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**Improving Interpersonal Communication Skills for Future Healthcare Professionals
Through Undergraduate Experiential Education in the Arts**

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Abstract

In 1999, the Accreditation Council for Graduate Medical Education identified interpersonal and communication skills as key attributes of effective physicians, and therefore a core competency to cultivate in medical training. *Connections* is a community-engaged course in which undergraduate students train to facilitate therapeutic interactions with art for museum-goers diagnosed with conditions including Alzheimer's disease, Substance Use Disorder, and HIV/AIDS. This article reflects on the long-term and lasting improvements in empathetic communication abilities reported by students who completed the *Connections* course and are now pursuing graduate training or a career in healthcare. This case study approach will also share course structure and teaching methods used in *Connections* to demonstrate how experiential learning practices in the arts provide meaningful opportunities for future healthcare professionals to build their interpersonal and communication skills as undergraduates, giving them a head start at mastering these competencies in graduate programs and employing them effectively in their careers.

Keywords: experiential learning, interpersonal communication, medical education, arts education

Improving Interpersonal Communication Skills for Future Healthcare Professionals Through Undergraduate Experiential Education in the Arts

In 1999, the Accreditation Council for Graduate Medical Education (ACGME) acknowledged that interpersonal and communications skills are key attributes of effective physicians and designated them as one of six core competencies to be mastered by all students participating in graduate-level medical training programs (2018, p. 12). Ensuing research has demonstrated that cultivating strong interpersonal and communication skills takes years of practice and is improved by actual experience interacting with patients (Yudkowsky, Downing, & Ommert, 2006). *Connections* is a partnership between the University of South Florida Judy Genshaft Honors College and the Tampa Museum of Art, in which an experiential learning model is used to train undergraduate students to facilitate therapeutic interactions with art for museum-goers with conditions including Alzheimer's disease, Post-Traumatic Stress Disorder, Substance Use Disorder, and HIV/AIDS. In addition to the benefits the program provides for patient-participants in the community, students pursuing a career in healthcare have perceived long-term and lasting improvements in their empathetic communication abilities -- specifically paraphrasing, active listening, and asking open-ended questions. This article will reflect on the results of a post-baccalaureate survey of students who completed the *Connections* course and will share course structure and teaching methods used in the program. This case study approach strives to demonstrate how experiential learning practices in the arts provide meaningful opportunities for future healthcare professionals to begin building their interpersonal and communication skills as undergraduates, giving them a head start at mastering these competencies in their graduate programs and employing them effectively in their careers.

Literature Review

The ACGME's incorporation of interpersonal and communication skills in physician training was influenced by research emerging at the turn of the 21st century, which demonstrated how effective, empathetic, patient-centered communication led to better health outcomes and increased patient satisfaction (Stewart, 1995; Williams, Weinman, & Dale, 1998; Kinnersley et al., 1999). As a result, the ACGME articulated three objectives for medical training related to interpersonal and communication skills: create and sustain a therapeutic relationship with patients and families; work effectively as a member or leader of a healthcare team; and demonstrate effective communication within healthcare systems (ACGME, 2018). Graduate programs in healthcare invested in curriculum modules to improve students' social and communication abilities, utilizing techniques familiar to practitioners of experiential learning, such as role playing, computer simulation, and faculty-observed practice with model patients (Holmboe, Edgar, & Hamstra, 2016) to teach core principles of positive interpersonal connection and communication, including active listening (Marvel et al., 1999), paraphrasing in summary (Quilligan & Silverman, 2012), and asking open-ended questions (Dyche & Swiderski, 2005). Among post-baccalaureate students in a healthcare field, engagement with these techniques has been shown to enhance such effective communication skills (Bearman, Greenhill, & Nestel, 2019), build student confidence toward interpersonal interactions (Lavanya et al., 2016), and increase empathy toward patients (Lim, Moriarty, & Huthwaite, 2011), particularly when the methods are paired with written reflection (McFarland et al., 2006).

Nevertheless, interpersonal and communication skills remain an area of difficulty for many graduate students in healthcare sciences, as well as practicing physicians. While ability in these areas generally improves from early to mid-stages of medical school (Humphris & Kaney, 2001), a 2017 research review by Marcy Rosenbaum found that, in eleven contemporary studies,

interpersonal and communication skills among medical school students were shown to then decline during the later stages of clinical training. In a survey of 1,195 medical educators, the ACGME (2018) identified several factors contributing to such student challenges in retaining interpersonal and communication skills, including a fractured learning environment, lack of time for continuity of clinical experience with patients and faculty, and discomfort with delivering and assessing interpersonal communication training among medical educators themselves.

Indeed, when compiling data from several studies on physician-patient interactions, Kee et al. (2018) found that interpersonal behaviors and communication difficulties, such as a dismissive attitude or use of jargon, were responsible for a preponderance of official patient complaints and a significant number of malpractice lawsuits directed at *practicing* physicians, particularly junior doctors.

Because good patient-physician communication has a plethora of positive impacts, from improving diagnostic accuracy (Door & Lipkin, 1999), to increasing patient adherence to treatment plans (Haskard-Zolnieriek & DiMatteo, 2009), to reducing work-related stress for doctors (Ramirez et al., 1996), it is essential that difficulties in teaching interpersonal and communication skills be addressed and overcome in medical training. Since these abilities have been demonstrated to improve with time and practice, continuous and well-integrated communication training has been recommended as a remedy to current challenges (Rosenbaum 2017). This article argues that providing opportunities for practicing interpersonal and communication skills to undergraduates planning a career in healthcare can be considered a productive and beneficial component of that sustained and continuous approach to training.

Many of the methods used to teach and build communication abilities in graduate-level training for healthcare professionals – observation, role-playing, practice, and reflection – are staples of experiential learning pedagogy (Kolb, 1985). At an undergraduate level, experiential learning has been embraced in recent decades as a strategy for promoting deeper student engagement, cultivating critical thinking and complex problem-solving skills and improving workforce readiness. Commonly understood as a pedagogy of “learning by doing,” scholars (Kolb, 1985; Lewis & Williams, 1994) define experiential learning as a process by which students are able to participate in an activity, reflect upon that experience, and derive abstract principles about their behavior and its results that could then be applied and tested in other situations or contexts.

Connections was designed to deploy such best practices in experiential learning to create a service-learning opportunity that would be impactful to students and the community alike. In 2015, the University of South Florida was approached by the Executive Director of the Tampa Museum of Art, who was seeking to create specialized programming for museum patrons with Alzheimer’s disease, given the statistical preponderance of dementia in the local population (State of Florida, n.d.). The request was channeled toward the Judy Genshaft Honors College at the University of South Florida because of its dedication to providing unique educational opportunities to highly motivated and intellectually curious students, while engaging with the community through service-learning endeavors and interdisciplinary collaborative research.

Following a year of dialog between the museum’s education department staff and university faculty trained in psychology and art history, t beta testing with student volunteers and a small number of participants from the community, *Connections* was fully launched in Fall 2016 as an Honors Capstone course offered through the university, with concurrent public programming offered at the Tampa Museum of Art.

Methodology

In *Connections*, students complete extensive training in which they learn about

diagnoses, including Alzheimer's disease, Post-Traumatic Stress Disorder, Substance Use Disorder, and HIV/AIDS. They are also taught methods of therapeutically interacting with art; practice and reflect upon these techniques; and conduct undergraduate research on topics connected to course themes and authorized by the institution's IRB, before being permitted to deliver interactive gallery tours for patient-participants utilizing the methods practiced in class.

The class meets once per week at the museum for a three-hour session that encourages extended engagement with the community partner, an essential contributor to the efficacy of a field-based experiential learning (Connor & Erickson, 2017; Lewis & Williams, 1994). Typically, for the first hour of each meeting, class convenes in the museum's educational space and is modeled after an active classroom experience, with seminar-style discussion. Weekly reading responses due in advance of class prepare students to discuss and debate peer-reviewed research from fields including psychology, art history, medicine, art therapy, and educational pedagogy. The intention of these readings is to provide the essential and foundational content and theory that will inform the experiential learning taking place later in the class period (Chapman et al., 1995). Discussion is guided and moderated by the faculty member teaching the course. To deepen student understanding of the diseases they will encounter in patient populations, guest speakers from organizations such as the Alzheimer's Association and the U.S. Department of Veterans Affairs also provide presentations.

For the remainder of each class period, students head into the galleries of the museum to learn from the curatorial staff about the art on view, as well as design and practice the tours that they will later deliver to patient-participants, featuring activities derived from the methods of art engagement that they have read about and discussed. The course instructor and the museum's Curator of Education developed nearly a dozen gallery activities suitable for several different patient-participant groups with a range of cognitive and physical abilities by adapting two main modes of therapeutic engagement with art - Visual Thinking Strategies (VTS) (Yenawine, 2013) and Personal Response (Williams, 2010), while retaining the core principles of these two methods: asking open-ended questions, paraphrasing the response, and listening actively without judgment. Both methods help participants and facilitators alike practice interpersonal and communication skills.

Personal Response was developed by Ray Williams, the Director of Education at the Harvard Art Museum, to facilitate new types of encounters with art that transform a museum into a place that "supports reflection, invites personal connections, and builds community" (Williams, 2010, pg. 94). Personal Response tours are small in scale (ideally eight to twelve participants), and begin with light socializing to encourage friendly and warm interactions within the group. A facilitator presents a jar filled with prompts or questions on individual slips of paper; each participant draws one, then is encouraged to look around the gallery and find a work of art that responds to the prompt.

The prompts are designed to stimulate a personal response (there are no "right" or "wrong" answers) and "invite different types of thinking," from imaginative to critical, emotional, to historical (Williams, 2010, pg. 96). Examples of Personal Response questions developed by Williams include, "Find a work of art that reminds you of your past," or "Find a work of art that has something to say about grief or loss." Participants are given time for personal reflection and exploration of the gallery space, before reconvening with the larger group and being invited to share their prompt, the work of art they chose in response, and their motivation for doing so. The facilitator neutrally paraphrases the participant's response to reinforce the sharing and provide a sense of validation before expressing gratitude to the participant for the willingness to share. The Personal Response technique has been found to help participants make meaning and deepen their understanding of self, create a sense of belonging and interpersonal connection, and enhance the ability to self-express (Gaufberg & Williams,

2011; Colbert et al., 2013).

Visual Thinking Strategies (VTS) is a method of engaging with art in which a trained facilitator stimulates and moderates discussion among viewer-participants. It is characterized by extended observation, critical thinking, discussion, careful listening, positive reinforcement, and the construction of connections among concepts (Yenawine, 1999). VTS was developed in the early 1990s by Abigail Housen, a cognitive psychologist, and Philip Yenawine, former Director of Education at the Museum of Modern Art in New York, as part of an initiative to better engage, educate, and empower museum visitors to cultivate their viewing skills. Positive response to this method of engaging with a work of art has since led to VTS being used beyond the museum, in educational as well as clinical settings (Yenawine, 2013). “In a VTS session, viewer-participants are invited to closely examine a work of art as a group, before being asked a sequence of open-ended yet precise questions by a facilitator. The questions--“What’s going on in this picture?” “What do you see that makes you say that?”? “What more can we find?” -are phrased in order to promote deep patient observation, evidenced-based analysis, and narrative meaning- making. Following a response from members of the group, the facilitator provides feedback by paraphrasing the comments made by each viewer-participant and building links between such remarks, without judgment or evaluation of whether the comment is “correct.” (Author 2018). Studies have shown that participating in this specific format of interaction and engagement with a work of art improves communication skills, verbal and listening facilities, tolerance for ambiguity and uncertainty, and cultural openness (Childress & Chen, 2015) – all benefits that are particularly relevant and helpful for aspiring healthcare professionals.

But the students in *Connections* are not merely participants, they are practitionerstraining to become facilitators of these activities as part of their service obligation to deliver tours for the museum. In keeping with the precepts of experiential learning (Wurdinger, 2005), students are tasked with the process of designing and delivering a real tour to patient-participants by the end of the semester and must practice the therapeutic activities and full tour delivery on their peers in order to develop, strengthen, and apply their knowledge and skills. To practice, the class of 19 students is divided into four groups, whose small size enables every person to contribute as an activity facilitator within a team planning its own unique tour. Because the class is divided in this manner and the groups are not confined to a single area of the museum, it is ideal for each group to have its own dedicated mentor, who can take on the role of teacher-as- guide,-resource, - support, a preferred position for instructors in experiential learning pedagogy (Warren 1995). In addition to the instructor and the museum’s Curator of Education, students who have completed *Connections* training in prior semesters often volunteer to assist with supervision and provide mentorship to current students. Mentors take on various roles during each class, sometimes taking on the position of teacher by providing critical feedback and positive reinforcement. On other occasions, mentors utilize the common experiential learning technique of role play (Wurdinger 2005), by enacting the part of a participant and presenting challenging situations that student facilitators will need to improvise or troubleshoot.

Mentors provide important feedback to students practicing the delivery of therapeutic activities and modeling best practices in experiential learning by allowing students to take control of their own learning as they reflect on areas of strength and weakness, as well as strategies for improvement to be deployed in the future (Moon, 2004). Because such critical reflection is considered a crucial component to meaningful experiential learning (Molee, 2010; Karasik, 2013), students are also required to keep a learning journal in which they write weekly on the ways in which class activities and discussion connect to readings, guest lectures, their performance in class, and understanding of the diseases and behaviors they will encounter in patient populations. Students are also encouraged to reflect on how the in-class experience might be relevant to their overall perception of self and community, outside experiences, and future goals and practices.

Although participation in *Connections* is open to students of all majors, more than 80% of those who have enrolled in the course over the past three years have been aspiring healthcare professionals, with most attracted by the opportunity to work with patients in a non-clinical setting. While some research had been completed regarding the benefits of short-term participation in VTS or Personal Response sessions for healthcare students or professionals (Moorman, 2015; Gaufberg & Williams, 2011), no scholarship on the benefits of *facilitating* these methods – for any population group -- has been published, nor have the long-term impacts of sustained participation with VTS or Personal Response been explored. Because experiential learning is concerned with the applicability of in-class activities on the world outside of the classroom (Cantor, 1995), it seemed especially significant to determine if the experiential learning process (discussion, practice, role-playing, and reflection) applied to the specific methods (VTS and Personal Response) had made a lasting impact on the interpersonal and communication skills of *Connections* graduates working or pursuing post-baccalaureate training in a healthcare profession.

Study Design and Procedure

Co-authors Hohn and Zigelsky were undergraduate students enrolled in the Fall, 2019 *Connections* class. As part of the course, students were required to develop a research question, in cooperation with their instructor, and conduct a study related to the *Connections* program. The two-part question developed by the two researchers was about how often former students apply the VTS and Personal Response fundamentals to their professional, academic and social lives, and what - if any - benefits might arise from doing so. Working with their professor, co-author Wilkins, they created a 17-question mixed-methods survey to be distributed to *Connections* alumni from the past three years in order to collect data in response to the primary research question. The use of an online survey proved to be the most feasible way of contacting former students and recruiting participants for the study.

The survey was used as the data collection tool for this study and consisted of 17 questions (Appendix 1). The survey had four main sections: participant information; recall of VTS and Personal Response fundamentals; self-reflection on experience in the application of these methods; and engagement with art. Participant information gathered included the year and semester in which students enrolled in *Connections*, along with their current occupation. Researchers assumed that the majority of respondents would be enrolled in a healthcare-related graduate program, or be working in the field, depending on their course completion date, and that there would be fewer responses from students who had completed the course in the more distant past. Researchers postulated that ICS skills gained in *Connections* might remain over time; however, recall of the specific art-based communication methods taught may subside over time. Researchers sought to collect data on how, if at all, former students understand ICS to be important in their profession, and how they might perceive the *Connections* course to relate to their current abilities in that area. It was assumed that the majority of respondents would perceive the VTS and Personal Response methods taught in *Connections* to have benefited their ICS, and to have adapted those foundational techniques for use in their professional and personal lives.

In October, 2019, Wilkins provided previous course rosters and worked with an alumni coordinator at the University of South Florida to obtain contact information for the 96 students who had completed the *Connections* course between Fall, 2016 and Summer, 2019. Students were first contacted via Canvas, the learning management software utilized by the University of South Florida, with an invitation to participate in the research study examining long-term benefits of *Connections* on ICS and a link to the online survey, which included a statement of informed consent and choice to participate (IRB Pro00035777). An identical message was sent the same week via email to the 96 eligible participants; however, 37 emails bounced back, resulting in only 59 individuals actually receiving the invitation to participate and link to the online survey. Of these 59

eligible participants, 29 responses were received, representing a 49% response rate.

Results and Discussion

12 of the 29 respondents completed the Connections course in 2017; 8 in 2018, and 9 in 2019, proving incorrect the assumption that alumni from the more distant past would be less likely to respond to the survey. The assumption that the majority of respondents would be involved in healthcare was proven correct. 21 individuals (72% of total respondents) reported that they were currently working in and/or enrolled in a graduate program in the healthcare field, with areas of specialization including clinical research, nursing, osteopathic medicine, health administration, clinical psychology, physician assistantship, and medical school. This subset of post-baccalaureate respondents in the field of healthcare will be the group discussed in this analysis. Both quantitative and qualitative data were gathered regarding the retention of fundamental techniques learned in *Connections*, as well as the applicability of those methods in the respondent's current field of employment or study.

Respondents were asked, via an open-ended question, to recall the fundamental elements of the art interaction methods utilized in *Connections*. While two respondents focused only on the benefits of the activities (reducing stress and anxiety and improving critical thinking), the remainder identified specific attributes of the methods in their responses. In coding the responses, the three foundational components of VTS and Personal Response were those most frequently identified by respondents: 71% described the use of open-ended questions; 48% of respondents mentioned paraphrasing; and 71% discussed the importance of non-judgmental, active listening. 6 of the respondents utilized the exact language and phraseology of the VTS method as taught. The responses demonstrated that some participants recalled the methods in precise detail, while the majority were able to at least remember the fundamental principles of the methods employed in the course.

Those fundamental methods of interaction with patient-participants formed the basis for further questioning. Respondents were asked to self-identify changes in the ability to paraphrase, actively listen, and/or ask open-ended questions since enrolling in *Connections*. 22 of the 29 respondents (76%) stated that they observed in themselves improvements in the practice of active listening. 27 (91%) reported an increased ability to paraphrase, while 23 (79%) identified betterment in the ability to pose open-ended questions. Overall, 21 of 29 respondents (72.4%) responded that the basic components of the interactive methods used in *Connections* are useful in their graduate program or career, with an option to elaborate with narrative text. *In vivo* coding was used to facilitate analysis. 100% of narrative responses mentioned relationship-building (between healthcare provider and patient) improvement or enhancement via the communication skills acquired in *Connections*. These findings supported the researchers' hypothesis that *Connections* would have a positive impact on the professional life of alumni.

Respondent comments provide anecdotal and qualitative support to existing research on the importance of communication in healthcare, while highlighting how the specific art interaction methods utilized in *Connections* improve their capacity for ICS. Participant Q, for example, wrote that the fundamental technique employed in *Connections*, "requires you to listen at [a] deeper level which really helps out when in conversations with patients at the hospital." Participant T elaborated on how active listening might be demonstrated to patients, stating: "Paraphrasing and repeating information back to patients helps me make sure that they understood me and I understood them. It also helps me show that I was listening and I care." Participant V highlighted the ways in which the methods utilized in *Connections* prepare medical professionals to cultivate meaningful, personal connections with patients: "Patient interaction is the whole basis of my field so when interviewing patients to make a diagnosis as well as just making small talk I definitely use the skills I learned." Participant C replied: "My specialization aims to relief people from suffering, yet I need strategies to make them feel heard and welcomed, and not judged AT ALL. The [VTS and Personal

Response] foundation completely interacts with the building blocks that I'll need to be a successful professional. Be able to engage in an open conversation without any biases intervention, active/empathy listening, proper attention/engagement” [sic].

Limitations

The researchers recognize there were limitations to the study which can affect the significance and ability to generalize the findings to future healthcare professionals and students. Various biases may also affect the results, like social desirability bias. The sample size of the study was small, as participants were derived from convenience sampling of past *Connections* classes, each of which was offered only once per semester and was capped at 19 students, resulting in a possible pool of only 96 participants. To be eligible to enroll in the *Connections* class, these students were required to be enrolled in the University of South Florida’s Honors College. Within the Honors College, student enrollment was at the time restricted to those enrolled at the Tampa campus, further limiting the number of possible students who could complete the course and potentially respond to the survey.

Furthermore, in the implementation of the survey, contact information for alumni was found to be outdated or incorrect, affecting the participant outreach and collection of data responses. Former students may no longer use their university-provided email address, or the email address on file with the Alumni Center may be outdated, preventing responses from being collected. Such a circumstance was observed in this study, when 37 of the 96 emailed invitations to participate in the study “bounced back,” preventing those students from being contacted. Challenges in contacting alumni may be noted as a limitation of this study, as well as a potential problem for other researchers investigating long-term impacts of undergraduate curriculum.

In addition to the small sample size, another limitation of the study was the survey method utilized, which relied heavily on self-reported data collected through an online platform. Respondents were called upon to recollect methods that were learned, in some cases three years prior, and may have had false or incomplete memories. Self-reported answers may have been exaggerated, understated, or biased. Social desirability bias, wherein participants exaggerate positive characteristics and minimize negative attributes, may be a factor in results of this survey, due to its reliance on participant self-evaluation.

Conclusion

Further study is needed to determine if perception of sustained improvement in ICS is supported by external assessments of these abilities. The post-baccalaureate survey could be repeated in years to come, to determine how sustained is the awareness of and reliance upon the techniques employed in *Connections*. This would additionally allow the size of the participant cohort to nearly double, as the course has been continuously offered since the time this study was conducted. The survey could be modified to include a validated measurement tool, such as the Patient-Centered Communication Tool, to evaluate participants’ ICS ability, reducing concerns about social desirability bias from having strictly self-reported responses. Future research may seek to compare the performance of former *Connections* students on interpersonal and communication assessments with that of their peers in graduate healthcare programs who did not participate in *Connections*. Patient surveys would add another valuable data point, to determine if there is a higher level of patient satisfaction in the communication abilities of *Connections* graduates once they have entered their careers.

In the interim, this study suggests an initial finding that experiential learning practices in the arts can provide valuable opportunities for future healthcare professionals to build their ICS as undergraduates. Principles of art-based communication techniques, such as Visual Thinking Strategies and Personal Response methods, taught during their undergraduate years, can leave a lasting impact on students that persists into graduate school and their professional life. This study suggests that learning art-based communication methods provides a foundation for employing

valuable ICS, such as active listening, paraphrasing, and asking open-ended questions in a healthcare practice. Because strong ICS correlates to more effective and empathetic patient care, this article hopes to encourage further utilization of, and research about, experiential learning practices in the arts in order to promote better health outcomes in the practice of medicine.

Appendix 1: Survey Questions

* Indicates required question

Section 1

1. I consent to take part in this study: *
Mark only one oval.
Yes
No (*Skip to section 6 (Conclusion)*)
2. What semester did you take the class? *
Mark only one oval.
Fall
Spring
Summer
3. What year did you take this course? *
(Free Response)
4. What are you currently pursuing? *
Mark only one oval.
Graduate school program
A career field
Both graduate school and career
Other: (*Free Response Space*)
5. Please describe the type of career field and/or graduate school program you are currently in.
(Free Response)
6. In a brief description, what do you remember about the fundamentals of Visual Thinking Strategies (VTS) ? *
(Free Response)
7. In a brief description, what do you remember about the fundamentals of Visual Thinking Strategies (VTS) ? *
(Free Response)

Section 2

8. Since taking this course, do you notice a better ability to paraphrase?
Mark only one oval.
Yes
No
Unsure
9. Since taking this course, do you notice a higher frequency of using your hands and pointing in discussions?
Mark only one oval.

Yes
No
Unsure

10. Since taking this course, do you notice a better ability to actively listen?

Mark only one oval.

Yes
No
Unsure

11. Since taking this course do you notice a better ability to ask open-ended questions?

Mark only one oval.

Yes
No
Unsure

Section 3

12. Do you feel you use the fundamentals of VTS in your grad program and/or career?*

Mark only one oval.

Yes
No

13. If you answered yes to the above, can you explain or give brief examples or anecdotes?

(Free Response)

14. On a scale of 1 to 5, please rate how you feel VTS has positively impacted your life.

Mark only one oval.

Not helpful at all 1 2 3 4 5 Very helpful

Engagement with Art

15. Did the Connections class change the way you interacted with art? *

Mark only one oval.

Yes
No
Other: *(Free Response Space)*

16. Do you still engage with art/museums today? *

Mark only one oval.

Yes
No
Other: *(Free Response Space)*

17. If you answered yes to the above, in what ways do you notice yourself interacting with art/museums?

(Free Response)

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