The Canadian Journal for the Scholarship of Teaching and Learning

Volume 12 | Issue 1 Article 7

Fall 09-20-2021

Educating *Perfinkers*: How Cognitive Tools Support Affective Engagement in Teacher Education

Gillian Judson
Simon Fraser University, gcj@sfu.ca
Ross Powell
Surrey School District, powell_r@surreyschools.ca
Kelly Robinson
Surrey School District, kelly_robinson@sfu.ca

Follow this and additional works at: https://www.cjsotl-rcacea.ca
https://doi.org/10.5206/cjsotlrcacea.2021.1.10793

Recommended Citation
Judson, G., Powell, R., & Robinson, K. (2021). Educating *perfinkers*: How cognitive tools support affective engagement in teacher education. *The Canadian Journal for the Scholarship of Teaching and Learning, 12*(1).
https://doi.org/10.5206/cjsotlrcacea.2021.1.10793

Educating *Perfinkers*: How Cognitive Tools Support Affective Engagement in Teacher Education

Abstract

Our intention is to share our lived experiences *as* educators *of* educators employing Imaginative Education (IE) pedagogy. We aim to illuminate IE's influence on our students', and our own, affective alertness, and to leave readers *feeling* the possibility of this pedagogy for teaching and learning. Inspired by the literary and research praxis of *métissage* (Chambers et al., 2012; Hasebe-Ludt et al., 2009; Hasebe-Ludt et al., 2010), we offer this polyphonic text as a weaving together of our discrete and collective voices as imaginative teacher educators. Our writing reflects a relational process, one that invites us as writers and colleagues to better understand each other and our practices as IE educators (Hasebe-Ludt et al., 2009). It also allows us to share with other practitioners our struggles, questions, and triumphs as we make sense of our individual and collective praxis: how IE's theory informs our practice, and how our practice informs our understanding of IE's theory. This text, like IE's philosophy, invites heterogeneous possibilities.

Notre intention est de partager nos expériences vécues *en tant que* formateurs et formatrices *d'*éducateurs et *d'*éducatrices en employant la pédagogie de l'éducation imaginative. Nous souhaitons illuminer l'influence de l'éducation imaginative sur nos étudiants et nos étudiantes, ainsi que notre propre vigilance affective, et que les lecteurs *ressentent* la possibilité de cette pédagogie d'enseignement et d'apprentissage. Inspirés par les publications et la praxis de recherche du *métissage* (Chambers et al, 2012; Hasebe-Ludt et al, 2009; Hasebe-Ludt et al, 2010), nous offrons ce texte polyphonique comme un tissage de nos voix discrètes et collectives en tant que formateurs imaginatifs et formatrices imaginatives d'enseignants et d'enseignantes. Notre texte reflète un processus relationnel qui nous invite, en tant que rédacteurs, rédactrices et collègues, à mieux nous comprendre les uns les autres et à mieux comprendre nos pratiques en tant que formateurs et formatrices en éducation imaginative (Hasebe-Ludt et al, 2009). Il nous permet également de partager avec d'autres praticiens nos luttes, nos questions et nos triomphes alors que nous donnons un sens à notre praxis individuelle et collective : de quelle manière la théorie de l'éducation imaginative informe-t-elle notre pratique et comment notre pratique informe-t-elle notre compréhension de la théorie de l'éducation imaginative. Ce texte, tout comme la philosophie de l'éducation imaginative, invite de nombreuses possibilités hétérogènes.

Keywords

pedagogy, teacher education, imagination, métissage, praxis, curriculum, curriculum design; pédagogie, formation des enseignants et des enseignantes, imagination, métissage, praxis, programme d'études, conception de programmes d'études

This research paper/Rapport de recherche is available in The Canadian Journal for the Scholarship of Teaching and Learning: https://doi.org/10.5206/cjsotlrcacea.2021.1.10793

Every topic, every concept, every idea, is a latent story.
My role is to reveal that story—that emotional meaning—to my students.
My role is to afford them opportunities to experience that story,
and to hear, see, feel and reveal their own story.
gj

It is dangerous to educate *thinkers*—why? Because human beings never just think. As psychologist David Kresch observes, human beings *per/f/ink:* We perceive, feel, and think at the same time (cited in Egan, 2005, p. 89). The implications of acknowledging *feeling* as the heart of our meaning-making process are significant for education. From this affective stance, any approach to teaching that disregards the emotional dimensions of the learner, learning, or knowledge, will be ineffective: When we acknowledge our students as *perfinkers* it becomes essential to talk about emotion and imagination in the context of all education. The Imaginative Education (IE) philosophy does just that—it elevates affective alertness in both students *and* educators.

Since 2007, Gillian Judson has been involved in the teaching of graduate programs in IE at Simon Fraser University. Ross Powell and Kelly Robinson, both alumni from the Masters of Education program in IE and experienced K-12 educators, spent two years working together with pre-service teachers in IE teacher education cohorts at Simon Fraser University. As Imaginative Educators, we all begin our lesson planning with affective alertness. That is, we seek the emotional dimensions of the topic or concept or idea we teach. With classes full of *perfinkers*, we can do nothing less. Our intention here is to share our lived experiences *as* educators *of* educators to illuminate IE's influence on our students', and our own, affective alertness. Through our sharing of stories, we intend to leave you, Reader, *feeling* a sense of possibility for this affective pedagogy known as IE.

Inspired by the literary and research praxis of métissage, we offer this polyphonic text as a weaving together of our discrete and collective voices (Chambers et al., 2012; Hasebe-Ludt et al., 2009; Hasebe-Ludt et al., 2010). The act of *métissage* is a self-reflexive, recursive praxis which allows for points of affinity among and between us as writers to emerge, without collapsing differences (Hasebe-Ludt et al., 2009). Our writing thus reflects a relational process, one that invites us as writers and colleagues to better understand each other and our practices as IE educators (Hasebe-Ludt et al., 2009). It also allows us to share with other practitioners our struggles, questions, and triumphs as we make sense of our individual and collective praxis: how IE's theory informs our practice, and how our practice informs our understanding of IE's theory. Our polyphonic text mirrors our journey together as colleagues and educators of IE. This text, like IE's philosophy, invites heterogeneous possibilities.

Describing our IE approach requires two parallel tales. One story *in italics* is an "inside story": it provides a glimpse of who we are and our thinking processes as IE educators of both pre-service and in-service teachers. It is a story that may be unfamiliar to some readers; first, because we are constantly seeking to identify the emotionally-charged dimensions of what we are teaching; and, second, because we think about how "cognitive tools" will allow us to do so. We wish to offer a glimpse of our *inside story*, our teacher thoughts—Gillian Judson (gj), Ross Powell (rp), and Kelly Robinson (kr)—and how, as Imaginative Educators, our knowledge of the nature of our students' and our own imaginative lives influences our teaching choices.

The second story is about emotional connections too, but this time in terms of what an IE approach looks like from the outside. It is a story of connection: one in which cognitive tools,

appropriately deployed, *connect* the knowledge/ideas/concepts learned to the emotional and imaginative lives of students. IE is a practice which aims to enable every child to achieve their full potential: to become a fully imaginative human being. We feel this is possible by cultivating meaningful relationships between students and teacher, and meaningful relationships between students and content via a cognitive tool approach. This is the metanarrative for our article: *hopeful connections*. Supplementing our metanarrative are descriptions of ways in which cognitive tools influence our approach to pedagogy and assessment in the context of pre-service teacher education and graduate level teacher education.

To get to the 'heart of the matter,' that requires time and thinking. I find thinking is best done through conversations with others. But once you've 'got it,' then you can think more clearly about your topic, and connections become more purposeful.
rp

Common Ground: The Heart of Learning

Students, teaching contexts, and curricula are incredibly diverse. While acknowledging and celebrating this diversity, we want to suggest some common ground. Educators of all kinds, in all contexts, are ultimately in the business of meaning-making. Essentially, at the end of the (school)day, meaning requires emotion. As affective neuroscientist Dr. Mary-Helen Immordino-Yang (2015) demonstrates in her research—something we suspect all teachers know intuitively—emotion is the mind's rudder. Emotion directs all learning.

Our students cannot help but think about the world in ways that evoke their emotions and imaginations. For example, students almost universally enjoy narratives of all kinds. They all tend to enjoy jokes and humor. They all seem to identify patterns in the world around them. Many are fascinated by extremes of experience and limits of reality—the stuff in the *Guinness Book of World Records*. Words cause images to arise in *all* of their minds and emotions to arise in *all* of their hearts. Many associate with heroes and even idolize people, ideas, or institutions. Many collect things and may enjoy a specialized hobby or two. Most enjoy a good mystery and can be left awestruck by unanswered questions or strange events. Older students enjoy abstractions and theories that represent these ideas. Some seek ways to enact change in their cultural and natural communities. We could continue to offer more examples, but one thing seems indisputable: our students' emotional and imaginative lives manifest themselves in many varied ways.

These different forms of engagement are not insignificant; they are ways of thinking that help human beings develop higher psychological processes. In IE, a pedagogy developed by Dr. Kieran Egan from Simon Fraser University, these features of our imaginative lives are described as "cognitive tools": the emotion-laden, mediational means that human beings employ to make meaning in the world (Egan, 1997; Egan & Judson, 2015).

Egan's IE theory offers educators a glimpse into the imaginative and emotional lives of their students. He outlines the particular sets of cognitive tools students use to make emotional and imaginative sense of the world, and how any teacher can use these same tools to shape curriculum. As students of IE ourselves, we have learned that all educators can nurture the heart of learning—engaging emotion with curriculum content—if they recognize which cognitive tools are primarily leading their students' engagement with the world.

A wide range of research conducted in primary through post-secondary level educational contexts and across disciplines reveals how IE pedagogy emotionally engages learners (e.g., Ellis

et al., 2020; Ellis et al., 2015; Emjawer & Al-Jamal, 2016; Hadzigeorgiou, 2016; Hadzigeorgiou et al,, 2012; Hagen, 2015; Hrennikoff, 2006; McAuliffe et al., 2011; McKellar, 2006; Pearson, 2009; Stewart, 2014). In addition to peer-reviewed research, educators' Action Research on IE also reveals IE's impact on student engagement and learning (e.g., Guenter, 2019; Jalali-Tehrani, 2017; Kim, 2017; Llanos & Vergara, 2019; Lopez, 2015; Murdoch, 2019; Olivares et al., 2017; Payson, 2017; Peralta et al., 2019; Shahi, 2018). As well, there is research which examines best practices for teaching pre-service teachers about IE in ways that engage IE pedagogy (Covarrubias et al., 2017; Jalali-Tehrani, 2017; Lopez, 2015; Wakimoto & Yoshida, 2018).

In this exploration of our teaching practice with pre-service and in-service teachers, we reflect on how using tools from the following "cognitive toolkits" influences our students' and our own emotional engagement in the learning process.

The Toolkit of Oral Language includes: the story-form, dramatic oppositions, vivid mental imagery, rhyme, rhythm and pattern, a sense of mystery, and play. The richness of meaning offered by the tools of oral language is well-known. For generations, these tools have made knowledge meaningful and memorable in oral contexts. The same is true for human minds equipped with oral language today. These are not only the tools for engaging young children, though many tend to associate them with teaching primary or elementary school. Students of all ages are drawn to these tools and, as such, employing them in teaching tends to be an effective means of evoking imaginative engagement. Teachers can use imagery, notice mystery, and invite play.

The Toolkit of Written Language includes: the story-form/narrative, heroic qualities, humanization of meaning, extremes of experience and limits of reality, a sense of wonder, games/play, visual manipulation of information, rebellion, collections, and hobbies. We are not aware of it at the time, but learning to read radically changes our perception of the world. If you observe children as they learn to read, you may notice that the shape of their imaginative interest changes. According to Egan (1997), this is due, in part, to a need to make sense of an expanding reality. Once we are literate, different features of the world attract our attention. In other words, we want to know about different aspects of knowledge. One thing, however, has not changed: knowledge that provokes us to feel is knowledge we are more likely to remember. Teachers can feed students' need for affect within their curriculum: include the human story; illuminate the unique, odd, exotic, and bizarre; and satiate their affective hunger simultaneously.

The Toolkit of Theoretical Language includes: meta-narrative structuring, general theories, anomalies, and sense of agency. Students who are supported in thinking about abstract ideas and questions often realize that the world at our fingertips also exists in a completely separate, theoretical realm. This is immensely appealing to nascent, theory-oriented minds. The world of theory and abstraction attracts the imagination differently. Educators who work with older students/adults, should still employ tools of oral and written language, but it is also important to feed the theoretical aspects of the mind. Guiding questions educators could ask might be: What is the "Truth" on this topic? What "ism" explains its different dimensions? How can students participate in the topic?

The implementation of these cognitive tools, in a range of ways, supports a diverse teaching practice and a diverse group of learners. This is a beautiful thing. Imaginative Educators choose how to employ cognitive tools—and which to employ in particular—based on knowledge of their students, subject matter knowledge, and personal commitment/passion. The diversity of IE practices are connected, however, by four shared intentions:

1. To create a "storied" curriculum context (overarching narrative for the course), courses that are story-shaped, and ongoing learning opportunities that engage cognitive tools;
2. To facilitate relationships—between students and instructors, students and students, students and knowledge;
3. To embrace the unusual, novel, or unpredictable; and,
4. To demonstrate an imaginative approach to assessment and evaluation of student learning.

Discussion of the importance of relationships in education typically focuses on interpersonal relationships. IE teaching adds another layer to the "relationships" conversation. IE educators intend to help their students facilitate what we call pedagogical relationships. By this we mean the relationship—the emotional connection—between students and the knowledge they are learning. This is what cognitive tools aim to do; this is why we employ them. The aim of maximizing cognitive tool use is part of the relational logic. Interpersonal relationships are also immensely important. Why? Because sometimes we are best able and comfortable employing cognitive tools when we feel part of a community, when we feel we belong, and, most importantly, when we feel we are in a safe pedagogical space to take learning risks.[1]

It is beyond the confines of this article to provide an in-depth introduction to IE. Our hope is that we will engage your imagination and you, our readers, will seek to learn more. (For more information on IE and for access to resources, visit the Centre for Imagination in Research, Culture and Education [www.circesfu.ca] and visit imaginED, a blog all about Imaginative Education www.educationthatinspires.ca).

Pre-Service Teachers as *Perfinkers*: A Hopeful Education

Ross and Kelly were both chosen to act as Faculty Associates for the IE cohorts of 2013 and 2014, in the Professional Development Program (PDP) at Simon Fraser University. This is their story of designing and teaching an IE pre-service teacher education program.

Do the students feel any tension in the topic? How are ideas or arguments patterned?
What's incongruous about the topic? What human story would reveal that incongruity?
How can students demonstrate agency in relation to what they are learning?
gj

Ross and Kelly's Storied Program Context: Hope for Every Child

Our first formal planning conversation together was an attempt to share our own philosophical understanding of the purpose of education. We started our thinking with IE: What is our metanarrative? What are the most powerful, clear, and relevant schemes of education that we each hold, which will allow us to present a cohesive whole to our pre-service teachers? We decided to start at the beginning and to determine a joint metanarrative of education. Thus, we needed to disclose each of our individual metanarratives for education.

[1] See Vygotsky (1962, 1978) for the significance of social dimension of learning.

> *We ask you, Reader, to pause here and to reflect: what is your metanarrative of education? Do you have a philosophical understanding of the purpose of education? Are you able to present a cohesive, whole understanding of education to yourself, and by extension, to your students? As educators we need to ask ourselves, and ask ourselves often, what is education for?*
>
> *Remember, metanarratives help us to organize abstract conceptions like generalizations, theories, or ideologies into emotionally meaningful patterns. Metanarratives help us to form emotions to the abstract.*

Ross: Clearly the school system must respond to a real challenge: the system has to work for every child. The current model of "inclusive education" represents everything honourable in what I imagine is a just, democratic society: one softball mitt does not fit all students. A just society must provide education for all citizens.

Kelly: I see that within education there is the hope to enrich individual lives and the hope to promote political aims to create "better" citizens; both aim to improve society. As a classroom teacher, I recognize I am a hopeful teacher: I intend for my students' lives to be enriched by their educational experience with me so in turn they can be better members of society.

Thus, our collaborative metanarrative emerged through a co-mingling of our discrete philosophies: Ross's vision is primarily aimed towards educating every child, and for Kelly, education is the hope-full vocation of working towards a better society. Together, our co-created metanarrative became, *"With the hope to educate every child."*

Every learner brings diversity and complexity to every class. We understood learners' diversity and complexity to be true for all, even for our adult learners. We understood that each of our adult pre-service teachers would bring their own stories, expectations, and visions for and of education. Our metanarrative's aim was to invite our student teachers to consider that IE could expand and support their own horizons as *perfinkers,* and in turn, their future students' horizons too.

> *When planning curriculum and trying to figure out where to begin, my first thought and the question I ask of pre-service teachers is, "What's wondrous about [the topic]? Whatever that is, that's the thing to pursue." (e.g., What's wondrous about punctuation? As writers, we control HOW a reader reads our words with our use of grammar and punctuation. In other words, we use thought control. Thought control! What a wondrous way to teach and learn spelling and grammar!)*
>
> *kr*

Change of Context to Foster Relationships: Walking Together

Having established our metanarrative of education, *"With the hope to educate every child,"* our intention was to co-create meaningful experiences with our student teachers so that they might resonate, or not, with our metanarrative throughout their time with us. We aimed to engender an immersive experience which established both a philosophical, theory-rich understanding of IE and an experiential, embodied experience so they could discern we were *perfinkers* from the onset of our program.

Tynehead Park is a wonderful 260 hectares of an urban, biodiverse forest with trails, meadows, and a fish-bearing stream with its many smaller tributaries winding through it. Our first

official "class" embraced the cognitive tool "change of context" as the lesson was held in this park, rather than on campus. We designed a "Tynehead Quest," a series of IE-inspired clues that helped our student teachers navigate the trail system. We were mindful to draw from all the IE toolkits, and to include a multitude of cognitive tools such as rhythm and rhyme, jokes, binary oppositions, story, and metaphor. As examples, here are two of our clever clues:

> Where a tree is missing its head, turn left,
> but beware of the troll!
> Do you remember that story?
> When you're on the bridge, stop, breathe, listen
>
> Out of the forest briefly, twice.
> At the far end of the second opening
> pause amongst the flowers,
> listen, and smell. But bee careful! Heroes work here.
> Are there any botanists amongst us? What's ironic about this site?
> [the irony was that there was a beautiful yet non-native invasive plant, Himalayan Balsam, blooming at the time. The blooms were covered in happy bees, but this plant chokes out all native species]

After our two-hour walk and talk quest was complete, we gathered in a circle where we introduced the image of the rainbow to represent our metanarrative. The rainbow is a common symbol of inclusion, but we also wanted to establish for our student teachers that inclusion must be enacted. Each one of us contributes to the metanarrative, and together we can fulfil our hope to educate every child.

This park-based change of context also enabled us and our students to spend time with each other to begin developing relationships. The student teachers no doubt expected their first educational experience in their professional program to be classroom-based. Perhaps our pre-service teachers anticipated filling out a graphic organizer illustrating cognitive tools? Our use of the cognitive tool "change of context," and various other cognitive tools, invited a pedagogically rich experience, one that invited affective awareness for both ourselves and for our students. IE cognitive tools as our pedagogy enlivened our students' learning as they simultaneously enriched our own meaning-making as educators.

"I'll Make the Path If I Can Find the First Two Stones"* (*source unknown): Using IE to Teach IE

As Faculty Associates, we were fortunate that we had great freedom in determining how we would meet our Program's goals, including our instructional methodologies and which theoretical and practical content to emphasize. We were cognizant of designing our instructional time with IE's cognitive tools in mind, so our students could "live" IE in their own learning in order to hone affective alertness. A strategy we implemented was to make explicit our otherwise "hidden" pedagogical choices. We utilized this binary opposition of imperceptible/obvious to model our teacher perspectives to help our students "see" the *why* of our pedagogy in order to help them better consider their own future pedagogical choices (Emjawer & Al-Jamal, 2016).

Our intention was always to help student teachers learn the theory of IE by living it; however, we recognize our intention was not always immediately fruitful. For example, some students expressed uncertainty about the cognitive tools of "games, drama, and play." This hesitancy became more apparent when it was their turn to design unit and lesson plans. They were willing to experience "games, drama, and play" as students, but were reluctant to implement these cognitive tools in their own pedagogical designs.

> *How do students make sense of their world? How do the students best learn about new things? This was an "ah ha!" revelation for me as I learned more about IE and cognitive tools. Early in my career I had made the mistake of wanting my students to understand the world like I did. IE helped me understand my error: I had to make sense like my students did. And we've both been much happier.*
>
> *rp*

Kelly's and Ross's Imaginative Approach: Rocks and "Kid in a Bag"

As Faculty Associates, we had many moments of pride bringing IE to life in our pedagogy. We feel it may be useful to share two moments, in particular, to illuminate our use of IE in evoking affective alertness. On one occasion, Kelly drew upon the cognitive tools of heroic qualities, metaphor, and binary opposition to invite student teachers to engage philosophically with the purpose of assessment and evaluation in their classrooms. Ross, on the other hand, drew upon the cognitive tool of metaphor to illuminate the unique qualities each child brings.

> *We ask you, Reader, to pause here and to reflect: If you had to name a heroic quality of assessment and/or evaluation, what would it be? Why? How does your chosen heroic quality manifest itself in your relationships with your students?*
>
> *If you had to name a metaphor for assessment and/or evaluation, what would it be? Why? How does your chosen metaphor manifest itself in your relationships with your students?*
>
> *If you had to name a binary opposition of assessment and/or evaluation, what would it be? Why?* (For access to resources, see https://www.circesfu.ca)

Kelly's Stewardship and Rocks: Evoking What's Wonderful About Assessment and Evaluation

Steward, from Old English, is a house guardian; one who protects a home and those within it. A steward can also be a person who acts as a surrogate of others, or a person responsible for overseeing and protecting something considered worth caring for (Harper, 2020). Thus stewardship, as an abstract noun, refers to the position or responsibilities of a steward.

A heady concept, this stewardship, which makes it my choice as the heroic quality for assessment and evaluation. Authentic assessment and evaluation are two of the most complex responsibilities a teacher has to oversee, but they are also two responsibilities worth caring for and protecting.

Sharing with our student teachers the etymological story of the word "steward" invited them to consider its multiple meanings and, by extension, the many-layered concept of stewardship. We continued our conversation with reflections on how stewardship had or had not

manifested itself in our experiences with assessment. I also invited student teachers to consider how the heroic quality of stewardship could guide their own decisions and choices with assessment and evaluation as teachers in their own classrooms, responsible for their own students, whose learning is worth protecting and caring for.

The metaphor for assessment and evaluation I offered was for student teachers to literally balance various sized rocks upon each other. This activity also offered a lived experience for my chosen binary opposition: balance/unsteady. We also discussed the multiple synonyms and meanings for each word—balance/unsteady—to highlight the precarious nature of assessment and evaluation. Balance has several synonyms dependent upon context: account in terms of record keeping, computation, register; atone in terms of making amends, make up for, reconcile; harmony, in terms of equilibrium, poise, or equality. Unsteady, too, has several synonyms dependent upon the context of its use: unstable, in terms of ambiguous, inconstant, suspect; confused, in terms of befuddled, puzzled, or shaky; and fickle, in terms of arbitrary, variable, or faithless.

The act of balancing rocks—some with ease, others with consternation—figuratively enacted the very real experiences of successful and unsuccessful acts of assessment and evaluation that student teachers recounted. It also helped to clarify the value of developing a philosophy of assessment and evaluation to guide the sometimes steady/unsteady nature of being a steward of learning.

> *Differentiation is actually really hard to do, especially with continuously shifting student needs. But, once you get to know your students and you get to know IE's cognitive tools, it becomes a bit easier to be* responsive *rather than* reactive *in the moment of working with a student. I feel I am better able to meet a student's needs because I am able to draw from what I know of the student and align who they are and where I want them to go more readily to the "right" cognitive tools that might get them there.*
>
> *kr*

My instructional choices were pedagogically purposeful: my intent was to encourage pre-service teachers to consider their own philosophic understanding of assessment and evaluation with an evocation of their affective alertness by way of the aforementioned cognitive tools. The final aspect of this process was for the pre-service teachers to establish their own heroic quality, metaphor, and binary opposition (or to borrow mine if needed) to guide their own assessment and evaluation with future students.

This lesson was a significant moment: each of our students had experienced unethical, irrelevant, or inauthentic assessment and evaluation at some point in their academic experiences. Employing cognitive tools invited them to form their own views of assessment and evaluation as teachers and stewards of learners, rather than as learners, or the recipients of assessment and evaluation. With this pivot to teacher/steward from student/recipient, it became clear they were responsible to enact ethical, relevant, and authentic assessment and evaluation for future students.

Developing this lesson also helped me to refine my own understanding of assessment and evaluation. In employing a cognitive tool approach for my student teachers, I also honed my own affective alertness in the process.

> *We ask you, Reader, to pause here and to reflect: Imagine walking into your classroom at the beginning of the class. You are hastily put into a group, and while you and your group*

are heading towards the area on the floor where your teacher directed you to go, you notice that not all groups are the same size. This seems odd, you think, as groups are usually the same size.

Your teacher hands you a bag and directs you and your group to "get going." Each of the other groups have also been handed a bag, and you expect, obviously, that each bag has identical contents...

After a few minutes you raise your head up from your work and scan the room. What are the other groups doing? What is the teacher up to? Are we on the right track?

You can't see some of the groups as they are working behind desks. But some groups you can see are doing things quite differently! The group nearest you clearly has way more cups and stir sticks than your group does…

You can't help but wonder how this is fair. And what about these instructions: "Build something." Certainly, that's vague. What are the criteria? Is it for marks?

You call the teacher over, but he's crouched down working with a group and doesn't seem to hear you.

With much less confidence, you rejoin your group and continue building. But you can't keep your focus on your project: your eyes wander again to the ever-growing ribboned stack of cups being assembled by one group, and the car race going on in the other…

Ross's "Kid in a Bag": Evoking the Unique, Wonderful Potential of Each Student

To conceptualize my vision of "student," I posed an activity where pre-service teachers were put into groups and each group was given a paper bag of supplies and instructions. There were groups of various sizes, and in each bag were some stir sticks, tape, paper coffee cups, ribbons, and coloured paper. But each bag had a different amount of these things: some bags had a lot of everything, some bags had very little of anything. As well, each bag had a variation of instructions: some instructions were complete and clear, and included success criteria; some instructions were very brief or incomplete; and some were incoherent. The most complete instructions asked students to build something tall and colourful, included a time limit, and provided a success criteria. My intention here was to vicariously elicit what many students perceive when instructions are not clear. Groups were spread around the room and some care was taken, without the students realizing it, to make it difficult for one group to see another group working. Students were then given the instructions orally to "get going."

Once the groups started, I circulated and helped some groups with specific feedback, but intentionally ignored other groups. If a student got up and wandered around looking at other projects, I would not stop them. If someone asked a question, I might answer it, or not. At the point where time was almost up, I announced without warning: "Time's up. Hand in your project!" Groups then circulated and viewed other groups' projects. Of course, as instructions, resources, and feedback were varied, the resulting projects were varied.

The intention of the activity was to engage the student teachers imaginatively and emotionally in the lives of the students they would meet in their classes. Students arrive with a wide variety of readiness for school. A student's learner profile consists of social, emotional, physical, and cognitive factors. These bags and the activity, complete with all its inequalities, replicates a class of students.

Most student teachers will have gone from kindergarten through grade 12, and then through four or more years of university quite successfully, and many tend to be oblivious to the struggles of classmates. Using an IE approach to conceptualize a class of students had the benefit of provoking our pre-service teachers' own emotions. I could have brought out a PowerPoint of definitions of "designations" and learning challenges: LD, ADD, ELL, CP, CAPD, … Those are important details. But having student teachers live the experience of being a student had a strong emotional impact. And there were emotions evident in this activity! Some student teachers were clearly proud of their structures, while others were clearly frustrated with what they had been given in their bag, be it with a lack of supplies or with incomplete instructions. Some even felt the humility of failure. But consistently, strength could be found and value could be seen in every project.

My intention was to invite student teachers to reimagine their own understanding of student. The metaphor of "student in a bag" and the activity where inequalities were so evident, challenged our pre-service teachers to view their students not as younger versions of themselves, but as unique individuals bringing their own attributes. It was through this activity that I attempted to instill a strengths-based approach to interacting with all students. A deficit model is one way of working with students, but inclusive education, "education for all students," is more successful when a teacher works with each student's strengths.

I tend to 'go to' metaphor when imagining a unit explored through cognitive tools. What's the best metaphor to capture the complexities of the topic or issue? A cheap metaphor just won't do. To draw students towards caring and understanding deeply about a topic, the metaphor must be rich and layered. Later in the lesson, we'll talk about the metaphor and any anomalies or contradictions to it that the students notice. And there always are some. When it's the students who see them, that's wonderful learning and thinking.
rp

Embracing the Unusual and Unpredictable

Through their self-reflections and discussions, our pre-service teachers told us that the most successful lessons they designed and implemented were IE lessons. They relayed that they as teachers were just as emotionally engaged as their students.

Kelly's Observation of Grade Three Mathematicians as Master Builders

One student teacher's success still lingers for me today. I observed a series of grade three math lessons on measurement. The class composition was complex, with two students in particular with extreme social, emotional, and cognitive needs, each with an adult to support them. The pre-service teacher created an imaginative context, inviting her students to consider themselves master builders. She purchased yellow hard hats her students would enthusiastically don when it was a math lesson. Once they put the hard hats on, they were not just pretending to be master builders, they *were* master builders.

In this role, the grade three students built complex structures out of cardboard, designed and flew paper airplanes, and expertly created 2D and 3D models with marshmallows because they

were invited to consider themselves master builders. Simultaneously, they were learning how measurement was integral to their success as builders and seamlessly applied that learning in their constructions. The two students with extreme challenges were intrigued by the role of master builder, and each participated more fully with far less intervention needed than they typically required.

Ross's IE Student-Teacher Successes: 'Yes, that worked!'

Good teaching is made to look effortless, so it is contentious to say a Faculty Associate can sit at the back of the class and determine that a lesson has been successful or not. It is not difficult to see when students are emotionally engaged in a lesson. Pre-service teachers using IE in their curriculum and instructional design have wonderful evidence to say, "Yes. That worked!" I saw many such examples of *perfinking* through my experience mentoring the IE cohort's pre-service teachers: a geography lesson about the influences of geography on culture using the cognitive tools of rhythm and rhyme through music; a social studies lesson using the cognitive tool "change in context" about the Tennis Court Oath during the French Revolution, taught in the rain on a tennis court; a math lesson about number lines that drew on "the literate eye" using a farmer, his sheep, and a fence; a science lesson drawing on the story form cognitive tool about evolution vs adaptation vs acclimation where students crawled across the multipurpose room floor. We are *perfinkers*; these lessons and the degree to which the students became emotionally engaged in them show the power of IE.

What activities/learning opportunities would appeal to the perfinkers in my class?
Am I perfinking about what I plan to do in this course?
gj

The Path Continues…

We returned with our pre-service teachers to Tynehead Park for our final class to invite them to consider how where we begin and where we end are often linked. This time we walked without clues and in the reverse direction of our initial quest path, not to undo what we had done, but to remind ourselves of where we had come from. Walking side-by-side invited us all to revisit our fundamental belief in the affective power of the imagination.

Six years later our conversation and collaboration in co-writing this article has urged us to ponder our journey and our original meta-narrative, "with the hope to educate every child." Upon reflection, we now offer our revised metanarrative: "a hopeful education for every child." "With a hope" implies there is another option: hopelessness. We embrace the notion that an IE education will invite every student to be human beings who perceive, feel, and think at the same time: a hopeful education for every child. In sharing our experiences, our intention has been to illuminate our and our students' affective alertness and to reveal the pedagogical opportunities IE offers.

Perfinking in Graduate School: Studying IE With Experienced Educators

The following examples of imaginative teacher education come from the context of a Master's of Education program specializing in IE. Like Ross and Kelly, Gillian employs cognitive tools to affectively engage students; to facilitate relationships; to embrace the unusual or

unpredictable; to extend imaginative engagement through teaching into formative and summative assessment and evaluation. As we continue the inside and outside stories of IE pedagogy, these themes continue to emerge as cognitive tools also build engaging learning experiences for students at the graduate level. Gillian's students—experienced teachers—learn about the theory of IE through an IE approach.

It's okay if you realize you don't know as you are planning curriculum. IE invites deep thinking which might lead to recognition of deep gaps in content knowledge. Blunder forward, learn what you can learn in this iteration of the course, with these students, then keep on keeping on learning. The next iteration will be richer, and so will the next, and so on and so on...
kr

Making Familiar Terrain Strange

Too much of a "routine" can kill imagination. If students learn in the same ways and places all of the time, a lack of productive "newness" can limit emotional response. One of the cognitive tools I use in my IE graduate courses to address this problem is the "change of context" tool. I want my students to experience the affective power of this tool first hand. I want them to not only learn about a topic in a new context, whether physically a different space or imaginatively a different space, but I also want them to bring a different attention and intention to topics based on unusual or novel perspectives. For me, changing the context is about keeping students on their affective toes. I want to keep the space "safe" with some routine (e.g., we always begin with a chance to share "good news" or build community), but also making the daily how/what of classes unpredictable and, at times, challenging.

I change the physical space for learning by sending my students outside our classroom walls. For example, to emotionally experience how different "sets" of cognitive tools impact our understanding of the world, I ask students to explore the campus and surrounding area explicitly using different cognitive tools as their guides. Some engage with the tools of oral language (e.g., noticing abstract binary oppositions, feeling a sense of mystery, playing, identifying rhythms and patterns); others with the tools of literacy (e.g., seeking heroic qualities, humanizing meaning, engaging a sense of wonder, identifying extremes and limits); and another with the tools of theoretical language (e.g., exploring general theories and anomalies, unleashing a sense of agency). When they return to class, the students share through story how they imaginatively and emotionally experienced the campus somatically through the body, mythically through the tools of oral language, romantically through the tools of literacy, and philosophically through the tools of theoretical, abstract language. The same physical change of space and pace is part of my online teaching as well. In all my courses I ask students to move away from the screen and to take to their communities to implement/explore ideas. Doing so allows them to engage in their worlds from different perspectives.

Walking-based explorations, based on the resource *The Walking Curriculum: Evoking Wonder and Developing Sense of Place* (Judson, 2018), have been another practice I employ to keep learning unpredictable and my students affectively alert. We move outside our formal indoor classroom to the broader cultural/natural environment seeking evidence of different theoretical concepts. Phones in hand, for example, I ask students to photograph an image that captures Egan's (1997) understanding of imagination. Later, rather than share the visual images on the screen, I ask students to use words to evoke images in our minds. I have also asked students to seek

examples on campus of "story" vs. the "story-form." The discussion that follows provides great fodder for understanding this often misunderstood concept. Dr. Tim Waddington, an IE colleague, also practices walking-focused practices with his pre-service teachers. He asks his students: What plant on campus evokes a quality (heroic quality) of teacher professionalism? (One example was collaboration evoked by a tree growing out of a nurse log.)

The imaginative context within my classroom also changes. For one assignment, I convert our classroom into an educational conference in which students come in role as different theorists. They must present different theorists' ideas and interact with one another in role. The "conference" has some big educational names on the program: we have Elliot Eisner, Plato, Maxine Greene, Hilda Neatby, and Gregory Cajete all at the same event! I, too, am in role as Lillian Hudson, keynote speaker and conference organizer. The work requires students to deeply understand the article content, the theorist's argument, and also to empathize with the theorist in order to take on the "role."

In 2019, as part of my reflective practice, I asked my students for detailed feedback on some of our imaginative learning across the term: most of the students identified this scholarly role-play activity as positive for their learning. It was "unforgettable and inspiring" and "incredibly memorable" because it "made the articles come alive." Overall, they identified the activity as a highly emotional experience and, as a result, both enduring and meaningful. I observed students going beyond the assignment expectations. The majority of the students, for example, had props and costumes to support their role even though this was not a requirement. Many had read beyond the individual article assigned to them to learn more about the theorist they were representing. Moreover, many students stayed in role for the entire evening event, including at dinner breaks.

In other instances, we do "mini," informal role-plays in class. I ask individual students to become different cognitive tools and share with the class in first person. I ask them questions such as: Who are you? What are your qualities? What do you add to learning? (I am metaphor…I am a sense of wonder…etc.). I put a twist on how they share: what's a "headline" for this topic? For example, on studying the notion of story…what's the story on story? If "story" was a series of gestures, what would they look like? How would you demonstrate them or perform them? This kind of activity is one way I encourage students to remember the body's role in learning. It is rare to see engagement of the body as a feature of learning in most higher education programs, outside, perhaps, those in the performing arts; but not in IE. In my courses, the use of the body to convey understanding of concepts, possibilities, and ideas is paramount.

Whether large group activities like the scholarly role-play, small ongoing types of activities, or assessment activities, Imaginative Educators want their students to come to topics from new or novel perspectives. We want our *perfinkers* to feel. We often see the imaginative mindsets created through imaginative activities exemplified in students' expressions of learning and understanding. I want to close with some thoughts about imaginative assessment for learning specifically: how we can use cognitive tools to gain and give feedback on student learning.

Imaginative Assessment and Evaluation

As we have tried to demonstrate in our story of teaching as emotional connection, and the story we hope our students take with them into their classrooms, our aim as Imaginative Educators is to get an imaginative grasp on what our *perfinkers* feel, wonder about, question, and understand. This process encompasses our meeting and greeting students, our teaching as story-telling, and our practices of assessing/evaluating. The ways in which we seek to determine what students know,

understand, and remember employ cognitive tools to engage emotion and imagination. We have already shared examples of how cognitive tools shape ongoing, formative assessments in our teaching (e.g., Kid in a Bag, Scholarly Role-Play). Cognitive-tool based assessments move away from a "reporting" and regurgitating mode into an imaginative dimension and can be employed on a small, yet powerfully informative scale. What follows is an example of a simple, but effective, imaginative assessment for a learning activity that engages the following cognitive tools: the story-form, rhythm and rhyme, and jokes and humour.

What I unimaginatively call the "Pre/Post Hashtag" activity gives me immediate feedback on my students' understanding and also the impact of my teaching. Context: Students had read articles from three different educational theorists. At the start of the class, I ask individual students to identify the story of each article and to express that story in form of a hashtag (e.g., #assessforsuccess). I encourage the students to create a rhyme or convey the emotional significance of the idea in a catchy way. Students write a single hashtag for each theorist on a piece of paper and then leave their responses to the side for the duration of the class. At the end of the session, the students revisit the hashtags they wrote earlier: they either keep them the same or revise them before submitting them to me. The work is anonymous.

My intention in this "Pre/Post Hashtag activity" is to assess students' understanding at the onset of the class and then to see how the students' understanding has changed as a result of the in-class learning activities: a classic assessment for learning activity with an imaginative spin. The hashtags provide me with immediate feedback on students' level of understanding as well as how the classwork has impacted their learning. For example, one student's initial hashtag for an excerpt from Rousseau's *Emile* read, "#thenaturalman." While this is a strong theme in Rousseau's work, the response did not show the connection to schooling today. The student revised their hashtag at the end of the class to read "#individualizedlearner" which reflected a better sense of how Rousseauian ideas currently echo in education. The activity also allowed me to identify some areas of lingering misunderstanding from the responses, and I modified my teaching plans for the upcoming class accordingly. One student also used the activity to express her anxiety around the reading material. I did not know who this student was in particular as the work was anonymous, but I was able to spend time with the whole class providing some additional support on academic reading strategies.

What I noticed in this simple, yet imaginatively engaging activity was the students' willingness and interest in bringing humour and musicality (rhythm/pattern) to their hashtags. They seemed to enjoy the imaginative challenge, and it not only provided useful feedback to me on how they were coming to understand what "story-form" means in IE (e.g., how they wrote the hashtag), but also the impact of the class activities on their understanding. The students who chose to change their hashtags at the end of the session provided more nuanced and informed understanding of the material.

Overall, employing cognitive tools with my graduate students creates an imaginative context for their learning. They learn in ways that give them space to express and explore their own understanding.

IE can invite possibilities too, in assessment tasks. Rather than a question like, "discuss the protagonist's development," I use cognitive tools as the basis for questions as they will open a richness of responses from students, sometimes beyond what I had considered. So instead of "discuss the protagonist's development," I might provide a list of binary oppositions and ask students to choose which best reflect the character at different points in their journey, and offer reasoning for why/how the binary opposition(s) "fits." The kinds of questions we ask dictates the kinds of answers we will receive.

Ask a question that invites possibility, and that's what will appear.

kr

Hopeful Connections

As both our inside stories and the outside manifestations of IE pedagogy reveal, emotion drives IE teaching and learning. Our emotional engagement as *perfinking* IE educators, the choices we make for student learning, and the ways our students also engage in and demonstrate their learning as *perfinkers*, result from situating feeling as central to our pedagogy.

IE enacts affective pedagogy, one that impacts both student and teacher. Though shared intentions of determining meta-narratives for curriculum, facilitating relationships, evoking the unusual, and enacting imaginative approaches to assessment and evaluation exist amongst and between IE educators, IE also invites diversity and possibility. At the end of this story of hopeful connection, a story in which we aim to leave all of you, our readers, feeling something, we are left with a beautiful image of what is possible in teaching and learning: affective alertness. You have read about some of the ways our practices create freeing, imaginative spaces for our learners, and for ourselves as educators. We hope you *feel* the possibilities Imaginative Education offers to the field of education, and to yourselves as a *perfinkers*.

References

Chambers, C., Hasebe-Ludt, E., Donald, D., Hurren, W., Leggo, C., and Oberg, A. (2012). Métissage: A research praxis. In J. G. Knowles, and A. L. Cole (Eds.), *Handbook of the arts in qualitative research: Perspectives, methodologies, examples, and issues* (pp. 142-154). SAGE. https://doi.org/10.4135/9781452226545.n12

Covarrubias, D., Siqueiros, M., & López, C. (2017). Diseño propuesta de titulación:Experiencia de estudiantes normalistas bajo el enfoque de educación imaginativa. Primer Congreso Nacional de Investigación sobre Educación Normal. Congreso llevado a cabo en Mérida, Yucatán. http://www.conisen.mx/memorias/memorias/1/C210117-J152.docx.pdf

Egan, K. (1997). *The educated mind: How cognitive tools shape our understanding*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226190402.001.0001

Egan, K. (2005). *An imaginative approach to teaching*. Jossey-Bass.

Egan, K., & Judson, G. (2015). *Imagination and the engaged learner: Cognitive tools for the classroom*. Teachers' College Press.

Ellis, G. W., Pina, J., Mazur, R., Rudnitsky, A., McGinnis-Cavanaugh, B., Huff, I., Ellis, S., Ford, C. M., Lytton, K., & Cormier, K. C. (2020) Developing transmedia engineering curricula using cognitive tools to impact learning and the development of STEM identity. Paper presented at the *American Society for Engineering Education Annual Conference*, Virual Conference. http://www.circesfu.ca/wp-content/uploads/2020/05/ASEE-2020-submittrd.pdf

Ellis, G. W., Rudnitsky, A., McGinnis-Cavanaugh, B., Huff, I., & Ellis, S. K. (2015), Designing a multimedia learning environment that engages children through narrative. Paper presented at *American Society for Engineering Education Annual Conference*, Seattle, Washington. https://doi.org/10.18260/p.23813

Emjawer, S., & Al-Jamal, D. (2016). An imaginative approach to teaching grammar. *Journal of Educational Sciences*, *28*(1), 183-202. https://jes.ksu.edu.sa/sites/jes.ksu.edu.sa/files/0028-01-07.pdf

Guenter, K. (2019). *Cognitive tools in the French language classroom: An inquiry into the engagement of intermediate students through IE and AIM*. (Unpublished Masters of Education Action Research Project). Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/KGuenter-EDUC-904-AR-report.pdf

Hadzigeorgiou, Y. (2016). *Imaginative science education: The central role of imagination in science education.* Springer. https://doi.org/10.1007/978-3-319-29526-8

Hadzigeorgiou, Y., Klassen, S., & Klassen, C. F. (2012). Encouraging a "romantic understanding" of science: The effect of the Nikola Tesla story. *Science & Education, 21*(8), 1111-1138. https://doi.org/10.1007/s11191-011-9417-5

Hagen, P. (2015). *Listening to students: A study of elementary students' engagement in mathematics through the lens of Imaginative Education*. Unpublished PhD Thesis. University of British Columbia, Vancouver, Canada. https://open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0165668

Harper, D. (2020). steward (n.). https://www.etymonline.com/search?q=steward

Hasebe-Ludt, E., Chambers, C. M., & Leggo, C. (2009). *Life writing and literary metissage as an ethos for our times*. Peter Lang.

Hasebe-Ludt, E., Sinner, A., Leggo, C., Pletz, J., Simoongwe, F., & Wilson, L. (2010). These tensioned places of teaching life writing. In *Precarious cosmopolitan times. Creative approaches to research*, *3*(2), 21-37. https://doi.org/10.3316/CAR0302021

Hrennikoff, M. (2006). Implementing an imaginative unit: Wonders of the water cycle. *Educational Perspectives*, *39*(2), 27-33. https://files.eric.ed.gov/fulltext/EJ877681.pdf

Immordino-Yang, M. H. (2015). *Emotions, learning and the brain: Exploring the educational implications of affective neuroscience*. W.W. Norton.

Jalali-Tehrani, F. (2017). *Engaging teachers and students in the multicultural ESL classroom: A journey*. Unpublished Masters of Education Action Research Project. Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/Fatimah-Jalali-Tehrani-AR-2017-1rx5ir0.pdf

Judson, G. (2018). *A walking curriculum: Evoking wonder and developing sense of place (K-12)*. KDP.

Kim, Y. (2017). *Imaginative Education and Individual Education Plans (IEP's) for students with Autism Spectrum Disorder*. (Unpublished Masters of Education Action Research Project). Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/Yearin-Kim-AR-24elmrs.pdf

Llanos, B. E., & Vergara, G. (2019). *Educación imaginativa en el aprendizaje de un signo de puntuación*. XV Congreso Nacional de Investigación Educativa. Congreso llevado a cabo en Acapulco, Guerrero. http://www.comie.org.mx/congreso/memoriaelectronica/v15/doc/3618.pdf

Lopez, C. (2015). *Implementing imaginative education through mentoring with an English as an additional language focus*. Unpublished Masters of Education Action Research Project. Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/Carolina-Lopez-AR-17wvhw4.pdf

McAuliffe, L., Ellis, G.W., Ellis, S. K., Huff, I., & McGinnis-Cavanaugh, B. (2011). Mysteries and heroes: Using imaginative education to engage middle school learners in engineering. Presentation at the *American Society for Engineering Education Annual Conference*, Arkansas, U.S.A. https:/doi.org/10.18260/1-2--18782

McKellar, R. (2006). *Opening the doors to dreamland: Developing literacy and engagement through Imaginative Education*. Unpublished PhD Thesis. Simon Fraser University, Burnaby, Canada. http://summit.sfu.ca/item/4285

Murdoch, D. (2019). *Making math meaningful: Increasing student engagement in math through an imaginative education approach*. Unpublished Masters of Education Action Research Project. Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/10/Danielle-Murdoch-Action-Research-2019-PDF-Final-Copy.pdf

Olivares, D. C., Siqueiros, M. G., & López, C. (2017). *La educación imaginativa en el desarrollo de las habilidades para aprender a aprender*. XIV Congreso Nacional de Investigación Educativa. Congreso llevado a cabo en San Luis Potosí, San Luis Potosí. http://www.comie.org.mx/congreso/memoriaelectronica/v14/doc/2303.pdf

Payson, L. (2017). *Unstructured literacy play: The use of independent literacy stations based on imaginative cognitive tools to help early intermediate students develop their voices as writers*. Unpublished Masters of Education Action Research Project. Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/Leone-Payson-AR-2017-2855xpo.pdf

Pearson, G. (2009). Imaginative education engages Aboriginal learners in Prince Rupert. *Education Canada*, *49*(5), 26-29. https://www.edcan.ca/articles/imaginative-education-engages-aboriginal-learners-in-prince-rupert/

Peralta, D. G., Covarrubias, D., & López, C. (2019). *Impacto del enfoque educación imaginativa dentro de una comunidad escolar sonorense, México*. Tercer Congreso Nacional sobre Educación Normal. Congreso llevado a cabo en Playas de Rosarito, Baja California. http://www.conisen.mx/memorias2019/memorias/1/P165.pdf

Shahi, R. (2018). *Integrating the cognitive tools: What are the effects?* Unpublished Masters of Education Action Research Project. Simon Fraser University, Burnaby, Canada. http://www.circesfu.ca/wp-content/uploads/2019/08/Rita-Shahi-AR-Report.pdf

Stewart, K. (2014). *Teaching the media with mouse woman: Adventures in imaginative education*. Unpublished PhD Thesis. Simon Fraser University, Burnaby, Canada. http://summit.sfu.ca/item/14511

Vygotsky, L. (1962). *Thought and language*. MIT Press. https://doi.org/10.1037/11193-000

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wakimoto, S., & Yoshida, T. (2018). An elementary EFL teacher education course based on the Imaginative Approach. *International Journal of Curriculum Development and Practice, 20*(1), 21-34. https://doi.org/10.18993/jcrdaen.20.1_21