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Longitudinal update: business information literacy teaching at different academic levels

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1. Background

In 2012 in this journal, Gunn and Miree reported results of a study comparing the information literacy (IL) skills of first-year and final-year undergraduate business students. The first-year students included in the sample were drawn from a required year-long first-year professional development business course. The final year students in the study were drawn from four sections of a final-year class that is also required for all business students. While the classes and the library instruction (included in both courses) were mandatory, participation in the study was voluntary for both groups of students. It should be noted that neither group of students had experienced any mandatory discipline-specific IL instruction before the time of the study. The students' IL skills were tested using a pre-test; they were then exposed to an online tutorial consisting of videos and activities related to research in business disciplines. At the end of the tutorials their skills were tested again (in the form of a post-test) to determine the efficacy of the online tutorial. The study results demonstrated that while the online instructional activities did indeed significantly improve the IL skills for both groups of participants, the final-year students possessed the same IL skill level as their first-year counterparts during all three phases aspects of the study (i.e., pre-test, video practice activities and the post-test). Given the implications of this finding, the authors decided to follow the first-year students and re-investigate their IL skills during their final year at the university. This short report presents the results of that study.

During the 2012–2013 academic year, we gathered data from 100 current final year students (who would have been first-year students during the time of our previous study) who had confirmed their participation in the business-related online library instruction offered by the business school during their first year at the university. It should also be noted that while not all of the 100 current final-year students may have participated in the previous study, they had all been exposed to the same mandatory IL instruction by the time of the current study. This group will be referred to as Group One going forward. The instruments used in the current study are the same materials administered in the same format as the previous study: a pre-test, an online tutorial and a post-test.

From a longitudinal perspective, we were most interested in comparing the performance of the Group One students with the performance of the 114 final-year students from Gunn and Miree (2012) who had not had prior IL instruction at the time of the study. This second group will be referred to as Group Two going forward. We also compared the performance of the Group One students to the performance of the 130 first-year students from Gunn and Miree (2012) (hereafter referred to as Group Three) to determine if there was evidence of retention from their first exposure to business-related library instruction. Table 1 provides a summary of the three groups in current study.

2. New Results

The pre-test performance of Group One students suggests that their IL skills are significantly better than those of Group Two students. Table 1 contains the results of both groups' pre-test performance. These findings lead us to believe that making an online IL tutorial mandatory is justified. Graduating students have stronger skills in conducting business research when they have had this type of IL instruction prior to their final year.

Table 1: Pre-test performance of final-year students

	Group Two Final-year students without prior IL instruction	Group One Final-year students with prior IL instruction	Difference in means	
Pre-test	70.8%	75.00%	4.2*	
performance				
*p<.05 **p<.01 ***p<.001				

In our second test we compared the pre-test performance of students during their first year in the business school (Group Three) with their performance in their final year of the business school (Group One). We found a significant difference in the performance as well. Group One students performed better on the pre-test than they had before they were exposed to the IL tutorial. Table 2 shows the pre-test performance of these students at both points in time. Based on these findings, the researchers believe that the online tutorial in the first year of these students' academic careers has provided a useful basis for their development in that area of IL, regardless of whether they have encountered any additional IL instruction related to specific business subject matter.

Table 2: Pre-test performance of first-year and final-year students

	Group Three First-year students from Gunn and Miree (2012)	Group One Final-year students with prior IL instruction	Difference in means	
Pre-test performance	68.13%	75.00%	6.87***	
*p<.05 **p<.01 ***p<.001				

Table 3 contains the pre-test and post-test performance of Group One students. Even as the results demonstrate final-year students (with prior IL instruction) doing significantly better than they have in the past, it is noteworthy that a repeated exposure to the exact same tutorial still resulted in a significant difference between their pre-test and post-test performance (i.e. additional learning is still occurring as a result of the tutorial).

Table 3: Pre-test and post-test performance of Group One students

	Pre-test	Post-test	Difference in	
			means	
Group One	75.00%	82.50%	7.50***	
Final-year students				
with prior IL				
instruction				
*p<.05 **p<.01 ***p<.001				

The researchers consider this an interesting confirmation of the need to reinforce skills and concepts, even if they have been taught in the past.

3. Conclusion

This longitudinal study of undergraduate business students suggests that mandatory early exposure to IL instruction makes a difference in students' IL skills even years after the initial exposure. While we cannot confirm how much of student knowledge is due to retention of the early material, we do believe that an early introduction to business-related IL skills might enable students to develop their IL skills further than they would have without said introduction. At the same time, we note that students continue to benefit from repeated instruction. The use of the exact same instructional materials was necessary for consistency within the context of this study. Nevertheless, we do acknowledge that students might benefit even more from more advanced IL instruction that builds upon previous IL instruction instead of simply repeating the same lessons. It is therefore important that future research in this area include more longitudinal studies that not only measure baseline IL knowledge (i.e. at the beginning of their academic careers) but also examines the relative benefits and impact of more advanced IL instruction as students matriculate through university.

Endnote

The first author's surname has since changed from Gunn to Hristova.

References

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