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Powerful Learning Experiences and Suzuki Music Teachers

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Abstract

Powerful Learning Experiences (PLEs) of Suzuki music teachers were examined in this fifth study in a series. The definition of a PLE is: *Experiences that stand out in memory because of their high quality, their impact on one's thoughts and actions over time, and their transfer to a wide range of contexts and circumstances.*

Ten participants were each interviewed twice. All were Suzuki music teachers who had PLEs through their exposure to Suzuki and his philosophy. The second interview was the first in the series of studies to focus on teaching. Though the contexts of the PLEs

were more similar than in any previous study, there appeared to be a unique set of factors for each individual's experience. PLEs appear to be co-created in a complex system and display what can be described as liminal thinking and attunement.

Introduction

Powerful learning experiences punctuate our lives, offering memories from which we learn and grow. They seem to offer a leap in perception and even transformation, and yet solidify our own identity at the same time.

In four studies over the past decade, Gordon Rowland and colleagues explored powerful learning experiences with adult learners (Rowland & DiVasto, 2001; Rowland, Hetherington, & Raasch, 2002; Rowland, Lederhouse, & Satterfield, 2004; Rivera & Rowland, 2008). The definition of powerful learning experiences (PLEs) used was:

> *Experiences that stand out in memory because of their high quality, their impact on one's thoughts and actions over time, and their transfer to a wide range of contexts and circumstances.*

Through these studies, several aspects of PLEs became clear:

- Adults are readily able to recognize, reflect upon, and talk about their powerful learning experiences.
- The personal changes that occur through PLEs can vary greatly.
- Sometimes the experience occurs in an "aha" moment, where perspective or understanding is changed in an instant.
- Sometimes the PLE occurs over an extended period of time and it is identified as powerful only upon later reflection.
- Powerful learning often comes from an experience that is positive, but sometimes can come from a negative experience that later leads to learning that is positive in nature.

Some factors or characteristics of the learning approach that may contribute to PLEs emerged from these studies. The most common were:

- Participation in an authentic situation
- Hands-on approach to learning
- Meaningful relationship between the learner and a teacher/mentor or another individual
- Opportunity for reflection

Yet while these were the most common of all reported factors, they were not in themselves

prescriptive of a PLE. Over 720 factors that led to PLEs were reported in the first three studies alone and simply combining the most common factors resulted in a recipe for a PLE that did not fit a single report. The evidence to this point suggests that factors that produce a PLE are unique to each individual and/or special circumstance.

Overview

In this study we examined a different context in which PLEs occur in order to further investigate the causes and characteristics of PLEs. We conducted two sets of interviews with Suzuki music teachers who knew and worked with Shinichi Suzuki, the founder of the Suzuki approach to music education (described below). In these interviews we sought to explore questions that had arisen through previous research including a look at the role teachers play in promoting PLEs. Specifically, we sought to explore the following questions:

- What is the nature of a PLE in this context?
- Is the PLE less unique within this very specific shared context?
- What is the role of a teacher in promoting PLEs?

In the first interview, we asked the teachers about a specific PLE they experienced with or in relationship to Shinichi Suzuki. The second interview examined specific PLEs that the teachers thought happened in their teaching environments and explored factors that the teachers felt contributed to the likelihood of PLEs occurring with their students. This interview built on the outcomes of the first to help us explore PLEs in terms of their implications for pedagogy.

We describe methods and results of the two sets of interviews below. We conclude with a discussion incorporating previous research and look at ways in which PLEs manifest characteristics of complex systems. Specifically, we recognize that the conditions for powerful learning are more likely fostered by making in-the-moment responses, perhaps guided by heuristics, than by applying prescriptive principles. They appear to be co-created in a complex system and display what can be described as attunement and liminal thinking.

Experimental/Materials and Methods

The study involved a mixed methods approach, in which qualitative data were gathered through the two rounds of interviews, themes emerged from an *in vivo* coding method, and frequency of data in themes was interpreted to be one indicator of importance.

The Participants

We chose the interviewees out of a pool of participants in a legacy project undertaken by the Suzuki Association of the Americas. In that project, people who had personal experiences with

Suzuki were interviewed with the purpose of keeping his legacy alive. We further selected interviewees from this pool based on their ability to participate (a number are now quite elderly or have died) and their access to email for communication. The age group ranged from about 40 to 80 years old and no younger because much of the access to Shinichi Suzuki was limited in the late 1990s, and the people who had contact with him in a meaningful way were necessarily of this age group. As a result, all of the participants had many years of teaching experience, many over forty years. All of the participants were from the United States and Canada. There were nine women and two men interviewed. Ten teachers were interviewed twice, and an eleventh once.

Methods

The first interview (see Appendix A) explored experiences that participants had as they were initially exposed to ideas of Shinichi Suzuki. First, the definition of a PLE (cited above) was shared to inquire if participants felt that they had indeed had one or more PLEs. Then participants were asked to describe one PLE that stood out. Subsequent questions probed into what that experience had involved before, during, and afterward, and when it had been recognized as powerful. Participants were then asked what had made the experience so powerful, and the interview concluded with a series of questions that were intended to reveal how the experience might be characterized as simple or complex.

The second interview (see Appendix B), conducted approximately one month after the first, shifted perspective and asked participants similar questions about PLEs they had seen or experienced as teachers.

Both interviews were conducted and, with participants' permission, recorded by telephone. They were semi-structured, which allowed consistency of questions along with an ability to flexibly engage in natural conversation. This allowed each participant to explore subjects in depth appropriate for that moment (Lincoln & Guba, 1985; Neuman, 2000). The first and third authors then independently listened to each audiotape and made detailed notes, frequently pausing and replaying the tape to capture the exact words of the participants. The notes thus represented quasi-transcriptions, shaped by the authors' judgment regarding salience (Stake, 1994). The two authors proceeded to highlight on their notes what they considered to be the essential points made by the participant. At that time essential points were transferred to a table that summarized responses of all participants. The table was constructed by the first author and then the third author compared the essential points from his notes to the table entries, adding a second entry to any cell where points were not identical. In this way, coding began with an *in vivo* method, staying as close as possible to participants' own words prior to identifying and labeling larger patterns (Miles, Huberman, & Saldaña, 2013).

The authors then engaged in multiple conversations in which they examined similarities and

sought to account for differences in the individual cells. Finally, they compared the cell entries for each question looking to see where themes might or might not emerge, then examined the table holistically for any additional insights. For example, they sought means to cluster interviewees and/or responses into meaningful categories. Questions and responses were added to the table and examined in a similar manner, and a set of summary statements/tentative conclusions were drafted. As an additional step to enhance trustworthiness (Lincoln & Guba, 1985), a final check was performed by the first author, who re-listened to the audiotapes with an ear toward any instances in which analysis may have led to conclusions that strayed far from the original data. These were shared with the third author, the analysis path was retraced, and conclusions were revised. The second author performed important parts of a peer review, interviewing the other authors with respect to methods, results, and overall coherence of the study, then revised and completed sections of the manuscript.

PLEs in Relationship to Other Learning Constructs

Powerful learning experiences have a number of similarities and differences with respect to other constructs and theories of learning. Learning that is "powerful" is said to lead to important change in one's beliefs or views, or to special knowledge or skill that changes how one thinks and acts over time (Brandt, 1998; McPhee, 1996). The similar construct "meaningful learning" (e.g., Kember, 1991) tends to connote something that is not as unique— any learning that leads to rich and deep understanding in a domain. Likewise, "understanding" implies learning that reaches higher-level goals (e.g., Gardner, 1999; Perkins & Unger, 1999; Reigeluth & Squire, 1998).

PLEs share characteristics with a number of psychological constructs that go beyond or are not focused specifically on learning, such as peak experience (Maslow, 1971), peak performance (Privette & Bundrick, 1997), the sweet spot in time (Jerome, 1980), and flow (Czikszentmihalyi, 1993). For example, previous studies of PLEs have revealed the common occurrence of heightened emotions and liminal states (Rowland & Wilson, 1994), in which perceptions of time are altered, much in the same way as the cited authors describe peaks in sport and other contexts.

PLEs, on the other hand, involve impact on one's thoughts and actions over time, which is not, at least not by definition, the case for these other constructs. PLEs are particularly similar to "pivotal, memorable" experiences that may happen in informal museum settings (Perry, 2002) and "transformative learning" (Wilson, Switzer, Parrish, & the IDEAL Research Lab, 2007; Wilson, Parrish, & Veletsianos, 2008). The latter is often defined to include a particular staged process of learning (Mezirow, 1991), while PLEs are not limited in this way.

Previous studies of PLEs (e.g., Rowland, 2008) have found strong connections to

constructivism (e.g., Piaget, 1957; Bruner, 1960) and collaborative constructivism (e.g., Garrison & Anderson, 2003). According to the constructivist view, learners construct knowledge in unique ways relating to their individual interpretations of experience. Collaborative constructivism emphasizes meaning that is made through activity in social contexts.

Tentative links have also been made between PLEs and the nature of complex systems (Rowland, 2008). PLEs may be emergent phenomena, resulting from the non-linear interaction of many components (e.g., Gleick, 1987; Morowitz, 2002).

The Suzuki Approach
The Suzuki approach to music education has a particular philosophy, which all of the teachers interviewed have embraced.

Shinichi Suzuki was a violinist in Japan, who found inspiration in the ability of children to readily learn to speak their native language. While others before him had taken note of this ability, he was the first to take certain principles of learning one's language and apply these principles to another field of learning. He chose music, but often said that the principles could and *should* be used for any learning.

The main tenet of what he called the "Mother Tongue Method" is that every child can learn his or her language. We in society expect that all typical children will speak their own complicated language fluently, and with the accent of the native region. This led to his assumption that every child has the capacity to be a fluent musician if provided the same environmental opportunities as with learning language. Branching off of this idea was his belief that every person has potential far beyond what she or he may actually achieve or realize.

Suzuki then took a variety of principles of learning one's native language and applied them to learning to play the violin. These are:

- start young
- immerse children in the sounds of music
- maintain a positive approach to learning
- understand that everyone learns at his or her own pace
- develop close interaction with parents who encourage and help the learning
- include many social opportunities of playing with other children who share the same "language" of music
- slightly delay music reading so that the ear can be developed first
- keep all of the repertoire in use, just as words are used and built upon, not discarded

- build upon small steps for 100% success, and celebrate each small step

Although there are aspects of the method that include a set structure, such as a common repertoire (or "language") that is learned in a progressive order, there are commonalities with constructivism. The Suzuki teacher sees that the individual child and his or her unique understanding is the important goal, just as constructivists see that individuals take responsibility for constructing personally relevant understanding or meaning (Hannifan, Land, & Oliver, 1999). The Suzuki teacher, along with the parent, manipulates the environment so that it is more conducive to that child's learning. There is a give and take—or a co-creation— between teacher and child that becomes more and more present over time. It is not uncommon for a learning relationship to last from age four to eighteen.

Results

Interview I

The first interview was designed to help answer the question, *What is the nature of a PLE in this context?* By interviewing teachers who all experienced a PLE in a similar context, we investigated whether certain factors can be identified as constitutive of the experience across all or many participants.

Experiences

The participants were first asked if they had ever had a powerful learning experience in relationship to Suzuki and his approach. All eleven felt that they had. As in the previous studies, the PLEs varied in the timing of the realization about the importance of the experience. Six in the study felt that they had sudden "aha" moments. Of the six, one said, "I knew in that moment that I was a Suzuki teacher." Two people had initially negative experiences that became more positive discoveries over time. They both studied in Japan and experienced a period of frustration or bewilderment when they could not hear what Suzuki was hearing or fix a personal technical issue. The remaining three had positive experiences that became PLEs with time. The PLE that took the longest time to be realized was with a teacher who was a young girl when she studied violin with Suzuki in Japan. She was the only one of all the participants who did not have a strong experience to report from the actual time with Suzuki or during the introduction to his approach, which may be because she was so young at the time and the memories were not as accessible to her. In adulthood she came to a very slow realization that her teaching bore a sharp similarity to his.

Prior to PLE

We asked the participants about their state of mind before the PLE occurred. Going into the situation one participant had no expectation, two had no intention of ever teaching, one person

was negative and ready to leave the situation, one stated that s/he was hoping for a PLE while two others implied the same, two came to the experience "with great anticipation" and ready to pursue a "teaching passion," and the last "knew" that s/he would have a PLE. Coming into the situation, eight of the eleven felt a type of dissonance inside or outside of themselves that was transformed through the PLE. Of these eight, four mentioned a deficit in their playing, two reported bad past experiences with "traditional" (non-Suzuki) teachers, one felt that s/he was looking for acceptance, and one saw deficits in society in general.

During the PLE
The initial PLEs included a variety of manners of initial exposure to the Suzuki teaching philosophy. Four of the participants experienced their PLE with Shinichi Suzuki in Japan, one read a key statement in a book, one saw a Suzuki group on television, one heard Suzuki deliver a speech, and four attended workshops with Suzuki clinicians other than Shinichi Suzuki. Here we found it worthwhile to place the data into three categories: factors, impetus, and unique meaning. From many factors mentioned, some broad categories emerged that the participants felt contributed to their PLE (see Table 1):

Table 1

Emergent Categories that Contributed to Participant PLEs

Frequency	Factors
6	Suzuki, the man himself
6	Another mentor
4	The philosophy/method as a whole, or a specific aspect of the philosophy
3	The children who demonstrated beautiful playing
3	The participant's own playing or teaching
3	Reflection over time
2	Space to experience personal discovery
2	Emotional component
2	Tone—the beautiful sounds that they heard as an emphasis of the method
1	The Eastern approach to learning and being
1	Someone else's feedback

Impetus
Another way to examine the PLEs was to look at the specific impetus that the participants saw as a spark to their PLE. These varied greatly:

- A sentence that was spoken by Shinichi Suzuki
- A clip from a television show

- Seeing Shinichi Suzuki teach another person
- Hearing the tone
- Seeing the children play
- Seeing that this method/philosophy had ramifications for world peace
- Being accepted
- Seeing how the method related to another methodology
- Seeing teachers other than Shinichi Suzuki work (3)

Unique Meaning

No matter what the circumstances, the PLE had deep meaning and emotional content for each individual. Some words and phrases used were:

- I was walking on clouds.
- I was transfixed.
- My mind was going a mile a minute as if a door opened and you glimpsed something you hadn't even thought possible.
- The experience resonated with me; there was a profound shift, a big bolt.
- I knew; it was real and tangible.
- I knew right away; I called Mom; I was slightly confused and skeptical; I was excited but it was a scary beginning.
- It felt very intense.
- Every single detail was so vivid in my mind; I was meant to be there.
- There was first frustration, and then a body of interactions over time gave surprising impact; I absorbed full to overflowing.

After the PLE

In all cases except for two, the teachers had not intended to become Suzuki teachers. Some actively did not want to become teachers or they did not think that the Suzuki approach was for them. Instead, the plan evolved for them out of the PLE, sometimes quite dramatically, with their life changing in front of their eyes. Afterward, participants each felt compelled to follow a path that was revealed to them in the PLE. Individuals stated:

- The experience shaped my teaching.
- This was a new field – way wider than I knew about or expected.
- Every day the experience with Suzuki replays.
- This has become a calling, a life; In 44 years I have never deviated.
- It changed everything about the way I think and play; suddenly there was great openness.

While all participants spoke of the changes they experienced in their perception through the PLE, they also spoke about how they came to know themselves and their path more fully. This realization points to the paradox of being transformed while simultaneously solidifying their identity; in other words, becoming more themselves. Leading us in a direction that we will describe below, this paradox is a characteristic of the emergence of systems at higher levels of complexity (Stacey, 2001; Waldrup, 1992).

Additional factors

We asked participants which factors were present during the PLE but not constitutive of the experience, in other words, which could be subtracted without changing the nature or possibility of a PLE. Participants had difficulty identifying aspects of the experience that could have been absent, even when prompted with potential examples. On the other hand, while some people felt that Suzuki himself was key to their experience, others felt that he could be absent if his approach remained. To be clear, though, ten of the eleven participants said that they could not remove an important mentor—Shinichi Suzuki or another—from the experience.

Interview II

The second interview asked these same teachers about specific PLEs that may have happened in their teaching environments and the factors that may have contributed to the likelihood of a PLE occurring. While we asked about PLEs, we recognize that there has been no conclusive evidence that one can recognize a PLE in another individual through direct observation or analysis. The instructors in this study were clearly able to identify PLEs in their own learning, and we asked them to speculate about occasions they observed in their teaching where a similar experience may have happened for a student. Whether these experiences actually were PLEs for the student is not answered here. However, the insights gained in the research may still help us develop heuristics for PLEs as a contribution to pedagogy.

Powerful Learning Experiences with Students

There was a wide range of reports in answer to the question, "Can you think of a time as a teacher when a PLE occurred?" We purposely kept this question broad—not specifying who was having the PLE. Some recalled specific examples and some preferred thinking in terms of types of PLEs that they considered common in their teaching. The specific examples that the teachers identified unfolded over varying amounts of time, from instantaneous realizations to learning insights that took months to develop. When "aha" moments were mentioned, it was most often pointed out that these moments were prepared over time, that there was an accumulation of knowledge that led up to the moment, or that the question might simmer for a long time with the answer coming in a flash.

There were mixed responses to the question of how often PLEs happen in conjunction with that teacher's teaching. Some examples were:

- We are surrounded by PLEs all the time; I just may not be in the right frame of mind to recognize when flashing by.
- They are happening all the time; I put students on the road so there is no other possible outcome.
- Daily or weekly, certainly.
- No breakthroughs, they are prepared over time.
- Sometimes they may not remember them later, but they are powerful just the same.
- Many times it happens right then—the stars line up—I say the right thing and it happens in a split second. Other times there is reflection on the long-term growth process. This is possible because we have a long-term relationship.

Recognition of PLEs
Next, the participants were asked if they could recognize a powerful learning experience in their students. Again there was a mix of responses. Of the ten people interviewed, six had a surety that they could see them, one said that instructors are guessing, but proceeded to talk about what s/he sees, and three stepped back from stating that they could recognize a PLE in another. Two of these three mentioned that that they focus only on themselves in terms of recognizing a PLE. Still, all ten were able to report on what appeared to be PLEs in their own teaching, or at least powerful in that particular moment/context.

Aspects mentioned when seeing a PLE in another were high emotion, brightening eyes, display of changes over time afterwards, and immediate physical change and recognition of the change by teacher, student, and often parent. Four people mentioned seeing the playing of the musical instrument change more globally—seeing aspects of the playing change or broader understanding happen.

If the teachers themselves recognized a PLE while teaching, they most often mentioned that they then used this new information later on in their teaching, generating experience and expertise from PLEs along the way.

Expectation and Promotion of PLEs
The general feeling of the teacher participants was that the potential for PLEs to happen with their students was always present, and was in fact why many of them have stayed teaching for so many years. Of the ten interviewees, six actively expect and promote PLEs. One said that s/he "very carefully orchestrates" and another said that s/he promotes through empowering the student. Three did not have a PLE as a goal but reported that if they are awake, alert and notice

them, they are delighted when they happen. One focused totally on self and did not try and determine if a PLE occurred in anyone else.

Possible Causes of PLEs

When asked about the factors and conditions that contributed to the likelihood of a PLE occurring, participants had a wide range of responses. We asked this in order to determine if the teachers had a sense that certain factors would cause a PLE more than others. Their responses indicate that teachers, just like learners, talk about the experience of a PLE within a tremendously wide range of attribution. Below is the full report of responses, grouped into three categories for discussion purposes: Role of the Teacher; Role of Interpersonal Relationships, Personal Participation, and Atmosphere; and Suzuki Philosophy. Note that some of the factors could fit into more than one category.

Role of the Teacher

When asked about the possible causes of PLEs, the majority of factors that participants cited were qualities of teachers or teaching (See Table 2).

Table 2

Qualities of Teachers or Teaching as Possible Causes of PLEs

Frequency	Factors
6	Heightened sense of awareness/receptivity
5	Scientific approach (e.g., trial and error over time leading to accumulation of knowledge that leads to the experience needed to know what to do)
5	Quick decisions; spontaneous analysis/instinct/"unconscious confidence"
5	Having a plan, developing a plan
5	Presence of emotions and ability to convey them, particularly caring towards student, but also in terms of love of music, power of music
4	Instinctive knowing (e.g., intuition, gut feeling, hunch, "I just know
4	Expert knowledge of material/structure
4	Ability to gauge feelings
4	Tools/scripts
4	Feedback
4	Enthusiasm
2	Self-knowledge
2	Flexibility
2	Teacher "becomes child" (i.e., a strong empathy for the student)
1	Humility
1	Leads the feeling

1	Process-oriented, not end goal oriented
1	Ability to stay out of the way
1	Empowering
1	Use of "correct" questions
1	Encouragement
1	Conveying importance of particular work being done
1	Keen observations of motions
1	Ability to give good examples

It is clear from this list that participants saw a number of teacher qualities or pedagogical practices that can promote PLEs. At the same time, there was no consensus on the degree to which the teachers felt they were responsible for a PLE happening. We asked, "What percentage of the PLE possibility is in your hands?" This question was not easy for all to answer, and the responses again varied. Three of the interviewees answered with high percentages. Of these, two said 90% and the third said, "a very, very high percentage." Within this same group, one person attributed the high percentage to his/her enthusiasm, while another cautioned that sometimes enthusiasm is a false replacement for excellent teaching. Other teachers signaled a difficulty in answering this question. One could not answer—implying that it was not applicable to him/her, and two could not give a percentage because of a belief that it is up to the student. Comments from these two were, "It is up to the student to practice once they walk out the door" and "I am not worried about the percent. The child does the learning and the teacher cannot make a PLE happen. If I cannot measure or cause it, then the things I can control are what I think will be powerful for me." Three teachers answered with 50-75%, but added that these numbers could change depending on whether they *include* environmental factors as part of their responsibility (in which case they gave a higher percentage) or, *exclude* environmental factors from their responsibility (giving a lower percentage).

Role of Interpersonal Relationships, Personal Participation, and Atmosphere of Lessons
Throughout this program of research, interpersonal relationships have been cited as important. That trend continues in this study, as the single most cited factor contributing to a PLE was the relationship between teacher and student. The participants in this study also cited a number of other qualities of participation and atmosphere of the lessons that they considered to be possible causes of PLEs (See Table 3):

Table 3

Qualities of Participation and Atmosphere of the Lessons as Possible Causes of PLEs

Frequency	Factors
10	Relationship

6	Waiting for readiness (i.e., not in a hurry, waiting until the time is right)
4	Learner is open to learning
4	Positive interaction
2	Atmosphere of wonder and interest, leading to discovery
2	Reflection during the learning as well as afterwards
2	Student feels "high" from doing it well, emotions
2	Trust
2	Atmosphere of openness – open to ideas, changes of plans, acceptance of the fluidity of the here and now
1	Space, similar to openness; a spacious feel to the teaching climate
1	Teacher/student are fellow explorers
1	Teacher changes along with student
1	Unique approach for unique person
1	Knowledge that a small influence can have a huge impact
1	Exploration
1	Student having the ability to participate in choices and decision-making
1	Clear mind
1	Present in moment
1	Engagement
1	Relaxed
1	Comfortable with mistakes

Many of the teachers pointed out the advantage of having a relationship with children and families that lasted over many years, so that a certain knowledge and trust could develop over time. The participants also mentioned that they needed to be authentic and open so that they can then implement many of the qualities of a lesson they felt contributed to a PLE. All of the teachers spoke in some way about the importance of the fact that they themselves are present in the moment and part of the experience.

Role of Suzuki Approach to Music
One of the reasons this group of participants was chosen is that the Suzuki method is built around a philosophy of learning that would seem to promote PLEs. As discussed above, the Suzuki approach to teaching involves co-creating learning experiences with the student in a positive, constructive framework. In analyzing the responses regarding the causes of a PLE, we isolated several that seemed to be especially attributable to the Suzuki approach (See Table 4):

Table 4

The Suzuki Approach as Possible Causes of PLEs

Frequency	Factors
6	Suzuki, the man himself
6	Another mentor
4	The philosophy/method as a whole, or a specific aspect of the philosophy
3	The children who demonstrated beautiful playing
3	The participant's own playing or teaching
3	Reflection over time
2	Space to experience personal discovery
2	Emotional component
2	Tone—the beautiful sounds that they heard as an emphasis of the method
1	The Eastern approach to learning and being
1	Someone else's feedback

Most of the potential factors cited as causing PLEs are integral to Suzuki education, including many that may spring from the long-term relationship. An additional element of the PLE that may have strong ties to Suzuki education is the presence of high emotional states and the conscious use of such states in teaching. Many of the participants were still outwardly emotional about their own PLE—sometimes in tears about an event that happened over forty years ago. There were also tears shed about more current PLEs that they experience in their teaching, many speaking humbly about the honor of the work. Some of the teacher comments gave clues to how they not only feel but use emotion:

- The teacher leads the feelings. The orchestra follows what I am doing and feels what I am feeling.
- I always need to notice if the group or child is emotionally ready to move forward.
- The best way to promote PLEs is for the children to feel and express themselves through music.
- If I don't feel/project how important it is to me, it doesn't happen. I enjoy the transmitting of this importance.
- I get high from doing it well.
- When a child feels what happens when you learn, you want more.
- I get extremely excited. I enjoy it so much with them—it is a dual excitement. I can cry right in the middle of a lesson. It is a deep experience and they know they have moved me.

Although the roles that emotion and Suzuki philosophy played for the PLEs studied in this

paper were not direct research questions, the participants volunteered testimony of their importance. This topic merits further study.

Additional Factors

When asked if any factors could be subtracted, teachers mentioned lesson plans, expectations in the moment, and their own ability to play certain pieces being taught. In answer to this same question of what could be subtracted, some teachers offered what could *not* be subtracted. These included relationship, repeated practice of idea so it could stick, plans and strategies, keeping the encounters positive (not scolding), openness on the part of learner, support from parent, space and trust, and time.

Discussion

As in the four prior PLE studies, the strongest pattern found is, in fact, the lack of a cohesive pattern and the uniqueness of all contributing factors. Interview I was designed to examine the powerful learning experiences that teachers of the Suzuki Method experienced during their initial exposure to Suzuki and his ideas. From these results we can see that even within a cohesive group of learners no single factor or set of factors can be directly linked to the PLE. In almost all of these cases the nature of the PLE can be described generally as relational, intrinsic, authentic, and reflective, and yet the reported factors varied greatly and in all cases the factors interacted in an individual and unique way. This suggests that the study of PLEs may be limited if one attends solely to separate factors; more may be gained by studying them as whole, complex emergent phenomena. This idea will be addressed further in the upcoming sections.

In reflecting on their PLEs, many of the participants mentioned that their experiences became powerful because they were responding to some deficit they felt they had. Some form of block had previously kept them from fully engaging. The PLE was not on a continuum with previous experience; rather, something was amiss and the experience responded to this dissonance in a powerful way that had not been identified in any previous studies.

The second interview was designed to use the expertise of experienced Suzuki teachers to help us better understand the role of a teacher in promoting PLEs. We asked teachers to reflect on times when their students had experiences that appeared unique and powerful. In the course of these interviews, four key findings emerged:

1. Teachers did not agree on whether they can always recognize a PLE.
2. Teachers did not agree on whether they can promote a PLE.
3. The range of potential causes of PLEs cited was wide and varied.
4. Teachers agreed that interpersonal relationships are a key component of PLEs in

this context.

Despite the fact that teachers offered a high number of potential factors that contribute to the PLE, none emerged as directly causal across multiple cases. Rather, this study and all previous studies point toward PLEs being highly unique and complex phenomena. It appears to us, therefore, that a continued search for common, independently causal factors will not be productive. Several concepts have emerged, though, that we believe are on the path toward a better understanding of these transformative experiences.

The reflections and testimonies of the participants in these studies repeatedly alluded to the complex nature of the experience, particularly to a special state of mind and body in which everything seemed to come together. This special state has been called "liminal," it may result from "attunement," and both of these are consistent with descriptions of complexity in human systems.

Liminal Thinking

Liminal states are those where two ideas that seem contradictory are held simultaneously, and through that holding, a third state is created. Jackson (1990) calls this the state of "betwixt and between," and gives an example of twilight, which holds properties of both day and night, and has third properties of its own. Such states can be seen in design (Rowland & Wilson, 1994) and in leadership. Martin, for example, sees the idea of holding on to "two conflicting ideas in constructive tension" (2009, p. 7) as an important trait that innovative leaders share. He writes, "Integrative thinking shows us a way past the binary limits of either-or" (p. 9). Palmer (1998) also addresses either-or thinking, which he feels has given those in our society a fragmented sense of reality. He finds it profound to "think the world together" (p. 62) as so many of the Suzuki teachers seemed to say.

Participants in this study would often make contradictory statements in describing the causes of a PLE. The teacher-student interactions they described were not simple or straightforward but were taking place in that balanced third space between the contradictory assertions. A sampling of such statements includes the following:

From the data:

- Stay out of the way…. Relationship is the key
- Pre-prescribed plan…. Modify plan instantaneously
- Orchestrated…. Use intuition
- Solid background of instruction…. Freedom of spontaneous decisions
- Many variables not related to the teacher…. What I do sets things off

- Cumulative…. Something happens in that moment
- Fix now/get it right…. Let it go
- Expertise of teacher…. Not controlling, not *able* to control
- Quiet/open/listening…. Active and proactive
- Part of the whole…. Conscious of myself and my impact
- Giving…. Receiving

From Shinichi Suzuki:

- Vision for potential…. No expectation in the moment

What do these seemingly paradoxical statements mean? First, we find it informative to think of each as a single liminal state, difficult as it is for our western culture to embrace this type of thinking. Secondly, it seems to be one way to attempt to embrace the complexity that is revealed in PLEs. And thirdly, the statements are a caution that a simplistic view of teaching/learning is not an answer to reaching an understanding of what is truly happening within the relationship between student and teacher.

Attunement

Many of the factors brought up by the teachers involve intangible ideas that contribute to an open response of the teachers to the children and with the children. This openness seems to allow unfiltered information to reach both the teacher and student, making PLEs more likely. As one participant said, "I am getting cues from everything—what I see, hear, and sense. I then take direction from those cues."

Psychologist, Carl Rogers (as cited in Griffin, 2009) looked at "necessary and sufficient conditions for personality and relationship change." These included three principles that needed to be perceived by the client:

- Congruence – the match between inner feelings and outer display; the counselor is genuine and real
- Unconditional positive regard
- Empathetic understanding—the skill of entering someone's world as if our own

Although these ideas came from a therapeutic setting, Rogers felt they were just as important in all interpersonal relationships (Griffin, 2009, pp. 49-50). Rogers' ideas subsequently evolved into the work of Psychoanalytic Therapy and Integrated Psychotherapy (Stern, 1985), and generated the term attunement. Attunement seems to encapsulate many of the intangibles about which the teachers in this study spoke.

Attunement begins with empathy. Empathy means being metaphorically in someone else's skin. As one participant teacher reported, "I *become* the child." Attunement then takes the moment beyond empathy, to finding a resonating response. In fact, the word *resonate* was used several times in the interviews. Participants described a particular kind of involvement and presence, coupled with a response that resonated or perfectly matched the uniqueness of the child and the situation/moment.

Attunement behaviors "recast the event and shift the focus of attention to what is behind the behavior, to the quality of feeling that is being shared" (Stern, 1998, p.141). Most of the teachers reported the sharing that happened in the relationship with their students, which went far beyond simple teaching technique and basics of teaching the musical instrument. This ties in with the intuitive nature of the teaching experience that many noticed. As one participant noted, "It is a gut reaction. I just get a feeling, I just know." Another said, "You think of saying the right thing and luckily it all comes together. The stars line up. You have the opportunity to do the right thing in a split second for a tremendous result."

Complexity

Given the contra-indication of common factors, and the relevance of ideas such as liminal thinking and attunement, we believe that PLEs and/or the means to promote them will be better understood as complex. By complex we mean emergent phenomena that are unpredictable, nonlinear, and sensitive to action in the moment. Teachers and students having PLEs can be thought of as complex adaptive systems—diverse agents that learn, interact with each other in multiple ways, self-organize, and co-evolve with their environment (McDaniel, 2007). The qualities of openness, receptivity, and engagement cited by teachers in this study make this possible. And teachers responding to the uniqueness of each child, each interaction, and each relationship can be seen as "complex responsive processes in the living present" (Stacey, 2001). We believe that exploring PLEs through the lens of complexity in future studies has great potential.

Conclusions

Although the purpose of this descriptive study was not to prescribe pedagogy, we do suggest areas for further research based on our findings.

In this study we learned that even when learners experience a PLE in the same context, their PLEs cannot necessarily be traced back to a set of core common factors. PLEs appear to be highly unique phenomena, and we recognize the need for a different approach for capturing this uniqueness. The research methods up to this point have involved a search for distinct factors whose presence will make a PLE more likely to occur. As Elliot Eisner writes in his

essay, *Artistically Crafted Research* (1998), "… artistically crafted work achieves many of its effects by virtue of the relationships…. Collectively, these relationships display a sense of coherence, a holding together that is so well integrated that a discussion of 'parts' of the work seems awkward. In organic systems there are no parts, at least not independent ones" (p. 152). Perhaps an approach based on narratives would better serve this type of investigation. There are constructs here that are clearly worth further research, and a narrative approach, such as gathering stories from students' and teachers' perspectives (e.g., Visser & Visser, 2000), may help us to understand these constructs better.

We have seen across all the PLE studies that the attempt to look at people's experiences that are more and more similar in terms of who they are or the surface level nature of the learning environment have not resulted in common factors, attributes, or causes. In this study with the most similar group ever, that trend continued. This leads to stronger support for the conclusion that PLEs are complex and highly individual. Future investigations using the narrative approach may take us further in our understanding of these whole, complex, emergent phenomena.

One result that was new in this study was the notion of a deficit or dissonance present in the individual prior to the PLE. Here we saw that the PLE responded to that deficit in a profound and personal way. We also considered for the first time the role that emotion, music, and the Suzuki method might play in the promotion of PLEs. It is clear that there is a strong relationship between the deep respect for the child that is a foundation of Suzuki education and the attunement involved in many PLEs. Since these ideas all came up organically from the interviews, a future examination of these specific attributes could be fruitful.

Finally, this was the first time we spoke with teachers about learners' experiences and this conversation opened up space for further inquiry into how we might be able to promote PLEs. For example, are there skills related to liminal thinking and attunement that teachers could develop and consciously employ? Would they be able to more accurately probe, sense, and respond to students' mental, physical, and emotional states as a result? Perhaps simply having a knowledge of these terms and their meaning would move us towards more understanding of the complexity of Powerful Learning Experiences.

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Appendix A

Interview #1

We are looking at powerful learning experiences in this study. Our definition for this is:
Learning experiences that stand out in memory because of their high quality,
their impact on one's thoughts and actions over time,
and their transfer to a wide range of contexts and circumstances.

Did you experience a powerful learning experience in the context of working with Suzuki the man, or the approach? (If yes, proceed.)

I will be asking some specific questions about what you consider to be factors involved in your powerful learning experience, but first, could you describe your experiences with Suzuki: the man, the approach, and whatever leads you to make a connection to powerful learning?

Others in our studies have suggested that circumstances that *preceded* the experience may have contributed to the experience. Do you feel that was the case for you? Describe this in as much detail as you can. Do you feel there were factors of setting, or other conditions, internal or external (e.g., your own mental state or preparation) that contributed? Did you know you would have a powerful learning experience before it happened?

Now please describe the ***actual*** experience in as much detail as you can.

How about *after* the experience? For example, what has it come to mean over time? What consequences has the experience had for you?

When did you first know the experience was or would be powerful?

What was it that made this experience so powerful? If any of these factors were **changed** in any way, would that have changed the experience?

Next I am going to give you some opposing descriptions, and I would like you to let me know how these descriptions relate to your experience.
• gradual, little by little additions of knowledge **vs**. sudden and large leap in understanding
• clear and predictable methods leading to a clear and predictable outcome **vs**. result of a unique combination of factors in the moment
• similar to the way bricks contribute to a wall, one added on top of another to build the wall higher, the *parts* contributed the experience vs. the parts came together and
 (interview #1 continued)
• interacted with each other to produce far greater impact, like when gasoline and oxygen combust in an engine
• the experience occurred according to a predetermined plan **vs.** the plan came from the process

Appendix B

Interview #2

First, I want to ask you if you have had any thoughts about powerful learning experiences since we talked a month or so ago.

This time we are going to talk about powerful learning experiences from the vantage point of you as the teacher. We are going to look at three aspects of PLEs.
1- What happens when PLE occurs and how is it different from normal/typical learning?
2- Why does it happen? What is involved?
3- How can we influence teaching or learning in the future?

Can you think of a time as a teacher when a PLE occurred? Tell me about it.

[If they have trouble thinking of a specific time, ask about it in general terms]

*Who do you think the experience was powerful for? Was it solely that of the student, or did others in the room experience something different from the norm as well? What do you think happened? Describe everyone in the room and what you think they experienced. How would you describe your role? How about their roles? How did this compare with a normal lesson?

[what about the experiences make them stand out for you? Who do you think is experiencing PLEs in these circumstances? Tell me about what you think is happening during these times.]

*Why do you think it was powerful? (You can think broadly and specifically, possibly taking into consideration the people, the preparation of the student and/or you the teacher, the atmosphere, the method itself, the decisions you made, the mood of the room etc.)

[Is there something that you do when these experiences happen? What is your role? What other factors are in place when these experiences happen? What is the atmosphere or mood of the room like? Are there tangible factors? Are there intangible factors?] What aspects of the PLE possibilities are in your hands? In the students hands?

*When did you get a sense that it was powerful?
[When do you know that the experience is or was powerful?]

*Were there moments where there might have been different paths to take and you decided to take one rather than another? What led you to make the decision(s) that you made? With what consequences?

[Are there times when there might be an opportunity to go down one path or another? How do you know which path to take? What leads you to make these decisions? What are the consequences?]

Do you seek to promote PLEs in your teaching? Is this a goal of yours? In general, what do you feel is responsible for them taking place? What percentage of the PLE possibility is in your hands (if any)? What are the factors that must be in place? What factors could be subtracted?

Anything else you would like to add? Feel free to send me an email or call if you think about something more in the next few days.

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