

Multi-grade teaching and learning: Challenges and opportunities

by

Heather Jo Johnson

Bachelor of General Studies, Simon Fraser University, 1986

Professional Development Program, Simon Fraser University, 1982

A Paper submitted in partial fulfillment of the

requirements for the degree of

MASTER OF EDUCATION

Department of Curriculum and Instruction

© Heather Jo Johnson, 2014
University of Victoria

All rights reserved. This Project may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

Supervisory Committee

Multi-grade teaching and learning: Challenges and opportunities

by

Heather Jo Johnson

Bachelor of General Studies, Simon Fraser University, 1986

Professional Development Program, Simon Fraser University, 1982

Supervisory Committee

Dr. Todd Milford (Department of Curriculum and Instruction)
Supervisor

Dr. James Nahachewsky (Department of Curriculum and Instruction)
Departmental Member

Abstract

Supervisory Committee

Dr. Todd Milford (Department of Curriculum and Instruction)
Supervisor

Dr. James Nahachewsky (Department of Curriculum and Instruction)
Departmental Member

This project identifies the challenges and opportunities that exist in multi-grade teaching. Many of the challenges are not inherent to the multi-grade configuration itself, but stem from a system that predominantly values and practices single-grade education. Many opportunities for real-world learning are inherent in multi-age groupings, which are more reflective of learning outside of institutionalized education. The literature review critically reflects on research that concludes multi-grade education is “simply no better or worse” than single-grade education. Given that few multi-grade classrooms or schools are created for philosophical or pedagogical reasons, and few multi-grade teachers may be employing pedagogies well-suited to multi-grade education, the potential for multi-grade learning has not been fully acknowledged or researched. This project investigates one question: “What are the philosophies, skills and approaches that enable successful teaching and learning in multi-grade classrooms?” The project begins to address multi-grade professional development through a website designed for multi-grade teachers.

Table of Contents

Supervisory Committee	ii
Abstract	iii
Table of Contents	iv
List of Figures	vi
Dedication	vii
Chapter 1: Introduction.....	1
A Family of Teachers.....	1
Growing Up: Big Family, Small Town.....	2
First Year Teachers Came and Went.....	2
A Simple Faith.....	3
My Turn.....	4
Demystifying Multi-grades.....	5
A Teacher's Intuition.....	5
Delving Deeper.....	6
Reaching Out.....	7
Chapter 2: Literature Review.....	8
Introduction.....	8
What is a Multi-grade Classroom?.....	8
To What Extent Does Multi-grade Education Exist Today?.....	9
How is Multi-grade Education Generally Perceived, and Why?.....	10
Multi-grade Classrooms and Academic Achievement.....	12

Multi-grade Classrooms and Social-Emotional Development.....	14
Inherent Assets and Opportunities of a Multi-grade Grouping.....	14
Identified Challenges for Multi-grade Teachers.....	15
Curricula.....	16
Teacher Education for Pre-Service and Experienced Teachers.....	17
Multi-grade and Multi-age.....	18
Teacher Skill Sets.....	19
Furthering our Understanding of Multi-grade Teaching.....	20
Conclusion.....	21
Chapter 3: Creating a Digital Place to Explore Multi-grade Teaching and Learning.....	22
Rationale.....	22
Choosing a Format for my Multi-grade Resource: Paper or Digital?.....	23
Choosing a Digital Format.....	25
Website Content.....	28
Online Curation.....	29
Publicizing the Website.....	32
Conclusion.....	34
References.....	35

List of Figures

Figure 1: Homepage.....	28
Figure 2: Link to Symbaloo from website.....	30
Figure 3: Curation of multi-grade resources in Symbaloo.....	31
Figure 4: Examples of tweets to publicize webpage.....	32
Figure 5: Some of the statistics tracked by the website.....	33

Dedication

To my parents, Joe and Peggy, for your example and love.

To my husband, Alan, for all your support, and for all the love and laughter you bring to our marriage.

To our sons, Carl and Roland, because children are the greatest gift.

To the children who have been my students; thank you for challenging and indulging my teacher's heart, for allowing me to explore and fulfill my teaching dreams.

Chapter 1

A Family of Teachers

I grew up in a family of teachers. Some of us (Dad, Mom, Grandma, my sister and I) were, or still are employed in schools. Those who are not in schools, have assumed the role of teacher in a diverse range of employment. We are teachers in and out of school, in formal situations, and just as often, in informal ones. Teaching is more than a profession to my family, it is in our nature. It is not so much what we do, as who we are. If there were no schools we would still be teachers.

I remember, as a young girl, sitting in my grandmother's farmhouse, happily tracing left-over stencilled worksheets filled with Grandma's beautiful script. At home I played school with my two youngest brothers, even going so far as writing report cards and handing them to our mother. (Ironic, because as a teacher, one of the tasks I detest most is writing report cards). As a young teen I taught Sunday School, and at the tender age of sixteen, I was planning and instructing swimming lessons for the children (and some adults) in our small town. I always knew I wanted to be a teacher – that, in fact, I was a teacher.

While growing up, I read every novel I could about single young women who went out into the wilderness, encountering and overcoming hardships in order to teach. I, too, wanted to have such adventures and to teach in a one-room school, but I assumed the time of adventures and one-room schools no longer existed. I would listen to and ponder my grandmother's joyful recollections and sometimes poignant stories of her teaching life, not realizing the extent to which they were preparing me for my own future.

Growing Up: Big Family, Small Town

My siblings and I grew up in the same small town where our parents continue to live today. We experienced the benefits and challenges of living in a small community, learning from our parents the importance of “getting along”, of forgiveness, of kindness. As the second of five children in our family, I remember being told, but not fully comprehending, that not all families were as safe and happy as ours; that not all families had the same rules or resources that ours did. Although my recollection is that of a very secure, happy childhood that revolved around home and family, friends and community, I later learned that incidents of substance abuse, rape, incest, and violent suicide were rampant in our community. There were rules in our family that were enforced with consistency, respect, and a high level of expectation. If times were tough financially or otherwise, it did not intrude into our happiness as children. When I recall that our family of seven lived in a three-bedroom house with one tiny bathroom, I marvel at how we (as children) were oblivious to the crowded conditions! I loved being part of a ‘big’ family, and I know it helped prepare me for seeing a multi-age grouping as one filled with possibilities instead of limitations.

First Year Teachers Came and Went

Because my father was, for much of my childhood, the principal of our local Elementary school, our parents assumed the role of welcoming new teachers - often first year teachers - to our community. I sensed, because of the high turn-over, that teachers new to the profession faced many challenges in their first years. So, when it was my turn

to send out applications for my first teaching job I knew wherever I went I would be facing a tough learning curve. Jobs, at that time, were listed in the newspapers, and in the spring of 1987 there were not many listings. Regardless, I sent resumes to every District in the province – and did not get one reply of interest. By June, the only ad still running in the Vancouver Sun classifieds was the one I had intentionally decided not to apply for – a position in a one-room school on Northern Vancouver Island. “Who would ever take on such a position in their first year teaching?” I had scoffed. Now it was the only ad remaining. I applied, and got the job. My adventure had begun. Why do I mention this fact? Because it is an illustration of my belief that my teaching career – the where, when and even how of it – has always been guided, and has not been wholly determined, or necessarily chosen by me.

A Simple Faith

Teaching, for me, is an expression of faith, and I rely daily on my faith for guidance and refreshment as a teacher. I see the children in my class as blessings, not burdens, placed in my care to both teach and to learn from; to challenge and be challenged by, to bless and be blessed by. In my family’s faith, teaching is identified as a gift, given to an individual so they, too, have something to receive and offer with humility, service, joy and thanksgiving. Teaching, for me, is very much a gift to and from one’s heart.

My Turn

Nevertheless, my first year teaching was horrendous. If it had not been for that deep, still voice within me that knew I was a teacher, I may have left the profession with many unresolved and wounded experiences, and without ever having explored the desires of my heart. Part of my experience was what every first year teacher goes through – feeling overwhelmed and under-qualified to take on the many complex, concurrent tasks and responsibilities of teaching a diverse group of children for one whole year. But, in addition, I was attempting to teach a five-grade split with no experience or resources on how to teach in a multi-grade setting. I was isolated professionally, being the only teacher at the school and new to the District. Socially, I was the only single female in a community where factions of parents alternately vied for and accused one another of being friends with the teacher. I relied heavily on the examples that had been set by my parents, and what they had modelled as educators in a small community. I was also determined to succeed. I liked being independent and accountable. I had a quiet, gentle spirit, but also a strong sense of what was required of me, and of what was better left in God's hands. On September 29, I met a man who became my best friend, and later become my husband, a man who had grown up in the community, had attended the one-room school as a boy, and whose mother had long ago taught there as a young, unmarried woman. Obviously, this also had a lot to do with my staying in the community, and was what enabled me to gradually work through the challenges of my job, to enjoy the experience and fulfillment of a unique teaching career.

Demystifying Multi-Grades

My first year in the one-room school stretched out to thirteen, during which time the grades I taught also stretched out to include Kindergarten to Grade Nine. When our older son reached Grade 11, we moved to a neighbouring community where I have continued to teach in multi-grade classes. Like many teachers outside of urban areas, I have only ever taught in multi-grade classrooms, yet I was never formally taught how to do so. My continued need and desire to understand how to create the best learning conditions in a multi-grade setting also created opportunities for me to mentor other multi-grade teachers. I have enjoyed, and benefitted from, these interactions with others who find themselves challenged by multi-grade teaching, often because they are not yet aware of (nor fully appreciate) the rich learning environment that is possible in such a setting. Over the years, I have come to think of multi-grade teaching as its own specialty, with a distinct philosophy and approach that arises from, and taps into, the assets and opportunities uniquely inherent to such a configuration.

A Teacher's Intuition

Originally though, I attempted to teach as I had been taught to teach: keeping each grade distinct from the others, with minimal overlap in lessons or assignments. I eventually had to abandon that method because it simply was not working for me or for my students, and it certainly was not sustainable. The professional autonomy I had by being the sole teacher meant I had the responsibility – and also the freedom - to make that decision. I had to base the changes I was making on intuition since I had no professional

resources, and my limited intuition was based solely on the experience of growing up in a fairly large family. A transformation in my teaching occurred when I began to think of my students not as multiple groups of learners, but as one group learning not only with and from me, but with and from one another. This change in perspective enabled me to see how students could all work on the same content and skills at the same time, but each at their own level. I was struck at the difference in my teaching and in the children's learning; both became joyful again. But it was not until a few years later, when an overwhelmed young teacher from the remote community of Kyuquot sought me out to ask, "What do you do, and how do you do it?" that I really began to examine what it was that I was doing, and why it was working.. At the time of our brief interaction I regretfully could not give a helpful answer. I simply did not know.

Delving Deeper

That simple question – or rather, my inability to answer it, moved me. It made me more curious, and I began to search out articles and research papers on multi-grade classrooms. The Internet was new to our remote area, and although it was slow and unreliable, I was able to read a few academic papers from the University of Newfoundland. I became involved in the BC Rural Teachers Association, and wrote articles for their publication. I sent away for a copy of *Multi-age and More* by Colleen Politano and Anne Davies (1994) and read it from cover to cover when it arrived in the mail. I met with another one-room school teacher in our District, Christina MacDonald, and together we formed a professional learning network of two. Christina and I

eventually went on to conduct multi-grade workshops at both large and small conferences across British Columbia. Falling enrollments throughout much of the province meant that many teachers who had experienced success and a level of ease within single-grade classrooms were finding themselves struggling in multi-grade classrooms, and resenting situations that could have been - with the help of professional development - incredibly rich environments for both their students' learning and their own teaching.

Reaching Out

My own struggles and successes are what prompted me to reach out to other multi-grade teachers. As an advocate of educational equity for rural children, I am motivated to work with teachers to promote a better understanding and recognition of both the challenges and the joys of multi-grade teaching. This public role has been a stretch for me, as I am someone who values her privacy. Even now, after many years, when I am asked to address multi-grade issues my first reaction is to panic and think that I do not have the knowledge or ready answers to be in this position of an expert. But, what I know that I do have is an understanding of the task, awareness of the research, experience with the multi-dimensionality of such teaching, an interest in and increasing awareness of multi-grade models from around the province, and a teacher's heart. From the start, I have seen my Masters in Education (Curriculum & Instruction) program as an opportunity to hone my academic examination of the subject and to shape it into a useable, helpful, interactive and on-going resource that will, hopefully, empower others to succeed in their own multi-grade teaching and learning.

Chapter 2: Literature Review

Introduction

Multi-grade classrooms are a permanent and increasingly common feature of our education system, yet are often viewed as an inferior environment in which to teach and learn (Gayfer, 1991; Mulryan-Kyne, 2007). What evidence exists about the academic achievement levels in multi-grade classrooms compared to single-grade classrooms? What are the effects of multi-grade education on a student's social-emotional development? How can teachers harness both the challenges and opportunities of multi-grade education to optimize learning in such a setting? These are the guiding questions of this literature review.

What is a Multi-Grade Classroom?

A multi-grade classroom is created when students from two or more consecutive grade levels are taught by a single teacher. In many schools, this situation occurs when there is an overflow of students in a single grade. Often, in areas of low population and student enrollment, multi-grade classrooms are formed when there are not enough students in a single grade to justify hiring a teacher. The latter condition is more common in rural areas, where several grades may be taught in a single classroom (Mulryan-Kyne, 2004). Very few multi-grade classrooms are created for philosophical or pedagogical reasons (Gayfer, 1991). Multi-grade classrooms are expected to fulfill the same conditions as a single-grade classroom in regards to student achievement and outcomes:

A class of combined grades is composed of students from two or more adjacent grades who are grouped with one teacher for instruction... Within a class of combined grades, students work towards the achievement of their grade-specific curriculum expectations. When common “big ideas” or skills are involved, all students in the class often work together, but at other times, instruction may be specific to each grade. Assessment, evaluation, and reporting are grade-specific. (Province of Ontario, 2007, p.3)

To What Extent Does Multi-Grade Education Exist Today?

The prevalence of multi-grade classrooms worldwide is growing, not just in countries that are developing economically, but in well-resourced countries as well (Mulryan-Kyne, 2007). In the early 1990s, one in seven classrooms in Canada was multi-grade, a “conservative estimate” based on a comprehensive study commissioned by the Canadian Education Association (Gayfer, 1991, p. 51). At the time of the study there was significant growth in the number of multi-grade classrooms across Canada. This increase was attributed to declining enrollments in rural districts, and rising enrolments in urban districts coupled with mandated teacher-student ratios (Gayfer, 1991). Although there has not been a national study on multi-grade classrooms in the past twenty-two years, there is evidence that the number of such classrooms continues to rise (The Ottawa Citizen, 2008). There is a need for current statistics at provincial, territorial and national levels to accurately map the prevalence and location of multi-grade classrooms.

In British Columbia the Ministry of Education does not specifically collect data on multi-grade classrooms. Using a ratio of school enrollment to number of grades taught, one can deduce from the data which schools are multi-grade. Where the ratio is equal to, or less than fifteen students per grade level, the assumption is that children are taught in multi-grade classrooms within that school. Based on September 2012 enrollment figures, an estimate of 166 multi-grade standard public schools exist in this province (BC Ministry of Education, 2013). This method, however, does not accurately identify the multi-grade classes that exist within those schools, nor does it reveal multi-grade classes that exist within mid-to-large sized elementary and high schools. There are also many private, alternative, and federally-funded band schools within BC that are multi-grade. The need for comprehensive data is obvious.

How is Multi-Grade Education Generally Perceived, and Why?

Multi-grade instruction has not been properly esteemed since the invention of the single-grade education system (Little, 2006). The English Industrial Revolution provoked wide-spread movement from rural to urban areas, and highlighted the need to provide basic education for employed children. Unprecedented numbers of children entered the school system, and for ease of organization and administration, authorities sorted children according to age spans (six to nine year olds, for example). Factories were providing successful models of manufacturing and economic efficiency, and schools were quick to adopt the factory model for efficiently “assembling” knowledge in children as they progressed from year to year. In 1918 Franklin Bobbitt wrote *The Curriculum* which

promoted the application of scientific methods and economic efficiency to education, heavily influencing what was taught, how it was taught, and in what order (Flinders & Thornton, 2009). One result of Bobbitt's influence was the further segregation of children according to age by grouping them in "grades". Although the practice was not based on theories of learning or human development, single grade classrooms were quickly adopted and enshrined around the world as being the most efficient model for educating students.

Almost 100 years later, multi-grade classrooms are still largely considered a deficient way to educate children compared to single-grade classrooms (Hohl, 1991). Many people – teachers, as well as parents – regard a multi-grade classroom as an undesirable condition under which to teach or learn (Gayfer, 1991; Mulcahy, 2008). When enrolments fall or fluctuate, multi-grades are created as a "necessary evil" (Hohl, pg. 72) and few schools plan to be multi-grade for longer than necessary. The existence of multi-grade classrooms is largely driven by short-term administrative goals rather than long-term philosophical and pedagogical shifts (Gayfer, 1991). This may explain why Ministries of Education, teacher education programs, and the development of classroom resources have been slow to acknowledge and respond to the specific needs of multi-grade teachers and learners (Little, 2006).

Monograde schools, monograde teachers and the children who learn in monograded settings form the dominant and visible elements of all national systems of education worldwide. Multi-grade schools, multi-grade teachers and the children who learn in multi-graded settings operate at the margins of these systems and

are largely invisible to those who plan, manage and fund education systems. Yet they persist. (Little, 2006, pg. 4)

What does research say about multi-grade education? What exactly are the challenges and opportunities inherent in a multi-grade classroom? And under what conditions can student achievement be optimized in such a setting?

Multi-Grade Classrooms and Academic Achievement

Much of the research comparing the academic performance of students in single and multi-grade classrooms claims that multi-grades are “simply no worse and simply no better” than single-grades for learning (Mason & Burns, 1996; Veenman, 1995, 1996). But one must carefully consider the impetus for the research, and the types of single and multi-grade classrooms studied. What drove the flurry of studies in in the 1980s and 90s and why were multi-grade configurations suddenly garnering so much attention? Was it because multi-grade classrooms were becoming more common in city schools where they had not traditionally existed? Concerns regarding the efficacy of multi-grade classroom instruction (recall Bobbitt’s focus on efficiency) led to research that compared the academic achievement in single-grade classes with that of students in “combination classes” of two grades. In most studies, teaching methods were not controlled for, but did not differ very much between the classrooms; children from each of the grades in a combination class were taught separately from their classmates in the consecutive grade (Smit & Humpert, 2012). What is surprising, given the extra workload of a multi-grade teacher who teaches two grades separately, is that students from the two classroom types

achieved similar results. What was not measured, and cannot be generalized from this research, is the performance of students in multi-grade classes that are characterized by a distinct multi-grade philosophy and approach.

The research focus of the 1980s and 90s is based on the assumption that the most effective way to teach (even in a multi-grade classroom) is to teach each grade separately from the other. This is an example of society's bias towards the superiority of single-grade instruction. Research is needed on the academic achievement of students in highly effective multi-grade classrooms; classrooms in which the teacher uses methods and approaches that fully harness the potential for learning in a multi-grade setting. Unfortunately, very little of this type of research has been conducted (Mulryan-Kyne, 2004).

Consequently, there still exists a general lack of knowledge and appreciation for the inherent challenges and opportunities embedded in multi-grade classrooms (Mulryan-Kyne, 2004). Concerns about quality of instruction and learning, peer relationships (or the lack thereof), and teacher workload both before and during class are often raised (Gayfer, 1991; Mulryan-Kyne, 2004). These are legitimate concerns. When a teacher tries to teach each grade within a multi-grade class in the same manner she/he would teach a single-grade class, not only can the teacher be overwhelmed, but the benefits of a multi-grade composition are lost. Although effective single-grade and multi-grade teaching do share many similarities, they are not entirely the same (Mulryan-Kyne, 2004).

Multi-Grade Classrooms and Social-Emotional Development

In addition to academic achievement the research has also looked at the social-emotional effects of single- and multi-grade classrooms on students, although in many cases this observation was made as an aside, rather than as the focus of the study (Gayfer, 1991; Vincent, 1999). Most qualitative results mention a noticeable positive effect of multi-grade classrooms on learners' affective (emotional and attitudinal) development and behavior. Because other research has indicated a positive relationship between social-emotional and academic skill levels, the importance of this finding must not be minimized (Ong, 2000).

Inherent Assets and Opportunities of a Multi-Grade Grouping

Outside of formalized education, children generally learn in multi-age settings. In less Westernized cultures, extended families, but mainly the siblings and cousins of children in large families, are important and effective agents of socialization through peer-modelling and monitoring (Rabain-Jamin, Maynard & Greenfield, 2003). Research on indigenous learning helps us understand ways in which learning traditionally occurred – and continues to occur - outside of a school setting. In these less contrived contexts, children are both learners and teachers, and learning is integrated, holistic, and individualized, yet community or family oriented (Halbert & Kaser, 2013).

In a multi-grade classroom, the presence of learners with diverse ages, abilities and interests more closely represents these natural communities of learners than does a single-grade classroom. Vygotsky (1980) highlights the importance of such a learning

environment, especially for children. In his theory, Vygotsky uses the term “zone of proximal development” to define the cognitive space between what children can achieve independently and what they can achieve with support or scaffolding from an adult or older peer. Vygotsky claims that children learn best when they are exposed to these slight cognitive challenges within a social context.

Although multi-grade classrooms usually operate under the same constraints imposed on single-grade classrooms (such as schedules, curricula and evaluations), students in multi-grade configurations also have ample opportunities to learn and work with people both younger and older than themselves. In this way they develop skills both as followers and leaders in a community of learners (Proehl, 2013). Because multi-grade students are immersed within a range of grade levels, they have more opportunities to develop and learn at their own rates, easily and flexibly participating in lower or higher grade-level instruction and practice depending on their needs. Hoffman (2003) observes that in a multi-grade classroom diversity is the norm, and that this results in less competition and greater cooperation amongst students. Diversity is seen as an asset that enriches the learning environment.

Identified Challenges for Multi-grade Teachers

The challenges that exist are not inherent to the multi-grade configuration itself, but of a system that predominantly values single-grade education (The Centre for Multi-Grade Education, 2010). The literature identifies two main challenges for multi-grade teachers: curricula and teacher preparation.

Curricula

Provincial curricula and commercially prepared resources continue to cater to single-grade practices despite the high need for multi-grade considerations (Gayfer, 1991). Consequently, multi-grade teachers spend an inordinate amount of time re-organizing curriculum and preparing their own materials in order to teach. Single grade resources must first be gathered at all grade levels, supplemented where needed, integrated into *vertical* (across grade-level) and/or *horizontal* (across subject) themes and lessons and then differentiated. Only then do they become useful, engaging and academically accessible to a diverse group of learners. This work requires a specific set of skills in curriculum design and implementation that single-grade teachers also require, but not to the same extent and depth (Vincent, 1999; Tomlinson et al, 2003).

Districts, schools and individual teachers in British Columbia have tried to address the lack of multi-grade resources by sharing locally-developed materials. The Campbell River School District (SD 72) has re-organized the current BC Math curriculum into multi-grade charts that highlight the common skills taught in each grade, and the small increment of growth targeted for each grade level (<http://web.sd71.bc.ca/math/index.php?page=multi-grade>). Similarly, the author of this paper has re-worked the 2007 BC Language Arts curriculum (K-7) into a “multi-grade friendly format” (<http://www.bcruralteachers.org/>). Both documents are used throughout the province, but availability and knowledge of these resources is largely through word-of-mouth. A digital curation of multi-grade research and resources is needed; an easily accessible, up-to-date, online repository of multi-grade information would then be readily available to all multi-grade teachers.

Although BC's current educational reform and extensive re-design of curricula across all grades and all subjects has not specifically acknowledged the needs of multi-grade instruction, its focus on "big ideas" rather than numerous learning outcomes will be helpful. The educational shift evident in the initial drafts of curricula may align themselves more easily with a multi-grade approach to teaching and learning. Curricula drafts may be viewed at <https://curriculum.gov.bc.ca/>.

Teacher Education for Pre-Service and Experienced Teachers

The two most influential factors in student gain (growth in learning) are the teacher, and student ability, regardless of whether or not the class is single- or multi-grade (Mulryan-Kyne, 2007). Yet the majority of multi-grade teachers have very limited, or no special training (Gayfer, 1991; Little, 2006). Although the multi-grade classroom has been a permanent feature of education since the concept of grades, its existence is not yet properly acknowledged (or honoured) by most teacher education programs, many of which are still reluctant to place pre-service teachers in rural, multi-grade practicums (Mulryan-Kyne, 2007). Whether this is due to the preference of pre-service teachers, a lack of identified multi-grade mentors, administrative logistics and/or financial costs for universities, these are moot points considering that many first year teachers begin their careers in rural districts with multi-grade classrooms. With urban multi-grade classes on the rise, many more teachers, regardless of experience, location or specialty, may be asked to teach a multi-grade class at some point in their careers.

Multi-Grade and Multi-Age

Effective multi-grade teaching is a hybrid of single-grade and *multi-age* education (Mulcahy, 2000). In many ways a multi-grade approach is closely aligned with that of multi-age teaching but within the mandate of an imposed curriculum and evaluation practice. Multi-age teaching typically involves developmentally appropriate practice, with instruction based on the needs and interests of each child rather than on a pre-determined curriculum and movement through that curriculum as a class. Students are given choice in what they learn and do; information and skills are gathered and practiced in meaningful contexts. In a multi-age class there is a lack of grade level distinctions among children, most of whom are three or more years apart in age (Hoffman, 1991). As in multi-grade classes, children are taught by the same teacher for several years in order to foster deep and enduring relationships among students, teacher, and parents (Hoffman, 1991).

This alignment of multi-grade and multi-age approaches results in greater differentiation than often occurs in a single-grade class. Differentiation is an approach to instruction rather than a method (Tomlinson et al, 2003). It is not the same as individualization; the latter is changing what is taught; differentiation is changing how it is taught (Aldridge, 2010). Differentiation can be complex, and not all teachers do it; or do it well (Tomlinson et al, 2003).

Teachers who are successful in teaching single-grades do not necessarily transition successfully into multi-grade teaching. Success is largely dependent on one's own understanding and appreciation of a multi-grade approach to education (Mulryan-

Kyne, 2004). Exemplary multi-age teachers focus on the possibilities rather than the limitations of their class configurations (Hoffman, 1991).

Teacher Skill Sets

But multi-grade teacher training should not separate itself from that of single-grade teaching; many of the desired skills are the same (Mulryan-Kyne, 2007). Many teacher attributes and practices that generate success in multi-grade classes also benefit single-grade classrooms. These include an understanding of curriculum as a continuum, and a repertoire of differentiation strategies such as flexible grouping and open-ended assignments. Scaffolding independence in learners, nurturing self-motivation and direction, cross-grade coaching skills, activity-based instruction, the development of inquiry-based skills, and other holistic approaches to instruction and learning are important teaching methods in any classroom (Gayfer, 1991). The multi-grade teacher, however, requires these skills at greater level (Vincent, 1999).

Multi-grade teachers also identify the following professional learning needs: opportunities to connect with and observe other multi-grade teachers; resources designed for use in multi-grade contexts; and additional coaching in curriculum design, student assessment, record-keeping, scheduling and time management. In-class support may also be needed to allow for greater differentiation (Gayfer, 1991).

Furthering our Understanding of Multi-grade Teaching

A review of the literature reveals that much of the existing comparative research between single and multi-grades does not specifically include multi-grade classrooms in which teachers demonstrate an approach based on appreciation and understanding of the opportunities inherent in such a grouping, or of strategies that are well-suited to such configurations. The literature review reveals the need for more research on successful multi-grade teaching, and the identification of those practices that draw out the richness of such a learning environment.

There is a need to identify exemplary multi-grade teachers who teach in classes with consistently high levels of academic performance and/or gain. We have much to learn about the ways in which these teachers differentiate to build a rich learning community.

Other questions to consider: Is there an optimum range of grades for multi-grade learning? What impact does the newly-mandated all-day Kindergarten program have on learning in a multi-grade class? There is a dearth of research on wide-range multi-grade classrooms such as one-room schools or classrooms that include more than three grade levels. How do these learning situations compare to single-grades or classes that combine just two grades? There is a need to properly compare single- and multi-grade learning environments: are multi-grade classes more effective for all learners? Are they more effective for students at risk, ELL learners, and/or aboriginal learners? And finally, there is a need for current and specific data at the provincial and national levels.

Gathering such will be an important first step in recognizing and valuing this form of education.

Conclusion

Multi-grade education has been, and continues to be, a unique form of education and has a key role to play in providing needed models for educational change:

By their very existence [multi-grade] classrooms have forced us to debate some basic philosophical questions: the importance of [grade-specific] curriculum, the advantages of homogeneous or heterogeneous groups, the value given to socio-affective factors and peer relationships in the learning process, the involvement of teachers in the development of teaching methods, and the involvement of parents. (Hohl, 1991, p.20)

Multi-grade classrooms and schools enable formal education to exist in geographic areas it might not otherwise, but they also provide an important alternate model to the dominant practice of single-grades. Although challenges in multi-grade teaching exist, most can be overcome with a greater understanding of the potential for learning in such a setting. The multi-grade classroom need not be considered deficient, nor should it be “simply no worse and simply no better” than single-grade education. Multi-grade classes can, and should be, a rich and rewarding place in which to grow as both learner and teacher.

Chapter 3: Creating a Digital Place to Explore Multi-grade Teaching and Learning

www.multigradeteacher.wordpress.com

Rationale

Multi-grade teaching and learning involve opportunities and challenges at a level beyond that of a single-grade classroom (Mulryan-Kyne, 2007). Multi-grade opportunities include a more natural environment for developing social responsibility (Veenman, 1995) and for academic learning (Vygotsky, 1980). The challenges of multi-grade teaching include curriculum development (connecting and combining learning outcomes from multiple grades), planning and time management skills, and designing open-ended learning activities and assignments that fully meet the needs of diverse ages and abilities. (Mulryan-Kyne, 2007) Two conditions that add to the already challenging nature of this unique teaching situation are: a lack of understanding and training specific to multi-grade teaching and learning (Gayfer, 1991; Mulryan-Kyne, 2004), and the geographical and professional isolation of many multi-grade teachers, most of whom teach in rural or remote locations (Little, 2006; Mulcahy, 2008).

The research cited above is an accurate reflection of my own experience as a multi-grade teacher, made more challenging by my initial lack of training and the physical isolation of my teaching positions. These experiences, along with the potential benefits of multi-grade configurations, are what motivate me to reach out to those in similar situations. Now in the last decade of my teaching career (all of which has been in multi-grade classrooms) I want to offer support to other multi-grade teachers by sharing

what I have learned, and continue to learn. My desire is to create a resource – or, more precisely, a place – where both new and experienced multi-grade teachers can have easy access to research papers, resources, and reflections on the challenges and opportunities inherent to multi-grade teaching. Ideally, this “place” would also allow teachers to engage in professional dialogue and to establish networks with multi-grade colleagues in British Columbia and beyond. As a multi-grade teacher, and as an executive member of the BC Rural and Small Schools Teachers’ Association, I am well aware of the need for such specialized support. Much of our organization’s work involves informal mentorship and formal professional development for multi-grade teachers across the province.

Choosing a Format for My Multi-grade Resource: Paper or Digital?

My original desire was to publish a paper-based document (perhaps a handbook) on multi-grade teaching. As I progressed through my Master’s program, I became more familiar with digital formats of publication and began to consider this alternative. I liked the potential for the on-going “currency” of a blog, and its ability to be up-dated and even revised after publication. As well, I was impressed with the exchange of views, ideas and information that was possible in an online forum. These two features (continual updating and the exchange of ideas) would not be possible in a traditional paper resource. When I visited the Curriculum Lab in the University of Victoria’s MacLaurin Building and saw the shelves of bound Master’s projects and theses, I shuddered and knew I did not want my project sitting on a shelf. I wanted it to be present and dynamic – alive, both in its potential to remain current and to involve the participation of its audience.

I soon realized a paper resource would not achieve all that I hoped for my project, but that a digital resource could. To guide my exploration of different digital formats, and what they might offer, I carefully considered the three main goals I had for my resource: accessibility, the potential to remain current, and the possibility of interaction with my readers. In order to achieve these goals, the format would have to:

- be easily accessed by as large an audience as possible
- have an attractive layout that was easy to navigate
- be easily located by search engines;
- contain specific areas for specific purposes:
 - a static home page to explain the purpose and content of the resource
 - a space for short, personal reflective posts that could be searched, continually updated, and also archived
 - a space for the curation (digital collection & organization) of research and additional resources, and that this space be dynamic (have the ability to change and remain current)
 - the opportunity for input and dialogue with and between my readers

There were other advantages to choosing a digital resource over a paper one; a digital resource would not involve the lengthy process nor the natural resources and costs needed to create, print, and distribute a paper publication.

Choosing a Digital Format

Based on the goals I had for my resource, I now had to consider the advantages and disadvantages of various digital formats. Through coursework in my Master's program I had gained some familiarity with blogs, online forums (Moodle), Voice Thread, podcasts, web-conferencing (Blackboard Collaborate, ETMOOC), Twitter, Google Hangouts, and wikis. I considered which of these options might be well-suited to the goals of my project: providing professional support and development for multi-grade teachers, and the potential for these teachers to engage in a professional learning network.

My first assumption was that online formats involving audio and visual connectivity would be best fulfill these goals. Although the format is one I personally shy away from (I much prefer presenting myself in writing where there are no unflattering screenshots and the awkward speech patterns have all been revised), I stepped outside my comfort zone to explore the viability of Google Hangouts (<https://www.google.com/tools/dlpage/hangoutplugin>) for building professional learning and support networks. I specifically chose Google Hangout because it allows up to ten participants to interact visually and audibly; I wanted participants to be able to see and speak with one another.

As part of my coursework in EDCI 515 with Dr. Valerie Irvine, I developed and implemented a project for the BC Rural & Small Schools Teachers' Association in which we (the BCRSSTA executive) hosted a series of regular Google Hangouts for one-room schoolteachers in BC. We wanted to see if distance audio and visual technology would provide a viable alternative to meeting face to face for the purposes of supporting one

another professionally. During the spring of 2013 I initiated four Hangouts. Attendance ranged from two to three (including myself).

What quickly became evident was that digital live communication (e.g., Skype or Google Hangout) is impossible or impeded in areas where internet connectivity is unreliable and/or internet speed is slow. This situation exists in many non-urban areas of our province, which are also the areas where multi-grade teachers tend to work and live. The present reality of the “digital divide” that exists between urban and rural communities prevented me from choosing an audio-visual format for my project; attempts at connecting this way were more frustrating than helpful. (For more information on this experience, go to <http://edtech.uvic.ca/hjj1> to read my blog posts on the initial phase of this project, categorized under “EDCI 515 Learning Project”.)

Although inter-active formats such as Twitter, Blackboard Collaborate, and Voice Thread are effective at what they specifically intend to do and be, I found them too limited in their versatility to alone encompass my project goals. Such formats, however, could possibly be components of my project it develops.

I needed a digital format that offered versatility. I had beginner skills as a blogger and spent considerable time learning more about the capabilities and limits of blogs, specifically of wordpress blogs. Through online tutorials (<http://learn.wordpress.com>) I discovered how to turn a blog into a website. Doing so fulfilled my need for a static introduction. I also learned it was possible to create a blog within a website, and this allowed me a specific place to post on-going personal reflections and articles within my resource.

Although I wanted to create a resource that would allow my audience to interact with me and with one another, I did not feel comfortable sharing equal administrative responsibilities for the website with my readers. My resource includes personal experiences and reflections, and I wanted to retain sole authorship over my articles and posts. I investigated the possibility of including a forum within the website, which would allow readers to both ask questions and respond to one another with minimal (or no) moderation from me. Such a component would assist readers in forming their own professional learning networks, and would allow for the exchange of diverse ideas and experiences. As my project continues to develop and evolve, I hope to include a forum space within my website. I believe a forum could provide a way for multi-grade teachers to connect with one another by asking and answering one another`s questions.

Based on my experience and research into digital technologies, I ultimately choose a website format for my project, as this format best met my needs and the goals I had determined for my project. By choosing to design a website, I was able to create a resource that was also a “place”. In fact, the sub-heading of the site I created at <http://multigradeteacher.wordpress.com> is “A **Place** to Explore Multi-grade Teaching and Learning”. (emphasis added) (See Figure 1)

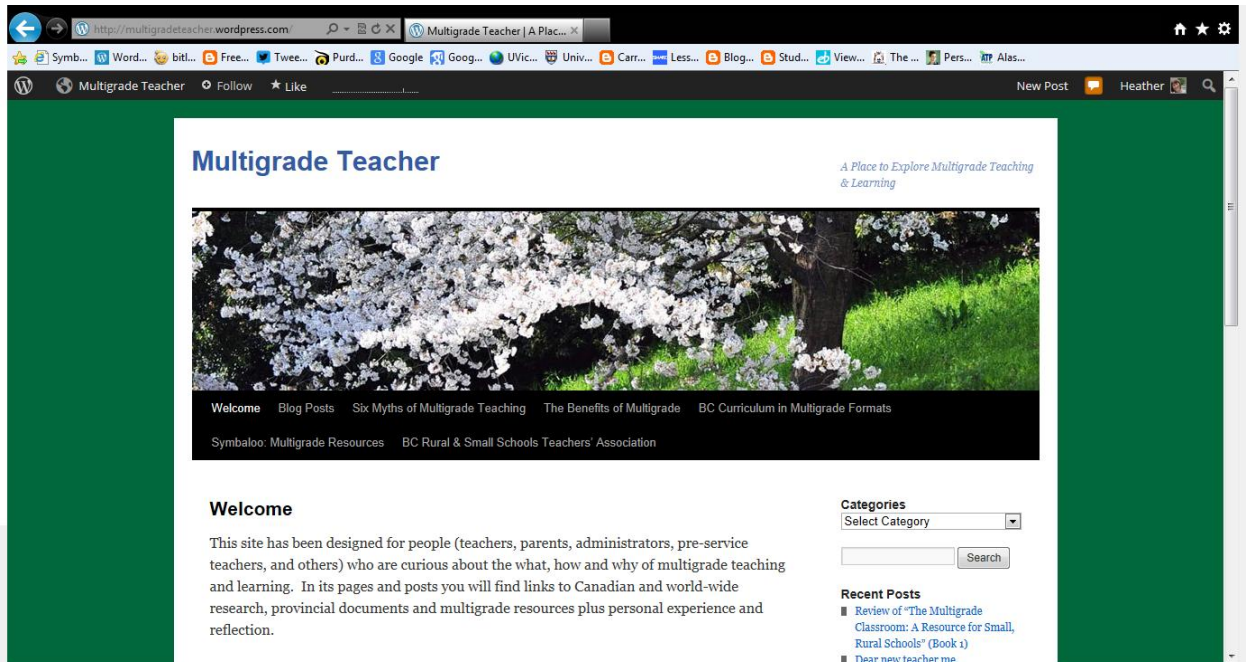


Figure 1: Home page

Website Content

Currently, the website I have created includes the following:

- Home Page: “Welcome” (explanation of the purpose and content of the site)
“Kind Regards” (an introduction of myself as the author and a multi-grade teacher)
- Blog Posts Page including articles I have written, a re-post from another blog, a review of a handbook on multi-grade classrooms, and personal reflections on my experiences as a multi-grade teacher
- Popular articles I have written on multi-grade teaching and learning

- Links to BC Curriculum documents that have been specifically re-designed by BC teachers for multi-grade use
- Information on the BC Rural and Small Schools Teachers' Association
- In the sidebar, links to relevant websites
- Online curation, containing links to research on multi-grade teaching and learning, provincial documents regarding multi-grades, examples of communications with parents, multi-grade resources, and examples of multi-grade schools in BC. I have focused primarily on BC and Canadian content, but have also included worldwide research and resources that are applicable to situations in Canadian schools. The creation of an online curation is an important part of my project, and is more thoroughly explained in the following section.

Online Curation

I wanted to embed my curation (collection and organization) of multi-grade resources within my blog for easy access to research papers, articles, and examples of multi-grade schools. In my attempts to do so, however, I discovered I would first have to upgrade to Wordpress Pro. The upgrade will allow me to further customize my blog through advanced web-design, and is a possibility for the future. For now, I have opted to provide a link to my curation, rather than embedding the page itself. Although not as visually appealing, a click on the link achieves the same end result. Figures 2 (below) shows the link to my curation which is hosted by "Symbaloo".

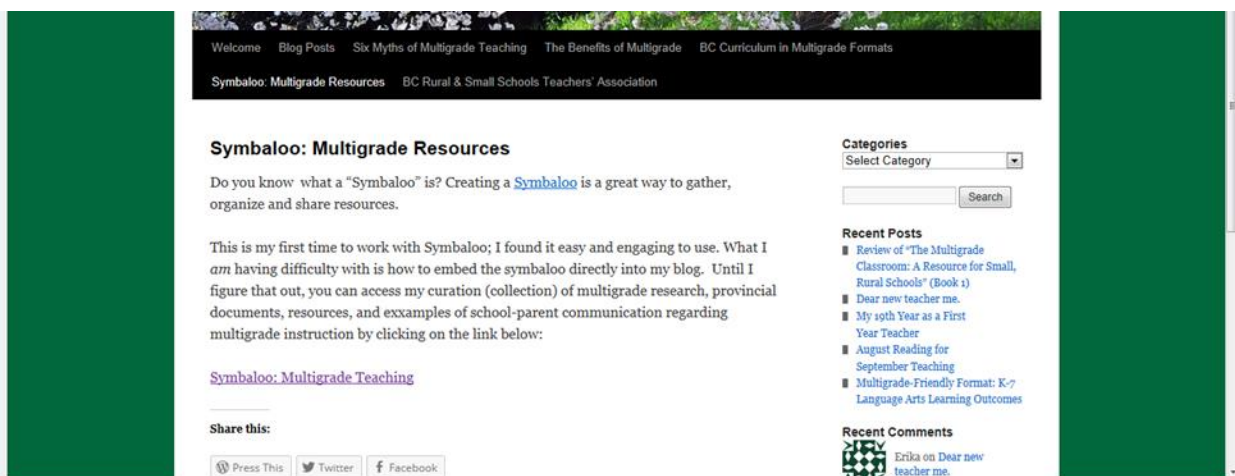


Figure 2: Link to Symbaloo from website

There are various formats available for creating and sharing a curation. I chose to use “Symbaloo” (available at www.symbaloo.com) because I like its visual presentation of links as tiles. The appearance of each tile can be customized to reflect the content of the link. For example, in my Symbaloo of multi-grade teaching links, the gray tiles with an icon of a fountain pen denote research papers; the blue tiles with an icon of a coffee cup denote communications with parents. (Figure 3) Clicking on one of the tiles will take you directly to that online resource.



Figure 3: curation of multi-grade resources in Symbaloo

Symbaloo tiles are easily added, deleted or moved within the curation page. The entire Symbaloo, or individual tiles can also be “scooped” by interested readers: scooping is the act of procuring collections of information for your own curation on a certain topic. Scooping allows one to quickly share and gather collections of information.

This was my first attempt at online curation. I found Symbaloo easy to customize. I do think the option of including a legend for the tile categories (designated by colours and/or icons) would help explain how each author organizes information within his or her Symbaloo.

Publicizing the Website

The creation of a website on multi-grade teaching and learning is futile unless people know it is available. I have attempted to publicize the website by:

- Making it accessible to search engines
- Using key words in taglines
- Sending out tweets to educational hashtags in BC (See Figure 4)

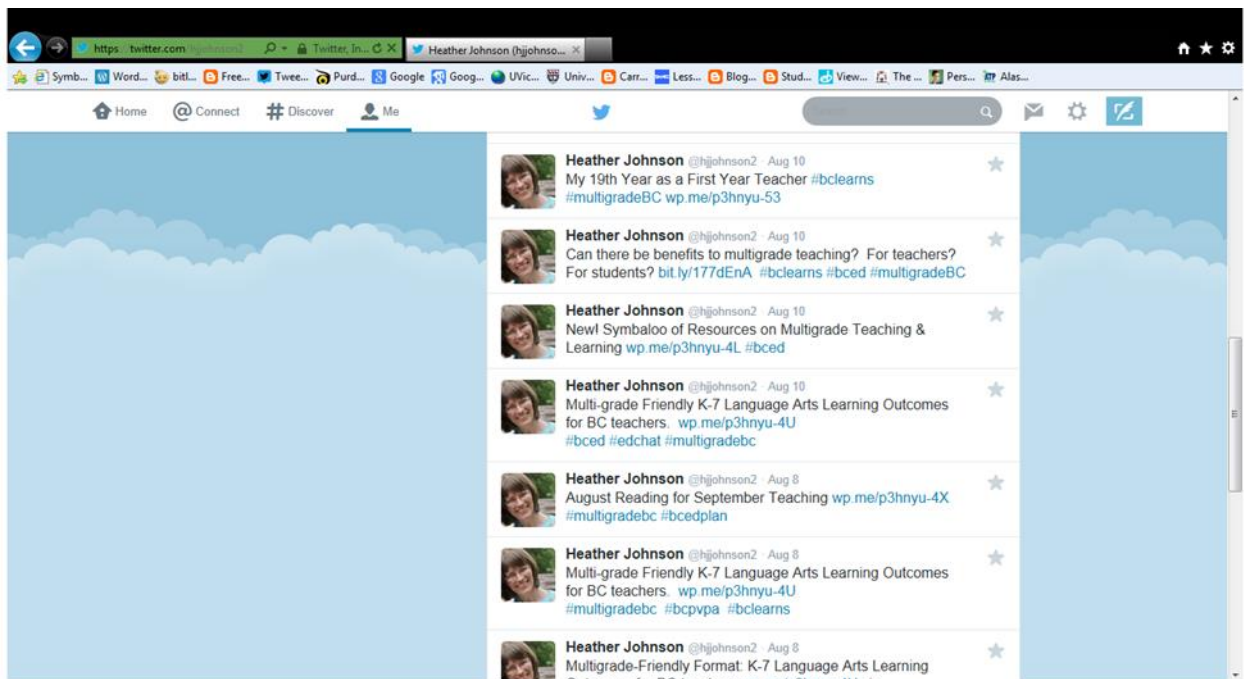


Figure 4: Examples of tweets to publicize webpage

- I also tried (unsuccessfully) to generate discussion with a hashtag aimed specifically at multi-grade teachers (#multigradebc).
- Publication of the website URL in the *Rural Root*; a print and online journal published by the BC Rural and Small Schools Teachers' Association for their members. (Available online at www.bcruralteachers.org)

A helpful tool in learning to promote my wordpress website is its Statistics page (Figure 5). Here, I can track the number of visitors each day, the number of views (the number of pages within the webpage that were viewed), and how the visitors found my website (e.g., through a search engine or another site). The statistics provide interesting feedback and will be helpful in evaluating the usefulness of the website and how I might increase readership. Statistics, continually updated and archived over time, allow me to see correlations between promotional activities (a tweet, for example) and events (such as providing professional development) with activity on the website. Learning to promote my blog effectively continues to be an important part of my project.

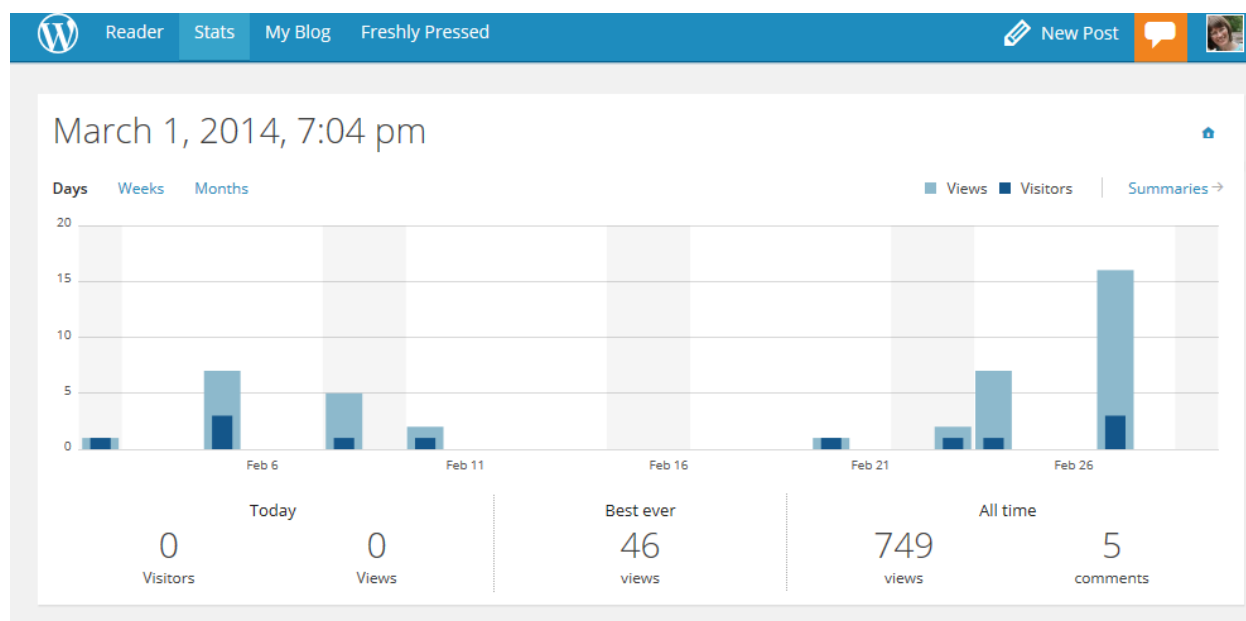


Figure 5: Some of the statistics tracked by the website.

Conclusion

The goals of my Master's project were to create a resource for multi-grade teachers that was easily accessible and dynamic in its ability to remain current and

involve the participation of my readers. I have created a needed place for teachers to explore multi-grade teaching and learning at www.multigradeteacher.wordpress.com.

The website has given me a place to share research, resources and my own experiences with others, and has the potential to remain current and to change in response to my audience's needs. I am confident that as I continue to develop my resource, it will become a place and a means for multi-grade teachers to connect with one another. My hope is that through this website, others will find the information, encouragement, and support they are seeking for their own multi-grade teaching and learning.

References

- Aldridge, J. (2010). Differentiated instruction. *Childhood Education*, 86(3), 193.
- British Columbia. Ministry of Education. (2012) School Information website: School and District Contacts.
<http://www.bced.gov.bc.ca/apps/imcl/imclWeb/SchoolContacts.do>
- British Columbia. Ministry of Education.(2013) Transforming Curriculum and Assessment website. <https://curriculum.gov.bc.ca/>
- Gayfer, M., Gajadharsingh, J., & Canadian Education Association. (1991). *The multi-grade classroom: Myth and reality : A Canadian study*. Toronto, Ont: Canadian Education Association.
- Flinders, David J. & Thornton, Stephen J., eds. (2009) *The Curriculum Studies Reader*. New York, Routledge.
- Halbert, J. & Kaser, L. (2012). *Spirals of inquiry: For equity and quality*. Vancouver BC: BCPVPA.
- Hoffman, J. (2003). Multiage teachers' beliefs and practices. *Journal of Research in Childhood Education*, 18(1), 5-17. doi:10.1080/02568540309595019

- Hohl, J. (1991). Multi-program classrooms in Quebec. In M. Gayfer (Ed.) *The multi-grade classroom: Myth and reality: A Canadian study*. Toronto, Ont: Canadian Education Association.
- Little, A., & SpringerLink Ebook Collection. (2006). *Education for all and multi-grade teaching: Challenges and opportunities*. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Mason, D. A., & Burns, R. B. (1996). "Simply no worse and simply no better" may simply be wrong: A critique of Veenman's conclusion about multi-grade classes. *Review of Educational Research*, 66(3), 307. doi:10.2307/1170525
- Mulcahy, D. (1993). *Developing a "distinctive approach" for multi-grade classrooms*. Education Canada, 33(1), p.24-29
- Mulcahy, D. M. (2000). *Multiage and multi-grade: Similarities and differences*. The Morning Watch, 27(3/4),1.
- Mulcahy, D. M. (2008) *What does the future hold for rural schools and rural communities?* The Morning Watch, Vol. 35(3-4), 24pp.
- Mulryan-Kyne, C. (2004). Teaching and learning in multi-grade classrooms: What teachers say. *The Irish Journal of Education / Iris Eireannach an Oideachais*, 35, 5-19.
- Mulryan-Kyne, C. (2007). The preparation of teachers for multi-grade teaching. *Teaching and Teacher Education*, 23(4), 501-514. doi:10.1016/j.tate.2006.12.003

- Ong, W., Allison, J., & Haladyna, T.M. (2000) *Student achievement of 3rd-graders in comparable single-age and multiage classrooms*. Journal of Research in Childhood Education, *14*(2), 205-15. Doi:10.1080/02568540009594764
- Ontario. Ministry of Education. (2007) Combined grades: Strategies to reach a range of learners in Kindergarten to Grade Six. Available at <http://www.edu.gov.on.ca/eng/literacynumeracy/combined.pdf>
- Politano, C., and Davies, A. 1994. *Multi-age and more: Building connections*. Winnipeg, MB: Peguis.
- Proehl, R.A., Douglas, S., Elias, D., Johnson, A.H., & Westsmith, W. (2013) *A collaborative approach: Assessing the impact of multi-grade classrooms*. Catholic Education: A Journal of Inquiry and Practice, *16*(2), 417.
- Rabain-Jamin, J., Maynard, A. E., & Greenfield, P. (2003). Implications of sibling caregiving for sibling relations and teaching interactions in two cultures. *Ethos*, *31*(2), 204-231. doi:10.1525/eth.2003.31.2.204
- Smit, R., & Humpert, W. (2012). Differentiated instruction in small schools. *Teaching and Teacher Education: An International Journal of Research and Studies*, *28*(8), 1152-1162. doi:10.1016/j.tate.2012.07.003
- The Centre for Multi-grade Education (2010). CMGE Conference Proceedings 2010.pdf accessed at <http://cmge.co.za/search?q=2010+conference>

Tomlinson, C.A., Brighton, C., Hertberg, H., Callahan, C.M., Moon, T.R., Brimijoin, K.

(2003) *Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature*. Journal for the Education of the Gifted, 27(2), pp. 119-145. Accessed at https://moodle.emu.edu/pluginfile.php/95452/mod_resource/content/1/7su.pdf.

Veenman, S. (1995). Cognitive and non-cognitive effects of multi-grade and multi-age classes: A best-evidence synthesis. *Review of Educational Research*, 65(4), 319. doi:10.2307/1170701

Veenman, S. (1996). Effects of multi-grade and multi-age classes reconsidered. *Review of Educational Research*, 66(3), 323. doi:10.2307/1170526

Vincent, S., Ed, & Northwest Regional Educational Lab., Portland, OR Rural Education Program. (1999). *The multi-grade classroom: A resource handbook for small, rural schools. book 1: Review of the research on multi-grade instruction*

Vygotsky, L.S. et al. *Mind in society: The development of higher psychological processes* (1980). Harvard University Press.