Authentic Reflection for Experiential Learning at İnternational Schools

Stirling Leonard Perry

Robin Ann Martin

Authentic Reflection for Experiential Learning at İnternational Schools

Stirling Leonard Perry
Hiroshima International School

Robin Ann Martin
Bilkent University

When students are required to reflect on their experiential learning, they face many challenges. Moreover, if teachers and advisors do not implement reflection effectively, students are less likely to internalize the lessons they learn from their experiences. Based on a multi-case study applying grounded theory, this research examined how reflection on experiential learning was implemented at six International Baccalaureate schools in Turkey. Several patterns emerged across schools from which the authors developed a theoretical framework for conceptualizing the reflection process for experiential learning with respect to (1) timing and frequency of reflections, (2) formats and contexts for reflection, and (3) feedback about reflection. The authors make a number of recommendations for improving the reflection process in the aforementioned areas and offer suggestions for future research.

Keywords: experiential learning, reflection, international education, high schools, case study research, student learning

Many educational curricula incorporate service-learning as a means of connecting academic skills and concepts with real-world experiences. Service-learning is unique from strictly volunteer or "community" service in that the intended benefits are twofold: A community receives some type of service, and a student develops social, emotional, and academic skills through the practice of volunteering. However, simply performing service activities on a regular basis does not necessarily promote learning. Research has suggested that the practice of reflecting on such activities is essential to turning service into learning (Bringle & Duffy, 2006; Brown & Purmensky, 2014; Eyler, 2002; Kolb, 1984; Wilczenski & Cook, 2009). Reflection allows a person to establish cognitive connections, to make explicit those lessons that would otherwise have been implied (or hidden altogether), to realize the value of such experiences, and to recognize how one has grown and developed. In his seminal monograph *How We Think*, John Dewey (1910) wrote of the importance of reflection:

> The working over of a vague and more or less casual idea into coherent and definite form is impossible without a pause, without freedom from distraction.… [Reflection] is indispensable for the development of coherent and compact conclusions. (pp. 209-210)

Reflection, for Dewey, is indispensable: It comprises the process of analyzing past experiences to inform thoughts and actions directed toward future outcomes—that is, learning. Taking it as a priori that individuals desire positive future outcomes rather than negative ones, it follows that reflection should be an explicit element of any type of curriculum—academic or otherwise.

Study Purpose and Research Questions

The purpose of the present research was to develop a grounded theory for optimizing what we refer to as "authentic reflection" in experiential learning programs at the secondary level. We collected data at six high schools in Turkey that had been using a formal curriculum for experiential learning, namely the Creativity, Activity, Service (CAS) program within the International Baccalaureate (IB) Diploma Programme (DP). Taking into account findings from previous research, we developed a framework for guiding the analysis and implementation of authentic reflection. A larger meta-analysis of the interacting factors of implementation (Martin, Tanyu, & Perry, 2016) led us to realize that what students say about the reflection process requires special attention. In coding reflection comments made during interviews and focus groups (Perry, 2015), two important themes were uncovered that guided our further inquiry. First, and most significant, were comments by a majority of CAS students expressing considerable discontent with the reflection process. The second comprised three major factors that appeared to mediate students' discontent (and were confirmed by the research literature): the timing of reflection, the format and context of reflection, and advisor strategies for supporting the reflection process. In light of these themes, we formulated two research questions to guide the present inquiry:

1. How do students perceive the purpose and efficacy of reflection in CAS?
2. How do the three major factors impacting reflection (i.e., timing, formats and context, and advisor strategies) interact with one another?

Prior Research on the Reflection Process

Multiple studies have shown that reflection is associated with improved social-emotional competencies in areas such as self-confidence, social responsibility, school and civic engagement, and personal relationships (Celio, Durlak, & Dymnicki, 2011). Celio et al. (2011) emphasized the importance of reflection as a curricular tool for linking "the action of 'service' and the ideas of 'learning'" (p. 167). Wilczenski and Cook (2009) argued more explicitly that reflection "turns service into learning" (p. 5). Without reflection, the authors maintained, students may be engaged in the activities, but they are not necessarily receiving all the educational benefits of the activity. Brown and Purmensky (2014) espoused a similar formulation:

> Reflection transforms experience into authentic learning. At the time of the experience, the students are "in the moment" and do not have time to fully understand the experience; it is only later, when they have time to write and reflect, that students begin to analyze their feelings, deconstruct their experience, and put it in the perspective of their previous schema. (p. 83)

Studies reviewed by Janet Eyler (2002) suggested that "a focus on effective reflection is the key to strengthening the power of service-learning," which in turn "makes it possible for students to identify, frame, and resolve the ill-structured social problems that we must deal with" (p. 3).

Authentic Reflection and Understanding How it is Implemented

A distinction must be made between authentic and inauthentic reflection. Although students may engage in reflective activities as required by a curriculum, they may not actually be reflecting authentically. Paulo Freire popularized the idea of "authentic reflection" as essential to the educational process. In *The Politics of Education: Culture, Power, and Liberation* (1985), Freire wrote: "In throwing light on an accomplished action, or one that is being accomplished, authentic reflection clarifies future action, which in its given time will have to be open to renewed reflection" (p. 156). In the most recent CAS guide, authentic reflection is defined as "thoughtfully consider[ing] the world and our own ideas and experience.

We work to understand our strengths and weaknesses in order to support our learning and personal development" (IB, 2015, p. 26).

Boud, Keogh, and Walker (1985) wrote that "experience alone is not the key to learning" (p. 7); rather, individuals "explore their experiences in order to lead to new understandings and appreciations" (p. 19). For the authors, the key to authentic reflection is intent: "It is not idle meanderings or day-dreaming, but purposive activity directed towards a goal" (p. 11). Authentic reflection is, then, a dynamic and cyclical process of considering one's relationship with past experiences in order to develop strategies for approaching future experiences. It also entails using experiences as a means of cognitive growth and for developing a personal narrative. Conversely, inauthentic reflection merely recognizes past experiences without considering their ramifications, thus failing to make connections between one's self and the world and not utilizing experiences as a means of informing one's future actions.

Although there exists a large body of prescriptive discussion around the ways in which reflection should occur, there is less descriptive research on how reflection is implemented in practice, as well as on the effectiveness of different reflection methodologies. This disconnect between prescription and actual implementation can have negative consequences on learning. Existing studies have highlighted problems with how reflection is understood and implemented. , For example, Brodie (2014) reported that many students and teachers do not have a clear idea about the nature or purpose of reflection. Examining student observations about an experiential learning program, he found that most of their negative comments related to mandatory reflection:

> The overall picture of reflection beginning to emerge is of an activity that is forced upon students with little explanation, feedback, or clarification. It quickly becomes a chore for the students and an imposition on their time. (p. 15)

If reflection is the means by which a person turns service into learning, given the mixed student attitudes and perceptions about reflection found in the research (Brodie, 2014; Burnard, 1995; Vivekananda-Schmidt et al., 2011), then there is a real possibility that many students are not accessing the full benefits of experiential learning.

Despite the seeming preponderance of evidence of the positive academic outcomes of service-learning in school curricula, Furco (2013) argued that "the field is still confronting the need to prove that service-learning has positive effects on students' academic achievement and school success" (pp. 11-13). Based on a broad analysis of service-learning research over the past two decades, Furco identified specific weaknesses in the existing literature that should be addressed. He added, "A more serious problem is that the field has yet to organize assumptions drawn from different theories of learning and development into a coherent framework that is unique to service-learning and can guide investigations into its impacts" (p. 18).

Likewise, Selmo (2015) indicated that few studies have examined reflection in terms of its methodology and implementation. Indeed, there is a need for a theoretical framework that helps to conceptualize both the methodology and implementation of reflective practices so that more studies can be conducted systematically.

The Timing of Reflection

Typically, reflection is defined solely as a looking back on past experiences. However, Eyler (2002) stressed the importance of reflecting before (what she called "preflection"), during, and after a service-learning experience. Reflecting before an experience allows a student to question his or her assumptions, to make educated guesses about the experience, and to set personal goals for himself or herself. Goal setting is particularly important for establishing measurable benchmarks by which one can judge one's progress. Reflecting during an experience allows one to re-evaluate, re-tune, and introspect—to think about one's thoughts, choices, and reactions. By evaluating these data, one can modify ideas and

behaviors, and apply the changes to the next experience. It is, in a way, a kind of developmental trial-and-error supported by ongoing reflection.

Knight-McKenna, Darby, Spingler, and Shafer (2011) outlined three methods for reflection before, during, and after service-learning. Before engaging in service-learning, students can develop "alternative explanations" for examining assumptions about the people being served. During service-learning, teachers may guide students in reflecting on the linkages between their experiences and course content by writing about tensions (or "disequilibria") they experienced and how they attempted to resolve those tensions. After a service-learning experience, students can be challenged to analyze the differences between their initial and final observations.

Varied Formats and Social Contexts

A review of the extant literature revealed that prior researchers have conflated two issues which could be of greater significance if examined separately. On the one hand, reflection methodology refers to a variety of written, verbal, and electronic formats for doing reflection. On the other hand, the social contexts in which students reflect may also influence the quality of those reflections independent of the format alone. Therefore, we treat these two constructs as overlapping yet distinct. For the purposes of this article, "format" refers to the medium of reflection—for instance, a journal, a video log, a presentation, a discussion—while "context" refers to the social situation in which a reflection takes place—for example, individually, one-on-one, in small or large groups, or at community events.

Reflection is typically done through written journals or essays. However, research suggests that there are limitations to using this method exclusively. De Bruin, Van der Schaaf, Oosterbaan, and Prins (2012) studied the written reflection portfolios of 37 eleventh-grade students. They found that authentic reflection was, in fact, a rare occurrence: "On average, one-fifth (19.5%) of the paragraphs in a portfolio contained reflection, and paragraphs with deep reflection were hardly found (0.8%)" (p. 428). Sung, Chang, Yu, and Chang (2009) performed a similar coded document analysis of the written reflection journals of 44 teachers. They found that most of the reflection entries were primarily descriptive in nature, with only 10% of the reflections considering other issues such as social context, policies, and ethics. These studies reinforce suggestions by the CAS guides (IB, 2008, 2015) that regularly required journal reflections have limited efficacy for developing meaningful reflection. Similarly, Yorio and Ye (2012) completed a meta-analysis of 40 quantitative studies that included an examination of reflection methods. They found that utilizing discussion-based reflection in addition to written reflection was more effective than written reflection alone.

Given the limitations of relying exclusively on written reflection, Eyler, Giles, and Schmiede (1996) and Reed and Koliba (1995) recommended that a variety of reflection techniques be employed through a variety of formats: video, essay, presentation, speech, photo essay, scrapbook, group discussion, and one-on-one discussion, among other suggestions. These techniques allow for the possibility of more meaningful reflection because a student can choose the method and develop it for greater depth.

Feedback from Advisors

Lastly, reflection should be accompanied by feedback, guidance, and interaction with advisors. Experiential learning "advisors" may be teachers, coaches, specialists, or other educators who mentor students in particular activities. McEachern (2006) went so far as to suggest that "reflection is not effective without instructor feedback" (p. 314). He advised that, through frequent feedback, instructors can be instrumental in "understanding where students are in their learning, valuing it, and then helping them learn and develop further" (p. 315).

Dekker, Schönrock-Adema, Snoek, Molen, and Cohen-Schotanus (2013) analyzed the language of feedback on reflections—with specific emphasis on format, focus, and tone—to determine better ways of offering feedback. They concluded that the most effective type of feedback that "stimulate[s] students to reflect on a slightly higher level" is formatted as a question, "positive in tone and tailored to the individual student's reflective level."

Theoretical Framework

According to the research literature, effective implementation of reflection should include particular characteristics related to timing, format, context, and supportive strategies employed by educators. Based on such conclusions from the literature and our analysis of CAS programs in Turkey, we developed a model for analyzing and improving authentic reflection processes for experiential learning (see Figure 1). We propose that this framework can help teachers and researchers in supporting and conceptualizing the needs of students toward a more authentic reflection process.
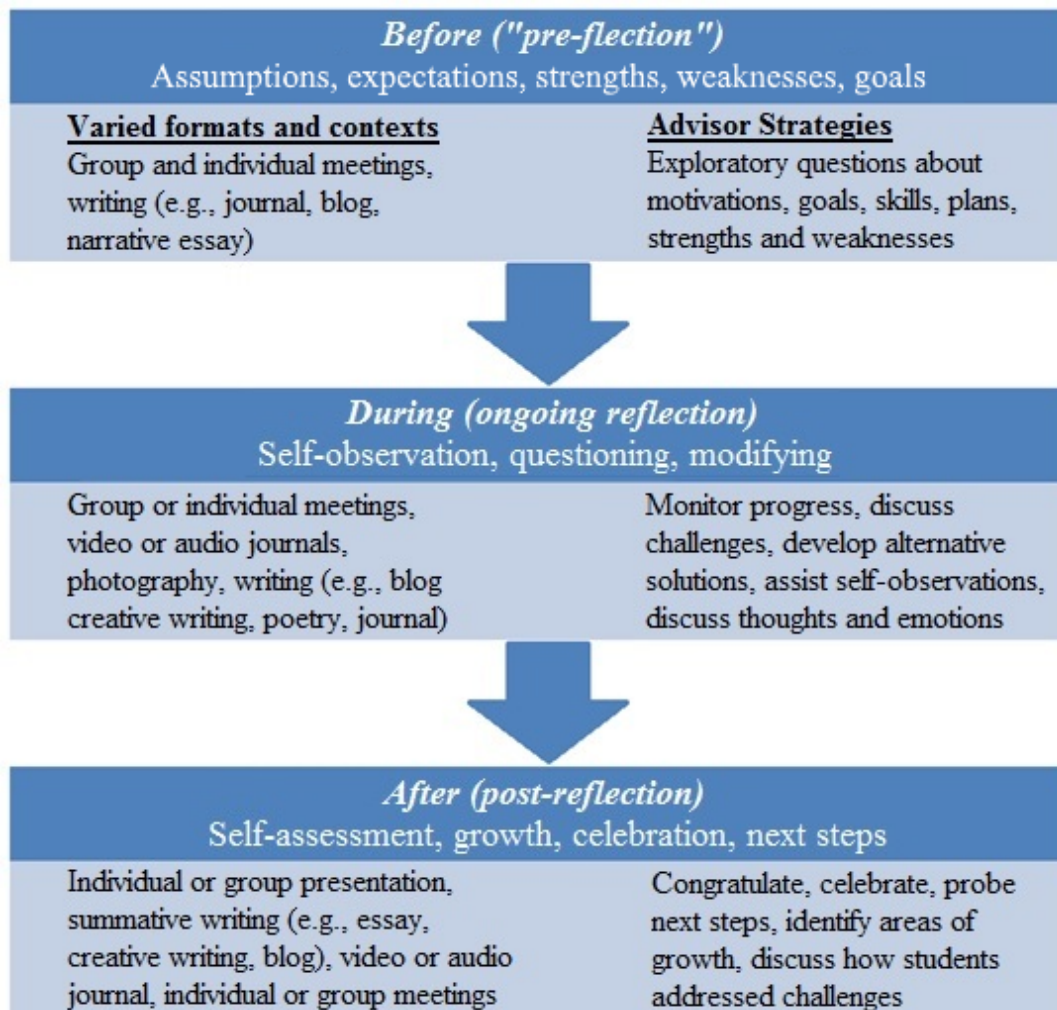
Before ("pre-flection")
Assumptions, expectations, strengths, weaknesses, goals

Varied formats and contexts
Group and individual meetings, writing (e.g., journal, blog, narrative essay)

Advisor Strategies
Exploratory questions about motivations, goals, skills, plans, strengths and weaknesses

During (ongoing reflection)
Self-observation, questioning, modifying

Group or individual meetings, video or audio journals, photography, writing (e.g., blog creative writing, poetry, journal)

Monitor progress, discuss challenges, develop alternative solutions, assist self-observations, discuss thoughts and emotions

After (post-reflection)
Self-assessment, growth, celebration, next steps

Individual or group presentation, summative writing (e.g., essay, creative writing, blog), video or audio journal, individual or group meetings

Congratulate, celebrate, probe next steps, identify areas of growth, discuss how students addressed challenges

Figure 1. A framework for authentic reflection.

Our framework underscores three essential elements for helping students to reflect authentically and effectively:

1. Timing: Reflection should be engaged repeatedly, according to the pace of students' individual learning processes before, during, and after a given experience (Eyler, 2002; Knight-McKenna et al., 2011).
2. Varied formats and contexts: Students need opportunities to reflect through different formats such as writing, speaking, drawing, and blogging (for example). This should also include a variety of

social contexts: individually, in group settings, and one-on-one conversations (Eyler et al., 1996; Reed & Koliba, 1995; Yorio & Ye, 2012).

3. Advisor strategies: Advisors or teachers need to be actively involved in the reflection process by offering feedback, questioning, prompting inquiry, and guiding students toward effective reflection (Dekker et al., 2013; McEachern, 2006).

Methodology

Context for Research

CAS is an IBDP requirement by which students meet a standard of participation in activities related to creative output (e.g., music, art, performance), health and athletics, and service-learning. Through reflection, according to the CAS guide (IB, 2015), students access and internalize the skills, self-knowledge, and realizations acquired through experiential learning. CAS expects students to reflect on their activities through a variety of formats and contexts, based on the students' own choices.

High school education in Turkey focuses on a single university entrance exam that determines, to a great extent, what subject a student will study and at which university he or she will matriculate. Consequently, there is a lack of emphasis on experiential learning. Typical youth development activities found in Europe or North America—such as service-learning, music, and school sports—are minimized in secondary education in Turkey because they have little bearing on university admissions (Martin & Alacaci, 2015). As a result, experiential learning is not commonly examined by educational researchers in Turkey, who tend to focus more on academic subjects (Göktaş et al., 2012). While some efforts have been made to integrate learner-centered approaches into the curriculum, teachers face a variety of systemic problems in Turkey with respect to supports and training for more "bottom up" learner-centered approaches to instruction (Yilmaz, 2009).

Design of the Study

This study utilized multi-case research to shape both the initial design of the project as well as the analysis that emerged (Stake, 2005; Yin, 2003). Later, we realized that the quantity of data collected about reflection deserved further attention, so we returned to the data using grounded theory to guide further anlalysis (Denzin & Lincoln, 2012; Merriam & Associates, 2002).

The six schools that served as the study cases were selected in part because of their well-established IBDP programs; we also selectively chose schools with differing sizes. All six schools had a strong reputation as well as a high rate of student matriculation to prominent universities. Additionally, the six cases had been using the DP longer than most other DP schools in Turkey—of which there are currently 44. Table 1 summarizes basic characteristics of the schools. Students at schools 1, 2, 4, 5, and 6 were almost exclusively Turkish nationals; thus, they were mandated by law to fulfill the Turkish National Ministry of Education (MEB) requirements for a Turkish high school diploma. Students at school 3 were mostly international students, following the DP curriculum only. The students from all of the schools were primarily from middle- and upper-income families.

Table 1. Summary of Participating Schools

School	Location	Year DP Started	# of DP Students	Total # of Students (grades 11 and 12)	% of DP Students to Total Students
School 1	Istanbul	1994	220	489	45%

School 2	Ankara	1996	90	90	100%
School 3	Istanbul	1997	80	80	100%
School 4	Ankara	1999	263	1044	25%
School 5	Izmir	2005	72	291	25%
School 6	Bursa	2006	64	130	49%

Each school visit by the researchers included interviews with a key school administrator—a principal, vice principal, or head of secondary—and the CAS coordinator(s), as well as focus groups with supporting teachers and Grades 11 and 12 IBDP students. The teacher focus groups consisted of four to eight teachers—mostly Turkish nationals—who directly supported CAS students. The student focus groups were conducted separately for Grade 11 and 12. Each focus group consisted of five to eight students, who were selected by the CAS coordinator with instructions to choose students of high, moderate, and low motivation and engagement with CAS. The primary language of instruction for all schools was English, so there was little need for translators for the student focus groups. Although most teachers and administrators were able to respond in English, a few teachers and administrators preferred to respond in Turkish through an English translator. Supporting documents were also collected— including between 50 and 450 reflection samples, representing about 10% of written student reflections from each school for the given year—and numerous CAS curriculum documents. In order to capture a broader range of data, we asked for samples from students who, according to the judgment of CAS coordinators, possessed high, moderate, and low motivation and engagement with CAS.

Data Collection

The data collection instruments used in this study included two interview protocols for administrators and CAS coordinators, and two focus group protocols for teachers and students. The interview and teacher focus group protocols were translated into Turkish. Though most interactions were in English, translators were used when needed. The questions were designed to elicit open-ended responses around themes relevant to the research questions and program implementation, and the semi-structured interview format allowed us to encourage participants to elaborate. Examples of questions included: "How do students reflect on their activities?"; "What is the purpose of the reflections?"; "How do the reflections affect your experience of CAS?"; "Overall, are your reflections useful for you?" In total—including data from the aforementioned larger CAS study—we collected data from 37 IBDP students in eight focus groups; 28 teachers who supported CAS in seven focus groups; eight CAS coordinators or co-supervisors; and six high-level administrators (principals or directors). Students and teachers were all highly cooperative; the interviews and focus groups generated 455 pages of single-spaced transcripts with 253 coded comments by students, as well as 1,237 coded comments by teachers and administrators.

Data Analysis

After transcribing all of the interviews, we worked with a third researcher to complete the first round of coding for the data. During our first and second levels of data analysis, we drew upon principles of qualitative content analysis (Miles & Huberman, 2013; Neuendorf, 2002). Through a cross-coding process, with three coders using Nvivo8, we coded 144 comments that were specifically about or comprised issues related to the reflection process.

Intercoder reliability among the three coders was supported by jointly coding a single document, then comparing each set of codes until consensus was reached in the first eight transcripts. Sixteen primary

codes were developed along with 61 secondary codes. Codes included topics related to how participants described the CAS program, from its history in the school to how students were monitored, and the student reflection process, as well as how participants described the challenges of CAS, with sub-categories of different challenges for varying stakeholders. Reflection emerged as one of the major challenges. After all transcripts were coded and documents reviewed, we created a profile of the CAS program at each school, which was sent to CAS coordinators for verification, with the CAS coordinators' comments being incorporated into the final school profiles.

After reviewing again the literature on reflection and noticing how closely it resembled issues in our data, our second round of coding led us to examine the reflection comments in more depth., We then realized that a grounded theory was emerging that combined both the prior research with our own analysis of the reflection comments. In examining the interactions across factors identified by the unfolding framework, we conducted a third iteration of the codes, elucidating concepts such as formats and contexts, to develop the analysis that follows.

Analysis and Findings

We begin this section by answering the first research question—presenting an examination of ambiguities and claims made by students, revealing their attitudes about and perceptions of reflection. Then, to address the second research question, we examine the previously noted interactions among three main factors: the timing of reflection, varied formats and contexts, and advisor feedback strategies.

Students' Negative Attitudes about and Perceptions of Reflection

Within the student focus groups, participants exhibited ambiguity about the meaning of the word *reflection* itself. They often talked about reflection as though it were synonymous with documentation, description, or evidence of events, rather than a thoughtful consideration of events. For example, when asked about the purpose of reflection, students at several schools responded similarly: "[The purpose is] to show what work we've done"; "To show we've done the activity"; "To [please] our advisor… he wants us to prove that we did those activities." These responses indicated that many students did not understand the nature and function of reflection. Instead of authentically reflecting on their experiences, many students simply recounted events, as exemplified by the following reflection sample, reproduced in its entirety:

> We organized and orchestrated a day in school where I personally got up on stage and made a presentation on raising awareness for natural disasters and the precautions we should take beforehand. I advised the audience, which included parents and students, to have emergency plans and emergency kits at home. I also talked about the safety precautions we take at school and shared the school emergency plan.

The poor quality of many student reflections was due largely two factors: the instructions from and expectations of the advisors, and the formats and contexts by which students were reflecting. For instance, schools that utilized a repetitive checklist format were less likely to produce authentic reflection than schools that relied on journaling. Generally, repetitive checklists encourage a rote process of filling-out and submitting required documents, rather than a subjective experience of internalizing social-emotional awareness. This lack of internalization was evidenced in this study by student comments such as "The reflection forms—as I said, they are such a pain in the neck;" "Sometimes we are writing things that we do not know. When I'm filling-out reflection forms, I'm really not me—I'm someone else… I didn't give them my experience: I gave them what they wanted me to experience in their imagination." In other words, many students admitted to composing disingenuous reflections in order to satisfy the requirements of CAS. If the reflection process is not well explained or demonstrated, then it seems reasonable that students may tend to produce inauthentic reflections.

The Timing of Reflection in Combination with Varied Contexts

All six schools in our study revealed indicators that students engaged in reflection before, during, and after activities (see Table 2). Some experiences lasted only one day, while others lasted for weeks or months. With the exception of two schools whose coordinators regularly invited students to participate in small-group discussions, oral group reflections were more likely for extended group experiences such as trips or team sporting events. Students on a week-long service trip to an underserved community, for example, had regular group debriefings. For individual activities within the Creativity and Activity categories of the program (such as individual sports or arts and music events), oral reflections with CAS advisors were less likely to occur.

Table 2. Examples of Approaches to the Reflection Process According to Timing and Context

Timing / Context	Reflection Before Activity	Reflection During Activity	Reflection After Activity
Individual	Descriptive forms for activity registration or project planning Audio/visual projects (e.g., video blog, PowerPoint) Pre-project self-evaluation forms with short-answer questions Pre-project self-assessment essays Meetings with advisors, teachers, and/or coordinators	Journals with written reflections and activity evidence (e.g., photos, signature forms) Audio/visual projects Activity summaries on Moodle or ManageBac Meetings with advisors, teachers, and/or coordinators	Post-project self-evaluation forms with short-answer questions Audio/visual projects Self-assessment essays Meetings with advisors, teachers, and/or coordinators CAS panel interview with various school staff
Small group	Meetings with advisors, teachers, and/or coordinators	Meetings with advisors, teachers, and/or coordinators	Meetings with advisors, teachers, and/or coordinators
Large group	Meetings to discuss whole-school projects	Meetings with teachers and/or advisors during programmed club hours	Follow-up meetings with advisors, teachers, and/or coordinators
Public	Orientation meetings introducing students to a project or group	Public presentations, musical performances, or meetings with parents and organizations.	[No examples found, but follow-up discussions with community organizations would be possible.]

Frequency of Reflections: Over-Scheduled Reflection May Lead to Inauthenticity

Importantly, the study data indicated that requiring students to submit reflections on a regular basis, with deadlines, appeared to compound the students' negative attitudes. Two students, for example, remarked

that such requirements made reflection feel artificial or forced, and thus more of what we would call inauthentic:

> I wish that we only had to fill in that [reflection form] four times. Because writing a reflection—I don't know what to write about the volleyball practice. We always kind of do the same thing, and I can't explain how to pass a ball in words. And I don't want to. (Student A)

> Every week is usually the same thing…. The fact that we do the same things, the same activities every week, so there isn't really much to write in terms of changing from month to month. Like you could write a good reflection on the first month, and it's difficult to maintain the same quality of writing throughout the duration of the activity. (Student B)

These comments show that although reflection is indeed a program requirement of CAS, requiring students to complete reflections on a regular basis can discourage students who are unable to observe or articulate what they may notice about subtle changes in their own development. In such cases, as students indicated in this study, reflection becomes less authentic and more oriented toward students' perceived expectations for CAS.

Strengths and Weaknesses Revealed Through Interactions of Varied Formats and Contexts

Reflection can be an enervating, meaningless exercise, or it can be one that allows for real insight and self-knowledge. Having to fill out the same questions on the same documents for every experience or activity—regardless of whether it relates to creativity, activity, or service—does not facilitate authentic reflection. Table 3 presents a summary of the ways in which three formats of reflection (written, oral, or other audio/visual media) were used in relation to four contexts (individual, small groups, large group, and public discourse). The dominant finding was that written formats of reflection were by far the most common. Nonetheless, oral reflection was also implemented consistently across three of the four contexts (individual, small groups, and large group). For small group reflections, there were no examples of students engaging in written activities together, even though they did many collaborative projects. In contrast, audio/visual formats were more limited across all contexts and almost non-existent at the level of public discourse. It is particularly interesting, in this digital age, that students did not reflect more with a wider public through social media about the value of their CAS experiences.

Table 3. Evidence of How Schools Used a Variety of Formats Across Three Contexts

Format / Context	Oral	Written	Audio/visual
Individual	Meeting with advisors, teachers, and/or coordinators CAS panel interview with school staff	Descriptive form for activity registration or project planning Journal with written reflections and activity evidence (e.g., photos, signature forms)	Video PowerPoint presentation Photographs[1] Artistic expression[2]

[1] Photographs were rare in the samples but noted in one journal project of a student who visited and helped at a panda reserve in China. Participants sometimes also mentioned photographs in the focus groups.

[2] Artistic expression was not noted during our data collection; however, while writing up our findings, one of the CAS coordinators provided an outstanding example of how she was using artistic expression to help students illustrate their changing attitudes about a service project before, during, and after the experience.

		Self-evaluation form with short-answer questions Self-assessment essay	
Small groups	Meeting with advisors, teachers, and/or coordinators	[No examples found]	PowerPoint presentations or videos, especially on whole-school projects.
Large group	Meetings to discuss whole-school projects	[Reports or news articles on CAS projects would be appropriate to share with wider school community, but were not noted.]	[Videos privately shared on Facebook or social media would be appropriate, but were not noted.]
Public discourse	Orientation meetings with outside organizations for students, teachers, and parents	Pamphlets developed by students and distributed to the community[3]	Videos publicly uploaded to the internet

One important characteristic of some CAS programs was the freedom and autonomy students were given to reflect, which seemed to promote authenticity. The CAS coordinator at School 1, for example, was enthusiastic about allowing students to reflect using multiple formats—videos, writing, online presentations, or group discussions. This finding aligns with recommendations in the literature: Reflection is more likely to be authentic if students have a variety of formats and contexts available to them (De Bruin et al., 2012; Eyler, 2002; Yorio & Ye, 2012). The CAS coordinator at School 3 also encouraged students to use a variety of reflection formats, including a specially designed CAS panel that evaluated students while also providing them an opportunity to reflect on their cumulative CAS experience with a group of interested adults. While participants exhibited mixed attitudes about reflection at this school, they also demonstrated greater awareness overall about the purpose of reflection.

Four of the six CAS programs employed fewer formats for student reflection, focusing mostly on writing, whether through an online program called ManageBac or on paper. Focus group participants at these schools bemoaned the rote, repetitive nature of reflecting:

- It's just a checklist for organizing.
- We are writing everything three times. Our CAS coordinator prepared three different kinds of forms, but they're all asking the same questions.
- [Reflection is] for our benefit, but I think, at the end, you get really tired and it turns out to be a burden, and [not an] advantage.

The latter student was from School 4, where writing was used almost exclusively as the reflection format.

Overall, evidence indicated that discussions and oral reflections were the two most effective means of authentic reflection. When teachers or advisors spoke directly with students, they were able to ask questions or pose discussion topics that elicited students' authentic reflection. A notable omission at all six schools was the lack of publicly shared reflections; we found no examples of students reflecting in large groups of peers or with targeted members of the school community. Such contexts can be useful for the student learning process, as a means of educating younger students or the community, and for celebrating students' accomplishments.

---

[3] While pamphlets might be considered more as a means for raising public awareness, to be able to create them, students must reflect on their own relation to and understanding of the topic.

The Need for Regular Advisor Feedback

Perhaps the weakest aspect of reflection at the six schools was the brevity or even lack of feedback on student reflections. As with other kinds of educational products—for instance, essays, lab reports, musical compositions—feedback is essential for the learning process. When asked, "How do advisors/teachers support students in the reflection process?", one teacher in a focus group remarked:

> I obviously give quite a bit of direction about where I want things to go, but then I give [the student] resources or point her in the direction of resources, and then let her do it. And then afterwards, we have a little bit of a feedback session.

When teachers identify and elaborate upon areas of improvement for students, those students can acquire new knowledge and adapt their thinking and behavior—in short, they can learn. Thus, feedback is no less necessary for student reflections, even in verbal format.

Based on our examination of the sample reflections, there was little evidence that students received regular, qualitative feedback on their written reflections. One CAS coordinator mentioned the importance of giving students periodic verbal and written feedback, and others mentioned small-group meetings that happened a few times each semester. Also, at the two schools utilizing ManageBac, the CAS coordinators informed us that they gave feedback on reflection every few weeks. Nevertheless, at three of the four remaining schools, there was no evidence of regular written feedback.

Overall, oral feedback was the main strategy utilized in the six schools of this case study, with little evidence of written feedback. This may have been a weak area in our sample schools, or perhaps the strategies pointed out by the literature failed to take into account the real-time limitations faced by most teachers as well as their lack of training in how to facilitate experiential learning (especially in Turkey). The dearth of evidence of written feedback may also have signaled a weakness in our interview protocol since we did not develop questions to specifically address the issue of feedback.

Discussion

With respect to our first research question, this in-depth inquiry into six IB schools in Turkey, combined with prior research evidence, suggests that negative attitudes toward reflection for experiential or service-learning are common among high school students (Brodie, 2014; Burnard, 1995; Vivekananda-Schmidt et al., 2011). Indeed, conversations with CAS coordinators who had worked at schools in multiple countries led us to believe that techniques to overcome students' negativity may be essential to strengthening the outcomes of experiential learning programs. There is an abundance of prior research on reflection at post-secondary stages of education; however, reflection research pertaining to the important period of adolescence is scant. Our research indicated that authentic reflection practices for experiential learning are often misunderstood, underutilized, and underappreciated among adolescents.

In order for students to derive the most benefits from educational experiences, reflection must be implemented effectively (Celio, Durlak, & Dymnicki, 2011; Dewey, 1910; Eyler, 2002; Freire, 1985; Wilczenski & Cook 2009). Our analysis of CAS reflection at six high schools consolidates and expands upon this body of research by identifying both strengths and weaknesses of practical approaches to reflection based on our emerging theoretical framework. Specifically, three findings from our case schools offer insight around lessening students' negative perceptions of the reflection process and improving academic/intellectual and social-emotional outcomes.

The Timing and Frequency of Reflections

Student comments suggested that requiring scheduled, overly frequent reflections negatively affected the quality and utility of students' reflections. Students remarked that such obligations made their reflections feel forced and inauthentic. Other examples pointed to the value that students attach to flexibility.

Students who were given more agency in deciding when it was appropriate to reflect seemed to complain less about the requirement of experiential learning as a central element of the IBDP curriculum. Similarly, we propose that reflections should immediately follow (or occur shortly after) significant or "teachable" experiences; reflecting after a notable success or failure, for example, may yield more insights than a routine weekly reflection. While this will seem spontaneous to students, experienced teachers can learn to recognize upcoming periods in the experiential learning process so as to pose questions that help facilitate such teachable moments.

We found that reflection occurred primarily during and immediately after CAS experiences. However, both existing research and our investigation suggest that reflective activities should also occur before an experience. This gives students the opportunity to consider expectations, goals, strengths, weaknesses, strategies, and prior assumptions. Subsequent reflections can utilize the first "preflection" (Eyler, 2002) as a basis for assessing experiences—the efficacy of strategies, the reality of expectations, and the application of strengths and weaknesses. Among our sample schools, there emerged a distinction between stronger and weaker CAS programs: The stronger programs tended to emphasize a cumulative reflection process, while other schools avoided this important approach. None of the schools had yet mastered the art of helping students to utilize the right format and context of reflection at the right time.

If advisors developed greater cognizance of the optimal contexts for timing—for example, after a considerable success or failure—then students would likely feel moved to reflect more authentically. Teachers and other CAS advisors may require coaching or training to help students elicit authentically reflective discourse by asking the right questions and posing appropriate challenges. Furthermore, advisors must make more explicit connections between actual experiences and the abstractly academic nature of CAS as a curricular program.

Formats and Contexts of Reflection

At the six schools in our study, the vast majority of reflections consisted of variations of journal writing. However, prior research suggests that reflection is more effective through the use of multiple formats, such as video blogs, creative poetry or music, presentations, and other performances, as well as multiple contexts—individual, small- and large-group discussions, or public settings. By cross-referencing the timing and formats of reflection, our cases point to a gap in the use of public discourse as closure for experiential learning. Furthermore, they suggest ways in which teachers and researchers might give more consideration to a cross-section of different formats (oral, written, audio-visual) in varied social contexts.

The Role of Advisor Feedback

According to our study, while there was evidence of verbal feedback on reflections, it was difficult to quantify the extent to which it occurred. There was also little evidence of feedback on written reflections. The importance of feedback has been noted by many researchers; it has also served as a standard pedagogical practice for centuries. Feedback helps students to consider other ideas, challenge assumptions, and set appropriate goals. The CAS coordinators most noted for assisting students with reflection through regular discussions were especially aware that feedback is not an isolated activity—it should be a dialectical process between students and advisors. This can be as simple as a brief conversation or a short note about a journal entry. Unfortunately, the new CAS guide contains no recommendations for regular or periodic feedback, other than three interviews (across two years) that are now required (IB, 2015).

Conclusion

As discussed earlier, our first research question underscored the negative attitudes of students toward reflection in a program for experiential learning. Then, in addressing the second research question, potential solutions emerged for making the reflection process less onerous and more supportive of

learning. In particular, the present findings point to the need for a solid framework that helps to conceptualize the interactions between the factors that influence reflection. While prior theoretical work has highlighted many aspects of reflection that must be strengthened, our study and emerging theory of authentic reflection point to three recommendations that are vital to turning normal experiences into learning experiences.

The Frequency and Timing of Reflection Must Be Flexible

The CAS coordinator in one of the most successful programs in our sample noted that she neither required nor expected students to reflect on a regular basis. Reflections can be authentic in an environment where it is demonstrated and encouraged before, during, and after key experiences, and suitable to varied social contexts.

Students Should Engage in a Wide Variety of Reflection Methods

Each reflection format (written, oral, or audio/visual) may produce different qualities of reflections according to its suitability to the given social context (individual, small- or large-group, or public). Teachers and advisors should plan reflection purposefully, taking into account particular situations, student characteristics, and intended outcomes. Written reflection, for example, can be more useful at the beginning of a project because it provides an easily accessible framework for guiding future reflections. Interactive oral reflection can be used in the midst of a project when immediate advisor feedback is needed to help guide students. Students should not be told simply to reflect; more explicit planning and instruction is needed to make reflection an authentic and useful activity.

Teachers and Advisors Need to Be Encouraged to Give Regular Feedback to Students

This recommendation is especially applicable in cultural settings where experiential learning is not a typical aspect of school curricula. Teachers could even be trained to be attentive to different levels of feedback according to the timing as well as formats and contexts of each experience. However, the demands of advising students in experiential learning need to be tempered with the time constraints that teachers face in high-pressure academic settings.

Further Research

If teachers or advisors can be trained to implement student reflection using a variety of timings, formats, contexts, while offering regular feedback, then further studies should examine the extent to which certain strategies are more effective than others. Future research could also build on the work of Harland and Wondra (2011), who suggested ways to analyze the quality and depth of reflection samples more objectively.

While the scope of this study was limited to case schools in Turkey, the schools were representative of international schools facing similar challenges in implementing experiential learning programs. The proposed theory of authentic reflection could be expanded further through longitudinal studies to track how quality reflection is learned in the high school years and transferred to experiences in universities and professional careers.

Author Note

Stirling Leonard Perry, Hiroshima International School; Robin Ann Martin, Graduate School of Education, Bilkent University.

Correspondence

Correspondence regarding this article should be addressed to Stirling Perry, DP English and Theory of Knowledge Teacher, Hiroshima International School, 3-49-1 Kurakake, Asakita- ku, Hiroshima 739-1743, Japan. Phone: +81 82 843 4111. E-mail: stirling.perry@gmail.com

References

Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: Turning experience into learning*. London: Kogan Page.

Bringle, R., & Duffy, D. (2006). Introduction. In R. Bringle & D. Duffy (Eds.), *With service in mind: Concepts and models for service-learning in psychology*. Sterling, VA: Stylus.

Brodie, T. (2014). *The perception and practice of creativity, action and service in the International Baccalaureate Diploma Programme for students, teachers and schools.* Retrieved from http://www.ibo.org/contentassets/4ccc99665bc04f3686957ee197c13855/finalexecutivesummaryandappendices.pdf

Brown, A. V., & Purmensky, K. (2014). Spanish L2 students' perceptions of service-learning: A case study from Ecuador. *International Journal of Research on Service-Learning and Community Engagement*, *2*(1), 78-94.

Burnard, P. (1995). Nurse educators' perceptions of reflection and reflective practice: a report of a descriptive study. *Journal of Advanced Nursing*, *21*(6), 1167-1174. doi:10.1046/j.1365-2648.1995.21061167.x

Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, *34*(2), 164-181. doi:10.5193/JEE34.2.164

De Bruin, H. L., Van der Schaaf, M. F., Oosterbaan, A. E., & Prins, F. J. (2012). Secondary-school students' motivation for portfolio reflection. *Irish Educational Studies*, *31*(4), 415-431. doi:10.1080/03323315.2012.673907

Dekker, H., Schönrock-Adema, J., Snoek, J., Molen, T., & Cohen-Schotanus, J. (2013). Which characteristics of written feedback are perceived as stimulating students' reflective competence: An exploratory study. *BMC Medical Education, 13*(94). Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3750500/

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2012). *The landscape of qualitative research: Theories and issues* (4th ed.). Thousand Oaks, CA: Sage.

Eyler, J. (2002). Reflection: Linking service and learning—linking students and communities. *Journal of Social Issues*, *58*(3), 517-534. doi:10.1111/1540-4560.00274

Eyler, J., Giles, D. E., & Schmiede, A. (1996). *A practitioner's guide to reflection in service learning: Students and reflections*. Nashville, TN: Vanderbilt University.

Freire, P. (1985). *The politics of education: Culture, power, and liberation*. South Hadley, MA: Bergin & Garvey.

Furco, A. (2013). A research agenda for K-12 school-based service-learning: Academic achievement and school success. *International Journal of Research on Service-Learning and Community Engagement*, *1*(1).

Göktaş, Y., Hasançebi, F., Varışoğlu, B., Akçay, A., Bayrak, N., Baran, M., & Sözbilir, M. (2012). Trends in educational research in Turkey: A content analysis. *Educational Sciences: Theory & Practice*, *12*(1), 455-459.

Harland, D. J., & Wondra, J. (2011). Preservice teachers' reflection on clinical experiences: A comparison of blog and final paper assignments. *Journal of Digital Learning in Teacher Education*, *27*(4), 128-133.

International Baccalaureate. (2008). *Creativity, action, service guide: For students graduating in 2010 and thereafter*. Cardiff, Wales: Author.

International Baccalaureate. (2015). *Creativity, activity, service guide: For students graduating in 2017*

and after. The Hague, Netherlands: Author.

Knight-McKenna, M., Darby, A., Spingler, M., & Shafer, W. (2011). Educative outcomes for academic service-learning: Explicit illustrations of reflection. *International Journal of Teaching and Learning in Higher Education*, *23*(2), 208-214.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development (vol. 1)*. Englewood Cliffs, NJ: Prentice-Hall.

Martin, R. A., & Alacaci, C. (2015). Positive youth development in Turkey: A critical review of research on the social and emotional learning needs of Turkish adolescents, 2000-2012. *Research Papers in Education*, *30*(3), 327-346. doi:10.1080/02671522.2014.963828

Martin, R. A., Tanyu, M., & Perry, S. (2016). Structures and programme supports for creativity, action, service in the international baccalaureate diploma programme: An implementation study in Turkey. *Journal of Research in International Education*, *15*(2), 120-136. doi:10.1177/1475240916659722

McEachern, R. (2006). Incorporating reflection into business communication service-learning courses. *Business Communication Quarterly*, 69(3), 312-316. doi:10.1177/108056990606900309

Merriam, S. B., & Associates. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Jossey-Bass.

Miles, M. B., & Huberman, A. B. (2013). *Qualitative data analysis: A methods sourcebook* (2nd ed). Thousand Oaks, CA: Sage.

Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.

Perry, S. (2015). *CAS reflection implementation at six international baccalaureate programme schools in Turkey* (Masters thesis, Bilkent University, Ankara, Turkey). Retrieved from http://www.thesis.bilkent.edu.tr/0006896.pdf

Reed, J., & Koliba, C. (1995). *Facilitating reflection: A manual for leaders and educators*. Retrieved from http://www.uvm.edu/~dewey/reflection_manual/

Selmo, L. (2015). The narrative approach in service-learning methodology: A case study. *International Journal of Research on Service-Learning and Community Engagement*, *3*(1).

Stake, R. (2005). *Multiple case study analysis*. New York: Guilford Press.

Vivekananda-Schmidt, P., Marshall, M., Stark, P., Mckendree, J., Sandars, J., & Smithson, S. (2011). Lessons from medical students' perceptions of learning reflective skills: A multi-institutional study. *Medical Teacher*, *33*, 846-850.

Wilczenski, F. L., & Cook, A. L. (2009). How service learning addresses the mental health needs of students in urban schools. *Journal of School Counseling*, *7*(25), 1-20.

Sung, Y., Chang, K., Yu, W., & Chang, T. (2009). Supporting teachers' reflection and learning through structured digital teaching portfolios. *Journal of Computer Assisted Learning*, *25*(4), 375-385. doi:10.1111/j.1365-2729.2009.00312.x

Yilmaz, K. (2009). Democracy through learner-centered education: A Turkish perspective. *International Review of Education*, *55*, 21-37. doi:10.1007/s11159-008-9112-1

Yin, R. (2003). *Case study research: Design and methods* (3rd ed). Thousand Oaks, CA: Sage.

Yorio, P. L., & Ye, F. (2012). A meta-analysis on the effects of service-learning on the social, personal, and cognitive outcomes of learning. *Academy of Management Learning and Education*, *11*(1), 9-27. doi:10.5465/amle.2010.0072