The Apple Trees School: adapting the developmental-interaction approach in South Korea

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Adapting the Developmental-Interaction Approach in South Korea

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Abstract

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Jeffrey B. Rogers

The Developmental-interaction approach is both a philosophy of education and a framework for child development that originates from Bank Street College and Bank Street School for Children. In August 2016, one year from this writing, a team of educators will embark on adapting the approach to a new founded early elementary school in Gyeongsan, South Korea. This paper seeks to address the challenges and rewards inherent in such a project through examining critical issues such as intercultural competence and teacher relationships. Models of cross-cultural analysis are examined in light of their utility to teachers and school administrators. A sample second grade curriculum is presented as one example of the developmental-interaction approach in its positioning of social studies as the core of the integrated curriculum. Finally, the Korean education system is briefly examined with regard to the wider context of the Apple Trees School.
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The Apple Trees School:  
Adapting the Developmental-Interaction Approach in South Korea

**Introduction**

In August 2016, a newly founded Bank Street affiliate school will open its doors in Gyeongsan, South Korea. Staffed by a combination of American and Korean educators, the *Apple Trees School* will seek to adapt Bank Street’s developmental-interaction approach within a dual-language Korean context. In its first year, the school will serve children in kindergarten, first and second grades. As the initial group of second graders rise in the ranks and one day become middle school students, the school will grow with them. The school grounds will be located on the campus of Daekyeung University in the southeastern region of the country. The project is the result of the work of Virginia Casper, Director of International Initiatives and Partnerships at Bank Street College and a coalition of businessmen and academics from Daekyeung University.

I confess to having an interest in the school for a variety of reasons both personal and professional. To begin, I consider myself both a prospective teacher and prospective parent in the school. My wife Michelle and I currently raise our son in a bilingual Korean-American household. For some time now, we have mulled over the possibilities of returning to South Korea in the hopes that he will share our love for (and complex relationship to) the place we still call home. Before our marriage, Michelle and I spent three years teaching in Korea while living in Seoul. During that time we were grateful for opportunities to reconnect with her family, eat exquisite meals and travel throughout the
country. So it is in a larger sense that the Apple Trees School represents a union between two worlds I hold very close to my heart.

What we witnessed in the realm of education, however, was more often troubling than inspiring to us. Education seemed to hold a grip on society in a way that bore little resemblance to my own experience as an American. I can recall, for instance, walking home early on in our time there and crossing paths with a group of high school students having just been released from their mandatory study hall session at 11pm. Chief among the complicated reasons behind such a practice (a well-meaning policy I would learn), was Korea’s highly competitive culture of education, fueled in its own right by exceedingly narrow definitions of school success. These realities were deeply troubling to us, despite our awe in such a seemingly tireless work ethic among our students.

Teaching abroad allowed me to step back and appreciate how societies differ in their approaches to education. So much of what we saw in South Korea would be considered enviable by any international standard, such as broad initiatives in Early Childhood Care and Education like those lauded by UNESCO (2012). Many practices, however, were not among those we would wish to see recreated elsewhere.

My point is not to use the developmental-interaction approach as the basis on which to judge other schools in South Korea. What interests me about the Apple Trees School, rather, is the chance to witness how a group of educators will carry this theoretical approach into a wholly different country and adapt it to their practices in ways that I hope are ethical, compassionate and creative. Teachers and administrators will no doubt draw prodigiously from the Bank Street School for Children as the model of developmental-interaction. Bank Street’s website (2015) describes how the School
embodies all the principles of children's growth and learning that were derived from Bank Street's philosophy of progressive education, and demonstrates the "ideal" representation of that philosophy in action.

“Thus,” the writers continue, “the School is the standard by which the College evaluates and attempts to improve education in other schools” (emphasis added; 2015).

This positioning presents an interesting challenge to teachers at the Apple Trees School and raises an underlying tension between applying the theory with fidelity and reconstructing it to serve a new context. “When people develop a particular theory,” writes Miller (2011),

they take on a whole set of beliefs concerning what questions about development are worth asking, what methods for studying these questions are legitimate, and what the nature of development is. […] There are unwritten rules of the game that are very much a part of the theory as it is practiced (p. 5).

It follows that teachers working abroad are often forced to examine their own ‘unwritten rules’ and implicit assumptions about education, identity and culture. In this respect a newly founded school is necessarily a site of dialogue, collaboration and transformation. Teachers and administrators face a truly creative task in collectively establishing a new school’s identity. In the process, these adults play critical roles in outlining the school’s foundational beliefs and shared desires with respect to the wider community’s goals and values.

There are a number of reasons to be excited by this prospect and as many reasons to take pause and consider the challenges. A number of questions arise, with direct implications for teachers and, more importantly, the children we teach. What kinds of “culture shock” can we expect the students to undergo and how can we mitigate these
stressors? How will the “Bank Street” approach mold itself and adapt to the cultural, political and economic contexts of English education in South Korea? Where will the integrity of the approach be challenged most? Where will it be embraced with open arms? What will serve as the common bonds among the members of this community? Given the speed at which the school is scheduled to grow and the resulting in-flow of new teachers in its nascent development, many of these questions are destined to become long-term human-resource challenges and pose a significant test to school’s shared identity and sense of community.

Nager and Shapiro (2000) point out that while one of the historic foci of the developmental-interaction approach has been a *psychology of the person*, what was in need of more elaboration was a *psychology of the situation* (p. 23). Bringing the psychology of situation to the foreground, in their words, allows for a more generative “conceptualization of development that takes greater account of its dynamic relation with culture” (p. 23).

This paper proposes that a similar focus on *situation* is needed in the midst of applying the developmental-interaction approach to a new and global context. I have therefore settled on issues that I foresee will pose as challenges to the school and its community, not only in its opening year but for the years to come. First, I consider the role of culture and intercultural competence in an international school. I offer two examples of how teachers might come together and critically examine culturally-embedded issues of schools, teaching and learning. I then stress the importance of healthy relationships among teachers from diverse backgrounds based on mutual respect and recognition of each other’s strengths. Next, I offer a potential curriculum for the second
grade, wherein students examine their own identities and growth in the context of school and the natural world. Finally, I look at a handful of challenges posed by scholars both within and without South Korea and examine how teachers at the Apple Trees School may collaboratively navigate them.

Intercultural Competences

As the traveler who has once been from home is wiser than he who has never left his own doorstep, so a knowledge of one other culture should sharpen our ability to scrutinize more steadily, to appreciate more lovingly, our own.

*Coming of Age in Samoa*, Margret Mead (1928/2001, p. 1)

Often when people travel, we develop a curiosity and engagement with our surroundings akin to those typical among children in their everyday lives. When we travel we notice the little things overlooked by the locals, just as child does in an “adult” world. We ask questions in earnest that can sometimes sound a bit naïve. We puzzle over details and strive to make meaning. We readjust the impressions we have of people and places, and if we’re lucky, we readjust impressions of ourselves. In the 21st century, reflections on culture have become increasingly important, no matter how far we intend to travel. The task for all of us then is to maintain a curiosity and awareness of culture while at the same time striving to develop more sophisticated models to make meaning.

In UNESCO’s 2013 publication, *Intercultural Competences: Conceptual and Operational Framework*, the authors outline a number of competences and capacities increasingly necessary in the wake of globalization and ever-expanding diversity. The framers describe how intercultural competences aid groups and individuals to “adeptly
navigate complex environments marked by a growing diversity of peoples, cultures and lifestyles” (UNESCO, 2013, p. 5). The document goes on to outline the fundamental importance of these skills and provides vocabulary that seeks to expand capacities and increase awareness (UNESCO, 2013). The authors point out how schools are a “central place to nurture such skills and abilities” thus pointing to the critical role of teachers and school leaders. By extension, teachers in multicultural/multilingual settings need to be adept in these competencies not only for healthy interactions among adults, but as models of intercultural citizenship for the students.

Achieving the sort of intercultural competence described above requires real work, personal reflection and deep stores of patience. Despite its outward allure, much of the foundation of cosmopolitanism rests precisely on our own abilities to look within ourselves and less in our abilities to interpret and explain other cultures. There are no “off the shelf” solutions in this process despite the popularity of books with titles such as “Understanding the Mind” (a common genre in the English sections of many bookstores throughout East Asia). “Authoritative” accounts of cultures are all too often achieved through essentialism writes Kwek (2003), wherein within-culture diversity is minimized “by conflating the values, worldviews, and practices of some socially dominant groups with those of ‘all members of the culture’” (p. 135). This in turn “provokes an insistence of difference” (Narayan, 2000) which “often operate to conceal their role in the production and reproduction of such “differences” (p. 82; Kwek, 2003). Edward Said (1994) put it best: “No one today is purely one thing. Labels like Indian, or woman, or Muslim, or American are not more than starting-points, which if followed into actual experience for only a moment are quickly left behind” (p. 336). Teachers are thus wise to
consider, above all, the individuals in the room rather than direct too much attention on an overly emphasized or otherwise imagined “cultural difference” projected on a given situation. This in turn organizes the classroom around a dynamic notion of culture, “where culture is an interactional accomplishment rather than a stable trait of individuals” (Gutiérrez, 2011, p. 33).


> Cosmopolitans suppose that all cultures have enough overlap in their vocabulary of values to begin a conversation. But they don’t suppose, like some universalists, that we could all come to agreement if only we had the same vocabulary (p. 57).  

I propose that these three components—a shared vocabulary (UNESCO, 2013), an engagement in conversation and an acknowledgement that disagreements will occur—are critical to the long-term health and stability of the Apple Trees School as a ‘cosmopolitan’ project.

This conception of culture then is a point of departure, but by no means an invitation to retreat to relativist, “agree to disagree” positions if and when deeply ingrained cross-cultural conflicts arise. Despite its inherent challenges, the school must seek above all to adhere to the framework of the developmental-interaction approach if it is to call itself a “Bank Street affiliate school”. One might consider the approach at the
center of an inquiry-based communal discourse surrounded by issues of culture and educational practice. In order to achieve this, the community of teachers and school leaders must be unafraid of disagreement as to the theory’s articulation and application in a South Korean context. “For Dewey,” writes Pappas (2008), “the continued vitality of communal inquiry requires a ‘creative tension’ between its participants, rather than the harmony that comes from the consensus of homogeneity” (emphasis added; p. 245).

The Apple Trees School’s mission, in this sense, will be to learn to live harmoniously with ‘creative tension’. In a globalized world, areas for disagreement can be numerous with deep implications. In their UNESCO report Learning: The Treasure Within, Delors et al. (1996) describe many of the tensions within education in the twenty-first century:

- The tension between the global and the local
- The tension between the universal and the individual
- The tension between tradition and modernity
- The tension between the need for competition and the concern for equality of opportunity
- The tension between the extraordinary expansion of knowledge and human beings’ capacity to assimilate it
- The tension between the spiritual and the material (Delors et al., 1996, p. 15-16)

In an effort to overcome these tensions, the authors propose four pillars of education. Foremost among all of them is the pillar, learning to live together (Delors, 1996). Within this pillar one recognizes the cosmopolitan spirit espoused by Appiah (2006); “characterized by the ideals and practices of a shared humanity, a profound obligation to others, boundary crossing, and intercultural exchange in which difference is celebrated without being romanticized” (Gutiérrez, 2008, p. 149).
As models of intercultural competence then, I propose that teachers engage in *communal inquiry* as a method of problem solving and group discussion. At times when intercultural differences occur, teachers must *together* examine what effect certain “cultural norms” have on a given situation. It is critical that these norms be considered *carefully* in light of the efficacy of their explanatory power and the degree to which they play a role in creating the “differences” they purport to uncover. This may not always be an easy process but is well worth the effort. By addressing matters of culture realistically and explicitly, teachers can better address the goals and values of particular learning communities. In this regard, communal inquiry can be thought of as a tool that addresses disagreements while situating conversations around the position that cultures are “heterogeneous, dynamic and complex” (Raeff, 2010).

**Topics for Communal Inquiry**

In this section I examine two discussion topics worthy of intercultural communal inquiry with respect to their implications to the Apple Trees School. First, I address literature that purports to explain cultures in a far-reaching *grand narrative* and describe how teachers may critically apply such work to their practices. Second, I consider the role of language in a bilingual school setting and propose that teachers remain ever aware of its power.

**Hofstede’s Cultural Dimensions**

The Dutch social psychologist, Geert Hofstede has been widely cited for his theories of cross-cultural studies he developed while employed by IBM throughout the 1970s and 80s. With his 1980 publication *Culture’s Consequences*, Hofstede was
credited for promoting greater cultural sensitivity and awareness throughout IBM’s seventy plus subsidiaries around the globe (Hofstede, 2001; Kwek, 2003). In line with his emphasis of culture’s impact on international business, Hofstede developed “cultural dimensions” or indices (now numbering five in total) through which Hofstede claims it is possible to identify how a country ranks in various measures of “national culture” (2001; 2010). Each dimension is based on binary conceptions of rather complex ideas, such as “Individualism versus Collectivism” and “Masculinity versus Femininity”. Participants in each country answer surveys wherein responses are determined as scoring high or low in a particular dimension. In this way, countries may be ranked and contrasted to one another. In Figure 1, the United States and South Korea are compared within five dimensions, according to the Hofstede Centre’s website (2015).

Hofstede’s cross-cultural surveys on the topic of education (1986; 2010) offer teachers at the Apple Trees School further opportunity for discussion. While still working within a four dimensional model, Hofstede (1986) identified the traits and characteristics of teaching and learning according to the opposite extremes within each dimension. Figure 2 shows one such dimension, “Individualism versus Collectivism” as it is experienced through the beliefs and behaviors of students and teachers within a classroom. In this table, for example, Hofstede notes how in “collectivist” countries, a category South Korea falls under according to his research, “the student expects to learn how to do”, whereas in “individualist” countries, a category the U.S. falls under, “the student expects to learn how to learn” (1986).

Given the long history of Confucian philosophy on the Korean peninsula and the contrasting notions of “the individual” in American society, this dimension is clearly
worthy of conversation at the Apple Trees School. Nager and Shapiro (2000) point out that “core concepts of developmental-interaction, such as self and autonomy, are culturally embedded” (p. 28). Notions of individualism and collectivism are prime examples of the ‘unwritten rules’ at the heart of Miller’s (2011) earlier cited quote. Through engaging in intercultural communal inquiry, teachers and school leaders at the Apple Trees School can examine topics with respect to both developmental-interaction and the cultural context of Korea. In so doing, those involved in the conversation would be wise to avoid characterizing the debate in a polarized fashion, whereby South Korea is all collectivism all the time and America (and historically implicit goals within developmental-interaction) are its opposite. Nager and Shapiro (2000) point to a number of perspectives that may well serve as counterpoints to a reductive and polarized view of collectivism and individualism which include Vygotsky’s (1978) sociocultural perspective, Dewey’s perspective “social individual” (p. 31; Cuffaro, 1995) and Raeff’s (1997) argument that independence and interdependence are “inextricably intertwined” (2000, p. 29).
Power Distance Index (PDI): This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people. People in societies exhibiting a large degree of Power Distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low Power Distance, people strive to equalize the distribution of power and demand justification for inequalities of power.

Individualism versus Collectivism (IDV) The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of “I” or “we.”

Masculinity versus Femininity (MAS) The Masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented. In the business context Masculinity versus Femininity is sometimes also related to as "tough versus gender" cultures.

Uncertainty Avoidance Index (UAI) The Uncertainty Avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.

Long Term Orientation versus Short Term Normative Orientation (LTO) Every society has to maintain some links with its own past while dealing with the challenges of the present and the future. Societies prioritize these two existential goals differently. Societies who score low on this dimension, for example, prefer to maintain time-honoured traditions and norms while viewing societal change with suspicion.

Indulgence versus Restraint (IND) Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.
**Figure 2.** Cultural Differences in Teaching and Learning according to Hofstede’s 4-D model (1986).

<table>
<thead>
<tr>
<th>COLLECTIVIST SOCIETIES</th>
<th>INDIVIDUALIST SOCIETIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• positive association in society with whatever is rooted in tradition$^1$</td>
<td>• positive association in society with whatever is &quot;new&quot;</td>
</tr>
<tr>
<td>• the young should learn; adults cannot accept student role$^2$</td>
<td>• one is never too old to learn; &quot;permanent education&quot;</td>
</tr>
<tr>
<td>• students expect to learn how to do</td>
<td>• students expect to learn how to learn</td>
</tr>
<tr>
<td>• individual students will only speak up in class when called upon personally by the teacher</td>
<td>• individual students will speak up in class in response to a general invitation by the teacher</td>
</tr>
<tr>
<td>• individuals will only speak up in small groups$^3$</td>
<td>• individuals will speak up in large groups</td>
</tr>
<tr>
<td>• large classes split socially into smaller, cohesive subgroups based on particularist criteria (e.g. ethnic affiliation)</td>
<td>• subgroupings in class vary from one situation to the next based on universalist criteria (e.g. the task ‘at hand’)</td>
</tr>
<tr>
<td>• formal harmony in learning situations should be maintained at all times (T-groups are taboo)$^4$</td>
<td>• confrontation in learning situations can be salutary; conflicts can be brought into the open</td>
</tr>
<tr>
<td>• neither the teacher nor any student should ever be made to lose face</td>
<td>• face-consciousness is weak</td>
</tr>
<tr>
<td>• education is a way of gaining prestige in one’s social environment and of joining a higher status group (‘a ticket to a ride’)</td>
<td>• education is a way of improving one’s economic worth and self-respect based on ability and competence</td>
</tr>
<tr>
<td>• diploma certificates are important and displayed on walls</td>
<td>• diploma certificates have little symbolic value</td>
</tr>
<tr>
<td>• acquiring certificates, even through illegal means (cheating, corruption) is more important than acquiring competence</td>
<td>• acquiring competence is more important than acquiring certificates</td>
</tr>
<tr>
<td>• teachers are expected to give preferential treatment to some students (e.g. based on ethnic affiliation or on recommendation by an influential person)</td>
<td>• teachers are expected to be strictly impartial</td>
</tr>
</tbody>
</table>
Hofstede’s analysis of teaching and learning under the lens of cultural dimensions (1986) presents a variety of equally compelling topics for communal inquiry. Hofstede’s methodology is certainly not unusual in the field of sociology, however his critics largely take issue with the underlying grandiosity of its premise (Kwek, 2003; McSweeney, 2002). Quantitative data can be seductive in its ability to explain elaborate systems of human interactions and capacities. Just as teachers must be familiar with both the benefits and limitations of psychometric data (IQ tests, etc.), we must also be keenly aware when quantitative analysis overextends itself into realms more suitable to qualitative reflection. Perhaps the most outstanding flaw in Hofstede’s premise is the way in which it reduces complexities to manageable, but ultimately false dichotomies (as a Bank Street graduate I now recognize the nature/nurture debate as one example of such). Where this method of cultural analysis is dangerous is in its potential to reify the very traits it claims to uncover thereby engaging in a form of social and cultural determinism (Kwek, 2003; McSweeney, 2002). Despite this argument, certain aspects of Hofstede’s findings may well resonate with both Americans and South Koreans alike. However static and deterministic they may be, Hofstede’s dimensions may ring true for some and thus serve as provocative resources for intercultural dialogue and communal inquiry.

By critically examining works of cross-cultural analysis such as these, teachers are free to assess their personal validity and their implications on teaching and learning. In this way, participants in communal inquiry can better shape the bilingual/bicultural nature of the school community in ways both immediately personal and culturally responsive.
Language

Another realm worthy of communal inquiry will surely be the issue of language. Language, and its use in schools and beyond, is central to issues of power and culture. A dual-language school is at the forefront of these issues and as such its teachers must be critically aware of these realities. García (2009) has called upon teachers to consider the ways in which bilingual education regulates “the ways in which language is used, and establish hierarchies in which some languages, or some ways of using language, are more valued than others” (p. 141). She insists that these issues be interpreted through a framework of hegemony (Gramsci, 1971), a mechanism within which “people acquiesce to invisible cultural power” (2009, p. 141). In concrete terms, administrators at the Apple Trees School must not take on the view that time spent speaking Korean is time lost speaking English. Likewise, teachers (monolinguals especially) must resist the urge to overregulate student language by imposing arbitrary restrictions or compartmentalizing them into one or another class period. This is all the more important in the early years of second language development.

School administrators can draw from several models of bilingualism, each affording their own benefits and challenges. Tabors (1997) identifies three types of preschool educational settings in reference to language use. In a first language classroom, the primary language in the classroom is the same as the language spoken at home, which in our case means Korean. “Advocates of first-language classrooms…emphasize the importance of the development of the first language as a necessary basis for later literacy and consequently later school success” (Tabors, 1997, p. 4). In a bilingual classroom, teachers are bilingual, or each teacher speaks a different language with students. In this
model “each child’s first language is being supported, while a second language is being added, and children have second-language input from other children, not just from their teacher” (1997, p. 5). Finally, in an English language classroom, English is the primary language spoken even if children do not speak English at home. “These classrooms can be a more or less welcoming location for a child whose home language is not English, depending on how multicultural the curriculum is” (1997, p. 6).

With respect to the child’s navigation of language and culture, Giroux’s (2005) concept of border crossing may serve as an interesting analogy to aid teachers in keeping the perspective of the student at the forefront. This framework takes into account not only the shifts in language a student makes throughout the school day, but also the many shifts in cultures, whether specific to classrooms or those between school and home. As Shapiro points out, “Schools mandate not only what the child should learn, but also how, in what sequence and at what time he should learn it … Much of his competence depends on how well he can negotiate the school culture” (Shapiro, 1973). These crossings can be considered in light of Wasow’s (2000) discussion of family systems theory:

A family systems perspective sees the child moving between at least two powerful worlds: the world of home and the world of school. Each system has its own rules, rituals, norms, language, goals and objectives, and it is most often the child who becomes the message bearer between the two systems (Wasow, 2000, p. 276).

The hope is that, eventually, the school and the students will develop an integrated space where ‘borders’ are abolished. Along the way, teachers must maintain an awareness and sensitivity to language, whether directly through communal inquiry or remaining conscious of it in discussions of curriculum. In doing so, teachers will be better equipped to take on the perspective of their students with regard to their direct experiences, whether academic or affective.
Teacher Relationships

Classrooms at the Apple Trees School are being presently conceived within bilingual co-teaching model (Tabors, 1997), where Korean co-teachers work collaboratively with their American counterparts. Fluency of communication, a shared sense of purpose and trust in one another’s practice will be of crucial importance not only for the harmony of these teacher relationships but for the cohesion of the curriculum on the whole.

Korean and American co-teachers can benefit from one another’s wealth of experience and knowledge. American co-teachers, in their capacities as Bank Street College alumni, will have much to share by way of theory and practice. Korean co-teachers, likewise, will play critically important roles both with respect to the students and their American colleagues. Teachers are therefore wise to view one another as uniquely possessors of rich sources of information. In the diagram below, these two groups of teachers are identified by their strengths that can then be shared and built upon. Over time and with mutual support, however, teachers will expand their knowledge in both arenas and therefore enrich their capacities to collaborate.
Bernstein (1985/1972) noted, “If the culture of the teacher is to become part of the consciousness of the child, then the culture of the child must first be in the consciousness of the teacher” (in Levine, 2000, p. 101). Korean co-teachers, as speakers of the Korean language and powerful bridges to Korean culture, will be instrumental in the cohesion of the school. A theoretical framework, such as the developmental-interaction approach, provides “a starting point for working with children in a classroom,” write Nager and Shapiro, but it is certainly not the only source from which teachers should draw (2000):

The children themselves, their families, and the community are also resources for the teacher and for each other. Knowledge of the children’s culture and community can help teachers to link students affectively and cognitively to school learning, thereby connecting school learning to out-of-school learning (p. 31).

It is hard to underestimate the critical importance of Korean teachers in this regard. Just as teachers in the U.S. may make different observations about children based on their own backgrounds, Korean co-teachers will surely see children from many viewpoints. Their voices will be key.

Given Bank Street College’s emphasis on the importance of possessing for oneself a philosophy of education, American teachers will have much to contribute by
way of situating their practices in the classroom within broader theories of education.

Nager and Shapiro (2007) proposed that possessing a philosophy of education is one of the five principles of developmental-interaction, providing a “synthesizing framework for teaching”:

> Underlying decisions about all aspects of curriculum is a point of view about the nature of knowledge and knowing, teaching and learning, and a vision of what children should know and be able to do, what kinds of people teachers and children can become, and what kind of society is possible (p. 32).

While individual teachers may have differing philosophies of education, the mainstays of the developmental-interaction approach will be found throughout the curriculum and decisions made around the school. As its name suggests, the approach draws mainly from two separate but interlocked concepts:

- the changing patterns of growth, understanding, and response that characterize children and adults as they develop; and the dual meaning of interaction as, first, the interconnected spheres of thought and emotion, and, equally, the importance of engagement with the environment of children, adults and the material world (Nager and Shapiro, 2000, p. 11).

Over the decades, the theory has been reexamined in light of the momentous developments in the fields of psychology, cognitive development and theories of education. The fact that the theory has, at its core, remained both internally consistent and broadly applicable is a testament to the belief held by Lucy Sprague Mitchell and others that a holistic view of children must be at the foundation of any education practice. As Vascellaro (2010) has noted, “we are always teaching the individuals in front of us […] who they are and the curriculum are not separate entities (p. 391)”. This view in turn led the theory in expansive directions, rather than limit itself to one domain of development. “Our approach,” wrote Barbara Biber and her colleagues (1952/1942), “has more in common with the problems and methods of ecology, of regional studies, of topological
psychology, than it has with the approach which led to the development of intelligence scales on the basis of age norms” (in Nager and Shapiro, 2000).

A further foundational tenet that runs throughout the approach stems from Lucy Sprague Mitchell’s conviction that “the best way for children to learn about the world is to explore the familiar deeply” (Field & Bauml, 2014, p. 95). According to Mitchell, learning is best facilitated by allowing children equal opportunities in meaningful exploration through modes of connection both receptive and expressive by nature. It is therefore the teacher’s job to ensure avenues for these two domains, or what Mitchell termed the “input” and the “output” (1934/2001), to interact among one another and with the wider world. Field-trips, geography, and texts are stirred to life through active inquiry: a process that is both student-centered and teacher enriched. Active inquiry is then reciprocated with active reflection through imaginary play and block building in younger children, as well as art, drama, discussions and other forms of expression in later years.

Second Grade Curriculum:

Promoting Curiosity with “Who am I/Who are we?” Questions

The following can be thought of as initial curriculum ideas for the second grade at the Apple Trees School. These ideas are meant to serve two purposes: promote student curiosity and invite the oldest students of the school to begin asking questions that seek to understand the community as a whole. The overarching goal of the unit is to promote student questions based on student curiosity and invite students to examine growth in their own lives and the lives of their peers alongside similar topics in life science.
Activities in a “Who am I/Who are we?” unit may serve as an opportunity for students to consider their lives in light of the radical changes of their new school, as well as connect these ideas to the process of growth in the natural world.

Curiosity and inquiry are essential components in any social studies curriculum (Banks, 1999). Literature is one tool among many to promote these behaviors in the classroom. Read-alouds of picture books involving curious main characters may be followed by whole-group activities in which students generate strategies to be “Curious Students” or “Investigators” or some such title. Following these discussions students can create a “How to be a Curious Student” classroom resource, wherein teachers can elicit ideas that illustrate the following ideas:

- “Curious students ask questions”
- “Curious students are patient: they come back to their questions again and again”
- “Curious students understand that good questions often lead to more questions”
- “Curious students do not settle for easy or quick answers”
- “Curious students have faith that there is always something on the other side of their question: it might be an answer and it might be another question.”

A teacher can then hang this poster in the class and accompany it with illustrations done by students. It will then be referred to throughout the school year.

There are a number of appropriate literacy resources to engage students in creative thinking. Two of my favorite titles are *Tillie and the Wall* (2010) by Leo Lionni and *A Penguin Story* (2008) by Antoinette Portis. *Tillie and the Wall* is the story of a mouse who follows her curiosity to discover what lies on the other side of a giant wall. In *A Penguin Story* the main character, Edna is convinced that the world consists of more than just three colors: "There is white ice for sliding,' says Edna. 'There is black night for..."
seeing stars. There is blue sea for hunting fish. But there must be something else.”” In each book characters beautifully demonstrate the attributes of curiosity as listed above and, as one might expect, they are rewarded for their inquisitiveness in return.

Following these stories, teachers may use other picture books in which the main character discovers something amazing by looking at his or her own life or the lives of those in the community. Ultimately, students should be supplied with a number powerful models in the beginning of the unit which they can then regularly refer back to: models of characters who appreciate the intrinsic value of curiosity as well as characters who examine their own lives, pasts or families and discover new things.

Inasmuch as they are effective in evoking imaginative thinking within the students, stories are exceptionally powerful tools for scaffolding abstract thought, the foundation to curiosity. “Storytelling” as Jaffe (2000) has asserted “offers teachers a way of building a sense of comradeship and group identity; and a deeper sense of both individual children and the life of the group as a whole (p. 163).” Stories will thus perform many roles in the beginning of the curriculum and continue to appear throughout.

Along with these explorations in literature, students can be presented with group discussion questions that pertain to their own lives. With a degree of flexibility in accordance with the students’ emergent questions, they may include the following lines of inquiry:

Where do I come from?
Have I always lived in Gyeongsan or have I moved here?
How has my family changed over time?
Who are the people in my family?
Questions such as these that address *Who am I?* and *Who have I been?* can be outlined and explored in conjunction with topics in life science:

- What does it mean to *grow* and how is this idea similar or different to that of *change*?
- How do we know living things grow/change?
- How do *you* know you are growing/changing?

These questions can be integrated into life science topics that involve growth, change and cycles.

In encouraging such questions one can seek to keep the lines of inquiry open and exciting for the students, the idea being that students who are swept up in the power of their ideas are more likely to be intrinsically motivated and fulfill their roles as “curious students”. If students are able to view the questions posed as a *challenge* they will be better equipped to view the task in what Dweck (2007) refers to as a “growth mindset”, i.e. one in which they view their own agency as fluid and a “work in progress” (p. 103).

Dweck distinguishes this mindset from the fear of failure and superficial pursuit of perfection associated with what she terms a “fixed mindset” (2007).

Throughout the course of the curriculum, students may investigate the many topics that pertain to *identity*, while not necessarily using that term explicitly. Activities such as those described by Banks (1999) will include framing discussions around the use of student-generated lists that are then scaffolded by teacher-developed graphic organizers such. Two important graphic organizers will be bar charts and timelines. Bar charts will reflect data about the class back to the students, such as information derived from surveys and questionnaires. Student generated timelines can be sources for a variety of information pertaining to identity, including major life events both particular to individuals (such as the birth of a sibling) and to the age group in general (entry to
school). These student-created resources will then be posted around the classroom and referred to throughout the unit.

In the life science strand of the curriculum, students will be introduced to the Claim, Evidence, Reasoning (CER) strategy (McNeill and Krajcik 2011a). The first lessons will center around the *claim* that plants grow under the premise that this is not something we can know through casual observation. Since growth happens over time we must also gather *evidence* over time. Students make observations, take measurements and gather data about bean sprouts growing over different periods of time. Students will then use these experiences to better explain their *reasoning* when making generalizations about their surroundings, such as the growth of other living things.

During this time, students will also observe a large tank containing mealworms in the classroom. Students will make observations and drawings as well as gather data make claims about the lifespan of a mealworm. The teacher can stimulate student thinking by directing their attention to the presence of

- empty casings (after the pupa stage, the adult beetle emerges and sheds its casing)
- dead beetles (once the beetles reach the end of their life cycle they die)
- the presence of still more mealworms (hatched from eggs left behind by previous beetles)

In addition to plants and insects, students can be encouraged to view their own bodies as evidence of growth. Certain data, such as height and arm span, can be measured by the teacher in the beginning of the year (see Figure 3). When the unit begins, students can then make comparisons between that data and their current heights and measurements. Naturally, the differences in the results will be miniscule at best. However, inferences can still be drawn about the minuteness of the changes with consideration to the short passage of time. Students will thus be better prepared for the
notion that by studying other children over a wider age group (their peers in Kindergarten and 1st grades) they can observe more explicit evidence of growth and change. For a full description of the science strand of this curriculum, see Appendix A.

**Figure 3.**

<table>
<thead>
<tr>
<th>Evidence students can track about themselves and their peers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Height</td>
</tr>
<tr>
<td>• Arm Span</td>
</tr>
<tr>
<td>• Teeth (number of lost)</td>
</tr>
<tr>
<td>• Shoe or foot size</td>
</tr>
<tr>
<td>○ 2nd graders can take surveys and track these data among their peers in grades Kindergarten through 2nd</td>
</tr>
<tr>
<td>■ Data can be compiled on several charts and comparisons can be made, inferences drawn</td>
</tr>
<tr>
<td>● This is where the work of reasoning comes in</td>
</tr>
<tr>
<td>■ Students may:</td>
</tr>
<tr>
<td>● Measure their own heights and make picto-bar graphs (bar graphs with cartoon bodies and photos of their heads)</td>
</tr>
<tr>
<td>● Compare the ratio of arm span to height</td>
</tr>
<tr>
<td>● Note trends in data relative to age groups (common shoe sizes in their own or a different grade)</td>
</tr>
</tbody>
</table>

This list may serve as a guide but is by no means a definitive list. Students should be encouraged to come up with their own evidence for growth in ways unanticipated by the teacher.

Multimedia resources as well as multimodal activities will seek to address the diverse learning styles and affinities of the students. Radio producer Tony Shwartz’s charming sound art piece, *Nancy Grows Up* (1970) will be one such resource. In it, Schwartz applies the technique used in time-lapse photography to thirteen years of audio recordings of his niece. One listens over a matter of minutes to the sounds of a crying baby fade into the early musings of a toddler and on into the ruminations of a young child. “I wonder if I’m growing” by the celebrated children’s musician Raffi (1976) will
also be sung with the students. The lyrics of the song describe scenes that can be
dramatized and discussed by the class.

Visual imagery is one more valuable resource for exploring concepts in the social
studies classroom. In their 2014 article in the *New York Times*, Annah Whitaker and
Malia Wollan explored the topic of “What Kids Around the World Eat for Breakfast”
through photographs. Whitaker’s series of images combined with Wollan’s writing has
the potential to inspire a discussion on how our culture shapes the choices we make and,
by extension, our identities. An additionally important work of visual art comes from the
Korean artist, Moo Na Ssi. Moo’s work, *Bright Darkness* (2010) depicts a scene of
introspection, with the help of an unknown figure outside the frame.

A major component of this curriculum until now mentioned only briefly is the
critical role of free play in the cognitive, social and emotional development of students.
In alignment with what Mitchell (1934/2001) termed the “outgo” in her conception of
experiential learning, students will be given ample time for free play. In addition to time,
the classroom itself will be furnished with respect to Mitchell’s notion that the classroom
is a *studio laboratory*, “outfitted with suitable materials for the creative ‘outgo’ that [is]
essential for active relationship making” (Brian, 1934/2001, p. xii).

In her second grade curriculum, *Arts and the Common Core Unit Plan: Theater*,
developed for the New York City Department of Education, Rosenberg (n.d.) elaborates
the myriad ways in which puppetry can serve as a “means of developing character skills
and character exploration” (p. 1). In addition to the many benefits in art education such a
curriculum can play if incorporated into the larger curriculum, the puppets in their own
right can serve as the ‘materials for creative outgo’ espoused by Mitchell.
The performative use of puppets can additionally be enhanced by the use of a discarded “play” video camera that can remain secured to a tripod at the appropriate height. The camera may be of the working sort, only lacking the ability to record without the needed tape. By contrast, the camera may not work at all and be completely fueled by the imaginations of the students. In such a manner, students may be inclined to “play” interview each other (or one another's puppets) in the manner of broadcast news and talk shows. In so doing, they may invent new identities for themselves or take on the identities of heroes and family members.

These are only a portion of the activities that can be woven into such a curriculum. Ultimately, it is my hope that through these experiences students gain an understanding that individuals, vis-a-vis their identities, are greater than the sum of a list of facts about them. In addition, students can make important connections between the growth found in the natural world and in their own histories. By inviting students to recognize the value of curiosity in examining their own lives and the lives of their peers, we accordingly invite prosocial behaviors that strengthen our community as a whole.

**Engaging Challenges**

South Korea has long been recognized as an economic and educational success in the post-war twentieth century. In the wake of Japanese occupation (1910-1945), U.S. occupation (1945-1948) and the Korean War (1950-1953), few outside of South Korea had reason to believe the country, in a matter of mere decades, would rank among the largest economies and most highly educated citizenship the world over. In 1945, roughly three quarters of the country was illiterate and fewer than five percent of Korean school children continued their education beyond elementary school (Kim-Renaud, 2005).
THE APPLE TREES SCHOOL

Contrast those figures to the today’s nearly one hundred percent literacy rate along with high school graduation rates hovering at ninety percent (Seth, 2005), and one begins to get a clearer picture of the deep rooted significance of education in South Korea.

Enrollment in higher education among Korea’s 180 colleges and universities is proportionally higher than in most European nations (Seth, 2005). UNESCO has long recognized these strides and ranks South Korea highly on its Human Development Index (2015), which compares data such as life expectancy, mean years of schooling, and gross national income.

More recently, South Korea was gained widespread attention for regularly topping international tests such as the Programme for International Student Assessment (PISA) among countries in the Organization for Economic Cooperation and Development (OECD). In a 2014, for example, South Korea ranked first (tied with Singapore) in a PISA assessment on problem solving, noting South Korean students were “quick learners, highly inquisitive and able to solve unstructured problems in unfamiliar contexts” (OECD, 2014). President Barack Obama has repeatedly praised the Korean education system in numerous speeches over the years, noting that the United States could draw lessons from its example (Korea Times, 2011; Fenton, 2015).

As we investigate the broader context of the Apple Trees School, it is important consider what South Koreans say about their own education system, as well as the work of scholars concerned with education on a global scale. In her interviews with the former Korean Minister of Education, Ju-Ho Lee, the author Amanda Ripley reveals a more complex backdrop for the outstanding achievements listed above. “You Americans see the bright side of the Korean education system,” Lee told Ripley, “But Koreans are not
happy with it” (2014, p. 58). Adding to the gravity of such an admission, consider how Korean education scholar Kim-Renaud (2005) describes this branch within the South Korean government as “one of the most important executive branches of government” (p. v) – certainly an unfamiliar notion for many Americans.

The challenges Minister Lee was referring to have been characterized by scholars as the country’s “education fever” (Seth, 2002) or “education syndrome” (Kim-Renaud, 2005). Such challenges include “an overemphasis on examination preparation” as well as a “pedagogy based on rote memorization rather than individual creativity” (Seth, 2005, p. 3). Kim-Renaud notes that Korea’s “Extreme reliance on educational attainment as the sole or first criterion of a person’s worth is being repudiated but is by no means a thing of the past.” (2005, p. vii).

Lee and Shouse (2011) have pointed to South Korea’s alarming trends in “shadow education” or after-school academic activities such as Hagwons (cram-schools), noting that the high costs are both harmful to families and the source of growing inequities. They cite one 2009 study that found 87% of primary students, 74% of middle school students and 62% of high school students in South Korea used some form of private tutoring service, and identified the average monthly household spending on private education was 242,000 won or $242 U.S. (Statistics Korea, 2010). Based on their study of “prestige orientation” as a driving factor for such trends, Lee and Shouse suggest that such a demand for education “represents a confluence of culture and function” fueled at least in part by the import many Koreans place on social status relationships tied to a “credential-driven framework of Korean society” (2011, p. 221).
Calling for immediate reform in a 2014 *New York Times* opinion piece, Se-Woong Koo lamented an education system “driven by overzealous parents and a leviathan private industry”, citing statistics that estimated “the average South Korean student works up to 13 hours a day while the average high school student sleeps only 5.5 hours a night to ensure there is sufficient time for studying” (p. 1). Koo decried a system that has “neglected the happiness of its people” citing alarming statistics in youth suicide (Korea Herald, 2013) and a general malaise among students in the face of the infamous college entrance exam or *suneung*, as it is known in Korean. Adding support to Koo’s argument is a 2014 poll wherein Korea ranked last in a survey that tracked levels of happiness among children (Park, 2014). A total of 4000 Korean households with children under 18 were compared with those from 30 other countries, 27 of whom were members of the OECD. Chief among the reasons given, according to the Korean Ministry of Education, was “academic stress” (Park, 2014, p. 1).

In response to such academic pressures, some among more recent generations have begun to shift their attitudes towards schooling and sought to expand the traditionally narrow criteria of success required by universities and employers. Through interviews with university students throughout South Korea, Abelmann (2005), with the help of her graduate students, found an emerging “vitality” embedded in the ways interviewees envisioned and narrated the path of their own human development: “This ‘new’ person,” writes Abelmann, “differentiates herself from the past and aspires to realize values of democracy, individualism and cosmopolitanism” (2005, p. 48). Echoing this sentiment, Kim-Renaud (2005) points to evidence of Korea’s exciting growth in creative and democratic arenas:
The threat from the North notwithstanding, South Koreans have enjoyed continued peace for half a century, and today’s young people are growing as free agents. There is a clear sense of a renaissance in South Korea today, and contemporary Koreans’ idea of education and socialization reflects a broader, richer, multi-faceted, and dynamic culture (p. vi).

Among research on Korean education most directly relevant to the Apple Trees School (and foreshadowing of the school’s likely success) is Dong, Anderson, Kim, & Li work, Collaborative Reasoning in China and Korea (2008). The authors sought to apply the educational approach of collaborative reasoning in two contexts, among them an elementary school in Daegu, South Korea, a half hour’s drive from the future site of the Apple Trees School. Collaborative reasoning was described as an approach that requires self-management, free participation, and critical thinking and shares much in common with the progressive approach of developmental-interaction. Despite their concerns that such an approach would not be easily adopted by students more accustomed to a (teacher-centered) Initiation, Response, Evaluation classroom discourse (Cazden, 2001), the students in both contexts latched on immediately and demonstrated a palpable joy in the process:

The students in Korea were so engaged in the discussions that they sometimes rose from their seats and leaned forward to talk to each other. With very little assistance from the adult moderators, the students gave their positions on the big questions, backed up the positions with reasons, turned to the stories for evidence, linked the current question to their own experience or previously read texts, evaluated the arguments brought up by other participants, challenged each other, and reconsidered their own positions (Dong et al, 2008, p. 43).

If ever the teachers or administrators at the Apple Trees School face criticism in their approach with the refrain that Korean students “require” more “traditional” teaching, Dong et al.’s research is just one of many examples demonstrating how children in any
cultural context can and should be empowered with *the right to be heard* in their own classroom.

As teachers in South Korea, I believe we are obliged to foster among our students expansive definitions of happiness and success outside of strictly academic realms. This, I believe, is where the “whole child” approach can make the most lasting gains in such a climate of education. Happiness and academic development need not be mutually exclusive forces. Duckworth (2006) speaks eloquently on how *ideas* can be the source of such joy and the role teachers and schools can play in supporting them. In the introduction to her book, *The Having of Wonderful Ideas*, she makes clear a number of her own goals and values implicit in her work in education. “In these essays,” writes Duckworth,

I assume we want schools in which students come to feel the power of their own minds and their creative capacities. I assume we want students’ understanding to be deep, confident, and complex, and their means of expression to be varied and nuanced. I assume we want students to develop a sense of community responsibility, democratic commitment, social justice. And since, as Evans (1981) has said, “Educational practice is what teachers do,” I assume we want teachers who support students’ engagement in their learning, even if this may lead to forms of practice that are unfamiliar to us.

By discussing these topics collectively teachers can locate their voice within a diverse community. “Education,” writes Gardner (2007), “is inherently and inevitably an issue of human goals and human values” (p 13). This conception of education invites teachers and communities to be conscious of *whose* goals and values we put forth in our classrooms and how we plan to bring them about. It therefore poses the following question to the Apple Trees community: What are our shared goals and values? Crucially, these answers will find expression through multiple voices and rely on a commitment to both theoretical and local integrity.
**Recommendations**

The ideas developed in this paper can form the basis for professional development and community building experiences at the Apple Trees School. The paper may also serve as an example to others who wish to incorporate a developmental-interaction approach into their education practice.

Workshops for teachers should be designed around the same notions of active learning that the approach calls for with children, as is the case in the adult classrooms of the Bank Street College of Education. Personal narratives should be welcomed in this process and a variety of connections encouraged. Teachers should be continually invited to examine their own implicit assumptions about education and child development through writing and discussions. Teacher book clubs can address complex issues in more indirect but no less powerful ways. Administrators must create a school climate where teachers feel comfortable not only to take risks, but to continually reassess the lines between the theoretical mission of the school and its actual practices.

My favorite and most succinct summary of the “Bank Street” approach I have thus far heard goes as follows: *Life is interesting... school should be too*. In this spirit, I hope that teachers at the Apple Trees School will above all approach their work with the same “zest for living” Lucy Sprague Mitchell inspired in her own work with children. There is surely much out there for all of us to explore.
Appendix A: Science Strand Lesson Sequence

Week 1: How do we know plants and animals grow?

<table>
<thead>
<tr>
<th>Focus Questions</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do we know a plant grows?</td>
<td>Students record observations, take measurements and make drawings based on a number of bean sprouts germinated on different days.</td>
</tr>
<tr>
<td>● Can we see the changes?</td>
<td>Share/reflect on our data as a scientific community</td>
</tr>
<tr>
<td>● Does change still happen if we can’t watch it while it happens?</td>
<td>Students have access to a number of nonfiction books about plants and growth.</td>
</tr>
<tr>
<td>What can we do to prove that change happens (to prove our claims)?</td>
<td>During morning meeting the teacher reads aloud picture book about growth.</td>
</tr>
<tr>
<td>How can we use the evidence we gathered to support our claims?</td>
<td>Students plant a row seeds in school garden</td>
</tr>
<tr>
<td>What do you see in the mealworm tank?</td>
<td>During choice time students are invited to make lists of questions about mealworms in their journals. Students may also make detailed drawings of what they see.</td>
</tr>
</tbody>
</table>
### Week 2: How do we know people grow?

<table>
<thead>
<tr>
<th>Focus Questions</th>
<th>Activities</th>
</tr>
</thead>
</table>
| How do we know people grow?                          | Whole group: students brainstorm answers to the question, *How do we know people grow?*  
| Can we see any changes?                              | Hopefully they arrive at some of the following:  
| What can we do to prove that change happens (to prove our claims)? | Height, Arm Span, Teeth (number of lost), Shoe or foot size, etc.  
| How can we use the evidence we gathered to support our claims? | The culmination of which leads to a “claim”. The more the students feel a sense of ownership for their own claims, the better.  
|                                                        | As a class, the second graders begin to gather evidence of their own growth.                                                                 |
|                                                       | **Jigsaw:** Students break into groups and measure/record the data such as height, arm span, teeth (number of lost), shoe or foot size, etc. Each group focuses on one of the data sets and collects for the whole class.  
|                                                       | After teacher modeling, students make bar graphs based on evidence.                                                                        |

| How do we know our mealworms are growing?             | The question, “How do we know our mealworms are growing?” is posted above the tank in bold letters, but direct instruction need not be dedicated to the mealworms this week. |
| Can we see any changes?                               | Students make lists of questions about mealworms in their journals.  
| What do you see in the mealworm tank?                | Students make detailed drawings of what they see.  

## Week 3: What can learn by comparing evidence from different classes?

<table>
<thead>
<tr>
<th>Focus Questions</th>
<th>Activities</th>
</tr>
</thead>
</table>
| What can learn by comparing evidence from different classes? | *Described in full in “Trip Sequence”*  
See Appendix B |
| How do our bodies change over time? | |
| What is the “average” (shoe size) in the (first) grade? | |
| What is the range of (arm span)? | |
| How do we know plants grow? | Students make observations in the garden to see how plants are growing. Teacher asks students to share what they are noticing. Rulers are placed near plants for students to record measurements. |
| Continued from Week 2: | Continued from Week 2: |
| How do we know our mealworms are growing? | The question, “How do we know our mealworms are growing?” is posted above the tank in bold letters, but no direct instruction is dedicated to it. |
| Can we see any changes? | Students go back in their journals and notice if they have answers to last week’s questions, add more. Students make detailed drawings of what they see |
| What do you see in the mealworm tank? | |
# Week 4: How large are the claims we can make?

<table>
<thead>
<tr>
<th>Focus Questions</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>How large are the claims we can make?</td>
<td>Survey class about who likes a certain pop star. Ask students if these results would apply to <em>all</em> children.</td>
</tr>
<tr>
<td>(Do we have an adequate sample size?)</td>
<td>Connect this question to the data gathered above.</td>
</tr>
<tr>
<td>Are our findings true for all children?</td>
<td>Discussion about the claims we have made so far: what is the difference between making claims about “most” people vs. “all” people?</td>
</tr>
<tr>
<td>How do we know plants grow?</td>
<td>Students make observations in the garden to see how plants are growing.</td>
</tr>
<tr>
<td>Continued from Week 2:</td>
<td>Students make lists of questions about mealworms in their journals.</td>
</tr>
<tr>
<td>How do we know our mealworms are growing?</td>
<td>The question, “How do we know our mealworms are growing?” is posted above the tank in bold letters, but no direct instruction is dedicated to it.</td>
</tr>
<tr>
<td>Can we see any changes?</td>
<td>Students make detailed drawings of what they see.</td>
</tr>
<tr>
<td>What do you see in the mealworm tank?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Trip Sequence

“Trip” Sequence Lesson Plans

Introduction

This trip sequence is meant to bring students out of the classroom and into the world in the spirit of education scholars who have used field trips as transformative experiences that expand student worldview (Vascellaro, 2011; Mitchell, 1934). While this trip sequence will invite student exploration beyond the walls of the classroom, the exploration itself will take place within school grounds. It falls in roughly the third week of the social studies and science strands of the overall Identity curriculum. On the actual “trip” days, students will split into groups and visit classrooms throughout the Kindergarten and 1st grade homerooms in order to gather various data and record them on their trip boards.

In an immediate sense, the goal of these experiences is to support student investigation by genuinely putting them in the position as researchers. As a consequence, my hope is that the experiences expand their perspectives of their wider school community -- both their peers and the adults who support them. At this stage in the curriculum, one of my goals as an educator is to ensure that students feel a collective sense of accomplishment in discovering truths about themselves and their peers. Not only will this work better enable them to answer the “Who am I?” question set out in the beginning of the year, but they make additional inroads into the “Who are we?” question as well.

Schedule

<table>
<thead>
<tr>
<th>Previous Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Following Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Pre-Trip” Lesson 1</td>
<td>“Pre-Trip” Lesson 2</td>
<td>Kindergarten data gathering and music activity</td>
<td>1st Grade data gathering and poster making</td>
<td>Lesson 3 “Post-Trip” Lesson 3</td>
<td>Lesson 4 “Post-Trip” Lesson 4</td>
<td>Museum Day: How We Grow</td>
</tr>
</tbody>
</table>
“Pre-Trip” Lessons

Previous Week

At this point in the curriculum, students will already have had experiences within their homeroom akin to type of research they will be expected to conduct on their research days. For example, students will have already had experience measuring and recording data such as height and foot size as well as organizing this data in the form of pictographs and charts. Similarly, students will have had experience in the homeroom examining the wider concept of identity and how their own identities have changed over time. They will have had experiences exploring how their own likes, dislikes and accomplishments have changed over time. In sum, they will be able to think of a number of different ways to answer the question, *How do you know you are growing?*

Riding on the excitement of these “local” discoveries in the homeroom, focus will now shift from *the fact* that we grow to a broader examination of *the process.* Thinking in this way will, I hope, frame the following question for the second graders: *What can we learn by comparing similar evidence from different age groups?* In other words, what kind of larger claims can we make by expanding our thinking into a wider context? Can we say that what is true for us (our homeroom) is true for everyone?

By posing these questions to the students, I would hope to invite them to seize on the questions *they* are curious about and apply such inquiry to research beyond the classroom. As is the case with much of inquiry-based and student-centered learning, I cannot know for certain the specifics of the research topics, but I can shepherd the investigations towards the objectives of the unit.
Lesson 1: Same Questions, Different Answers

Differentiated Objectives:
ALL:
• students will understand how differences in age can affect one’s thinking, feelings and choices
• students will understand how research and data (questions and answers) allow us to make claims

MOST:
• students will understand how general differences in age can affect one’s thinking, feelings and choices

SOME:
• students will understand how differences in age during childhood can affect one’s thinking, feelings and choices in a variety of ways
• students will generalize other research applications for gathering data across a wide sample of age groups

<table>
<thead>
<tr>
<th>Concrete Familiar</th>
<th>Key concepts and generalizations on a continuum of demands</th>
<th>Abstract Unfamiliar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and data (questions and answers) allow us to make claims</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences in age can affect one’s thinking, feelings and choices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I grow, as does everyone around me</td>
<td>Exploring what makes us who we are (our identities) helps us to connect to others.</td>
<td></td>
</tr>
<tr>
<td>General differences in age can affect one’s thinking, feelings and choices</td>
<td></td>
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<tr>
<td>My own body as well as my likes, dislikes, and accomplishments have changed over time</td>
<td>A person’s identity evolves over time</td>
<td></td>
</tr>
<tr>
<td>Differences in age during childhood can affect one’s thinking, feelings and choices in a variety of ways</td>
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<tr>
<td>By studying different age groups of children we can learn more about topics generally, such as height, taste, and accomplishments</td>
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(Adapted from Culatta, Merritt & Tankarian, 1998)

Differentiated Procedure:
• While gathered in the meeting area, ask students to think of questions we ask when we want to get to know someone better. List the questions on poster board.
  o Include a visual illustrations for each question to better support students with language-based difficulties. Example: for What is your favorite book? draw a book.
  o Allow ample response time to all students --not just those who reply fastest
Once student responses have been recorded, add the following question to the list: *What is your favorite book?* Students will first answer this question for themselves in writing.

* Invite students to think about this question and if they think their own answer has changed over time.
  * To better support kinesthetic learners, role-play with volunteer students the following scenes
    * Scene 1: student holds a small sign reading “3 years old”
      * Teacher: What’s your favorite book?
      * Student: Brown Bear Brown Bear (holding book)
    * Scene 2: student holds a small sign reading “9 years old”
      * Teacher: What’s your favorite book?
      * Student: James and the Giant Peach (holding book)
    * Scene 3: student holds a small sign reading “30 years old”
      * Teacher: What’s your favorite book?
      * Student: (this book) holding whatever adult book is on hand
    * Ask students what would happen if we asked people of different ages this question (*What is your favorite book?*) as in the following picture on the poster.

![Image: J. Rogers](image)

* Based on those answers, ask students what we can learn about books and reading by asking this question to people of different ages.
* Elicit the following claims: younger children like simple stories with lots of pictures, older children like chapter books, adults like longer stories (etc.).

<table>
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<th>Question</th>
<th>Topic</th>
<th>Claims</th>
</tr>
</thead>
</table>
| *What is your favorite book?* | Reading | • younger children like picture books  
                             |       | • older children like chapter books     
                             |       | • adults like longer stories            |
Differentiation:

- Students with language-based difficulties will be further supported in this lesson through the use of visual aids and language modification on the part of the teacher. Be they the cause of a student’s struggles with English language acquisition or other language-based learning difficulties, incorporating these differentiations into the lesson is a matter of Universal Design for Learning, in that modifications for the few result in the benefit of all.
- With respect to differentiated learning styles and capacities (Levine, 2002; Gardner, 2006) kinesthetic learners will be better supported by enacting a portion of the lesson.

Anticipated Responses:

- With the above modifications, I am confident that the majority of students will recognize the fact that differences in age can affect one’s thinking, feelings and choices. Many students will then be able to extrapolate from this idea and demonstrate an understanding as to how these difference can occur. I am also confident that the majority of students will be able to see clearly how asking the same question to different age groups will result in different answers. However, what I anticipate will be the most challenging concept, is in the student’s ability to re-apply that newly gained data or knowledge to a more general “topic” or concept. For instance, student ability may vary in moving from the category “favorite books” to the wider topic, reading, and what we can learn about reading in general by studying different age groups.
Lesson 2: What will our research look like?

Objectives:
- students will form a clear image of what the research days will look like
- students will rehearse their roles as researchers facilitate the project

Key Concepts and Generalizations:
- We collect information to make sense of the world around us
- Information can be collected, displayed and interpreted for the purpose of answering questions

Procedure:
- While gathered in the meeting area, present students with the schedule of the following week’s research.
- Assign students their responsibilities based on their strengths and interests
- Role play with students the sequence of events and tasks of each researcher
- Allow time for students to rehearse in within their research teams
- While rehearsing as a class, ensure that students record the same data about themselves in order to add it to the pool of data they gather on the younger grades.
- Whole group review going over one last time what the research days will look like

Class representatives: write an explanation of the project to be presented to each class beforehand and assist research teams as needed
Research Team 1: Measure height and shoe size
Research Team 2: Measure arm span and tally teeth loss
Research Team 3: Interview likes and dislikes
Research Team 4: Interview accomplishments

Image: J. Rogers
“Trip” or Research Days

**Tuesday’s Plan: Kindergarten**
Procedure: (10:00 - 11:00 am)

- In the morning, students will meet to discuss the day’s schedule and prepare materials
- 2nd graders will travel to the Kindergarten homeroom
- Once in the classroom, the two 2nd grade representatives will explain the research project
- 2nd graders will work in their research teams of 2 or 3 and collaborate in the tasks of measuring, questioning and recording data on trip boards
- Whole group will break for snack with their peers
- Whole group will have 1:1 buddy time for 15 minutes, wherein 2nd graders will teach kindergarteners a class song and dance

Return to classroom (11:00 - 11:30)

- Whole group: invite students from each team to present their findings to the class
- Invite students to reflect on how the answers were similar/different from what they expected.

**Wednesday’s Plan: 1st Grade**
Procedure: (10:00 - 11:00 am)

- In the morning, students will meet to discuss the day’s schedule and prepare materials
- 2nd graders will travel to the 1st grade homeroom
- Once in the classroom, the two 2nd grade representatives will explain the research project
- 2nd graders will work in their research teams of 2 or 3 and collaborate in the tasks of measuring, questioning and recording data on trip boards
- Whole group will break for snack with their peers
- Whole group will have 1:1 buddy time for 30 minutes, wherein 2nd graders will collaborate with 1st graders to make posters about “who we are” as a school

Return to classroom (11:00 - 11:30)

- Whole group: invite students from each team to present their findings to the class
- Invite students to reflect on how the answers from all the grades were different.
“Post-Trip” Lessons

Thursday
Lesson 3: How do we organize our data?

Objectives:
• students will compile their research into charts, graphs and posters
• students will identify patterns in their data when possible

Procedure:
• While gathered in the meeting area, direct the attention of the students to the graphs and charts they completed earlier in the curriculum within their own homeroom.
• Review with the class why charts and graphs are helpful to researchers (they allow us to see lots of information in one place, they can reveal similarities and differences to be compared, trends such as increases and decreases, etc.)
• Review with the class what makes for powerful charts and graphs (color, repetition, clarity) using the examples in the class
• Brainstorm with class how to best present findings from the “likes and dislikes” and “accomplishments” research: for example, categorizing answers or compiling direct quotes on to posters as organized by grade
• Provide poster board, rulers and markers to students and allow them to begin work on their charts and graphs.

Friday
Lesson 4: What has our data taught us?

Objectives:
• students will apply critical thinking skills through interpreting their findings with respect to their charts, graphs and posters
• students will generate claims as per the CER method described earlier, based on the evidence
• students will be better prepared to present their findings to their peers throughout the school on a museum day in the following week

Procedure:
• Gather students in meeting area and revisit the poster from the “Same Questions, Different Answers” lesson from the previous week.
• Elicit responses from the students how the question, What is your favorite book? and its corresponding data can be turned into claims. Use the table below (on a poster) as a guide
• Display student charts, graphs and posters around the classroom and equip students with the What has our data taught us? worksheets
• As a class, travel to each students’ posters and discuss as a group how the data has provided us with evidence to make claims about certain topics. Students can fill out What has our data taught us? worksheets as we visit different posters in the classroom.
<table>
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<tr>
<td>What is your favorite book?</td>
<td>Books</td>
<td>• younger children like picture books</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• older children like chapter books</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• adults like longer stories</td>
</tr>
<tr>
<td>How tall are you?</td>
<td>Height</td>
<td>• most people grow taller as they get older</td>
</tr>
</tbody>
</table>

**Following Week**

**Museum Day: How We Grow**

With necessary adjustments made for ensuring student comprehension and readiness for presenting their findings, the following week will allow time for a Museum Day wherein the second graders can share the totality of their findings with parents, teachers and their peers in younger grades. Such an event could be held in the school’s gym or cafeteria and be accompanied by a banner such as “How We Grow” made by the students.
References


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and/or


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Have a joyful day.
Kind regards,
Kun
The Hofstede Centre

Virginia Casper grant permission to be quoted in this IMP work by Jeffrey Rogers.

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