

## Teaching essential graduate attributes via digital cultural heritage: An assessment model

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### **Abstract**

*Through building the first digital archive about communication education history and cultural heritage in Greater China and using oral history approach involving current students and sharing from alumni, faculty, and staff over the past 50 years, this exploratory study aims to evaluate the effectiveness of using such an inside-out approach to enhance the impact on learning among students as well as cognitive and affective changes toward attaining graduate attributes in the communication profession. Students from six selected courses (N=97) participated in this project completed an online survey. Four instructors and 20 interview participants provided qualitative feedback via email. Hierarchical regression results showed that personal involvement, evaluation of interview sharing, and evaluation of teaching methods were all the significant predictors of the variance in impact on learning as well as cognitive and affective changes toward attaining graduate attributes in the communication profession. Instructors found this approach an effective way to strengthen teaching and enhance students' learning experience from understanding the central, enduring, and distinctive features of communication school and the university. Alumni also believed that this project enabled current students to observe the important graduate attributes which lead to career success.*

**Keywords:** *Digital cultural heritage; Graduate attributes; Impact on learning; Oral history.*

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## **1. Introduction**

### **1.1. Background**

“To discover something new we must study the old. To invent the future we must understand the past.” ~ TS Eliot

Most academic administrators strongly believe that students and alumni are the most important assets of an education institution’s growth and outcomes of efforts. Very often educators use an outside-in approach to design programs and activities to enhance teaching and learning such as an industry sharing talk in a big classroom, a firm visit to a creative agency, and an overseas study tour to visit a university and company. Very few of these initiatives, however, look at how to further develop students’ learning experience from understanding the central, enduring, and distinctive features of their own schools and/or universities. Learning about the core teaching beliefs and values from school heritage is crucial to help current students recognize and acquire important qualities of graduates.

To prepare students to be responsible global citizens, a local university in Hong Kong identifies seven areas to develop all aspects of the whole person education—citizenship, knowledge, learning, skills, creativity, communication, and teamwork. In celebration of the 50<sup>th</sup> anniversary of its communication school, an “inside-out” approach was used to teach these essential graduate attributes to current students through building a digital cultural heritage project about the School (COMM).

### **1.2. Specific aims**

While digital heritage has been used in many community projects, our project is the first among communication schools in Greater China about its own education history and cultural heritage. By involving students to study the past, and using oral history shared by alumni, faculty, and staff on the past 50 years’ school development, this exploratory study aims to evaluate the effectiveness of using such an inside-out approach to enhance the impact on learning among students as well as cognitive and affective changes toward attaining graduate attributes in the communication profession.

## **2. Literature Review**

### **2.1. Digital heritage**

Digital heritage is the use of digital media in the service of preserving cultural or natural heritage (Cameron & Kenderdine, 2007; Kalay, Kvan, & Affleck, 2007). The Charter on the Preservation of Digital Heritage of UNESCO defines digital heritage as embracing “cultural, educational, scientific and administrative resources, as well as technical, legal,

medical and other kinds of information created digitally, or converted into digital form from existing analogue resources.” (UNESCO, 2003). Professor Sarah Kenderdine shared her view on digital heritage in a TED talk: “If we treat the past as a dynamic entity, it’s future is vital. And I believe that sensory, social, and democratic experiences of heritage allow us to imagine the future better.”

## **2.2. Oral history and cultural heritage**

Adopting the Golden Circle model (Sinek, 2009), we integrated with an oral history approach to allow students to discover WHY—the purpose, cause, and belief of COMM’s education heritage, culture, and values through the sharing stories of participating alumni, faculty, and staff across different periods of the COMM history. “Oral history tells us not just what people did, but what they wanted to do, what they believed they were doing, what they now think they did... Subjectivity is as much the business of history is the more visible ‘facts’ (Portelli, 1998).” Through the use of storytelling, students can learn about how COMM’s teaching and learning equipped the graduates with the essential qualities and inspired them to develop their successful careers in the industry profession.

## **2.3. Study framework**

Bloom’s taxonomy (1956) on cognitive process dimensions include remember, understand, apply, analyze, evaluate, and create. Some scholars also argued that fostering students’ emotional commitment to understanding their own disciplines (e.g. accounting and public relations industry) is equally important (Bay & Felton, 2012; Mak & Hutton, 2014). Hence, we integrated both aspects as study framework to evaluate our project. The framework proposes that there will be positive correlation between learning impact in class and each of the following: (1) a student’s personal involvement with the interview sharing (e.g. whether the interview evoked emotions), (2) the student’s evaluation of the interview sharing (e.g. whether the interview was memorable and thought provoking), and (3) the student’s evaluation of the instructor’s methods. In turn, it is expected that self-perceived learning outcomes will be positively correlated with cognitive and affective changes, such as greater awareness and appreciation of attaining graduate attributes in the profession.

## **2.4. Hypotheses**

H1: Students’ personal involvement in interview sharing is positively associated with self-perceived learning outcome.

H2: Students’ evaluation of the interview sharing is positively correlated with self-perceived learning outcome.

H3: Students’ evaluation of the teaching methods is positively correlated with self-perceived learning outcome.

H4: Students' self-perceived learning outcome is positively associated with cognitive and affective changes about attaining graduate attributes in the communication profession.

### **3. Methods**

#### ***3.1. Student sample and course design***

This two-year teaching development project is expected to recruit over 250 students from various communication disciplines (e.g. advertising, film production, journalism, and public relations) of a local university in Hong Kong to participate. Six courses (N=183) were selected in the first year, including Public Relations Writing, Advanced Writing for Professional Communication, Broadcast Journalism and Cinematic Storytelling. Students, in groups of three to five, were assigned to interview one to three alumni, faculty, or staff in small groups. To allow students to take ownership in this project, they were encouraged to use different formats (e.g. news reporting, feature articles, social media videos, and photography) and styles of presentation (text, visual, audio, and/or video) to present the stories and contribute to the digital archive system.

Students were required to study the background of the interviewee(s) and prepare questions about 1) how their school life looked like in the old days; 2) how COMM's teaching and learning equipped graduates with the essential qualities and inspired them to develop their successful careers in the industry; and 3) advice to current COMM students in their study and career development. Through the use of oral history and storytelling, students were able to learn and cherish the COMM teaching values and embrace the learning culture that lead COMM graduates to become successful communication professionals. Students were also able to showcase and publish their work about the graduate attributes shared by alumni, faculty, and staff in the digital archive portal developed by the university library and on Facebook page for community engagement.

#### ***3.2. Data collection***

Students in four classes were invited to complete an online survey (N=127) toward the end of the course which took approximately ten minutes. A pretest was done and consent was obtained. We received 97 completed responses which generated 76.4% response rate. The sample included more female students ( $n = 77$ ) than male students ( $n = 20$ ). There was a range from year 2 to year 4 students, with year 3 students representing the highest proportion of the total sample ( $n = 70$ ). We also invited four instructors and randomly selected 20 alumni to provide some feedback about this teaching exercise via email.

### 3.3. Measures

The survey items used in the questionnaire were partially adopted and modified from assessment models on using films as teaching resource to enhance learning outcomes (Bay & Felton's 2012; Mak & Hutton, 2014). Respondents were asked to indicate their agreement on statements on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) of the following measures.

***Personal Involvement.*** Participants rated their agreement on six statements about their perceived personal involvement in the interview sharing of the project. The sample items are "The interview made me feel more interested in COMM education history" and "I enjoyed the assignment based on the interview sharing." All responses of six items were averaged to measure participants' personal involvement in interview sharing ( $\alpha = .92$ ,  $M = 3.71$ ,  $SD = 0.77$ ).

***Evaluation of the interview sharing.*** Six statements were used to assess participants' evaluation of the interview sharing. These items included "The selected interviewee was inspiring" and "The interview sharing provided me with meaningful lessons or stories about COMM education." We averaged all six responses into one item to measure participants' evaluation of the interview sharing ( $\alpha = .91$ ,  $M = 3.89$ ,  $SD = 0.70$ ).

***Evaluation of teaching methods.*** Respondents were asked to evaluate the teaching methods through the project by indicating their agreement on five statements. The sample items are "The project briefly helps me understand the purpose of this project better" and "Instructor and project client's suggestions in doing the project help me understand the project better." All responses to five items were averaged into one item to measure participants' evaluation of teaching methods ( $\alpha = .90$ ,  $M = 3.74$ ,  $SD = 0.74$ ).

***Impact on learning.*** Participants were asked to evaluate their perception in relation to impact of engaging in interview sharing on their learning by responding to eight statements. The sample items are "Learning about the student life of graduates makes me feel more interested in the COMM discipline" and "Learning about the student life of graduates makes me better understand what graduate attributes I need to attain to join the COMM industry". We averaged responses of eight items into one item to gauge participants' perceived impact of interview sharing on learning ( $\alpha = .94$ ,  $M = 3.82$ ,  $SD = 0.69$ ).

***Cognitive and affective changes.*** This variable was assessed by five items regarding to graduate attributes (GAs) and Whole Person Education (WPE). For instance, respondents were asked to indicate their agreement on the question like "I have a greater understanding of GAs and WPE than I did before doing this project" and "I intend to learn more knowledge concerning GAs and WPE related to the COMM profession in the future". We averaged responses of five items into one item to measure participants' cognitive and affective changes about attaining graduate attributes ( $\alpha = .94$ ,  $M = 3.53$ ,  $SD = 0.80$ ).

**Graduate attributes.** The operationalized definitions of the seven graduate attributes are as follows: (1) Citizenship: Be responsible citizens with an international outlook and a sense of ethics and civility; (2) Knowledge: Have up-to-date, in-depth knowledge of an academic specialty, as well as a broad range of cultural and general knowledge; (3) Learning: Be independent, lifelong learners with an open mind and an inquiring spirit; (4) Skills: Have the necessary information literacy and IT skills, as well as numerical and problem-solving skills, to function effectively in work and everyday life; (5) Creativity: Be able to think critically and creatively; (6) Communication: Have trilingual and biliterate competence in English and Chinese, and the ability to articulate ideas clearly and coherently; and (7) Teamwork: Be ready to serve, lead and work in a team, and to pursue a healthy lifestyle

### **3.4. Analytical methods**

A factor analysis was conducted to determine the structure and relationship of items under variables among various groups, which can help to create a more parsimonious model by combining the items under same structure and eliminating irrelevant items. To examine H1, H2 and H3, we used hierarchical linear regression with impact on learning as dependent variable with personal involvement, evaluation of the interview sharing, and evaluation of teaching methods as independent variables. In the model, gender and education level were treated as control variables. To examine H4, a regression with cognitive and affective changes about attaining graduate attributes as dependent variable and impact on learning as independent variable. Gender and year of study were also controlled in this model. For the open-ended question of students' learning experience and feedback from course instructors and participating alumni, we analyzed their inputs and categorized into different themes with some supporting usable quotes.

## **4. Results**

### **4.1. Survey results analysis**

The results of factor analysis revealed that items of each variable can be reduced into one single factor. Thus, this study used the original items as measures for further analysis. H1 predicted a positive relationship between personal involvement in interview sharing with self-perceived learning impact. The results showed that personal involvement was significantly associated with self-perceived learning impact ( $\beta = .14, t = 2.32, p < 0.5$ ). Thus, H1 was supported. H2 predicted a positive relationship between evaluation of the interview sharing with self-perceived learning impact. The results showed a significant association between evaluation of the interview sharing with impact on learning ( $\beta = .48, t = 6.60, p < .001$ ). H2 was accordingly supported. H3 predicted a positive relationship between evaluation of teaching methods with self-perceived learning impact. The results

indicated that evaluation of teaching methods can significantly predict perceived impact on learning ( $\beta = .38, t = 5.44, p < .001$ ). Consequently, H3 was supported by the data. H4 predicted a positive relationship between impact on learning with cognitive and affective changes about attaining graduate attributes. The results showed that impact on learning was significantly related to cognitive and affective changes about attaining graduate attributes ( $\beta = .73, t = 10.46, p < .001$ ).

Table 1 presents the results of two waves of hierarchical regressions. It revealed that personal involvement, evaluation of the interview sharing, and evaluation of teaching methods all were the significant predictors of the variance in impact on learning. Upon controlling gender and year of study, these three variables explained 82.1 percent of the variance in impact on learning ( $R^2 = .821, F = 89.340, p < .001$ ). In the model of the regression between impact on learning and cognitive and affective changes, impact on learning explained a 53.8 percent of the variance in cognitive and affective changes ( $R^2_{\text{change}} = .538, F = 38.315, p < .001$ ).

#### **4.2. Qualitative feedback on impact of learning**

All students taking part in the project survey gave very positive answers. Their responses about the impact of learning were categorized as:

- They have a better understanding of the COMM history, development, and core values;
- They learned from the interviewees the important graduate attributes they need to acquire in order to excel in the communication industry;
- They have a better understanding of the communication industry, and opportunities they could grasp, and direction they should follow; and
- They were able to acquire practical skills and techniques such as interviewing, feature writing, photo taking, and video production.

Students treasured the valuable experience of meeting with alumni; many of the interviewees are renowned professionals in the communication field. They learned about the importance of holding positive attitude in learning, be proactive, and resilient in study and work. Some of their feedback included:

- “After the interview, I know more about our School, the attributes of alumni and what makes COMM students so different from others”;
- “I got more understanding about graduate attributes, whole person education by the concrete experience examples shared by the alumni”;
- “I learned so much from the interview. It’s just like reading a human book on how the teaching of the School has shaped the alumna into the person she is now”;

- “The most important quality of being a communication professional is the attitude. I believe the success of the alumna is related to her attitude”; and
- “I appreciate this interview opportunity which let me know much more about the history of the School. I was also inspired to find more meaning of what I am learning and have a clearer direction of what I am going to do in future.”

Feedback from involved instructors and alumni was also very positive. Instructors found this inside-out approach an effective way to strengthen teaching and was able to enhance students’ learning experience from understanding the central, enduring, and distinctive features of COMM and the university. A female instructor explained, “it is more effective to let students learn about the essential graduate attributes to become professional communicators in the industry through interview sharing from alumni. Learning from a role model is more impactful than classroom teaching.” Participating alumni commented that effectiveness of the Project was two-folded. It helped reconnect alumni to COMM and current students and enhance their knowledge and understanding about recent happenings of COMM. It also gave them opportunities to contribute back to COMM whenever possible. Second, the project helped strengthen students’ networking with the industry, broaden their perspective, and enhance their understanding of the history and development of COMM and observe the important graduate attributes which lead to career success. An alumnus commented, “It’s very meaningful because it enabled current students to learn more about the history and development of COMM and understand that attitudes, both at work and study, of alumni in the old days.” In the long run, it will help to inspire their career development and contribution to the industry.

## **5. Discussion**

While still rather exploratory in nature, quantitative and qualitative findings of this study both suggest strongly that teaching essential graduate attributes via oral history sharing is an effective means of enhancing self-perceived impact of learning among communication students and having positive cognitive and affective changes regarding graduate attributes in the communication profession. In particular, the cognitive processes (Bloom, 1956) as well as emotional attachment (Bay & Felton, 2012) are equally important to transform and sustain the core teaching and learning values from the digital cultural heritage project of COMM. Educators often face the challenges of teaching such “soft skills” while communication professionals often emphasize that these are the most important attributes that communication students should be taught in school, even far more vital than learning the practical skills before joining the industry.

Through small group interaction in interviewing sharing about the old school days, associating school heritage with essential graduate attributes can be easily observed and

applied by students when completing the project assignment. This serves as the first step as many participating alumni keep in touch with the involved students and some even offered internships after the exercise. Acquiring essential graduate attributes can be further developed through networking with role models in the communication profession beyond classroom setting. In the long run, using this inside-out approach of re-connecting alumni with current students can also sustain the core values and cultural heritage of school, regardless of disciplines, to remind students why they are here for (education) and how to become they want to be (successful professionals).

**Table 1. Hierarchical regressions to the impact on learning and cognitive and affective changes**

	Impact on learning		Cognitive and affective changes	
	$\beta$	t	$\beta$	t
Block 1				
Gender	-.05	-1.03	-.06	-0.56
Year of study	-.08	-1.90	-.15	-1.44
	$R^2_{\text{change}} = .011$		$R^2_{\text{change}} = .027$	
Block 2				
Personal involvement	.15*	2.32	-	-
Evaluation of the interview sharing	.48***	6.60	-	-
Evaluation of teaching methods	.38***	5.44	-	-
Impact on learning	-	-	.73***	10.46
	$R^2_{\text{change}} = .820***$		$R^2_{\text{change}} = .526***$	
Total adjusted $R^2$	.821***		.538***	

Note:  $\beta$  is the final standardized beta. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$ .

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