

What Makes Them Flip the Pages? An Information Literacy Skills Assessment of the DLSU Integrated School Grade 9 Students

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Abstract

In the LIS literature, emphasis was and always been on the importance of information literacy as a life-long skill that does not only contribute to academic excellence but also in the performance of simple everyday tasks. In this paper, the former contention is to be highlighted. To borrow Varlejs and Stecs (2014) thoughts – information literacy is a desired learning outcome at the high school as well as in the college level. Certainly, the DLSU Integrated School as a learning institution also encompasses this ideal as they teach and nurture their students holistically.

This paper aims to provide a snapshot of the information literacy skills of the Grade 9 students of the DLSU Integrated School using the Tool for Real-time Assessment of Information Literacy Skills (TRAILS), a knowledge assessment project of Kent State University. The items in the assessment are based on the American Association of School Librarians' (AASL) Standards for the 21st Century Learner. It is hoped that the result of the general assessment will aid in determining how well the Grade 9 students are against the AASL benchmarks, thus pinpointing areas that can serve as important inputs in incorporating information literacy concepts in the curriculum.

Keywords: *information literacy assessment, TRAILS, information literacy standards*

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Introduction

Librarians are natural advocates of the importance and relevance of libraries in society. Beyond the role of libraries as providers of quality information materials and the unique capacities of librarians to make utmost use of these materials in helping their clients, there is a greater responsibility of imparting a lifelong skill to the community – the teaching of information literacy. Information literacy is a perpetual buzzword in the field of librarianship especially in the era where there is multiplicity in the choices of obtaining information about any topic. By far the most commonly cited definition of information literacy is ‘the set of skills needed to find, retrieve, analyze, and use information’ (ALA, 2014). Greater appreciation on information literacy can be made by simply highlighting its importance as a frontline skill in arriving at informed decisions in life.

Constant interest has been on this concept and the creation of standards attest to its significance. Leading this initiative is the American Library Association. Thus, this paper utilizes the standard set forth by one of its divisions, the American Association of School Librarians’ (AASL), *Standards for the 21st Century Learner*. This standard is aimed at providing ‘vision for teaching and learning to both guide and beckon’ school librarians to develop into education leaders by shaping the library program along with shaping the learning of students in the school (ALA, 2014). Its main belief is that learners use skills, resources, and tools to accomplish four (4) fundamental objectives: 1.) to inquire, think critically, and gain knowledge; 2.) to draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge; 3.) to share knowledge and participate ethically and productively as members of our democratic society; and 4.) to pursue personal and aesthetic growth. Each of the objectives constitutes four (4) elements, i.e. skills, dispositions in action, responsibilities, and self-assessment strategies for the learners. Under each element are benchmarks that indicate fulfillment of expectations. Since the initiatives of the AASL are directed towards school librarianship and precisely in the K-12 setting, this will be the benchmark on which the information literacy skills of the Grade 9 students of the DLSU IS is assessed. This activity, as it is a pioneer assessment is hoped to be useful in all possible merits. Schloman and Gedeon (2007) is correct when they surmised that library media specialists welcome measures that help them assess and improve their impact on student success (p.45).

Needless to reiterate, assessment, in any field is a necessary step towards the fruition of institutional goals. As cited by Butler (2014), according to Oakleaf (2013), there are three (3) major assessment approaches for information literacy: fixed-choice tests, performance assessments, and rubrics. For the purpose of this study, since it is a maiden check of the information literacy skills of a particular grade level in the DLSU IS, fixed choice testing is utilized. This aim can best be realized thru the use of standards-driven information literacy tests, such as TRAILS (Owen, 2010). A TRAIL is a popular acronym for *Tools for Real-Time Assessment of Information Literacy*. It is a knowledge assessment with multiple-choice questions targeting a variety of information literacy skills based on 3rd, 6th, 9th, and 12th grade standards. It was envisioned by Kent State University Libraries as a tool that would provide a snapshot of high school students’ understanding of basic information literacy concepts. The assessment items are based on the American Association of School Librarians’ *Standards for the 21st Century Learner* and those from the Common Core State

Standards Initiative that have been adopted by most states in America (Kent State University Libraries, 2014). However, indicators for the latter will not be taken into consideration in this study only those of the former.

TRAILS had been chosen as the assessment tool for this study for a variety of reasons but foremost is convenience and accessibility, i.e. use is at no cost to the DLSU IS Library and it can be administered countless times to numerous students via exclusive sessions. Essentially, Owen (2010) mentioned unique benefits of TRAILS including its capability to quickly capture a large amount of information about student learning; by including questions in five areas of information literacy skills, school librarians can get thorough picture of student skill weaknesses and strengths; it can be used for pre- and post-testing of students such as measuring differences in student learning; and its report module provides easy access to student scores, both individually and as a group, thus minimizing the time school librarians spend analyzing assessment data (p.36).

With these stated, this study is likely to be beneficial in terms of assessing the strengths and weaknesses of the Grade 9 students in the five (5) areas of information literacy incorporated in TRAILS, having a baseline data of where to start augmenting the library program to collaborate with teachers and monitoring information literacy skills growth across the years as TRAILS provides for this function.

Objectives Of The Study

This study aims to provide a snapshot of the information literacy skills of the Grade 9 students of the DLSU Integrated School using the Tool for Real-time Assessment of Information Literacy Skills (TRAILS).

On hind sight and deriving from the objectives of TRAILS, this study also aims to utilize a class assessment tool that is standards-based, provides for both class and individual outcomes but still assures privacy, Web-based, easy-to-use, and available at no cost.

Methodology

This study utilized the fixed-choice test approach in assessing the information literacy skills of the DLSU Grade 9 students. This was made possible using TRAILS at www.trails-9.org where establishing an account is mandatory. With a valid account set up, its various features are readily and freely available for use. The 9th Grade General Assessment 1 was chosen for this study as TRAILS was initially created for 9th graders until its recent improvement to include assessments for other grade levels. This general assessment is comprised of twenty-five multiple choice questions focused on five information literacy areas: 1.) Develop topic; 2.) Identify potential sources; 3.) Develop, use, and revise search strategies; 4.) Evaluate sources and information; and 5.) Recognize how to use information responsibly, ethically, and legally. Thus, each category is accorded 5 questions respectively.

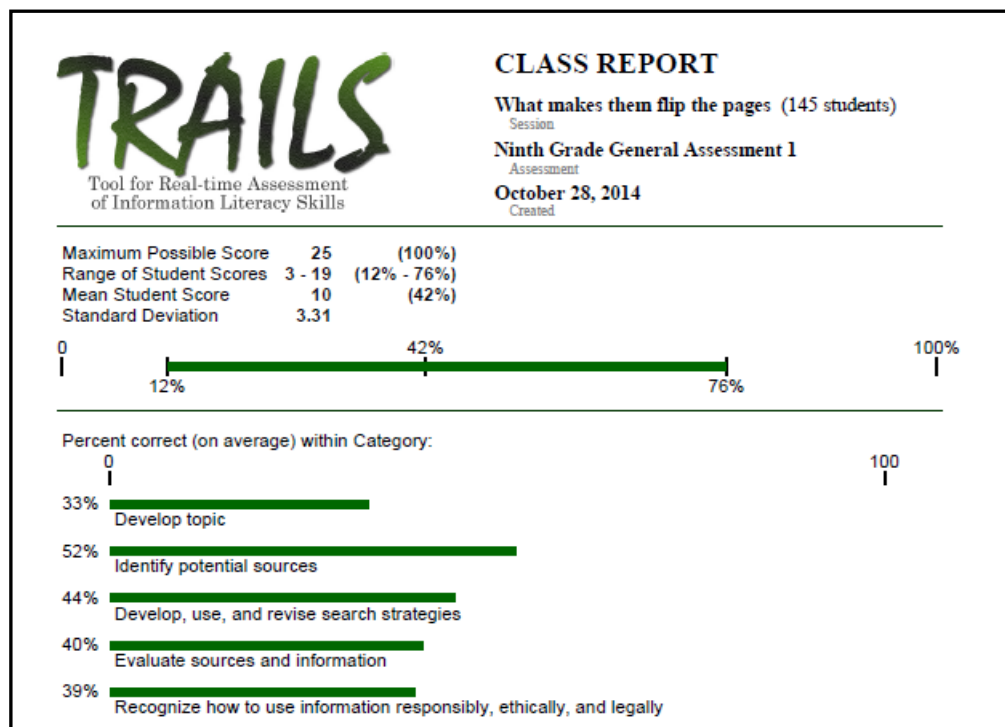
With the necessary approvals secured, a TRAILS session was created, automatically providing an external link where the test was administered online to all Grade 9 sections targeting 233 students but unfortunately obtaining only 145 completed

responses (62.23%). This was accomplished with the assistance of the DLSU IS English Coordinator. After the session, student and class reports as well as a raw datasheet were generated by TRAILS' system.

Discussion Of Results

The result of the TRAILS General Assessment 1 provides a picture of the existing literacy skills of the Grade 9 students. Figure 1 presents a screenshot of the class report generated by the TRAILS system. The class report summarizes the result of the 25-item questionnaire completed by the 145 Grade 9 students.

Figure 1. General Assessment Summary of Results



The report includes details on the session identification, the specific TRAILS assessment administered, and the date when the session was created. Following these details are the statistical indicators which instantly give information on how did the Grade 9 students performed in the assessment. Based on this statistics, 25 being the maximum possible score, the lowest score obtained is 3 points (12%) and the highest is 19 points (76%). Interpreted qualitatively, the scores obtained ranges from *Poor* to *Good*. The mean or the average score obtained is 10 points (42%). The first impression from this is that, the Grade 9 students seem to possess levels of information literacy skills that lie on extreme ends of the spectrum. However, the supplied standard deviation (SD) of the scores is at 3.31. Standard deviation in the simplest possible definition, is the distance of the scores from the mean (i.e. 10 points as mentioned above). Hence, 10 points +/- 3.31 is where lies the density or majority of the scores obtained by the Grade 9 students (scores ranges from 7 to 13 points rounded off). It is also important to note that statistically speaking, a standard deviation of 3.31 is considered as just little deviation, therefore, this indicates that the data of the group – the information literacy skills – is compact and homogenous. In

other terms, their skills level is technically the same because they represent a homogenous group.

The class report also presents the percentage of items that were answered correctly by the students within each category. These are as follows: 1.) Develop topic = 33%; 2.) Identify potential sources = 52%; 3.) Develop, use, and revise search strategies = 44%; 4.) Evaluate sources and information = 40%; and 5.) Recognize how to use information responsibly, ethically, and legally = 39%. The bases of these summary is then shown by presenting each item with the correct answer, the number of students who selected each choice and its corresponding percentage from the total.

TRAILS Result per Information Literacy Skills Category

From the standards considered, the TRAILS team arrived at common themes in assessing information literacy skills. This resulted to 5 categories where the items of the general assessment revolved around. The five categories and the respected result of the Grade 9 respondents are presented in the succeeding sections. The tabulated data are based from the worksheet also generated by the TRAILS system but the qualitative interpretation for the range of scores obtained is supplied by the proponent of this paper to make the numbers become more meaningful.

Category 1: Develop Topic

The TRAILS set of objectives under this category is to assess the ability of the students to identify narrow and broad topics; subsequently, to demonstrate understanding of the hierarchical relationship of topics; and to identify the best personnel to help them develop a manageable focus for their topic. The equivalent AASL standard measured is 1.1.3, the skill of developing and refining a range of questions to frame the search for new understanding and 1.1.4, the skill of finding, evaluating, and selecting appropriate sources to answer questions.

The performance of the Grade 9 students under this category is shown on Table 1. It is noticeable that majority of them 80% (n=116) answered the questions within the range of *Poor* to *Fair*. This is not necessarily a cause of alarm because this coincides, per TRAILS Project Team's analysis of 32,000 student test results, students had the most trouble correctly identifying a topic or focusing a topic (Schloman & Gedeon, 2007, p.47).

Table 1

Develop topic (Overall Percent Correct = 33%)

Range of Student Score in %	Frequency	Percentage from total responses
Poor (0 – 20)	65	44.82%
Fair (21 – 40)	51	35.17%
Average (41 – 60)	24	16.55%
Good (61 – 80)	4	2.76%
Excellent (81 – 100)	1	0.69%
Total	145	100%

Category 2: Identify potential sources

The TRAILS objective under this category is to assess the ability of the students to select the most appropriate sources and tools from all possible options to meet the information need. The corresponding AASL standard is 1.1.4. A good number of Grade 9 students performed averagely for this category (n=61, 42%) and it is noteworthy that there were 5 students who scored excellently. Among all the five categories assessed, the Grade 9 students obtained the highest percentage of correct responses under this category. Again, this coincides with the TRAILS Project Team’s analysis that students appear to have done best in identifying potential sources (p.46).

Table 2

Identify potential sources (Overall Percent Correct = 52%)

Range of Student Score in %	Frequency	Percentage from total responses
Poor (0 – 20)	26	17.93%
Fair (21 – 40)	32	22.07%
Average (41 – 60)	61	42.07%
Good (61 – 80)	21	14.48%
Excellent (81 – 100)	5	3.45%
Total	145	100%

Category 3: Develop, use, and revise search strategies

The TRAILS set of objectives under this category is to assess the ability of the students in identifying typical parts of the books, using the card catalogue and other research tools, understanding the functions of Boolean operators, and familiarity with the steps in the information-seeking process. The allied AASL standards for this category are 1.1.1, the skill on following an inquiry-based process in seeking knowledge in curricular subjects and make the real-world connection for using this process in own life and 1.1.8, the skill on demonstrating mastery of technology tools for accessing information and pursuing inquiry.

Majority of the respondents scored fairly while 3 students answered excellently. The Grade 9 students demonstrated their second best score in this category, qualitatively interpreted as average. This is contrary to the findings of the TRAILS Project Team's observation that students found it more difficult to answer questions under this category.

Table 3

Develop, use, and revise search strategies (Overall Percent Correct = 44%)

Range of Student Score in %	Frequency	Percentage from total responses
Poor (0 – 20)	42	28.97%
Fair (21 – 40)	49	33.79%
Average (41 – 60)	34	23.45%
Good (61 – 80)	17	11.72%
Excellent (81 – 100)	3	2.07%
Total	145	100%

Category 4: Evaluate sources and information

The TRAILS objective under this category is to gauge the ability of the student to assess information sources according to specific criterion. The corresponding AASL standard is 1.1.5, the skill on evaluating information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.

Although majority of the respondents obtained poor scores under this category, a closer look on how the students responded on the items in this category revealed that they are very particular on the accuracy, authority, and attentiveness to similarities and differences of topics (See items #16, 18, 19 on Appendix A). The low scores of the students also confirm the findings of Schloman & Gedeon (2007) that students encountered the most trouble in this category.

Table 4

Evaluate sources and information (Overall Percent Correct = 40%)

Range of Student Score in %	Frequency	Percentage from total responses
Poor (0 – 20)	53	36.55%
Fair (21 – 40)	44	30.34%
Average (41 – 60)	31	21.38%
Good (61 – 80)	14	9.66%
Excellent (81 – 100)	3	2.07%
Total	145	100%

Category 5: Recognize how to use information responsibly, ethically, and legally

The TRAILS objective under this category is to assess student familiarity on the concepts of copyright and legal terms of using information sources. The equivalent AASL standard is 1.3.1, the responsibility of respecting copyright, intellectual property rights of creators and producers.

A majority number obtained a fair score and none of them did excellently. This standing is contrary to the TRAIL Project Team’s findings that students appear to have done best in this category. A result that is discouraging especially that the students are unaware of fair use but nevertheless, when analyzed on per item-basis (# 22 on Appendix A), they have a strong concept of intellectual freedom.

Table 5

Recognize how to use information responsibly, ethically, and legally (Overall Percent Correct = 39%)

Range of Student Score in %	Frequency	Percentage from total responses
Poor (0 – 20)	49	33.79%
Fair (21 – 40)	52	35.86%
Average (41 – 60)	31	21.38%
Good (61 – 80)	13	8.97%
Excellent (81 – 100)	0	0%
Total	145	100%

Conclusion

Ensuring that the concept of information literacy is imparted to and most importantly that the skills are acquired and nurtured by the students are one of the pillars of the librarianship profession. Assessment provides a head-on view with reality. This study, through the use of TRAILS gave a feel of reality – the information literacy skills status of the Grade 9 DLSU IS students.

Overall, the study revealed that out of 100%, the score obtained on average is only 42%. With this TRAILS assessment result, a wealth of baseline data is instituted for the improvement of the STC Libraries Program. It pinpointed that the most crucial aspects are helping students in the area of developing their research topics and emphasis on issues of intellectual property rights. The assessment result also is empowering to the Library administration as it revealed that students are accustomed to the types of information sources in the library and also to various search tools be it manual, electronic or online and they are able to discriminate authoritative and accurate sources of information.

These data will be helpful in mitigating the lapses and still capitalizing on the good features of library instructions that were discovered.

Recommendations

Basing on the results of the assessment, collaboration with appropriate subject teachers and other school personnel is encouraged so that the identified weak areas be included in class objectives and as a general approach, in orientation sessions for new students. It is also recommended that the school librarian or media specialist prepare lesson plans that further supplement information literacy concepts that are not grasped well by the students and propose realistic action plans that will facilitate addressing gaps in the information literacy skills of the students thru practical and interesting activities.

Finally, it was stated earlier in this paper that this is the first information literacy skills assessment in DLSU IS. It will be ideal if a post-test will be administered after the necessary interventions have been made. Provided that the outcome of this pilot assessment and the interventions instituted will be satisfactory , it is also recommended for this to be adopted as a permanent school activity to guarantee that information literacy is not “just an abstract concept taught in school” but truly an important skill in real life situations.

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