Studies in Art Education
A Journal of Issues and Research
2009, 50(3), 245-256

Investigating Assumptions About the Relationship Between Viewing Duration and Better Art Appreciations

Richard Lachapelle

Manon Douesnard

Emily Keenlyside

Concordia University

This study investigates the widely accepted notion that spending more time looking at works of art results in better art appreciations. To this end, we examined the verbal responses of 34 non-expert viewers to works of public contemporary art. We structured and conducted the study in such a way as to compare, for each informant, examples of free, self-guided viewing experiences against instances of semi-structured viewing experiences with researcher imposed minimum durations. In this way, we hoped to determine the impact of longer viewing periods on the informants' art appreciation performance by examining changes in cognitive dispositions and in production of interpretive hypotheses about the works of art. According to these two indicators, extended viewing periods were found to have a significant and positive effect on the art appreciation performances of the majority of the non-expert participants in this study. These findings support the notion that there is a relationship between viewing duration and better art appreciations.

Correspondence about this article should be addressed to:
Dr. Richard Lachapelle, Associate Professor, Department of Art Education, Office EV 2.815, Concordia University, 1455 de Maisonneuve Blvd W., Montreal, Quebec, Canada H3G 1M8.
E-mail: rlach@alcor.concordia.ca

[1]Major funding for this study was provided by the Fonds québecois de recherche sur la société et la culture.

The research project discussed in this article focuses on the relationship between prolonged viewing periods and the art appreciation responses of a group of volunteer adult informants. The study[1] in question carefully examined the verbal responses of these non-expert viewers as they encountered works of public contemporary art. More specifically, the study was designed to compare these viewers' *typical* viewing process against their *optimal* viewing abilities. In this way, the research team hoped to determine whether or not the informants employed their full abilities when they responded to works of art under different conditions. To begin, we provide a theoretical framework for the eventual presentation and discussion of the study's findings.

The Benefits of Extended Viewing: An Assumption?

Does the careful and prolonged viewing of a work of art guarantee a better appreciation of the art object in question? After all, common sense dictates that simply spending more time on any task should lead to a better result. In fact, this idea is widely accepted in the museum education community *as a self-evident fact*: that is, the more time a viewer spends looking at a work of art, the more likely it will be that his or her response will be a good one. Surprisingly, there actually exists very little published empirical research (i.e., field research conducted in art museums) on this notion. In the few publications that discuss the importance of time as a factor in the museum experience, time is most often discussed in terms of the amount of time the average visitor spends on certain activities (Falk &

Dierking, 1992) or in the form of prescriptions as to how visitors should make use of their time in the museum (Finn, 1985; Shettel, 1997; Hein, 1998; Henry, 2000). One exception is an early study in which the amount of time that subjects spent viewing slides of works of art was found to have a significant influence on how much the subjects were able to recall about works of art with low levels of abstraction. However, "longer viewing times and greater knowledge of visual art did not play as great a role in determining the memorability of highly abstract works as they did for artworks exhibiting low levels of abstraction" (Koroscik, 1982, pp. 20-21). In the course of our research, we have found few reports of research findings specifically on the impact of extended periods of art viewing. This is, we believe, an indication of the paucity of research into this problem. In the absence of evidence to the contrary, and in spite of its de facto widespread acceptance, the impact of prolonged looking on art interpretations remains largely an unproven assumption. So far, there is too little empirical evidence in the museum education literature to either conclusively support or refute this claim.

At this point, readers might question the necessity or value in verifying this assumption: an objection might be that some claims are so self-evident as to not warrant further scrutiny. The simple straightforward answer here is that, sometimes, what might first appear as an obvious assertion can, in reality, be misleading. For example, in the late 1980s, many museum professionals became convinced that a major difference between expert and non-expert interpretations resided in the overall psychological orientation of their respective art-related discourse: non-expert interpretations were believed to be more emotional and expert interpretations more cognitive. However, when verified empirically, this assumption was determined to be unfounded. Regardless of expertise, all adult visitors studied adopted mainly a cognitive orientation during their visits to the museum (Lachapelle, 1994; Dufresne-Tassé & Lefebvre, 1995). In the end, it was field-based research that finally laid this idea to rest.

Are we dealing with a similar situation here? Is there a basic misunderstanding of the impact of longer viewing periods on museum visitors' art interpretations? For the sake of argument, let us consider under what conditions longer viewing durations might or might not have an influence and then, whether those conditions are likely to occur. First, the idea that longer viewing periods lead to better responses is based on the premise that viewers who engage in hurried looking are actually skilled in art interpretation. The problem, then, arises not from a lack of skill but from the fact that rushed viewers simply don't take the time to use their interpretive skills effectively. Conversely, unskilled viewers might not benefit as much from spending more time in front of the artwork, since they might not know exactly how to go about using this extra time. Second, the idea that longer viewing periods are necessarily beneficial also assumes that viewers, even skilled ones, will want to use any extra time at their disposal in a productive manner to better understand works of art. In such a scenario, all viewers would have the same appropriate attitudinal disposition. They would engage in art appreciation activities freely and willingly without rejecting or struggling with certain categories of art such as, for example, abstract or

contemporary art. Again, we must question whether or not all viewers, simply taking more time, will necessarily adopt an attitude that will foster positive and productive viewing experiences. Instead, any extra time could be used in counter-productive ways such as, for example, to confirm prejudices, entrench narrow-minded thinking, or reinforce barriers to understanding and appreciation. In sum, the two counter-arguments presented above illustrate that alternative outcomes are possible; longer viewing periods might not necessarily lead to better art appreciation experiences. The assumption that they do needs to be verified. From our perspective, this can best be done by conducting field research and empirical investigations in settings where art appreciation experiences usually take place, namely in art exhibitions.

At a museum, Falk and Dierking (1992) compared the viewing behavior of occasional museum visitors with that of repeat visitors. Frequent visitors—those with a keen interest in museums—spend almost all of their time in the museum engaged in the attentive viewing of a few works of art. Conversely, in an attempt to see absolutely everything on display, occasional visitors—those who rarely visit a museum—spend most of their time in *hasty viewing*. Falk and Dierking do not comment on the relationship, if any, between careful or hasty looking and the *quality* of visitors' responses to works of art. Instead, they suggest that the occasional visitor's unfocussed approach contributes to "museum fatigue" while the experienced visitor's strategy is far more efficient (pp. 61-62).

Other researchers have also compared visitors' experience levels in the hope of understanding art-related and other learning behaviors. Indeed, research comparing expert and novice learners has found differences in novices' knowledge base, knowledge-seeking strategies, and in attitudes towards learning (Sternberg, 1981; Perkins & Simmons, 1988; Chi, Glaser & Farr, 1988; Prawat, 1989; Koroscik, 1993, 1996; Efland, 2002).

Previous studies sometimes raise objectionable points. At times, they suggest that there is a correct way to respond to works of art; that the correct approach is best exemplified by the responses of art experts; and, that novice and non-expert viewers must be taught to respond in a manner similar to that of the experts. We find these points of view problematic. In keeping with a postmodern position, it is our contention that there is no single best way to respond to works of art. However, it would be misleading to propose that interpretation skills are never a factor when it comes to art appreciation. We believe that every museum visitor (including experts) can benefit from improving their skills, if only for the enjoyment and sense of empowerment that come from being able to do something better than before. Even for the occasional visitor, it makes sense to try to improve one's skills just as it makes sense to do so as a recreational tennis player. Most often, we enjoy something more when we can do it better.

In the last several decades, museum education as a discipline has gradually changed the focus of its pedagogical enterprise from the study of the work of art and the artist's intentions to an emphasis on the visitor's own interpretations of the work of art (Mayer, 2005, pp. 356-357). This shift is in keeping with the influence of post-structuralist semiotic theories first proposed by French

philosophers like Barthes, Derrida, Lyotard, and Baudrillard (Novitz, 2002). Post-structuralist and postmodernist thinking has radically changed our understanding of the role of the reader (i.e., the viewer) in the process of (art) interpretation. This new paradigm places a greater emphasis on the museum visitor as an active constructor of the meaning of the work of art and, by extension, as the creative agent of his or her own art appreciation experience. However, this new conception of the viewer's responsibility brings with it several challenges as well as the potential for significant rewards. At stake are the viewer's abilities as an interpreter. The task of the museum educator has shifted from that of an expositor or intermediary between the visitor and the work of art to that of a facilitator or a catalyst in the ongoing development of the visitor's interpretation skills. Museum education researchers can also contribute to this new learning objective by conducting research activities that shed light on the various factors that contribute to successful art interpretations. In this manner, it is our hope that the study presented in this article will make a worthwhile contribution. We begin the presentation of our research in the next section by reviewing the methodology.

Methodology

Research Site

This study was conducted in René-Lévesque Park, a sculpture garden located in a suburb of the city of Montreal, Canada. This park houses a permanent, public collection of 24 contemporary sculptures. Prominent Canadian, American, and European artists created these monumental works, between 1985 and 1995, during a succession of five different sculpture symposiums (Chalifoux, 2001). A majority of the sculptures on the site display features that unabashedly qualify them as post-modernist. Each sculpture on the site is carefully presented, and an extended label accompanies each piece. The park was chosen as the research site for the quality of its collection as well as for its beauty and accessibility.

Research Team

At all times during this study, the research team included three members: the principal investigator and two graduate research assistants. In all, three graduate students worked on the project at various times. The first was a doctoral student who remained as a team member for the entire duration of the project. The other two student researchers were master's students: each worked concurrently with the team for about half of the overall duration of the study.

Informants

Selection criteria. Overall, we conducted individual research sessions with a total of 34 adult volunteers, 18 years of age or older. We recruited only *non-expert* informants: that is, persons who have no university-level professional training in the fine arts. This definition does not exclude the possibility that some participants may have visited museums before or enrolled in introductory-level studio or art history courses (in school or elsewhere). Such distinctions among our informants simply mean that our pool of participants closely parallels the rather heterogeneous nature of non-expert visitors to museums everywhere. There likely is no "typical" non-expert visitor. However, our selection criteria

deliberately excluded all professionally trained fine arts scholars and artists (e.g., actors, dancers, poets, musicians, painters, art educators, art historians, etc.). For this study, we chose to focus on non-expert viewers because this is the segment of the adult population that holds the most promise for growth as a museum audience.

Study participants. Of the total of 34 volunteers participating in this study, 18 were female and 16 were male. The distribution of the volunteers in terms of age was as follows: from 20 to 25 years of age (12 participants), from 26 to 30 years (6), from 31 to 35 years (4), from 36 to 40 years (3), from 41 to 45 years (5), from 46 to 50 years (2), from 51 to 55 years (1), and from 56 to 60 years (1). In terms of educational attainment, the majority of the informants were well educated.[2] A total of 20 participants had either completed (8) or were in the process (12) of obtaining a Bachelor's degree. Seven had either earned or were in the process of earning a graduate degree: M.A. (6), Ph.D. (1). The remaining 7 participants held junior secondary school diplomas (3), professional training certificates (2), or senior secondary-level (CEGEP)[3] diplomas (2). According to occupation, full-time students[4] (14) formed the greatest number of participants. Four participants were professionals (3 engineers, 1 lawyer), 2 worked in communications, 2 were technicians, 2 were self-employed, and 2 others were unemployed. The other 8 informants had different occupations: a data analyst, a mechanic, a college professor, a security agent, a childcare worker, a casino employee, a retailer, and a homemaker. Of the total number of informants, 10 had no art training whatsoever. Of the remaining 24 participants, 16 had taken one or two art courses at the secondary level. Eight (8) had taken a studio (5) or an art history (3) course at the post-secondary level, either in a recreational or university setting. Finally, our informants reported varying frequencies of annual museum[5] visitation: 0 visits (4 participants), 1 visit (5), up to 2 visits (9), up to 3 visits (4), up to 5 visits (5). The remaining seven informants were frequent visitors: 5 to 10 times a year (2), 10 to 15 times (3), and 15 to 20 times (2).

Research Protocol

Each volunteer informant took part in an individual research session that lasted 2 hours. We asked the participants to share out loud their reactions to a number of the works chosen from among the sculptures on the site. Using digital audio recorders, the researchers documented the participants' verbal responses for later transcription and analysis. In total, each informant participated in two different art-viewing activities.

First viewing activity. The first research activity required that informants provide non-stop spoken responses to one or more works of art of their own choice. During this activity, participants were free to spend as little or as much time responding to each of any number of works of art, as he or she wanted. For example, informants were entirely free to spend all their time with one work or to divide their time among several works. The choice was theirs to make. The research team only imposed one restriction: the total duration of the activity was to be somewhere between 10 to 15 minutes. We imposed a time limit on this activity in order to maintain a balance between the duration of each activity

[2]Visitor surveys have repeatedly demonstrated that this is generally the case for museum visitors: most adult museum visitors are well educated.

[3]A large number of the participants completed their secondary-level education in the Canadian Province of Quebec. In this province, students first complete junior high school (the equivalent of grades 7 to 10), and then, proceed to a senior secondary-level institution called a CEGEP (College d' études générales et professionnelles) where they complete the equivalent of grades 11, 12, and a first year of university.

[4]We visited several classes of university summer courses to present our project and recruit potential participants. This explains the large number of full-time students among our informants.

[5]These figures include visits not only to fine arts museums but also to all types of museums including ethnography, science, and historical museums.

and the overall duration (2 hours) of the entire research session.[6] Finally, we allowed more time for this activity than for the second activity because our pilot projects[7], revealed that considerable time was required to walk from one work of art to another since the sculptures on this site are located quite far apart.

By asking an informant to engage in this activity, the researchers sought to document how the informant would normally behave when visiting an exhibition on his or her own. Therefore, the activity was designed to simulate a self-directed visit to an art museum. We used the "Stream-of-Consciousness" approach as the means to conduct this activity (Housen, 1983). In this approach to data collection, the participant is asked to say out loud whatever spontaneously comes to mind about the works of art that he or she is looking at. As far as the content of the informant's comments was concerned, there were no restrictions or specific requirements: he or she was entirely free to communicate to us whatever ideas, concerns, or feelings surfaced as he or she explored the works of art.

Second viewing activity. For the second art appreciation activity, we asked informants to select a single work of art, look at it in silence for 5 minutes and, then, respond to it out loud, also for at least 5 minutes. The objective of this second component of the research protocol was to observe and document informants' optimal responses to a work of art. More specifically, we wanted to challenge the informants to respond to the full extent of their abilities. To this end, the second art appreciation activity required that participants look carefully at the chosen work of art for a specified amount of time before commenting about it. The approach used in this activity is based on the "Look First, Respond After" method (Lachapelle, 1994; 1999; 2003) that the lead investigator developed for use in previous research projects. In responding out loud to the work of art, participants are asked to retrace the steps taken to initially explore it during the silent viewing period that immediately preceded the verbal response.

Enumerative Analysis

Enumerative analysis is the method that we used to review and interpret the data collected as a result of the field research activities described above. This approach was used to provide an overview of the findings of the research project that included all the 34 case studies taken as a whole.

Before beginning the enumerative analyses, we created and validated a coding manual in which we carefully consigned the detailed regulations, procedures, and categories for the coding of the data. For example, for the disposition "Broad and Adventurous Thinking and Looking," the coding manual first presented a verbatim definition (Perkins, 1994, p. 48); then, it stipulated six conditions that were to be present before a speech unit could be coded using this category. Furthermore, six additional rules determined the circumstances that, if present, would have precluded coding a speech unit with that category. In a similar fashion, the coding manual determined the manner in which all the various coding categories were to be applied during all data analysis procedures. Prior to the start of the data analyses, every member of the research team participated in several training sessions in which they learned and honed the skills

[6]Out of respect for the time of our volunteer informants, we felt that it was very important to control the overall duration of the individual research sessions. About 2 hours were required to complete all the components of the research project. However, when travel time to and from the research site is taken into account, each informant committed about half a day to their participation in the research project.

[7]To test the research protocol, two pilot projects were conducted on site prior to the start of the fieldwork.

required for the data analyses. The same three judges coded all 34 case studies. For each transcript, the three judges first worked separately to assign the units of data to coding categories by meticulously following the procedures laid out in the coding manual. Finally, when the analyses were completed, the individual codifications for all three judges were compiled into aggregate results. The three judges then met to discuss and resolve any disagreements in the aggregate codes resulting from differences in individual codifications. Generally, such disagreements were few and far between, and were most often the result of an inattentive application of a coding rule.

Findings

Using the data treatment protocol detailed above, we completed two different analytic procedures. First, we identified each participant's cognitive dispositions (Perkins, 1994) by carefully examining his or her discourse about the works of art for the presence of such dispositions. Then, we examined the kinds and numbers of hypotheses about the meanings of the works of art that the participants formulated as they attempted to interpret the works of art. In the section that follows, we present a summary of the results of these two different analytic methods.

Informants' Cognitive Dispositions

Four dispositions are closely related to the type of cognitive functioning that predisposes viewers to better art appreciation responses. These dispositions are: (a) taking more time to look at and think about the work of art; (b) looking at and thinking about the work of art using a broad and adventurous approach (i.e., attempting to break out of routines, searching for unexpected possibilities and creative solutions to problems); (c) looking at and thinking about the work of art in a clear and deep manner; and finally, (d) taking an organized approach to looking and thinking about the work of art (Perkins, 1994, pp. 54-83).

In our analysis, we sought to examine the influence of the first disposition—which we defined as an extended viewing period—on the potential presence of the other three cognitive dispositions. Do longer viewing periods foster the emergence of the other three dispositions? Museums educators and researchers have long argued that lengthier and careful initial viewing is key to a better appreciation of the work of art (Shettel, 1997; Chang, 2006). Using our analytic procedures, we sought to verify this assumption. Therefore, we compared the results of the first research activity that the informants engaged in while at the park—the simulation of a self-directed visit to an exhibition—with the results of the second research activity—the test of each participant's optimal viewing skills. These two activities differed significantly in terms of the amount of time that study participants spent viewing each work of art.

In the first research activity, informants decided for themselves the duration of the viewing period for each work of art: as a result, they spent on average 140 seconds viewing and responding to each of their selections. However, in the first activity, some responses were much shorter, lasting only 20 to 30 seconds. In contrast, for the second activity, the research team imposed a much longer viewing period of five minutes before informants were allowed to respond out

loud to the work of art for another *minimal* period of five minutes. The actual average duration of the verbal response in the second activity was 375 seconds: that is, the average verbal response was more than two and one half times as long as the average for the first activity. Comparing the two activities, the research team searched for evidence of changes in cognitive dispositions that might correspond to the different durations in the informants' verbal responses during the two activities. Indeed, we found more evidence of the other three cognitive dispositions in the informants' verbal responses during the activity with the longer viewing times. During the second activity, we observed a noticeable overall increase (+56%) in the presence of cognitive dispositions. This increase was most significant in the case of two of the three dispositions. The most dramatic increase, during the second activity, was in broad and adventurous looking and thinking. Evidence for this disposition was initially found in only 4% of the coded units from the first activity, while it was found in 32% of such units in the second activity. In terms of the overall increase in dispositions, organized looking and thinking came in a close second. This disposition was present in only 3% of coded units in the first activity while, in contrast, it was found in 27% of the units in the second activity. Finally, while occurrences of deep and clear looking and thinking also increased, the rise in this third disposition was important but not as dramatic as in the other two. In the first activity, evidence of this disposition was found in 4% of the speech units and, in the second activity, in 11% of the units. These findings suggest that longer viewing periods do indeed have a positive effect on the expression of cognitive dispositions but that this effect is not necessarily evenly distributed across all three dispositions. Broad and adventurous thinking and organized thinking were the two dispositions whose presence, in the case of our informants, became more salient as a result of the longer viewing durations in the second activity.

Informants' Interpretive Hypotheses

Using the same general data treatment protocol as used above for the analysis of cognitive dispositions, the research team also examined each participant's discourse with a view to identify and to categorize informants' attempts to interpret the works of art. We found that, in order to understand and appreciate the sculptures encountered in the park, all of the study participants formulated propositions about the potential significance of some of the components or the work of art in its entirety. These propositions were, we realized, a form of *hypothesis*: " a proposition made as a basis for reasoning without the assumption of its truth" (Hawkins & Allen, 1991, p. 703). In using this definition, we are intentionally referring to the common meaning of the term, and not to its scientific designation. In the course of our careful examination of informants' hypothesis production, we observed that one specific category of hypotheses seemed to signal that the informant had come to a new understanding of the work of art. Informants formulated this type of hypothesis to propose, from their own perspective, an entirely novel interpretation of the potential meaning of the work of art: one that they had not previously thought about. Most often, our informants came to these new understandings only after a sustained and cumulative exploration of the work of art. For this reason, we decided to call

this type of hypothesis, a *discovery hypothesis.* In the following two examples of discovery hypotheses, two participants comment on the same sculptural installation that includes, among several other objects, two cast aluminum chairs. The chairs are meant to make viewers aware of their roles as viewers and interpreters of the work of art.

> I noticed that the chairs are ... really facing each other, almost like for [provoking] a confrontation. (Lachapelle, 2005, Informant E-116)
>
> Chairs. If you sit down for a few minutes and take a break, you become part of the work of art yourself [author's translation]. (Lachapelle, 2005, Informant F-212)

For a second time, the research team became curious about the possibility that longer viewing periods might influence the informants' overall production of interpretive hypotheses and, more specifically, their production of discovery hypotheses. Once more, we turned to a comparison of the two research activities—each with its different viewing/response duration—as the means to address this concern. By contrasting the first research activity—the simulation of a self-directed visit to the museum—with the second one—the test of participants' optimal response—we expected to be able to determine whether the performance of our study participants in producing discovery hypotheses improved during the second activity because of its longer viewing and response times. We realized that the informants naturally had more time, and therefore, more opportunity to formulate hypotheses during the second activity. Therefore, we needed to control for the possibility that the two activities' very different durations might artificially inflate our results. Therefore, rather than simply counting the number of hypotheses formulated during each activity, we calculated instead, for both activities, the number of *hypotheses per minute.* In this manner, we were able to ensure that the comparison between the two activities was a fair one. After applying this control measure to our calculations, we found that the informants had formulated 289% more discovery hypotheses during the second activity in comparison to the first. We concluded that this result represents, indeed, another remarkable improvement in performance during the second activity.

Discussion

Obviously, the research team was very surprised by this outcome; we had simply not expected such a dramatic difference in viewer performances between the first and second activities. From our perspective, this remarkable outcome points to a simple fact. It takes time to interpret a work of art.[8] During the first research activity, many informants spent minimal amounts of time looking at and thinking about the works of art. In most cases, not enough time was actually devoted to the sculptures to be able to come to a satisfactory understanding of those works, and therefore, the informants were not able to formulate many hypotheses about the possible meaning of these sculptures. In contrast, during the second activity, the informants were required to spend more time with the work of art, and as a result, their understanding and their production of discovery hypotheses increased dramatically as the activity progressed and as

[8]In making this statement, we are not attempting to propose a universal principle or truth about the amount of time required to appreciate a work of art. We acknowledge that, in some cases, some works of art can be understood almost immediately. However, such works are less likely to pose a problem for most viewers. From our perspective as educators and researchers, we feel it is more important and probably more educationally useful to address situations in which viewers' abilities are challenged and put to the test.

time moved forward. These results have led us to conclude that longer viewing times foster an increased production of discovery hypotheses and, ultimately, a better appreciation of the work of art.

A range of performances. The findings presented in the previous sections can give the false impression that the performance of all the informants improved significantly during the second response activity. However, that was simply not the case. Of the total number of 34 case studies, we found evidence of a better performance during the second activity in a total of 25 cases. Readers might naturally assume that the viewing performance of the remaining 9 informants was poor during both activities. However, once again, this assumption is not supported by the data. Of the remaining 9 informants, only 5 informants performed poorly in both activities. Two of the 9 informants' performance was mixed: that is, in both activities, these two informants performed well for a short period of time and, then, poorly for a time, and so on, back and forth, for each activity. Finally, 2 of the 9 informants showed no improvement during the second activity simply because their performance was uniformly strong during both activities; these informants responded with a great deal of skill and vigor starting immediately in the first activity and maintained that level of performance into the second activity.

A detailed analysis of the 5 informants who performed poorly in both activities did not reveal any obvious explanation. However, these participants did share several common denominators: all were young (20's or early 30's); most (4/5) were female; all had taken one or two art courses; and all visited museums albeit at varying levels of frequency. We can only speculate that these informants, in spite of their museum experience, were probably unskilled as interpreters of *contemporary art.* The other 4 informants (with either mixed or consistent performances) had little or no museum experience. Age is the only factor that clearly distinguishes these participants. The two participants with mixed performances were both in their early 30's, while the two participants who performed equally well in both activities were in their early 40's. In sum, 7 of these 9 outlier cases were fairly young, and therefore, the differences observed may be a question of individual, possibly age-related, aesthetic development (Housen, 1983, pp. 105-113).

Overall, it is likely that all 34 participants in the study possessed sufficient critical thinking skills to appreciate the works of art, but at the same time, it appears that some of them have yet to develop *procedural strategies* to successfully guide their encounters with contemporary art. This is in keeping with the deficiencies in non-experts' knowledge-seeking strategies previously reported by Prawat (1989) and Koroscik (1996).

Reconsidering the data collection methods. Although this study was not intended as a comparison of two data collection methods, the significant results obtained here do bring into question which of the two methods used in the study is best at eliciting responses that exemplify viewers' true and full abilities. The "Look First, Respond After" approach (Lachapelle, 1994) is similar to the "Stream-of-Consciousness" method (Housen, 1983) in that, during data collection activities, the researcher's verbal interactions with the informant is

restricted to procedural matters, and thus, limits any undue influence of the researcher on the participant. The objective in both cases is to foster and capture the participant's *own thoughts and feelings* about the work of art in *his or her own words.* However, the "Look First, Respond After" approach differs in that it encourages research participants to look and think carefully about the work of art *before* responding out loud. The procedure likely encourages better critical thinking: it affords the time that informants need in order to moderate and control, through the use of "reflective intelligence", their spontaneous first impressions (Perkins, 1994, p. 34). Furthermore, the findings of this study imply that the informants' spontaneous first impressions, as documented in the first activity, were not a reliable indication of their optimal and complete art appreciation abilities.

Conclusions

This research project examined the effects of prolonged viewing on the art appreciation performances of a significant group of non-expert informants. Without hesitation, we conclude that prolonged viewing periods had a positive impact on most of our participants' cognitive dispositions; it also had a dramatic influence on the participants' production of interpretive hypotheses about the works of art. For these reasons, when compared to episodes of hurried viewing, there is little doubt that prolonged viewing had an overwhelmingly beneficial effect on these non-experts' art appreciation experiences. However, this effect was not universal. While a clear majority of the informants' performances improved as a result of prolonged viewing, there was little or no improvement in about one-quarter of the participants. However, among informants whose performance showed no significant improvement, about half nonetheless performed well at least for short periods of time.

It seems fitting, however, to conclude this article by commenting on the fact that the research team was impressed by the overall quality of the informants' responses during the art appreciation activities. All the informants, without exception, were able to complete the tasks we set out for them. This success can be attributed in part to the extra motivation provided by participation in a research study. However, as expected, our group of non-experts was very diverse both in terms of their previous museum experience and in terms of their skills as art interpreters; these factors may also have contributed to the participants' success. Nonetheless, it appears likely that, under the right circumstances (i.e. prolonged and careful viewing), most non-expert viewers, as we have defined them here, should be able to respond to works of public contemporary art in interesting and meaningful ways.

References

Chalifoux, D. (2001). Cinquante sculptures monumentales [pamphlet]. Lachine: Musée de Lachine.

Chang, E. (2006). Interactive experiences and contextual learning in museums. *Studies in Art Education, 47*(2), 170-186.

Chi, M., Glaser, R. & Farr, M. J. (Eds.). (1988). *The nature of expertise.* Hillsdale, N. J.: Erlbaum.

Dufresne-Tassé, C. & Lefebvre, A. (1995). *Psychologie du visiteur de musée.* Ville LaSalle, Qc.: Hurtubise.

Efland, A. D. (2002). *Art and cognition.* New York: Teachers College Press.

Falk, J. H., & Dierking, L. D. (1992). *The museum experience.* Washington, DC: Whalesback.

Finn, D. (1985). *How to visit a museum.* New York: Abrams.

Hawkins, J. & Allen, R. (Eds.). (1991). *Oxford encyclopedic English dictionary.* Oxford: Clarendon.

Hein, G. E. (1998). *Learning in the museum.* New York: Routledge.

Henry, C. (2000). How visitors relate to museum experiences: An analysis of positive and negative reactions. *Journal of Aesthetic Education, 34*(2), 99-106.

Housen, A. (1983). *The eye of the beholder: Measuring aesthetic development.* Unpublished doctoral dissertation, Harvard University-Boston.

Koroscik, J. S. (1982). The effects of prior knowledge, presentation time, and task demands on visual art processing. *Studies in Art Education, 23*(3), 13-22.

Koroscik, J. S. (1993). Learning in the visual arts: Implications for preparing art teachers. *Arts Education Policy Review,* 94(5), 20-25.

Koroscik, J. S. (1996). Who ever said studying art would be easy? The growing cognitive demands of understanding works of art in the information age. *Studies in Art Education, 38*(1), 4-20.

Lachapelle, R. (1994). *Aesthetic understanding as informed experience: Ten informant-made videographic accounts about the process of aesthetic learning.* Unpublished doctoral dissertation, Concordia University, Montreal, Quebec, Canada.

Lachapelle, R. (1999). Comparing the aesthetic responses of expert and non-expert viewers. *Canadian Review of Art Education, 26*(1), 6-21.

Lachapelle, R. (2003). Aesthetic understanding as informed experience: The role of knowledge in our art viewing experiences. *Journal of Aesthetic Education, 37*(3), 78-98.

Lachapelle, R. (2005). (Non-expert viewers and public contemporary art: A research program). Unpublished raw data.

Mayer, M. M. (2005). A post-modern puzzle: Rewriting the place of the visitor in art museum education. *Studies in Art Education, 46*(4), 356-368.

Novitz, D. (2002). Postmodernism: Barthes and Derrida. In Gaut, B. & Lopes, D. M. (Eds.), *The Routledge companion to aesthetics* (pp. 155-165). New York: Routledge.

Perkins, D. N. & Simmons, G. (1988). Teaching for transfer. *Educational Leadership, 46*(1), 22-32.

Perkins, D. N. (1994). *The intelligent eye: Learning to think by looking at art.* Santa Monica, CA: Getty Centre for Education in the Arts.

Prawat, R. S. (1989). Promoting access to knowledge, strategy, and disposition in students: A research synthesis. *Review of Educational Research, 59*(1), 1-41.

Shettel, H. (1997). Time—is it really of the essence? *Curator, 40*(2), 246-249.

Sternberg, R. J. (1981). Intelligence and nonentrenchment. *Journal of Educational Psychology, 73,* 1-16.