retrieving Sources

228. You are writing a 20-page research paper. Your search on your paper topic has produced 3 articles. What is the best course of action?

#### **CHOOSE ONE ANSWER**

Do not revise the search, because the number of articles is good. Revise the search to retrieve fewer results. Revise the search to retrieve more results. *Objective: 2.4.1.1 Skill Set: Searching* 

229. What is the best way to obtain the item in this database record?



Title:	Pennsylvania public-private partnership formed to curtail pregnant women smoking
Source:	Health & Medicine Week; 8/16/2008, p1214, 3p
Document Type:	Article
Formats:	Citation PDF Full Text (209K)

### **CHOOSE ONE ANSWER**

Click on "Citation" to obtain the full text. Click on "PDF Full Text" link. Click on the journal title (the "source" link) to obtain the full text. Request this item through interlibrary loan. Search your library catalog for the journal title and, if it is available, obtain it in print at your library. *Objective: 2.3.3.1 Skill Set: Retrieving Sources* 

230. You are writing a paper on economic development in China. You search a research database by typing in, "economic development in China" and retrieve no results. Which of the following actions would help you retrieve a good number of relevant results?

### CHOOSE ONE ANSWER

Add search terms. Omit one of the search terms. Try searching for: econ\* and dev\* and Chin\* Try searching for: economic development and China Try searching for: economic development China *Objective: 2.2.5.3 Skill Set: Searching* 

237. Which of the following best describes a "periodical publication containing original research reports?" **CHOOSE ONE ANSWER** 

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) *Objective: 2.2.2.4 Skill Set: Developing a Research Strategy* 

239. Which of the following best describes a "publication issued periodically, usually weekly or monthly, intended for the general public, containing articles, stories, photographs, and advertisements?"

### CHOOSE ONE ANSWER

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) Objective: 2.2.2.4 Skill Set: Developing a Research Strategy

247. Which of the following search statements would retrieve the most records? **CHOOSE ONE ANSWER** "Behavior disorders and hyperactivity" Behavior disorders and hyperactivity Behavior disorders or hyperactivity Behavior disorders or hyperactivity *Objective: 2.2.4.2 Skill Set: Searching* 

257. What is the primary reason for using a research or periodical database? **CHOOSE ONE ANSWER** To find citations or articles To search the Web To see if the library owns a book



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### To see if the library owns a journal *Objective: 2.3.1.4 Skill Set: Selecting Finding Tools*

259. Research databases vary in their search protocols. For example, one database may use an asterisk (\*) as a truncation symbol while another database uses a question mark (?). What is the most efficient way to identify search protocols appropriate to the retrieval system?

### CHOOSE ONE ANSWER

Look at the database search help screen. Type in different symbols until you get good results. Work through the database tutorial on searching. Objective: 2.2.5.1 Skill Set: Using Finding Tool Features

260. In most research databases, an advantage to using a keyword search is that keyword searches: **CHOOSE ONE ANSWER** 

Are especially useful for topics with an established body of literature. Are more discriminating and yield more appropriate citations. Search most or all parts of the record and yield more results. Use Library of Congress subject headings. *Objective: 2.3.1.5 Skill Set: Using Finding Tool Features* 

444. Which of the following best identifies a "periodical publication, particularly one issued by an association, generally containing reports, articles and targeted advertising in a particular profession or industry?"

### **CHOOSE ONE ANSWER**

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) *Objective: 2.2.2.4 Skill Set: Developing a Research Strategy* 

515. You are using a research database that uses an asterisk (\*) as its truncation symbol. When you type in "mathemat\*" you retrieve records that contain which of the following words?

### **CHOOSE ONE ANSWER**

Arithmetic, math, mathematics Math, mathematics, mathematician Mathematics, mathematical, mathematician *Objective: 2.2.4.7 Skill Set: Searching* 

518. What time period does this source cover?
CHOOSE ONE ANSWER
1600-1783
1610-1710
1783-1865
1950 to the present
2006
Objective: 2.1.3.8 Skill Set: Selecting Finding Tools

519. The professor in your history class assigns you to write a paper on the topic of women's suffrage and the Women's Social and Political Union in Great Britain in the early 1900s. She requires that the sources you use must be scholarly articles published after 1970. Which is the best resource to use?

### **CHOOSE ONE ANSWER**

America: History and Life (1960-present) Historical Abstracts (1967-present) InfoTrac Magazine Index (1965-present) International Newspapers Database (1900-present) Political Science Abstracts (1900-1971) Objective: 2.3.2.3 Skill Set: Selecting Finding Tools



520. If you are using the 7-volume Encyclopedia of Science to find information on the topic of DNA, what is the

most efficient way to be sure you find all the relevant information that is in the encyclopedia? **CHOOSE ONE ANSWER** Look through the bibliography. Look under "D" for DNA.

Look up "DNA" in the index. Use the table of contents. *Objective: 2.3.1.6 Skill Set: Using Finding Tool Features* 

521. If you want to find a report of a research study that is written by the people who conducted the research, which type of resource is the best choice?

**CHOOSE ONE ANSWER** 

Magazine article database Newspaper database Scholarly journal database Statistical information database *Objective: 2.1.3.9 Skill Set: Selecting Finding Tools* 

522. All of the following are effective ways to locate major reference sources appropriate to a subject discipline, such as linguistics, music, or biology, except:

#### **CHOOSE ONE ANSWER**

Ask a librarian at the reference desk. Browse the library's regular collection in the appropriate call number area. Browse the reference collection in the appropriate call number area. Use a web search engine to find references to that discipline. *Objective: 2.2.6.1 Skill Set: Selecting Finding Tools* 

523. All of the following criteria are useful when identifying a resource to use for your research except: CHOOSE ONE ANSWER
The author's bias.
The author's credibility.
The format of the resource.
How up-to-date the resource is.
Who the author is.
Objective: 2.3.1.2 Skill Set: Selecting Finding Tools

525. In most research databases, the "help" feature will do all the following except:

### CHOOSE ONE ANSWER

Help you do an advanced search.Help you focus your search topic.Tell you how to do an author search.Tell you how to truncate search terms.Tell you what type of material is included in the database.*Objective: 2.1.3.2 Skill Set: Using Finding Tool Features* 

526. Most research databases have all of the following components except: **CHOOSE ONE ANSWER** Abstracts of articles Author biographies Date limiting Keyword searching Thesaurus of subject terms *Objective: 2.1.3.1 Skill Set: Using Finding Tool Features* 

527. Which of the following resources is not available through the *ISI Web of Knowledge* gateway? **CHOOSE ONE ANSWER** 



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Arts & Humanities Citation Index Highly Cited Authors' Biographies RefWorks Bilbliographic Management Software Science Citation Index Social Sciences Citation Index Objective: 2.1.3.3 Skill Set: Using Finding Tool Features

532. Which of the following is the least effective way to keep track of the articles that you find in a database search?

### CHOOSE ONE ANSWER

E-mail a list of the articles to yourself. Export a list of the articles into a bibliographic management tool. Save a list of the articles to your portable drive. Write down a list of the articles. *Outcome: 2.5.5 Skill Set: Developing a Research Strategy* 

534. All of the following criteria are useful for evaluating a magazine article except: CHOOSE ONE ANSWER
The author's point of view.
The number of pages.
When the article was written.
Who wrote the article.
Objective: 2.4.1.2 Skill Set: Evaluating Sources

535. You have been assigned a short paper topic that will require you to locate up-to-date facts about the planets in our solar system. Which of the following resources are the most useful?

### CHOOSE ONE ANSWER

Bibliography and encyclopedia Dictionary and Web site Encyclopedia and world atlas Science textbook and world altas Web site and almanac *Objective: 2.4.1.4 Skill Set: Evaluating Sources* 

539. Books in the library are arranged primarily by:
CHOOSE ONE ANSWER
What size they are.
What their subjects are.
When they were cataloged by the library.
When they were purchased by the library.
Objective: 2.2.6.3 Skill Set: Retrieving Sources

540. If you want to combine search terms in a research database, which of the following is the best way to do this?

### CHOOSE ONE ANSWER & + AND No need to put in anything except the keywords *Objective: 2.1.3.7 Skill Set: Using Finding Tool Features*

# 541. Which of the following search strategies would be the most efficient for finding articles on "fast food?" CHOOSE ONE ANSWER

Fast adj food Fast near food Fast or food *Objective: 2.2.4.2 Skill Set: Searching* 

543. Select the set that best represents synonyms and related terms for the concept "college students."



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### CHOOSE ONE ANSWER

Colleges, universities, community colleges Graduate students, freshmen, sophomores University, adult learners, educational attendees *Objective: 2.2.2.3 Skill Set: Searching* 

545. What is the term for an online resource that shows what materials are owned by your library? CHOOSE ONE ANSWER

Database thesaurus Library catalog Periodical database Research database *Objective: 2.3.2.2 Skill Set: Selecting Finding Tools* 

548. What is the best thing to do when you need help with library research? **CHOOSE ONE ANSWER** Ask at the circulation desk. Ask the person shelving books. Call the circulation desk. Call the reference desk. *Objective: 2.3.3.3 Skill Set: Developing a Research Strategy* 

549. What do most research databases have in common? **CHOOSE ONE ANSWER** Can restrict by date or publication type Cover only what is in your library Full-text Same subject headings *Objective: 2.3.1.5 Skill Set: Using Finding Tool Features* 

550. It's the second week of the term. Your professor gives you an assignment to write a 10-page paper on a topic you know little about. The paper is due during finals week. All of the following activities would be efficient ways to start except:

### CHOOSE ONE ANSWER

Ask for help. Browse the bookshelves. Use a research database to find journal articles. Use the library catalog to find books. *Objective: 2.2.1.1 Skill Set: Developing a Research Strategy* 

561. Keyword searching is an effective way to search in all of the following situations except: CHOOSE ONE ANSWER
Combining search terms together.
Finding articles on a particular topic.
Finding many articles by a certain author.
Searching for a particular phrase in title, abstract, and subject term fields.
Objective: 2.2.4.6 Skill Set: Searching

577. For the article described below, which of the following terms is an example of controlled vocabulary?



Document Type Report/Public

> Version 1.0

 Title:
 The Politics of Ecological Citizenship.

 Authors:
 Schmidt, Teresa

 Source:
 Environmental Politics; June 2007, Vol. 27 Issue 3, p117-129, 12p

 Document Type:
 Article

 Subject Terms:
 CTTIZENSHIP

 ENVIRONMENTALJUSM
 ENVIRONMENTAL justice

 POLITICAL systems
 POLITICAL organizations

 Abstract:
 Ecological (or environmental) citizenship has recently experienced a coming of age instrument for theorizing about how to promote and structure 'greener' forms of pol

Ecological (or environmental) citizenship has recently experienced a coming of age. To date, ecological citizenship has largely been taken up as an instrument for theorizing about how to promote and structure 'greener' forms of political organization. This focus has come at the expense of not appreciating how the turn toward citizenship might revitalize a concern for democratic politics in ecological thought. This article demonstrates the connections between research in ecological citizenship and environmental justice.

#### **CHOOSE ONE ANSWER**

Ecological citizenship Ecology Environmental citizenship Environmental politics Environmentalism *Objective: 2.2.3.4 Skill Set: Searching* 

578. You are using a research database that uses an asterisk (\*) as its truncation or wildcard symbol. Which set of terms would be retrieved if you type in: **read**\*

**CHOOSE ONE ANSWER** Examine, read, peruse Read, comprehension, reading level Read, reader, study, student Read, readmit, ready *Objective: 2.2.4.7 Skill Set: Searching* 

579. A search of "avian flu" in a research database has produced a list of more than 150 articles with abstracts, and shows 20 results at a time. Which of the following is the least efficient way to keep the list of 150 for later review and selection of articles?

#### **CHOOSE ONE ANSWER**

Cut and paste the list into a new document that you can save on your flash drive. E-mail the list to yourself. Export the list to a new file that you can save on your flash drive. Print the list. *Objective: 2.1.4.2 Skill Set: Using Finding Tool Features* 

582. In the citation below, which term is an example of controlled vocabulary?



Version 1.0

Authors:	Anonymous
Title:	Europe: The chagrin and the belated pity
Journal Name:	<u>Economist</u>
Date:	May 12, 2008
Pages:	57
Abstract:	General Paul Aussaresses, a bemedalled, eye-patched hero of the French army, last week launched at the age of 83 his unexpurgated memoirs as a member of the Special Forces from 1955 to 1957 during Algeria's war of independence. The outrage has been immediate, universal—and predictable.
Subjects:	War crimes
	Torture
	Autobiographies
	France
	Algeria
ISSN	0013-0613

### CHOOSE ONE ANSWER

0013-0613 Economist General Paul Aussaresses Special Forces War crimes *Objective: 2.2.3.4 Skill Set: Searching* 

584. If you want to locate good journal articles on a specific topic, which of these is the best way to start? **CHOOSE ONE ANSWER** 

Page through journals. Use a research database. Use the library catalog. *Objective: 2.1.3.5 Skill Set: Selecting Finding Tools* 

587. Your art history professor wants you to write a paper on the use of color in the famous painting, "The Madonna". If you were using a research database, which search strategy would be the most effective for finding relevant information?

#### CHOOSE ONE ANSWER Art

Color and Madonna not music Color or meaning in art Famous paintings Use of color in The Madonna *Objective: 2.2.4.2 Skill Set: Searching* 

589. You looked for literary criticism on Geoffrey Chaucer's Canterbury Tales and retrieved the record below from a research database. What is the next step for locating the entire article?



Version 1.0

Authors:	Gittes, Katharine S
Title:	Chaucer and the medieval frame narrative.
Journal:	Speculum
Appears In:	v. 69 (Apr. 104) p. 481-2
Abstract:	Gittes contends that the literary frame narrative began in the Near East with the Panchatantra in the eighth century and declined in the West soon after Chaucer's time. During its adaptation by European writers, and under the pressure of Western cultural preferences for order, unity, closure, and developed characterization, the genre lost its natural Arabic features and eventually disappeared.

### **CHOOSE ONE ANSWER**

Search the library catalog for articles about Chaucer. Search the library catalog for articles written by Katharine S. Gittes. Search the library catalog for the article title, "Chaucer and the medieval frame narrative." Search the library catalog to see if the library has a subscription to Speculum. **Objective: 2.3.1.3 Skill Set: Documenting Sources** 

590. You want to use a detail from a map in a reference book that you located in the library for your PowerPoint presentation. What would be the best device to use?

### **CHOOSE ONE ANSWER**

Color printer Microform reader Photocopier Scanner Outcome: 2.5.1 Skill Set: Using Finding Tool Features

593. You want to take a copy of a journal article that you located in the library home with you to read. What would be the best device to use?

**CHOOSE ONE ANSWER** Color printer Microform reader Photocopier Scanner Outcome: 2.5.1 Skill Set: Using Finding Tool Features

604. A search for HIV in a research database returns almost 140,000 results. How would you reduce your results to articles that were published from 2007 onwards in English?

#### **CHOOSE ONE ANSWER**

Because the articles are presented chronologically, page through until the last 2006 article appears and then look through the rest to eliminate the foreign language ones.

Repeat the search with the terms "HIV AND >=2007"

Repeat the search with the terms "HIV AND 2007 to present"

There is no way to set these limits, so one must go through each retrieved record.

Use the Limits option in the research database to set the publication dates and languages.

Objective: 2.2.5.3 Skill Set: Searching



### 9. Appendix B. Skill sets : items available from Project Sails reports

### **Skill Set: Searching**

14. You have to find articles on raising children. Which search is more comprehensive?CHOOSE ONE ANSWERKeyword: raising childrenSubject heading: child rearingObjective: 2.2.3.2 Skill Set: Searching

21. To find books about the American poet Maya Angelou, which search is the most effective?
CHOOSE ONE ANSWER
Author: Angelou
Subject: Angelou
Title: Angelou
Objective: 2.2.4.1 Skill Set: Searching

39. If you wanted to search for a topic that has several synonyms (for example, young people, adolescents, teenagers, teens), which operator would you use?

CHOOSE ONE ANSWER Adj And Near Not Or *Objective: 2.2.4.2 Skill Set: Searching* 

59. You're searching a database for a low-fat recipe for pasta with either shrimp or chicken. Which search demonstrates the proper use of nesting to get many search results that are very relevant?

### CHOOSE ONE ANSWER

Noodles or (pasta and shrimp) or chicken and low-fat (Noodles or pasta) and (shrimp or chicken) and low-fat Noodles or pasta and (shrimp or chicken) and low-fat (Noodles or pasta) and shrimp or (chicken and low-fat) Noodles or pasta and shrimp or chicken and low-fat *Objective: 2.2.4.4 Skill Set: Searching* 

88. You need to find reliable information about treatments available for AIDS. Which of these sources would be the most reliable?

#### **CHOOSE ONE ANSWER**

Foltz, Daniel. "The latest in AIDS treatments." American Public Health Journal. 46 January 2008 424-439.

McSpiritt, Elizabeth. "Developing new treatments for AIDS." American Journal of Public Health. 91 August 9, 2011 375-390.

Perez, Alejandra. "Trends in AIDS treatment." Journal of Community Health. 22 Winter 1998 212-227.

Rhodes, Phillip. "New treatments for AIDS." Community Health Journal. 44 Summer 2008 90-105. Rosch, Leah. "AIDS: What we know about treating AIDS." The Journal for American Public Health. 17 Fall 2009 18-33.

Objective: 2.4.1.3 Skill Set: Searching

90. You are writing a paper on the legal rights of women in pre-Civil War America. Which of the following sources would be most appropriate?

#### **CHOOSE ONE ANSWER**

Bell, Theresa. "Women and Their Rights Under the Law." Price Law Journal. May 1982 340-355. Hardesty, Julia. "Women's Rights Under the Law." The Journal for the Study of Law. 15 Fall 1850 210-25.



Ross, Barbara. "Laws and the Rights of Women." Journal of Legal Trends. 44 Summer 1999 90-105. Smith, Catherine. "The Law and Women's Rights." Journal of the Legal System. 38 January 1967 100-15.

Whitacre, Sarah. "The Lawful Rights of Women." Journal of Law and Legislation. 71 Winter 2001 15-30.

Objective: 2.4.1.3 Skill Set: Searching

108. You need to write a paper on the effects of the European Union on France. If you conduct a search for the term "European Union" that requires it to be next to, in the same sentence as, or within a specified number of words from the term "France," what type of search are you conducting?

### CHOOSE ONE ANSWER

Associated Boolean Coupled Phrase Proximity *Objective: 2.2.4.3 Skill Set: Searching* 

196. You are writing a 20-page research paper. Your search on your topic has retrieved more than 500 articles. What is the best course of action?

### CHOOSE ONE ANSWER

Do not revise the search, because the number of articles is good. Revise the search to retrieve fewer results. Revise the search to retrieve more results. *Objective: 2.4.1.1 Skill Set: Searching* 

228. You are writing a 20-page research paper. Your search on your paper topic has produced 3 articles. What is the best course of action?

#### **CHOOSE ONE ANSWER**

Do not revise the search, because the number of articles is good. Revise the search to retrieve fewer results. Revise the search to retrieve more results. *Objective: 2.4.1.1 Skill Set: Searching* 

230. You are writing a paper on economic development in China. You search a research database by typing in,"economic development in China" and retrieve no results. Which of the following actions would help you retrieve a good number of relevant results?

### CHOOSE ONE ANSWER

Add search terms. Omit one of the search terms. Try searching for: econ\* and dev\* and Chin\* Try searching for: economic development and China Try searching for: economic development China *Objective: 2.2.5.3 Skill Set: Searching* 

247. Which of the following search statements would retrieve the most records? **CHOOSE ONE ANSWER** "Behavior disorders and hyperactivity" Behavior disorders and hyperactivity Behavior disorders not hyperactivity Behavior disorders or hyperactivity *Objective: 2.2.4.2 Skill Set: Searching* 

515. You are using a research database that uses an asterisk (\*) as its truncation symbol. When you type in "mathemat\*" you retrieve records that contain which of the following words? **CHOOSE ONE ANSWER** Arithmetic, math, mathematics Math, mathematics, mathematician Mathematics, mathematical, mathematician



Objective: 2.2.4.7 Skill Set: Searching

541. Which of the following search strategies would be the most efficient for finding articles on "fast food?" **CHOOSE ONE ANSWER** 

Fast adj food Fast near food Fast or food *Objective: 2.2.4.2 Skill Set: Searching* 

543. Select the set that best represents synonyms and related terms for the concept "college students." CHOOSE ONE ANSWER

Colleges, universities, community colleges Graduate students, freshmen, sophomores University, adult learners, educational attendees *Objective: 2.2.2.3 Skill Set: Searching* 

561. Keyword searching is an effective way to search in all of the following situations except: **CHOOSE ONE ANSWER** 

Combining search terms together. Finding articles on a particular topic. Finding many articles by a certain author. Searching for a particular phrase in title, abstract, and subject term fields. *Objective: 2.2.4.6 Skill Set: Searching* 

577. For the article described below, which of the following terms is an example of controlled vocabulary? Title: The Politics of Ecological Citizenship.

 Authors:
 Schmidt, Teresa

 Source:
 Environmental Politics; June 2007, Vol. 27 Issue 3, p117-129, 12p

 Document Type:
 Article

 Subject Terms:
 CITIZENSHIP

 ENVIRONMENTALISM
 ENVIRONMENTAL justice

 POLITICAL systems
 POLITICAL organizations

 Abstract:
 Ecological (or environmental) citizenship has recently experienced a coming of age instrument for theorizing about how to promote and structure 'greener' forms of poli

Ecological (or environmental) citizenship has recently experienced a coming of age. To date, ecological citizenship has largely been taken up as an instrument for theorizing about how to promote and structure 'greener' forms of political organization. This focus has come at the expense of not appreciating how the turn toward citizenship might revitalize a concern for democratic politics in ecological thought. This article demonstrates the connections between research in ecological citizenship and environmental justice.

### CHOOSE ONE ANSWER

Ecological citizenship Ecology Environmental citizenship Environmental politics Environmentalism *Objective: 2.2.3.4 Skill Set: Searching* 

578. You are using a research database that uses an asterisk (\*) as its truncation or wildcard symbol. Which set of terms would be retrieved if you type in: **read**\*

### CHOOSE ONE ANSWER

Examine, read, peruse Read, comprehension, reading level Read, reader, study, student Read, readmit, ready *Objective: 2.2.4.7 Skill Set: Searching* 

582. In the citation below, which term is an example of controlled vocabulary?



Version 1.0

Authors:	Anonymous
Title:	Europe: The chagrin and the belated pity
Journal Name:	<u>Economist</u>
Date:	May 12, 2008
Pages:	57
Abstract:	General Paul Aussaresses, a bemedalled, eye-patched hero of the French army, last week launched at the age of 83 his unexpurgated memoirs as a member of the Special Forces from 1955 to 1957 during Algeria's war of independence. The outrage has been immediate, universal—and predictable.
Subjects:	War crimes
	Torture
	Autobiographies
	France
	Algeria
ISSN	0013-0613

# **CHOOSE ONE ANSWER**

0013-0613 Economist General Paul Aussaresses Special Forces War crimes *Objective: 2.2.3.4 Skill Set: Searching* 

587. Your art history professor wants you to write a paper on the use of color in the famous painting, "The Madonna".

If you were using a research database, which search strategy would be the most effective for finding relevant information?

# CHOOSE ONE ANSWER

Art Color and Madonna not music Color or meaning in art Famous paintings Use of color in The Madonna *Objective: 2.2.4.2 Skill Set: Searching* 

604. A search for HIV in a research database returns almost 140,000 results. How would you reduce your results to articles that were published from 2007 onwards in English?

# **CHOOSE ONE ANSWER**

Because the articles are presented chronologically, page through until the last 2006 article appears and then look through the rest to eliminate the foreign language ones. Repeat the search with the terms "HIV AND  $\geq$ =2007"

Repeat the search with the terms "HIV AND 2007 to present"

There is no way to set these limits, so one must go through each retrieved record.

Use the Limits option in the research database to set the publication dates and languages.

Objective: 2.2.5.3 Skill Set: Searching



Version 1.0

# **Skill Set: Selecting Finding Tools**

19. What is a list of books, journal articles, or other materials about a certain topic?
CHOOSE ONE ANSWER
Bibliography
Keyword
Library catalog
Research database
Subject heading
Objective: 2.1.3.4 Skill Set: Selecting Finding Tools

22. What is a computer system that shows what journal articles have been published on a certain topic?

CHOOSE ONE ANSWER Bibliography Keyword Library catalog Research database Subject heading *Objective: 2.3.2.2 Skill Set: Selecting Finding Tools* 

139. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some

of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web.The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language.Given the preceding definitions, what can you say about the following statement?Statement: All its resources are free and accessible to students.

# **CHOOSE ONE ANSWER**

This statement is true about both the academic library and the Web. This statement is true about the academic library. This statement is true about the Web. This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 

140. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Anyone can add information to it.

# CHOOSE ONE ANSWER

This statement is true about both the academic library and the Web.

This statement is true about the academic library.

This statement is true about the Web.

This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 

142. Academic libraries are generally thought of as collections of materials in print and electronic formats. Some of these materials are made available to users through the Web, but are not included in what we traditionally think of as the Web. The World Wide Web is a means of communication. Computers all over the world network with one another by using a common language. Given the preceding definitions, what can you say about the following statement? Statement: Information is selected for inclusion based on explicit criteria, such as authoritativeness.

## **CHOOSE ONE ANSWER**

This statement is true about both the academic library and the Web. This statement is true about the academic library. This statement is true about the Web. This statement is true of neither the academic library nor the Web. *Objective: 2.1.3.6 Skill Set: Selecting Finding Tools* 



Document Type Report/Public

> Version 1.0

257. What is the primary reason for using a research or periodical database? **CHOOSE ONE ANSWER** To find citations or articles To search the Web To see if the library owns a book To see if the library owns a journal *Objective: 2.3.1.4 Skill Set: Selecting Finding Tools* 

518. What time period does this source cover? AUTHOR Smith, James, 1950-TITLE Colonial America: An Encyclopedia of Social, Political, and Cultural History. IMPRINT Dansville, NY : Modern Reference, c2008. DESCRIPT'N 4 v. : ill., maps ; 29 cm. Includes bibliographical references and indexes. NOTE Topics include: African Americans -- Agriculture and extractive industries -- Salem witch trials -- Arts, culture, and intellectual life --NOTE British colonies -- Cities and settlements -- Dutch colonies -- Economy, business, and labor -- European Americans -- French colonies -- Health and medicine -- Native Americans (American Indians) -- Politics, law, and government -- Religion -- Spanish Colonies -- Women and gender issues --Transatlantic trade -- Race and ethnicity. SUBJECT United States -- Civilization -- To 1783 -- Encyclopedias. 53287722. OCLC # GBA556770 bnb. ISN/STD # LCCN 2002143235. CALL # E162 .S692 2006

#### CHOOSE ONE ANSWER

1600-1783 1610-1710 1783-1865 1950 to the present 2006 *Objective: 2.1.3.8 Skill Set: Selecting Finding Tools* 

519. The professor in your history class assigns you to write a paper on the topic of women's suffrage and the Women's Social and Political Union in Great Britain in the early 1900s. She requires that the sources you use must be scholarly articles published after 1970. Which is the best resource to use?

#### **CHOOSE ONE ANSWER**

America: History and Life (1960-present) Historical Abstracts (1967-present) InfoTrac Magazine Index (1965-present) International Newspapers Database (1900-present) Political Science Abstracts (1900-1971) Objective: 2.3.2.3 Skill Set: Selecting Finding Tools

521. If you want to find a report of a research study that is written by the people who conducted the research, which type of resource is the best choice?

#### **CHOOSE ONE ANSWER**

Magazine article database Newspaper database Scholarly journal database Statistical information database *Objective: 2.1.3.9 Skill Set: Selecting Finding Tools* 

522. All of the following are effective ways to locate major reference sources appropriate to a subject discipline, such as linguistics, music, or biology, except:

#### **CHOOSE ONE ANSWER**

Ask a librarian at the reference desk. Browse the library's regular collection in the appropriate call number area. Browse the reference collection in the appropriate call number area. Use a web search engine to find references to that discipline. *Objective: 2.2.6.1 Skill Set: Selecting Finding Tools* 



# 523. All of the following criteria are useful when identifying a resource to use for your research except: CHOOSE ONE ANSWER

The author's bias. The author's credibility. The format of the resource. How up-to-date the resource is. Who the author is. *Objective: 2.3.1.2 Skill Set: Selecting Finding Tools* 

545. What is the term for an online resource that shows what materials are owned by your library? **CHOOSE ONE ANSWER** Database thesaurus Library catalog Periodical database Research database *Objective: 2.3.2.2 Skill Set: Selecting Finding Tools* 

584. If you want to locate good journal articles on a specific topic, which of these is the best way to start? **CHOOSE ONE ANSWER** 

Page through journals. Use a research database. Use the library catalog. *Objective: 2.1.3.5 Skill Set: Selecting Finding Tools* 

# **Skill Set: Retrieving Sources**

25. Most books in academic libraries are arranged by their call numbers. Which statement best describes books with the same or similar call numbers?

# **CHOOSE ONE ANSWER**

They are all on the same or similar subjects. They are all the same size. They were all acquired by the library at the same time. They were all written by the same author. *Objective: 2.3.2.1 Skill Set: Retrieving Sources* 

29. If you find a citation to a journal article online, but the whole article is not online, what is the best way to get the article?

# **CHOOSE ONE ANSWER**

Contact the author of the article and ask for a copy. Search the library catalog for the article title. See if the library subscribes to the journal in print. You can't get the article. *Objective: 2.3.1.1 Skill Set: Retrieving Sources* 

192. If you want to obtain a book or article that is not available at your local library, which of the following statements is most accurate about your options?

# **CHOOSE ONE ANSWER**

The library offers a variety of ways to help you obtain items it doesn't own, but you will be required to pay a fee to use these services.

The library offers a variety of ways to obtain items it doesn't own. Some of these options may be free, while others may require a fee.

Your only option is to ask the library to purchase the item on your behalf.

Your only option is to obtain the item yourself, for example by going to another library or purchasing the item. *Objective: 2.3.3.2 Skill Set: Retrieving Sources* 

194. What is the best way to obtain the item in this library catalog record?



Authors: Title: Publisher Info:	<u>Lawrence, Jerome, 1915-</u> Inherit the wind / by Jerome Lawrence and Robert E. Lee New York : Dramatists Play Service, 1958		
LOCATION Main Library	CALL # PS3523.A934 I6 1958	STATUS Available	
Description:	104, [2] p. : ill ; 20 cm		
OCLC#	1601421		
LCCN:	58000893		

# CHOOSE ONE ANSWER

Click on the author's name to obtain the full text. Click on the call number to obtain the full text. Search a periodical database for an online copy of this item. Use the call number to locate the item in your library. *Objective: 2.3.3.1 Skill Set: Retrieving Sources* 

195. Which part of the following library catalog record would be used to locate this government document in the library?

Authors:	United States. Congress. Sentate. Committee on Commerce, Science, and Transportation. Subcommittee on Aviation
Title:	International aviation relations
Publisher Info:	Washington : U.S. G.P.O. : For sale by the U.S. G.P.O., Supt. of Docs., Congressional Sales Office, 2006
Description:	iii, 103p. : ill. ; 23 cm
Series:	United States. Congress. Senate. S. hrg. ; 104-637
Note:	Distributed to some depository libraries in microfiche
Shipping list no.:	97-0097-P
Includes bibliographical re	ferences
Sudoc #:	Y 4.C 73/7:S.HRG.104-637
OCLC #:	36324337
ISBN:	0160538629
LCCN:	gp 97057621

# CHOOSE ONE ANSWER

ISBN: 0160538629 LCCN : gp 97057621 OCLC #: 36324337 Shipping list no.: 97-0097-P Sudoc # : Y 4.C 73/7:S.HRG.104-637 Objective: 2.3.2.1 Skill Set: Retrieving Sources

214. If you need an article or book that is not available online or in your library, what is the best course of action for obtaining the source? **CHOOSE ONE ANSWER** 



Version 1.0

Complete a purchase request form at the library. Consult with staff at the circulation desk. Submit an interlibrary loan request. Write the publisher requesting a copy. Objective: 2.3.3.4 Skill Set: Retrieving Sources

216. Which of the following call numbers comes immediately after the call number LC 1087.3 .H24? **CHOOSE ONE ANSWER** 

LC 1087 .H25 LC 1087.24 .A33 LC 1087.31 .B83 LC 1087.4 .B38 LC 1088 .L11 Objective: 2.3.2.1 Skill Set: Retrieving Sources

229. What is the best way to obtain the item in this database record?

Title:	Pennsylvania public-private partnership formed to curtail pregnant women smoking
Source:	Health & Medicine Week; 8/16/2008, p1214, 3p
Document Type:	Article
Formats:	Citation PDF Full Text (209K)

# **CHOOSE ONE ANSWER**

Click on "Citation" to obtain the full text. Click on "PDF Full Text" link. Click on the journal title (the "source" link) to obtain the full text. Request this item through interlibrary loan. Search your library catalog for the journal title and, if it is available, obtain it in print at your library. Objective: 2.3.3.1 Skill Set: Retrieving Sources

539. Books in the library are arranged primarily by:
CHOOSE ONE ANSWER
What size they are.
What their subjects are.
When they were cataloged by the library.
When they were purchased by the library.
Objective: 2.2.6.3 Skill Set: Retrieving Sources

# **Skill Set: Documenting Sources**

40. The citation below refers to what? Gertz , Bill. "Depressions, Recessions, and Inflation." The Ledger. August 13, 2007, Section: Business, Pg. D7 **CHOOSE ONE ANSWER** Book Chapter within a book Encyclopedia article Newspaper article Periodical article Objective: 2.3.2.4 Skill Set: Documenting Sources

44. The citation below refers to what? Gertz , Bill. (2007). "Depressions, Recessions, and Inflation." Business Cycles, 24 (1): 28-30.
CHOOSE ONE ANSWER
Book
Chapter within a book
Encyclopedia article



Version 1.0

Newspaper article Periodical article Objective: 2.3.2.4 Skill Set: Documenting Sources

49. The citation below refers to what? Gertz, Bill. (2007). "Depressions, recessions, and inflation." In Manusov, Valerie and Harvey, John H., (Eds), Business Cycles in the United States Economy. Cambridge University Press: New York. Pages 93-114.

**CHOOSE ONE ANSWER** Book Chapter within a book Encyclopedia article Newspaper article Periodical article Objective: 2.3.2.4 Skill Set: Documenting Sources

60. The citation below refers to what? Gertz, Bill. Business Cycles in the United States Economy. New York: Viking, 2007.

## CHOOSE ONE ANSWER Book Chapter within a book Encyclopedia article Newspaper article Periodical article Objective: 2.3.2.4 Skill Set: Documenting Sources

193. Identify the type of resource referenced in the following database record.

Title:	Richard Nixon: Crisis in the White House.
Authors:	Smith, Mary
Source:	<u>American Historγ;</u> Dec 2007, Vol. 27 Issue 5, p767, 6p.
ISSN:	0145-2096
Accession Number:	13002552

# CHOOSE ONE ANSWER

Book Book chapter Government document Magazine or journal article Newspaper article Objective: 2.5.3.1 Skill Set: Documenting Sources

197. Identify the type of resource referenced in the following database record.



Version 1.0

Title:	Richard Nixon: Crisis in the White House.
Authors:	Smith, Mary
Source:	<u>American History</u> , 1998, pp. 429-38.
Publisher Info:	Fairfax, Va.: George Mason University Press; distributed by University Publishing Associates, Lanham, Md. and London
Publication Date:	1998
Editor:	Jones, John, ed.
ISBN:	1-32000-604-1
Accession Number:	0034880

# **CHOOSE ONE ANSWER**

Book Book chapter Government document Magazine or journal article Newspaper article Objective: 2.5.3.1 Skill Set: Documenting Sources

199. Which of the following statements most accurately describes the use of documentation or citation styles, for

example, APA, MLA?

# CHOOSE ONE ANSWER

All disciplines use the same documentation style for formal written papers.

There are many documentation styles, and they vary by discipline.

There are many documentation styles, and they vary by education levels, such as high school, college undergraduate, graduate and doctoral.

There are many documentation styles, and which style you use depends on the format of the source being cited, such as books and articles.

Objective: 2.5.3.3 Skill Set: Documenting Sources

589. You looked for literary criticism on Geoffrey Chaucer's Canterbury Tales and retrieved the record below
from a research database. What is the next step for locating the entire article?

Authors:	Gittes, Katharine S
Title:	Chaucer and the medieval frame narrative.
Journal:	Speculum
Appears In:	v. 69 (Apr. 04) p. 481-2
Abstract:	Gittes contends that the literary frame narrative began in the Near East with the Panchatantra in the eighth century and declined in the West soon after Chaucer's time. During its adaptation by European writers, and under the pressure of Western cultural preferences for order, unity, closure, and developed characterization, the genre lost its natural Arabic features and eventually disappeared.

# CHOOSE ONE ANSWER

Search the library catalog for articles about Chaucer.

Search the library catalog for articles written by Katharine S. Gittes.

Search the library catalog for the article title, "Chaucer and the medieval frame narrative."

Search the library catalog to see if the library has a subscription to Speculum.

Objective: 2.3.1.3 Skill Set: Documenting Sources



Version 1.0

# **Skill Set: Using Finding Tool Features**

42. If you need to know what chapters are in a book, which part of the book provides the best information?

**CHOOSE ONE ANSWER** Cover of the book Endnotes Glossary Introduction Table of Contents Objective: 2.2.6.4 Skill Set: Using Finding Tool Features

62. You're writing a paper on Indira Gandhi and your professor has told you that Gandhi is mentioned in a book that you have. What part of the book will direct you to the right pages for the passage(s) on Indira Gandhi? **CHOOSE ONE ANSWER** 

Bibliography Footnotes Index Preface Title page Objective: 2.2.6.4 Skill Set: Using Finding Tool Features

71. While searching the Web using a search engine, you would like to limit the results to items in the English language that are less than three years old. Which of the following links on the search engine home page would be the most effective option for conducting a search of this type?

**CHOOSE ONE ANSWER** About Advanced Search Customize Settings Simple Search Site Map Objective: 2.2.5.2 Skill Set: Using Finding Tool Features

259. Research databases vary in their search protocols. For example, one database may use an asterisk (\*) as a truncation symbol while another database uses a question mark (?). What is the most efficient way to identify search protocols appropriate to the retrieval system?

# CHOOSE ONE ANSWER

Look at the database search help screen. Type in different symbols until you get good results. Work through the database tutorial on searching. Objective: 2.2.5.1 Skill Set: Using Finding Tool Features

260. In most research databases, an advantage to using a keyword search is that keyword searches: **CHOOSE ONE ANSWER** 

Are especially useful for topics with an established body of literature. Are more discriminating and yield more appropriate citations. Search most or all parts of the record and yield more results. Use Library of Congress subject headings. Objective: 2.3.1.5 Skill Set: Using Finding Tool Features

520. If you are using the 7-volume Encyclopedia of Science to find information on the topic of DNA, what is the

most efficient way to be sure you find all the relevant information that is in the encyclopedia? **CHOOSE ONE ANSWER** Look through the bibliography. Look under "D" for DNA. Look up "DNA" in the index. Use the table of contents. Objective: 2.3.1.6 Skill Set: Using Finding Tool Features



Document Type Report/Public

> Version 1.0

525. In most research databases, the "help" feature will do all the following except:
CHOOSE ONE ANSWER
Help you do an advanced search.
Help you focus your search topic.
Tell you how to do an author search.
Tell you how to truncate search terms.
Tell you what type of material is included in the database.
Objective: 2.1.3.2 Skill Set: Using Finding Tool Features

526. Most research databases have all of the following components except: **CHOOSE ONE ANSWER** Abstracts of articles Author biographies Date limiting Keyword searching Thesaurus of subject terms Objective: 2.1.3.1 Skill Set: Using Finding Tool Features

527. Which of the following resources is not available through the *ISI Web of Knowledge* gateway? **CHOOSE ONE ANSWER** 

Arts & Humanities Citation Index Highly Cited Authors' Biographies RefWorks Bilbliographic Management Software Science Citation Index Social Sciences Citation Index Objective: 2.1.3.3 Skill Set: Using Finding Tool Features

549. What do most research databases have in common?

## **CHOOSE ONE ANSWER**

Can restrict by date or publication type Cover only what is in your library Full-text Same subject headings Objective: 2.3.1.5 Skill Set: Using Finding Tool Features

579. A search of "avian flu" in a research database has produced a list of more than 150 articles with abstracts, and shows 20 results at a time. Which of the following is the least efficient way to keep the list of 150 for later review and selection of articles?

# CHOOSE ONE ANSWER

Cut and paste the list into a new document that you can save on your flash drive. E-mail the list to yourself. Export the list to a new file that you can save on your flash drive. Print the list. Objective: 2.1.4.2 Skill Set: Using Finding Tool Features

590. You want to use a detail from a map in a reference book that you located in the library for your PowerPoint presentation. What would be the best device to use?

CHOOSE ONE ANSWER Color printer Microform reader Photocopier Scanner Outcome: 2.5.1 Skill Set: Using Finding Tool Features

593. You want to take a copy of a journal article that you located in the library home with you to read. What would be the best device to use? **CHOOSE ONE ANSWER** Color printer Microform reader



Version 1.0

Photocopier Scanner Outcome: 2.5.1 Skill Set: Using Finding Tool Features

# **Skill Set: Evaluating Sources**

0	Who	:-	the a	intended	andianaa	forth	s article?
9.	W IIO	18	uie	mienueu	audience	101 un	s article?

Title:	Running on streamline power
Pages:	28-32
Abstract:	In their streamlining searches, many credit unions have discovered that their technology is outdated and that their procedures are redundant. In the case of technology, it can be difficult to accept that spending money will ultimately save money in some instances. Michael Beam of Columbia South Carolina Teachers Federal Credit Union said that ULTRADATA Corp.'s ULTRAFIS optical imaging system has resulted in many beneficial changes in the credit union's operations.

**CHOOSE ONE ANSWER** Banking professional General public Scholar Objective: 1.2.4.1 Skill Set: Evaluating Sources

20. Mother Jones is published by the Foundation for National Progress. It is a progressive periodical featuring high quality investigative reporting, political commentary, and features. Recent article topics include terrorism and government response, urban renewal, police brutality, and labor unions. It is published every other month.

What type of publication is this?



CHOOSE ONE ANSWER Book Government document Popular periodical Professional/trade periodical Scholarly periodical Objective: 1.2.4.1 Skill Set: Evaluating Sources

27. Who is the intended audience for this article?



Title:	The demand for money, financial innovation and the welfare cost of inflation: An analysis with households' data
Pages:	60-74
Abstract:	Using a unique set of microeconomic data on households, the authors estimate the parameters of the demand for money derived from a generalized Baumol-Tobin model. The authors find significant differences between individuals with an ATM card and those without. The estimates of the demand for cash allow for the calculation of a measure of the welfare cost of inflation analogous to Bailey's triangle, but based on a rigorous microeconometric framework.

# **CHOOSE ONE ANSWER**

Banking professionals General public Scholars Objective: 1.2.4.1 Skill Set: Evaluating Sources

83. You hear on a radio talk show that Mad Cow Disease may have been found in the United States. How might you best determine the truth of this statement?

## CHOOSE ONE ANSWER

Call for a transcript of the program from the radio station Check the fbifiles.com Web site for information the government itself might not release to the public Discuss the news with co-workers who might have heard the program Look up the topic at the American Council on Beef Web site for current news Search for Mad Cow Disease on the U.S. Dept of Agriculture Web site Objective: 3.2.3.5 Skill Set: Evaluating Sources

87. Does the excerpt below illustrate fact, opinion, or bias? "The argument against armed self-defense is one of the most insidious forms of victimization of women. The dominant cultural conditioning tells women that they are not capable of defending themselves with a gun. That's why fewer than 10% of women own guns." **CHOOSE ONE ANSWER** 

Bias Fact Opinion Objective: 3.2.3.2 Skill Set: Evaluating Sources

91. What is the purpose of the excerpt below: "Most disturbing of all, some researchers want to use cloning to create human beings solely for experimentation and destruction. They propose to supply genetically matched tissues for treating various diseases by making human embryos from patients' body cells, then dissecting these developing embryos for their "spare parts." Some even speak of growing genetically altered "headless" or "brainless" human clones as organ farms."

## **CHOOSE ONE ANSWER**

To inform.

To persuade or trigger emotions. To present a variety of viewpoints. Objective: 3.2.3.3 Skill Set: Evaluating Sources

92. What is the purpose of the excerpt below: "Four years after Scottish researchers startled the world by announcing that they had cloned a sheep named Dolly, scientists say evidence is mounting that creating healthy animals through cloning is more difficult than expected. The clones that have been produced, they say, often have problems severe enough to concern anyone thinking of cloning a human being. These include developmental delays, heart defects, lung problems and malfunctioning immune systems." **CHOOSE ONE ANSWER** 

To inform.

To persuade or trigger emotions.



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To present a variety of viewpoints. Objective: 3.2.3.3 Skill Set: Evaluating Sources

124. If you are writing a persuasive research paper, you should:
CHOOSE ONE ANSWER
Rely solely upon your own opinion.
Search for diverse information that both supports and contradicts your opinions on the topic.
Search for information that supports your opinion on the topic.
Search for information that supports your opinion on the topic.
Search only for information that is neutral on your topic.
Objective: 3.2.1.8 Skill Set: Evaluating Sources

150. If you need an eyewitness account of the public reaction to a speech given in the 19th century, which type of

source would be most likely to provide that information? CHOOSE ONE ANSWER

Primary source Secondary source Tertiary source Objective: 2.1.4.1 Skill Set: Evaluating Sources

206. Which of the following sources is least likely to help you evaluate the credibility of an author for your history paper?

#### **CHOOSE ONE ANSWER**

Dictionary of National Biography Directory of American Scholars Handbook of Modern American History Social Sciences Citation Index The Blackwell Dictionary Of Historians Objective: 3.2.1.2 Skill Set: Evaluating Sources

207. When searching on the Web for a controversial topic such as gun control, which of the following statements

is most accurate about possible bias of a Web site?

## **CHOOSE ONE ANSWER**

Bias can only be detected from reading the information on the site and comparing it to other sources.

If the information in the site includes statistical or numerical data, then it is not biased.

Information on the Web is probably biased.

Information on the Web is probably unbiased.

The domain of the Web site will indicate whether it is biased or not. For example, an .edu site is probably unbiased, while a .com is probably biased.

Objective: 3.2.1.8 Skill Set: Evaluating Sources

227. Which of the following characteristics of an article is generally the most reliable indicator of scholarly research?

## CHOOSE ONE ANSWER

It is available in a university library.

It is indexed in a research database.

It is published on the Web.

It is written by a university faculty member.

It was reviewed by other experts prior to acceptance for publication.

Objective: 3.4.7.2 Skill Set: Evaluating Sources

446. Does the excerpt below illustrate fact, opinion, or bias?

"The number of crime victims who successfully use firearms to defend themselves is quite small. According to the FBI Uniform Crime Reports and the Centers for Disease Control, out of 30,708 Americans who died by gunfire in 1998, only 316 were shot in justifiable homicides by private citizens with firearms."



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#### **CHOOSE ONE ANSWER**

Bias Fact Opinion Objective: 3.2.3.2 Skill Set: Evaluating Sources

534. All of the following criteria are useful for evaluating a magazine article except: CHOOSE ONE ANSWER
The author's point of view.
The number of pages.
When the article was written.
Who wrote the article.
Objective: 2.4.1.2 Skill Set: Evaluating Sources

535. You have been assigned a short paper topic that will require you to locate up-to-date facts about the planets in our solar system. Which of the following resources are the most useful?

**CHOOSE ONE ANSWER** Bibliography and encyclopedia Dictionary and Web site Encyclopedia and world atlas Science textbook and world altas Web site and almanac Objective: 2.4.1.4 Skill Set: Evaluating Sources

536. You want to use the following information in your research paper on cloning. What is your next step? "Most disturbing of all, some researchers want to use cloning to create human beings solely for experimentation and destruction. They propose to supply genetically matched tissues for treating various diseases by making human embryos from patients' body cells, then dissecting these developing embryos for their 'spare parts.' Some even speak of growing genetically altered 'headless' or 'brainless' human clones as organ farms."

## **CHOOSE ONE ANSWER**

Find out when this quotation was written. Plan your search strategy. Verify the accuracy of the information. Write your paper. Objective: 3.2.1.3 Skill Set: Evaluating Source

537. All of the following criteria are useful for choosing an information source except:
CHOOSE ONE ANSWER
The authority of the creator of the source.
How up-to-date the information is.
The point of view of the author.
The visual appeal of the design elements.
Objective: 1.4.2.3 Skill Set: Evaluating Sources

538. When assessing a Web site's objectivity, all of the following are useful to examine except:

**CHOOSE ONE ANSWER** Advertising on the Web site. How current the links are. Language and images that express one point of view. The intended audience of the Web site. The Web site's sponsoring company or organization. Objective: 3.2.3.1 Skill Set: Evaluating Sources

558. You would like to evaluate the quality of a specialized encyclopedia you are using for your project. What would be the most effective way to find a good review?

## CHOOSE ONE ANSWER

Go to the publisher's Web page. Search for reviews of the encyclopedia in a periodical index or research database.



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Search the library catalog for the editor's name. Search the library catalog for the title of the encyclopedia. Objective: 3.2.1.1 Skill Set: Evaluating Sources

563. Which of the following types of source is least likely to present a one-sided view and opinions rather than facts?

# CHOOSE ONE ANSWER

Blogs Newsgroups Newspaper editorials Personal or commercial Web sites Scholarly journal articles Objective: 3.2.3.2 Skill Set: Evaluating Sources

575. You would like to evaluate the qualifications of an author of an article you have just read. Which one of these strategies would be the least effective:

## **CHOOSE ONE ANSWER**

Search for reviews of the author's work in a periodical index or research database.

Search for the author's name in a biography database.

Search for the author's name in the library catalog.

Search for Web pages that mention the author.

Objective: 3.2.1.2 Skill Set: Evaluating Sources

# Skill Set: Developing a Research Strategy

63. Your professor describes a research project she has just completed. When can you expect to read about it in a scholarly journal?
CHOOSE ONE ANSWER
Next month
4 - 8 months
9 - 18 months
2 - 3 years
4 - 5 years
Objective: 1.2.2.4 Skill Set: Developing a Research Strategy.

Objective: 1.2.2.4 Skill Set: Developing a Research Strategy

95. You are assigned a research topic for geometry class on the history of Pascal's triangle (for an 8-10 page paper). Which source is the best one for background information on this topic?

**CHOOSE ONE ANSWER** Concise Encyclopedia of Mathematics Encyclopedia of Science and Technology Oxford English Dictionary Trigonometry Textbook World Almanac and Book of Facts Objective: 1.1.4.5 Skill Set: Developing a Research Strategy

99. The following definition of a primary source is applied in which discipline: A work of poetry or prose. CHOOSE ONE ANSWER Art

English History Social Sciences Objective: 1.2.5.1 Skill Set: Developing a Research Strategy

101. The following definition of a primary source is applied in which discipline: Data that have been gathered to analyze relationships between people, events, and their environment. **CHOOSE ONE ANSWER** 



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Art English History Social Sciences Objective: 1.2.5.1 Skill Set: Developing a Research Strategy

147. The following definition describes which type of resource in the social sciences and sciences? Identifies, selects, and digests pertinent information from all of a discipline's literature. Bibliographies, indexes, abstracts, catalogs, directories, handbooks, and yearbooks are in this category.

**CHOOSE ONE ANSWER** Primary source Secondary source Tertiary source Objective: 1.2.5.2 Skill Set: Developing a Research Strategy

148. The following definition describes which type of resource in the social sciences and sciences? Publications derived by further representation of research materials. For example, to begin research, one might consult a resource in this category such as a bibliography of bibliographies, directory of directories, or a guide to the literature in this discipline.

# CHOOSE ONE ANSWER

Primary source Secondary source Tertiary source Objective: 1.2.5.2 Skill Set: Developing a Research Strategy

198. You want to write a paper on the politics of a poem by Allen Ginsberg entitled "Hadda Been Playing on the Jukebox" and have found only two articles, which is not enough for your paper. What is the best course of action?

## **CHOOSE ONE ANSWER**

Broaden your topic. Change your topic completely. Narrow your topic. Objective: 1.4.1.1 Skill Set: Developing a Research Strategy

203. Your instructor tells your class about a research consultation service available at the library. What would be the best way to find out more about this service?

## **CHOOSE ONE ANSWER**

Consult the campus newspaper. Consult the library's online catalog. Consult the library's Web site. Consult the university's course catalog. Consult the university's Web site. Objective: 2.3.3.5 Skill Set: Developing a Research Strategy

215. Your search for articles on your topic, learning styles, has produced many articles that discuss learning styles in a particular context or regarding a specific group of learners. What is the best course of action? **CHOOSE ONE ANSWER** 

Broaden your topic. Change your topic completely. Narrow your topic. Objective: 1.4.1.2 Skill Set: Developing a Research Strategy

237. Which of the following best describes a "periodical publication containing original research reports?" CHOOSE ONE ANSWER Magazine (e.g., Psychology Today)

Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech)



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Trade journal (e.g., Advertising Age) Objective: 2.2.2.4 Skill Set: Developing a Research Strategy

239. Which of the following best describes a "publication issued periodically, usually weekly or monthly, intended for the general public, containing articles, stories, photographs, and advertisements?"

# CHOOSE ONE ANSWER

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) Objective: 2.2.2.4 Skill Set: Developing a Research Strategy

255. You have been assigned a comprehensive (20 page) research paper on the impact of Title IX on high school sports programs. (Title IX legislation sought to ensure gender equity for sports programs.) Which of the following strategies is best to locate information?

## CHOOSE ONE ANSWER

Search for both general academic and government documents. Search for education sources only. Search for general academic, education, and government documents sources. Search for government documents sources only. Objective: 1.1.5.3 Skill Set: Developing a Research Strategy

444. Which of the following best identifies a "periodical publication, particularly one issued by an association, generally containing reports, articles and targeted advertising in a particular profession or industry?"

## CHOOSE ONE ANSWER

Magazine (e.g., Psychology Today) Newsletter (e.g., International Communication Association Newsletter) Newspaper (e.g., The New York Times) Scholarly journal (e.g., Quarterly Journal of Speech) Trade journal (e.g., Advertising Age) Objective: 2.2.2.4 Skill Set: Developing a Research Strategy

451. What term is defined as material produced by or about the subject of investigation during the time period in which the subject lived or the event took place? Examples include: initial reports of scientific research, legal documents, speeches, correspondence, diaries, interviews, oral histories, newspaper and journal articles, and works of art.

# CHOOSE ONE ANSWER

Primary source Secondary source Tertiary source Objective: 1.2.5.2 Skill Set: Developing a Research Strategy

452. What term is defined as a guide to the literature, designed to teach people how to use other types of sources?

## CHOOSE ONE ANSWER

Primary source Secondary source Tertiary Source Objective: 1.2.5.2 Skill Set: Developing a Research Strategy

517. All of the following are good ways to identify a research topic for a class project except: CHOOSE ONE ANSWER
Confer with the instructor.
Confer with your academic advisor.
Participate in class discussion.
Participate in working groups with your peers.
Outcome: 1.1.1 Skill Set: Developing a Research Strategy



529. For which of the following assignments would you expect to develop a full research strategy? **CHOOSE ONE ANSWER** 

A five-minute presentation on a current event

A five-page analysis of a literary movement

A five-page book review

A five-page paper on the novel that you have read for class

Objective: 1.1.4.4 Skill Set: Developing a Research Strategy

530. Of the following research questions, which is likely to be the most manageable to research for a 10-15 page term paper?

# CHOOSE ONE ANSWER

What are some of the causes of violent behavior in the United States? What is the effect of television violence on behavior of adolescents? What is the effect of violence in television shows and in movies? Why do adolescents display violent behavior in some situations? Objective: 1.1.4.1 Skill Set: Developing a Research Strategy

531. You have decided to write a paper on the World Hockey Association of the 1970s and have found no journal

article citations in general databases, history databases, and sports databases. What is the best course of action?

# CHOOSE ONE ANSWER

Narrow the topic. Select a different type of database to search. Select a new topic. Objective: 1.4.1.3 Skill Set: Developing a Research Strategy

532. Which of the following is the least effective way to keep track of the articles that you find in a database search?

# CHOOSE ONE ANSWER

E-mail a list of the articles to yourself. Export a list of the articles into a bibliographic management tool. Save a list of the articles to your portable drive. Write down a list of the articles. Outcome: 2.5.5 Skill Set: Developing a Research Strategy

533. When searching for general articles on marathon training techniques, you retrieve the following list: Article 1

"Running kinematics and joint range of motion during sixteen weeks of training for a marathon." Dundee, Shannon, *Journal of Sport Science* Feb 2008: Vol. 13 Issue 4, p. 212-220. Article 2

"Seasonal half-marathon training to improve your marathon performance once your program is in place." Avery, Guy, *Marathon & Beyond* Jan/Feb2006, Vol. 10 Issue 1, p. 41.

Article 3

"Ultimate marathon training plan." Rennie, D., *Runner's World* Jan 2006: Vol. 8 Issue 5, p. 61-64; 66. Which article best meets your information need?

# CHOOSE ONE ANSWER

Article 1 Article 2 Article 3 None of the above Outcome: 3.4.1 Skill Set: Developing a Research Strategy

548. What is the best thing to do when you need help with library research? **CHOOSE ONE ANSWER** Ask at the circulation desk. Ask the person shelving books. Call the circulation desk.



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Call the reference desk. Objective: 2.3.3.3 Skill Set: Developing a Research Strategy

550. It's the second week of the term. Your professor gives you an assignment to write a 10-page paper on a topic you know little about. The paper is due during finals week. All of the following activities would be efficient ways to start except:

## CHOOSE ONE ANSWER

Ask for help. Browse the bookshelves. Use a research database to find journal articles. Use the library catalog to find books. Objective: 2.2.1.1 Skill Set: Developing a Research Strategy

562. Who may be the most qualified to assist you when you need help narrowing your research topic? **CHOOSE ONE ANSWER** 

A fellow student in your class A person in the library who is shelving books A person in the library who is staffing the circulation desk A person in the library who is staffing the reference desk Objective: 1.1.4.6 Skill Set: Developing a Research Strategy

568. What do folk art, personal stories, research reports, scholarly articles, and songs have in common?
CHOOSE ONE ANSWER
They are all archived by libraries.
They are all examples of primary sources.
They are all examples of secondary sources.
They are all sources of information.
Objective: 1.2.3.1 Skill Set: Developing a Research Strategy

569. All of the following subject fields belong to the humanities discipline except:

**CHOOSE ONE ANSWER** Art history English Philosophy Sociology Objective: 1.2.2.1 Skill Set: Developing a Research Strategy

570. All of the following subject fields belong to the science discipline except: **CHOOSE ONE ANSWER** Chemistry Economics Genetics Physics Objective: 1.2.2.1 Skill Set: Developing a Research Strategy

571. All of the following subject fields belong to the social sciences discipline except: **CHOOSE ONE ANSWER** Anthropology Medicine Psychology Sociology Objective: 1.2.2.1 Skill Set: Developing a Research Strategy

572. What are the major disciplines of knowledge? CHOOSE ONE ANSWER Art, Business, Medicine Arts, Humanities Arts, Medicine, Sciences, Social Sciences



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Humanities, Sciences, Social Sciences Sciences, Engineering, Medicine Objective: 1.2.2.1 Skill Set: Developing a Research Strategy

601. What is the "invisible college?"

# CHOOSE ONE ANSWER

All the information sources that students don't know about Collections of resources, such as archives, that are not open to the public Method for taking classes through distance learning Term used to describe all the ways that students learn outside the classroom Unpublished communication among faculty, such as personal contacts, discussion forums, email Objective: 1.2.1.2 Skill Set: Developing a Research Strategy

603. You have decided to write a paper on gun control in the United States and have found more than a thousand articles after an initial search. What is the best course of action?

# CHOOSE ONE ANSWER

Change your topic to gun control.

Change your topic to gun control in the United States for assault weapons.

Change your topic to gun control in the United States and other countries.

Work with the results of the initial search.

Objective: 1.1.4.3 Skill Set: Developing a Research Strategy



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# 10. Appendix C. Full standard subscales numbers

# SAILS Test Item Numbers for Each SAILS Skill Set Subscale and ACRL Standard Subscale

Skill Set: Developing a Research Strategy

32 items: 63, 95, 99, 101, 453, 147, 148, 198, 203, 215, 237, 239, 255, 444, 451, 452, 517, 529, 530, 531, 532, 533, 548, 550, 562, 568, 569, 570, 571, 572, 601, 603

Skill Set: Selecting Finding Tools

18 items: 19, 22, 64, 139, 142, 141, 257, 140, 518, 519, 521, 522, 523, 545, 551, 559, 584, 602

Skill Set: Searching

27 items: 14, 21, 28, 39, 43, 59, 73, 88, 90, 108, 196, 218, 228, 230, 242, 247, 263, 515, 541, 543, 561, 577, 578, 582, 587, 594, 604

Skill Set: Using Finding Tool Features 14 items: 42, 62, 71, 259, 260, 525, 526, 527, 549, 520, 540, 579, 590, 593

Skill Set: Retrieving Sources 15 items: 25, 29, 30, 93, 104, 106, 192, 194, 195, 214, 216, 229, 539, 524, 600

Skill Set: Evaluating Sources 21 items: 9, 20, 27, 83, 87, 91, 92, 124, 150, 206, 207, 227, 446, 534, 535, 536, 537, 538, 558, 563, 575

Skill Set: Documenting Sources 14 items: 40, 44, 49, 60, 123, 193, 197, 199, 512, 528, 557, 560, 583, 589



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Skill Set: Understanding Economic, Legal, and Social Issues

20 items: 112, 117, 118, 119, 122, 132, 136, 200, 222, 120, 271, 516, 552, 553, 554, 556, 573, 595, 597, 599

Standard 1: Determines the Nature and Extent of the Information Needed

39 items: 9, 20, 27, 30, 43, 63, 64, 73, 93, 95, 99, 101, 104, 106, 147, 148, 198, 215, 242, 255, 451, 452, 453, 517, 524, 529, 530, 531, 537, 562, 568, 569, 570, 571, 572, 594, 600, 601, 603

Standard 2: Accesses Needed Information Effectively and Efficiently

75 items: 14, 19, 21, 22, 25, 29, 39, 40, 42, 44, 49, 59, 60, 62, 71, 88, 90, 108, 139, 140, 141, 142, 150, 192, 193, 194, 195, 196, 197, 199, 203, 214, 216, 228, 229, 230, 237, 239, 247, 257, 259, 260, 444, 515, 518, 519, 520, 521, 522, 523, 525, 526, 527, 532, 534, 535, 539, 540, 541, 543, 545, 548, 549, 550, 561, 577, 578, 579, 582, 584, 587, 589, 590, 593, 604

Standard 3: Evaluates Information and Its Sources Critically and Incorporates Selected Information Into His or Her Knowledge Base and Value System

21 items: 28, 83, 87, 91, 92, 124, 206, 207, 218, 227, 263, 446, 533, 536, 538, 551, 558, 559, 563, 575, 602

Standard 5: Understands Many of the Economic, Legal, and Social Issues Surrounding the Use of Information and Accesses and Uses Information Ethically and Legally

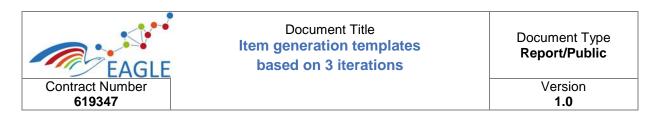
26 items: 112, 117, 118, 119, 120, 122, 123, 132, 136, 200, 222, 271, 512, 516, 528, 552, 553, 554, 556, 557, 560, 573, 583, 595, 597, 599

# Standard 4 not tested in Project Sails.

11. Appendix D. Standard 3 full list of items

Skill Set: Evaluating Sources

21 items: 9, 20, 27, 83, 87, 91, 92, 124, 150, 206, 207, 227, 446, 534, 535, 536, 537, 538, 558, 563, 575



9. Who is the intended audience for this article?

Title: Pages:	Running on streamline power 28-32
Abstract:	In their streamlining searches, many credit unions have discovered that their technology is outdated and that their procedures are redundant. In the case of technology, it can be difficult to accept that spending money will ultimately save money in some instances. Michael Beam of Columbia South Carolina Teachers Federal Credit Union said that ULTRADATA Corp.'s ULTRAFIS optical imaging system has resulted in many beneficial changes in the credit union's operations.

CHOOSE ONE ANSWER

- Banking professional
- General public
- Scholar

Objective: 1.2.4.1 Skill Set: Evaluating Sources

20. <u>Mother Jones</u> is published by the Foundation for National Progress. It is a progressive periodical featuring high quality investigative reporting, political commentary, and features. Recent article topics include terrorism and government response, urban renewal, police brutality, and labor unions. It is published every other month.

What type of publication is this?



CHOOSE ONE ANSWER

- Book
- Government document
- Popular periodical
- Professional/trade periodical
- □ Scholarly periodical

Objective: 1.2.4.1 Skill Set: Evaluating Sources



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# 27. Who is the intended audience for this article?

Title: Pages:	The demand for money, financial innovation and the welfare cost of inflation: An analysis with households' data 60-74
Abstract:	Using a unique set of microeconomic data on households, the authors estimate the parameters of the demand for money derived from a generalized Baumol-Tobin model. The authors find significant differences between individuals with an ATM card and those without. The estimates of the demand for cash allow for the calculation of a measure of the welfare cost of inflation analogous to Bailey's triangle, but based on a rigorous microeconometric framework.

# CHOOSE ONE ANSWER

- Banking professionals
- General public
- Scholars

Objective: 1.2.4.1 Skill Set: Evaluating Sources

83. You hear on a radio talk show that Mad Cow Disease may have been found in the United States. How might you best determine the truth of this statement?

## CHOOSE ONE ANSWER

- Call for a transcript of the program from the radio station
- Check the fbifiles.com Web site for information the government itself might not release to the public
- Discuss the news with co-workers who might have heard the program
- Look up the topic at the American Council on Beef Web site for current news
- Search for Mad Cow Disease on the U.S. Dept of Agriculture Web site

Objective: 3.2.3.5 Skill Set: Evaluating Sources

87. Does the excerpt below illustrate fact, opinion, or bias? "The argument against armed self-defense is one of the most insidious forms of victimization of women. The dominant cultural conditioning tells women that they are not capable of defending themselves with a gun. That's why fewer than 10% of women own guns."

## CHOOSE ONE ANSWER

- Bias
- Fact
- Opinion

Objective: 3.2.3.2 Skill Set: Evaluating Sources



91. What is the purpose of the excerpt below: "Most disturbing of all, some researchers want to use cloning to create human beings solely for experimentation and destruction. They propose to supply genetically matched tissues for treating various diseases by making human embryos from patients' body cells, then dissecting these developing embryos for their "spare parts." Some even speak of growing genetically altered "headless" or "brainless" human clones as organ farms."

## CHOOSE ONE ANSWER

- To inform.
- ☑ To persuade or trigger emotions.
- □ To present a variety of viewpoints.

Objective: 3.2.3.3 Skill Set: Evaluating Sources

92. What is the purpose of the excerpt below: "Four years after Scottish researchers startled the world by announcing that they had cloned a sheep named Dolly, scientists say evidence is mounting that creating healthy animals through cloning is more difficult than expected. The clones that have been produced, they say, often have problems severe enough to concern anyone thinking of cloning a human being. These include developmental delays, heart defects, lung problems and malfunctioning immune systems."

#### CHOOSE ONE ANSWER

- To inform.
- To persuade or trigger emotions.
- To present a variety of viewpoints.
- Objective: 3.2.3.3 Skill Set: Evaluating Sources
- 124. If you are writing a persuasive research paper, you should:

#### CHOOSE ONE ANSWER

- Rely solely upon your own opinion.
- Search for diverse information that both supports and contradicts your opinions on the topic.
- Search for information that contradicts your opinion on the topic.
- Search for information that supports your opinion on the topic.
- Search only for information that is neutral on your topic.

Objective: 3.2.1.8 Skill Set: Evaluating Sources

150. If you need an eyewitness account of the public reaction to a speech given in the 19th century, which type of source would be most likely to provide that information?

#### CHOOSE ONE ANSWER

- Primary source
- Secondary source
- Tertiary source
- 192. If you want to obtain a book or article that is not available at your local library, which of the following statements is most accurate about your options?

#### CHOOSE ONE ANSWER

- The library offers a variety of ways to help you obtain items it doesn't own, but you will be required to pay a fee to use these services.
- The library offers a variety of ways to obtain items it doesn't own. Some of these options may be free, while others may require a fee.
- Your only option is to ask the library to purchase the item on your behalf.
- Your only option is to obtain the item yourself, for example by going to another library or purchasing the item.

Objective: 2.3.3.2 Skill Set: Retrieving Sources



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206. Which of the following sources is <u>least</u> likely to help you evaluate the credibility of an author for your history paper?

CHOOSE ONE ANSWER

- Dictionary of National Biography
- Directory of American Scholars
- Handbook of Modern American History
- Social Sciences Citation Index
- The Blackwell Dictionary Of Historians

Objective: 3.2.1.2 Skill Set: Evaluating Sources

- 207. When searching on the Web for a controversial topic such as gun control, which of the following statements is most accurate about possible bias of a Web site?
  - CHOOSE ONE ANSWER
    - Bias can only be detected from reading the information on the site and comparing it to other sources.
    - If the information in the site includes statistical or numerical data, then it is not biased.
    - Information on the Web is probably biased.
    - Information on the Web is probably unbiased.
    - The domain of the Web site will indicate whether it is biased or not. For example, an .edu site is probably unbiased, while a .com is probably biased.

Objective: 3.2.1.8 Skill Set: Evaluating Sources

227. Which of the following characteristics of an article is generally the most reliable indicator of scholarly research?

CHOOSE ONE ANSWER

- It is available in a university library.
- It is indexed in a research database.
- It is published on the Web.
- It is written by a university faculty member.

It was reviewed by other experts prior to acceptance for publication.

Objective: 3.4.7.2 Skill Set: Evaluating Sources

446. Does the excerpt below illustrate fact, opinion, or bias?

"The number of crime victims who successfully use firearms to defend themselves is quite small. According to the FBI Uniform Crime Reports and the Centers for Disease Control, out of 30,708 Americans who died by gunfire in 1998, only 316 were shot in justifiable homicides by private citizens with firearms."

- CHOOSE ONE ANSWER
  - 🗹 Bias
  - Fact
  - Opinion

Objective: 3.2.3.2 Skill Set: Evaluating Sources



## 534. All of the following criteria are useful for evaluating a magazine article except:

- CHOOSE ONE ANSWER
  - The author's point of view.
  - I The number of pages.
  - When the article was written.
  - Who wrote the article.

Objective: 2.4.1.2 Skill Set: Evaluating Sources

535. You have been assigned a short paper topic that will require you to locate up-to-date facts about the planets in our solar system. Which of the following resources are the most useful?

#### CHOOSE ONE ANSWER

- Bibliography and encyclopedia
- Dictionary and Web site
- Encyclopedia and world atlas
- Science textbook and world altas
- Web site and almanac

Objective: 2.4.1.4 Skill Set: Evaluating Sources

536. You want to use the following information in your research paper on cloning. What is your next step?

"Most disturbing of all, some researchers want to use cloning to create human beings solely for experimentation and destruction. They propose to supply genetically matched tissues for treating various diseases by making human embryos from patients' body cells, then dissecting these developing embryos for their 'spare parts.' Some even speak of growing genetically altered 'headless' or 'brainless' human clones as organ farms."

#### CHOOSE ONE ANSWER

- Find out when this quotation was written.
- Plan your search strategy.
- ☑ Verify the accuracy of the information.
- Write your paper.

Objective: 3.2.1.3 Skill Set: Evaluating Sources

#### 537. All of the following criteria are useful for choosing an information source except:

#### CHOOSE ONE ANSWER

- The authority of the creator of the source.
- How up-to-date the information is.
- The point of view of the author.
- The visual appeal of the design elements.

Objective: 1.4.2.3 Skill Set: Evaluating Sources

#### 538. When assessing a Web site's objectivity, all of the following are useful to examine except:

#### CHOOSE ONE ANSWER

- Advertising on the Web site.
- How current the links are.
- Language and images that express one point of view.
- The intended audience of the Web site.
- The Web site's sponsoring company or organization.

Objective: 3.2.3.1 Skill Set: Evaluating Sources



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558. You would like to evaluate the quality of a specialized encyclopedia you are using for your project. What would be the most effective way to find a good review?

## CHOOSE ONE ANSWER

- Go to the publisher's Web page.
- Search for reviews of the encyclopedia in a periodical index or research database.
- Search the library catalog for the editor's name.
- Search the library catalog for the title of the encyclopedia.

Objective: 3.2.1.1 Skill Set: Evaluating Sources

563. Which of the following types of source is least likely to present a one-sided view and opinions rather than facts?

## CHOOSE ONE ANSWER

Blogs

- Newsgroups
- Newspaper editorials
- Personal or commercial Web sites
- Scholarly journal articles

Objective: 3.2.3.2 Skill Set: Evaluating Sources

575. You would like to evaluate the qualifications of an author of an article you have just read. Which one of these strategies would be the least effective:

## CHOOSE ONE ANSWER

- Search for reviews of the author's work in a periodical index or research database.
- Search for the author's name in a biography database.
- Search for the author's name in the library catalog.
- □ Search for Web pages that mention the author.

Objective: 3.2.1.2 Skill Set: Evaluating Sources