

ETS Higher Education iSkills Assessment Fit with ACRL Standards

ACRL Information Literacy Competency Standards for Higher Education

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<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.htm#ilhed>

The domain assessed by the Higher Ed *iSkills* Assessment conforms closely to the ACRL Information Literacy Competency Standards for Higher Education. The bulleted text describes the evaluations made of student performance on the *iSkills* assessment.

ACRL Standard One: The information literate student determines the nature and extent of the information needed.	
ACRL Performance Indicator	ETS <i>iSkills</i> Assessment Performance Indicator
1. The information literate student defines and articulates the need for information.	<ul style="list-style-type: none"> • Specificity of terms/concepts used in research question or topic statement (<i>Can the examinee isolate all necessary terms, such as event, issue, aspect, time period, person, etc.?</i>) • Appropriateness of breadth/depth of terms/concepts used (<i>Is the research question or topic sentence a narrower component or aspect of the larger topic? Does it deal with the relationships between identified components of the topic?</i>) • Relevance of rationale to the statement of information need (<i>Does the rationale explain all elements of the selection?</i>) • Degree to which the question solicits specific information or information of specific breadth/depth (<i>Are unambiguous questions that clearly specify the degree of detail needed asked in the effort to clarify a problem or information need?</i>) • Accuracy of restatement/clarification of problem (<i>Is the underlying problem or information need accurately identified?</i>) • Appropriateness of resource chosen while browsing to define a topic (<i>Are resources chosen relevant and likely to contain descriptions of research questions and controversies?</i>)
2. The information literate student identifies a variety of types and formats of potential sources for information.	<ul style="list-style-type: none"> • Appropriateness of the type of source chosen to meet a given need (<i>Is the appropriate type of source chosen, e.g., open web, structured database, primary, secondary, or tertiary source?</i>)
3. The information literate student considers the costs and benefits of acquiring the needed information.	<ul style="list-style-type: none"> • Degree of compliance with existing economic constraints (<i>Does the student identify economic issues involved in accessing information and comply with economic constraints?</i>) <i>This focuses on the expense of accessing information, (e.g., "How much will it cost for us to determine the types of carpets we could buy?" rather than "How much will the new carpet cost?")</i> • Appropriateness of use of subscription databases (<i>Does the student follow guidelines when using subscription databases?</i>)
4. The information literate student reevaluates the nature and extent of the information need.	<ul style="list-style-type: none"> • Accuracy of evaluation of sufficiency of questions asked (<i>Were just enough questions asked to elicit needed information?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

ACRL Standard Two: The information literate student accesses needed information effectively and efficiently.	
ACRL Performance Indicator	ETS <i>iSkills</i> Assessment Performance Indicator
<p>1. The information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information.</p>	<ul style="list-style-type: none"> • Appropriateness of the type of source chosen to meet a given need (<i>Is the appropriate type of source chosen, e.g., open web, structured database, primary, secondary, or tertiary source?</i>) • Target when retrieving information objects (<i>Is the retrieved data sent or saved to the intended recipient or spot?</i>) • Efficiency of data retrieval strategy (<i>Is the retrieval strategy direct and free from wasted effort?</i>) • Source when retrieving information objects (<i>Can the student find and retrieve data the student saved?</i>) • Efficiency of data retrieval (<i>Is the retrieval direct and free from wasted effort?</i>) (This should only be measured if the task implicitly or explicitly warns efficiency will be measured.) • Appropriateness of use of subscription databases (<i>Does the student follow guidelines when using subscription databases?</i>)
<p>2. The information literate student constructs and implements effectively-designed search strategies.</p>	<ul style="list-style-type: none"> • Quality of search expression (<i>Is the search expression appropriate to an online search system or database and does it address the topic completely? In a database, are appropriate limiters and expanders used?</i>) <ul style="list-style-type: none"> ○ Quality of search terms in initial search or in response to search results (<i>Do the words in the search address all aspects of the topic?</i>) ○ Use of database limiters and expanders (<i>Are limiters and expanders used appropriately?</i>) ○ Use of syntax (<i>Are Boolean operators, truncation and punctuation used appropriately?</i>) ○ Use of terms from search results (<i>Are some search terms used only after they appear in previous search results?</i>) • Quality of search results returned (<i>Does the search return sufficient information that is precisely relevant?</i>) <ul style="list-style-type: none"> ○ Relevance of data retrieved (<i>Does the search return relevant information?</i>) ○ Completeness of data retrieved (<i>Does the search return sufficient data to meet the information need in a conveniently dense presentation? This is not a question about whether the student correctly evaluates the quality of the data.</i>) • Use of links on a website (<i>Does browsing include selection of appropriate links that address all or most important aspects of the topic?</i>) • Quality of extended search behavior (<i>Do second and subsequent exposures to the same information need result in a short-cut to previous solution and reduced response rate?</i>) • Use of searching software (<i>Does the student review more than the first screen of search results and use the browser button effectively?</i>)
<p>3. The information literate student retrieves information online or in person using a variety of methods.</p>	<ul style="list-style-type: none"> • Quality of search expression over a series of tasks (<i>Is the search expression appropriate to an online search system or database and does it address the topic completely? In a database, are appropriate limiters and expanders used?</i>) • Quality of search results returned over a series of tasks (<i>Does the search return sufficient information that is precisely relevant?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

<p>4. The information literate student refines the search strategy if necessary.</p>	<ul style="list-style-type: none"> • Degree of improvement between one search and the next (<i>Do successive searches include changes that improve search results?</i>) • Use of terms from search results (<i>Are some search terms used only after they appear in previous search results?</i>) • Accuracy of evaluation of sufficiency (<i>Are sufficient resources selected and does resource accession stop after sufficient resources have been selected?</i>)
<p>5. The information literate student extracts, records and manages the information and its sources.</p>	<ul style="list-style-type: none"> • Proportion of data objects with metadata (<i>Is there complete and current citation information for each data object retrieved?</i>) • Proportion of metadata with a trail (<i>Is there a clear path to the location of every data object for which the source is not immediately obvious from the citation information?</i>) • Whether the test taker downloads files appropriately (<i>Was the file downloaded appropriately? For example, was an external drive used to accept larger files?</i>) • Use of the tool interface (<i>Does the student use all the relevant functionality of the simulated application, e.g., browser, e-mail?</i>) • Use of bookmarking, favorites, etc. (<i>Does the student create, edit, delete or navigate by bookmarks, favorites, and similar selection functionality?</i>) • Efficiency of evaluation (<i>Is an accurate evaluation reached in a reasonable number of steps?</i>) (Be sure to consider ADA issues: this should only be measured if the task implicitly or explicitly warns efficiency will be measured and there is a way to be efficient that is open to ALL candidates.) • Degree to which the materials (data objects) are arranged in a useful schema (<i>Does the arrangement of data objects allow for maximum usefulness?</i>) • Degree to which the description of each data object is accurate and useful (<i>Are names of files, folders and similar objects accurate and usefully descriptive?</i>) • Sophistication of use of application tools' features (<i>Was software used in a way that reduced barriers to integration?</i>) (Be sure to consider ADA issues: avoid testing motoric functions.) • Whether data objects are stored where the user intended to store them (<i>Are all data objects stored in the intended location?</i>) • Selection of applicable software and use of software's features (<i>Was the best tool for organizing the resource, sources, or data selected and was it used effectively?</i>) • Completeness and form of metadata (<i>Is there complete and current citation information for each data object and is it organized in a useful schema?</i>) • Appropriateness of schema selected to display a collection of data objects (<i>Does the schema display data objects in a manner that allows easy assessment of the collection?</i>) • Organization of information (<i>Is the organization conducive to comparison, contrast, synthesis, and summarization?</i>) • Presence or absence of proper citations in the new product (<i>Are all elements in the new product that need citation properly cited?</i>) • Degree to which information is organized by theme, not source (<i>Is information organized according to its rhetorical purpose, regardless of the origin of the information?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

ACRL Standard Three: The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.	
ACRL Performance Indicator	ETS <i>iSkills</i> Assessment Performance Indicator
1. The information literate student summarizes the main ideas to be extracted from the information gathered.	<ul style="list-style-type: none"> • Accuracy of the interpretation of information (<i>Is information rendered accurately in its new form?</i>)
2. The information literate student articulates and applies initial criteria for evaluating both the information and its sources.	<ul style="list-style-type: none"> • Authority, relevance, objectivity, coverage, and currency of resources selected (<i>Are the selected resources authoritative, relevant, objective or of the correct point of view, and timely?</i>) <ul style="list-style-type: none"> ○ Authority of resources (<i>Is the level of authority appropriate? Does the student distinguish between research sources and information from accredited agencies and information from questionable sources?</i>) ○ Objectivity of resources selected (<i>Is the level of objectivity appropriate or is the point of view accurately noted?</i>) ○ Currency of resources selected (<i>Is the resource current or is it from the appropriate time span?</i>) ○ Relevance of resource selection to specified criteria of information needed (<i>Does the student select dense, pithily relevant resources?</i>) • Degree of recognition of authority of sources (<i>Does the student present a clear and consistent rationale for sources chosen? Does the student choose an authoritative source the first time it is returned?</i>) • Number of times a key source or resource is seen before it is selected (<i>Does the student select the best resource the first time it is returned?</i>) • Degree of recognition of relevance of information (<i>Does the student present a logical rationale for sources chosen?</i>) • Extent of attention to URL (.com, .gov); (<i>Does the student recognize the differences among, for example, commercial, educational, and government web sites when evaluating possible resources?</i>) • Number of sources selected (as appropriate to the task) (<i>Does the student use a convenient number of resources?</i>) This includes both "How many sources do you skim before you select the sources to quote when you write your paper?" and "How many sources do you read thoroughly and eventually quote in your paper?" • Variety and range of sources selected (<i>Do selected resources include print articles and books, interviews, film clips-not just web pages? Is there both text-based and visual information?</i>) • Extent of recognition that the way that information in a source is represented is indicative of bias or point of view (<i>Does the student make an accurate interpretation of presence of ads, prominence of data objects, etc.?</i>)
3. The information literate student synthesizes main ideas to construct new concepts.	<ul style="list-style-type: none"> • Degree to which information is organized by theme, not source (<i>Is information organized according to its rhetorical purpose, regardless of the origin of the information?</i>) • Sophistication of use of application tool's features that assist in summary or comparison, e.g., putting a formula into a spreadsheet cell (<i>Is the data spontaneously entered into software in a manner that allows use of all the software's features?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

	<ul style="list-style-type: none"> • Quality of content selected/constructed with respect to topic, thesis, claim or argument (<i>Is the content necessary and sufficient to support the thesis, claim, or argument? Depending on the task, "necessary and sufficient" might be defined in terms of relevance, informativeness, feasibility, accuracy and/or persuasiveness.</i>) • Whether "reasonable" solutions or conclusions are identified (<i>Does the student arrive at an appropriate conclusion?</i>)
<p>4. The information literate student compares new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information.</p>	<ul style="list-style-type: none"> • Degree to which the synthesized information meets the defined need (<i>Does the product constructed include necessary and sufficient information, with no extraneous information?</i>) • Accuracy of synthesis, summary, comparison or contrast (<i>Is the synthesis, summary, comparison, or contrast accurate?</i>) • Clarity of relationship of elements of information listed to elements of information need (<i>Does the rationale clearly state the relationship of elements of information the student lists to elements of the stated information need?</i>) • Quality of content selected/constructed with respect to topic, thesis, claim, or argument (<i>Is the content necessary and sufficient to support the thesis, claim, or argument? Depending on the task, "necessary and sufficient" might be defined in terms of relevance, informativeness, feasibility, accuracy and/or persuasiveness.</i>)
<p>5. The information literate student determines whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences.</p>	<p><i>This performance indicator is not in the domain of the iSkills Assessment since it has to do with internal, unobservable, states of the test taker.</i></p>
<p>6. The information literate student validates understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.</p>	<p><i>This performance indicator is not in the domain of the iSkills Assessment, since it cannot be observed in a testing situation.</i></p>
<p>7. The information literate student determines whether the initial query should be revised.</p>	<ul style="list-style-type: none"> • Quality of search terms in initial search or in response to search results (<i>Do the words in the search address all aspects of the topic?</i>) • Whether the most appropriate and efficient sources to help complete the task were selected (<i>Were the most appropriate and efficient sources to help complete the task selected?</i>) • Quality of extended search behavior (<i>Do second and subsequent exposures to the same information need result in a short-cut to previous solution and reduced response rate?</i>) • Accuracy of evaluation of sufficiency (<i>Are sufficient resources selected and does resource accession stop after sufficient resources have been selected?</i>) • Number of types of resources when feasible, e.g., web pages, peer-reviewed journals, printed books (<i>Does the student select multiple types of resources when feasible and appropriate or does the student rely on just one type of resource?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

ACRL Standard Four: The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.	
ACRL Performance Indicator	ETS <i>iSkills</i> Assessment Performance Indicator
<p>1. The information literate student applies new and prior information to the planning and creation of a particular product or performance.</p>	<ul style="list-style-type: none"> • Organization of created/selected information within the structured document (<i>Does the visual design integrate elements, such as charts, graphs, images, and text, with the overall argument, thesis or claim? Does it adhere to design principles? Does the organization support the argument?</i>) • Informativeness of the display of data with regard to its organization and content (<i>Are the organization and content of the graph or table effective in terms of such features as choice of what is represented in columns and rows; choice of what is represented on axes; and choices of elements to distinguish data such as hatching, colors and symbols?</i>) • Pertinence of the integrated elements, such as charts, graphs, images, text, audio, animation, etc., with respect to the argument, thesis, or claim (<i>Are the integrated elements, such as charts, graphs, images and text, clear, relevant, concise and persuasive? Is there a clear relationship of the integrated elements to the overall argument, thesis or claim?</i>) • Efficiency of use of software or hardware (<i>Is an informative and effective product created in a reasonable number of steps?</i>) (Be sure to consider ADA issues: this should only be measured if the task implicitly or explicitly warns efficiency will be measured and there is a way to be efficient that is open to ALL candidates.) • Range of communication plan (<i>Does the communication plan reach all the affected parties in available media and address all the affected parties' needs?</i>) • Degree of fulfillment of the communication need (<i>Are the key points of the presentation conveyed in a balanced, internally consistent manner?</i>) • Whether the test taker uploaded material (<i>Did the student "send" or "upload" all necessary files?</i>) • Communicative quality of discussion contribution (<i>Is the contribution to an ongoing discussion responsive and does it add relevant information or change the direction of the discussion in an appropriate manner?</i>)
<p>2. The information literate student revises the development process for the product or performance.</p>	<ul style="list-style-type: none"> • <i>This performance indicator is not in the domain of the ETS iSkills Assessment, since it refers to a project developed over an extended period of time, which cannot be simulated in a brief assessment.</i>
<p>3. The information literate student communicates the product or performance effectively to others.</p>	<ul style="list-style-type: none"> • Organization of created/selected information within the structured document (<i>Does the visual design integrate elements, such as the charts, graphs, images, and text, with the overall argument, thesis, or claim? Does it adhere to design principles? Does the organization support the argument?</i>) • Informativeness of the display of data with regards to its organization and content (<i>Are the organization and content of the graph or table effective in terms of such features as choice of what is represented in columns and rows; choice of what is represented on axes; and choices of elements to distinguish data such as hatching, colors and symbols?</i>) • Readability of formatting (<i>Is there consistent, professional formatting and layout? Does the student appropriately select a color or black and white printing environment for the information?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

	<ul style="list-style-type: none"> • Appropriateness of grouping of units of measure (<i>Does the grouping of units of measure allow all values to appear on the display in an easily comprehended manner so that trends in data are clear?</i>) • Use of multiple media to support argument, thesis, or claim (<i>Does the product utilize a range of evidence in multiple formats, such as textual, graphical, statistical, audio, animation, as appropriate for the task?</i>) • Appropriateness of material to audience (<i>Is the material completely appropriate to audience(s) in this context, e.g., in terms of content or organization?</i>) • Appropriateness of language usage (<i>Is the language appropriate for the audience and medium, e.g., is there a jargon-free response in a non-technical setting?</i>) • Media adaptation to audience/context (<i>Is the medium appropriate for the audience and setting?</i>) • Appropriateness of representation of material to audience (<i>Do the formatting or graphic displays support audience's needs?</i>) • Range of communication plan (<i>Does the communication plan reach all affected parties in available media and address all the affected parties' needs?</i>) • Database log entry quality (<i>Does the database log entry include appropriate searchable key words?</i>)
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ACRL Standard Five: The information literate student understands many of the economic, legal and social issues surrounding the use of information and accesses and uses information ethically and legally.	
ACRL Performance Indicator	ETS <i>iSkills</i> Assessment Performance Indicator
<p>1. The information literate student understands many of the ethical, legal and socio-economic issues surrounding information and information technology.</p>	<ul style="list-style-type: none"> • Degree of compliance with legal constraints (<i>Does the access effort comply with legal constraints?</i>) • Extent of treating confidential information appropriately (<i>Does the student access only appropriate confidential information?</i>) • Extent to which information selected presents legal, social, or ethical concerns (<i>Does the student use data objects or information that present legal, social, or ethical concerns?</i>) • Extent of following security conventions (<i>Does the student adhere to security conventions and requirements?</i>) • Treatment of confidential data (<i>Was confidential data identified and stored in a secure location?</i>)
<p>2. The information literate student follows laws, regulations, institutional policies and etiquette related to the access and use of information resources.</p>	<ul style="list-style-type: none"> • Degree of compliance with legal constraints <ul style="list-style-type: none"> ○ (<i>Does the access effort comply with legal constraints?</i>) ○ (<i>Does the student select resources that present legal or ethical concerns?</i>) ○ (<i>Are only legally appropriate materials included in communications?</i>) • Degree of adherence to institutional policies <ul style="list-style-type: none"> ○ (<i>Does the student follow institutional policies?</i>) ○ (<i>Are only appropriate materials used in or referenced by the new product?</i>) ○ (<i>Does the communication comply with institutional policy?</i>)

ETS Higher Education *iSkills*™ Assessment Fit with ACRL Standards

	<ul style="list-style-type: none"> • Degree of attention to ethical considerations <ul style="list-style-type: none"> ○ <i>(Does the communication take appropriate care of confidential material, such as credit card information and proprietary information?)</i> ○ <i>(Does the product include plagiarism or copyright violations?)</i> • Extent of etiquette in accessing materials <i>(Does the student's behavior in accessing information conform with Standard 5 performance indicator 2 of ACRL Information Literacy Competency Standards for Higher Education?)</i> • Degree of adherence to proper venue etiquette and proper forms of expression <i>(Does the student use proper venue etiquette, such as appropriate document sizes in email, and forms of expression proper to the communication medium?)</i>
<p>3. The information literate student acknowledges the use of information sources in communicating the product or performance.</p>	<ul style="list-style-type: none"> • Extent of citation <i>(Does the student cite all the sources that should have been cited?)</i> • Completeness of source citations <i>(Does each citation include all the elements necessary to allow an audience member to find the cited material?)</i>