

Hands-On Russian Culture Lessons

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Abstract

The global diverse society necessitates that teachers develop cultural competency and use authentic resources for teaching. This article presents classroom-tested materials for teaching elementary students about aspects of Russian culture, developed by a native Russian and two education professors. Multiage, multi-racial American Midwestern students from a homeschooling cooperative learned vocabulary and concepts with statistically significant increases from pretest to posttest and a large effect size. The lessons began with recognition of human commonalities between Russian people and Americans, in accordance with omniculturalism theory. Lessons then highlighted and celebrated cultural differences through an exploration of Russian literature and culture. Culminating creative craft-making activities included simulating a Gzhel porcelain statue in white air-dry clay with blue markings, making a pop-up version of a matryoshka nesting doll set, constructing a papier-mâché building with onion-domed towers and a Maslenitsa holiday scene, and decorating a paper-covered plastic egg with gems to make a Faberge-style jewelry box. The lessons, greeted with enthusiasm from students, included classification tasks, observation activities, and a Bingo-type game. Students evidenced deeper learning by continuing to connect their lives to Russian cultural content after the lesson unit had concluded.

Keywords

Russian Culture, Multicultural Education, Omniculturalism, Matryoshka, Gzhel Porcelain, Maslenitsa

1. Introduction

The global diverse society requires that teachers adopt and present a multicultural perspective of the world.

Major goals of multicultural education are to improve race and ethnic relationships and to allow all students to gain the knowledge, attitudes, and skills to interact cross-culturally and through personal and civic actions to promote democracy and social justice (Banks, 2002).

For many years, the United States engaged in a cold war with the Soviet Union, resulting in suspicion and stereotyping. Russia has the largest population in Europe, owns extensive petroleum reserves, has been providing access to the international space station, has a large nuclear weapon capability, and influences world politics. These characteristics make Russia an important country globally and a good choice for cultural exploration.

Educators need to be cross-culturally prepared to teach their students to appreciate other cultures (Jenks, Lee, & Kanpol, 2001); this article presents some classroom tested ideas for teaching about Russian culture to young students. These activities fall into the "contributions" approach to multicultural education (Banks, 1994), showing some aspects of Russian culture that have enriched the world.

Moghaddam (2012) asserted that rapid globalization presents new challenges to intergroup relations as largescale sudden contact between human groups sometimes results in threatened collective identities and catastrophic evolution marked by radicalism and terrorism. Moghaddam found that the two contrasting approaches to organizing relations between groups that are most prevalent today are inadequate to meet the demands of the current situation: 1) assimilation of humans into cultural and linguistic homogeneity with minimal ethnic and religious differences, and 2) multiculturalism, in which group differences are highlighted and celebrated. Moghaddam (2012) suggested a third way of omniculturalism, which might better meet current challenges. Omniculturalism occurs in two stages. During the first stage, emphasis is given to human commonalities with students being asked to recognize common human characteristics and universals of human behavior. During stage two, group-based differences are identified and the value of diversity is highlighted in a way similar to multicultural education. However, even during stage two, human commonalities are given priority. Moghaddam (2012: p. 306) states, "The end result of omniculturalism is a society in which people are knowledgeable about, and give priority to, human commonalities, but also leave room for the recognition and further development of group distinctiveness." These ideas of omniculturalism were applied to the current curriculum project through first making connections between the similar behaviors and values of Russian people and Americans, and then highlighting and celebrating cultural differences.

Louie (2006) offered guiding principles for multicultural education using children's literature. First, authenticity of the work needs to be ensured, a matter accomplished in our study through the first author who is a native-born Russian. Second, Louie suggests that teachers help students understand the world of the ethnic literature characters. We set about doing this by making connections between rural Russian farmers and local farmers of the Midwestern United States, for example, both being frugal and using available materials to construct everyday items and toys. Third, we helped students take the folk story characters' perspectives and identify their values (Louie's third and fourth guiding principles) by discussing what they might be feeling and why they made certain choices. Finally, also in accordance with Louie's suggestions, we asked our students to compare and contrast the characters in the stories with themselves to discover the personal meanings of differences between themselves and Russians depicted in folklore. Students responded to what they had learned by making crafts in the style of Russian cultural artifacts.

The Russian culture lessons were presented as learning cycles of three phases because this lesson format corresponds to research findings of how people learn (D'Avanzo, 2003) and supported the stages of omniculturalism well. The first phase of the learning cycle allowed students to explore, self-question, and wonder about the lesson topic while the teacher activated their prior knowledge and determined their current understandings. It was during this phase that connections were made between human behaviors of Russians and Americans, supporting the first stage of omniculturalism (Moghaddam, 2012). In the second lesson phase, the teacher provided explanations and examples to assure understanding of lesson concepts. During this phase, students engaged in hands-on activities such as examining or sorting images or objects. During this phase, students recognized differences between their culture and Russian culture. In the third phase, the lesson concept was applied to a new domain so that students could conditionalize and practice their new understandings to improve retrieval of information. It was during this phase that we engaged the students in craft-making. Through craft-making, aspects of Russian culture were celebrated, completing the second stage of omniculturalism. Students' verbal explanations of their crafts were used for formative assessments; the final posttest served as a summative evaluation.

Hands-on craft work, featured in this set of cultural lessons, provides significant affective and academic benefits. The engaging nature of handicrafts increases students' interest in the topic while often allowing students to be creative with their products (Bull & Barry, 2007). Difficult concepts are better understood through making a concrete representation (Dickenson & Jackson, 2008). Ideas from many disciplines such as culture, communication, sequential thinking skills and spatial intelligence can be smoothly integrated into craftwork (Moseley & Fies, 2007; Rule & Zhbanova, 2012). Another advantage is that craft-based assessment can bridge language barriers for English language learners or for those who struggle with reading and writing (Gooden, 2005). Creating a handmade product allows these learners to visually show what they understand. Recently, craft-work across the lifespan has been shown to support spatial reasoning and success in science-related careers (Root-Bernstein & Root-Bernstein, 2013).

2. Method

2.1. Participants

The early childhood and elementary children who participated in the lessons were from a homeschooling cooperative. The six students (4 male, 2 female; 3 White, 2 Hispanic, 1 Mixed-race) were aged 4 through 10 and represented all grades prekindergarten through fourth grade. This study was approved by the overseeing university's human subjects research committee with all participants and parents providing written consent.

2.2. Study Design

The study is a simple pretest-intervention-posttest design with identical pretest-posttest instruments and six cultural lessons in a learning cycle format with craft products as the intervention. Students took the pretest before the lessons began. The lessons occurred twice a week for the three-week instructional unit and were taught by the Russian guest teacher with assistance from the classroom teacher and the two education professors. Each lesson lasted approximately two hours. The posttest was administered a week after the last lesson had concluded. Teachers administered the pretest and posttests individually, reading the questions and text.

2.3. Instrumentation and Analysis

A highly pictorial multiple-choice criterion-referenced pretest-posttest with a final open-ended question was administered individually before the initiation of the lessons and a week after the last lesson's conclusion. The pretest-posttest instrument is shown in the Appendix. The numbers of correct responses for each Russian term and for facts about Russia supplied by students were tabulated and mean overall scores were calculated. The effect size from pretest to posttest was determined using Cohen's d (Cohen, 1988). The following section describes the lessons and their topics in greater depth.

3. The Russian Culture Lessons

3.1. Russian Folktale of Alyonushka and Ivanushka

This well-known Russian folktale highlights the bond of love between a sister and brother in caring for each other through hardship. As a result of this lesson, students were able to retell the Russian story and to explain how Russian families cherish their members, showing this by adding "ushka" to the end of a name, much in the same way as many American families change a name to end in "y" or "ie".

We began by asking what students are called at home by family members to help students begin to connect their prior knowledge with the lesson. Students responded, "Pumpkin," "Cutie", and "Baby" and some shortened versions of their formal names, some ending in "y" or "ie." We helped students recognize that parents often put a "y" or "ie" ending on a child's name (e.g., Thomas—Tommy) to mean "little one" or "young one" or "dear one". In Russia, family members often change names to end in "ushka for the same reason. We distributed premade nameplates for students in which their names had been transformed to have an "ushka" ending, using these names for the remainder of the unit. This initial lesson phase emphasized the commonality of Russian and American families having terms of endearment for family members.

The Russian teacher told the folktale about Alyonushka and her brother Ivanushka. This story has the hardship and magical components of most fairy tales with an orphaned sister and little brother heading out alone into the world, only to encounter enchanted puddles and an evil witch (a translated version of the story is available from Russian Crafts, 2007). We had a Gzhel pottery statue of Alyonushka and her brother who had been turned into a young goat: see **Figure 1**. We passed the ceramic figure around during the story so that students could see the story characters and handle Russian pottery. This provided a smooth transition to the next lesson on a well-known type of Russian pottery. Later, the classroom teacher reviewed the story by asking students to retell what they remembered. According to the results of meta-analysis of 11 studies by Dunst, Simkus and Hamby (2012), story retelling enhances children's story comprehension, expressive vocabulary, and early literacy development. Russian folktales like this story of Alyonushka, show the cultural universal of having oral traditions, but also highlight various aspects of Russian culture such as language.

3.2. Gzhel Pottery

The town of Gzhel, located about 50 km southeast of Moscow, is known for its clay deposits and unique blue and white hand-painted porcelain. See examples in **Figure 1**. In this lesson, students were able to notice and state characteristics of this Russian porcelain, creating a simulated piece of Gzhel pottery.

To activate prior knowledge, initiate self-questioning, and find out what students knew about the lesson topic, the teacher asked several key questions: "Have you heard these terms—ceramic, porcelain, pottery?" "What is the raw material for pottery?" "Do you have anything that is pottery or ceramic at home?" Students were familiar with the terms "ceramic" and "pottery", and named several items at home, mostly dishes and statues that were ceramic. The teacher explained that many items are made of "fired" or "partially-melted" clay that was baked in a high-temperature oven called a kiln. We passed around several Gzhel pottery figures that we had purchased from the Internet. In this phase, students recognized the commonality of both Russians and Americans having pottery dishes and statues.

Students sorted images of Gzhel pottery (obtained from Internet searches and printed onto cards) using complimentary groups. To do this, a student chose a characteristic and placed all images of the pottery that had that characteristic into a group; then, placed the remaining cards into the "not that characteristic" group. This activity allowed students to notice decorative and thematic features of the pottery such as dots, stripes, and floral designs. They noticed Gzhel pottery was usually white and decorated with blue designs, highlighting the difference between American pottery and Russian pottery of this type.

Students applied the learning in a new way by making a simulated Gzhel pottery piece with air-dry white clay. They used the images on the Gzhel pottery cards we had sorted as stimuli for the statues. After the clay figures had dried, we reviewed the decorating techniques used on Gzhel porcelain by looking at pottery figures and images and used permanent blue markers to decorate the figures. This work was a celebration of Russian Gzhel pottery. See Figure 2 for an example of student work.

3.3. Matryoshka Toys

Children across the world play with toys; Russians have a unique nesting doll toy called a matryoshka that was designed in 1890, based upon some Japanese nesting figures combined with the Russian concept of nesting eggs. It won a toy award in 1900 at the Paris World's Fair, making it very popular and collectable (Shestakova, 2009). As a result of the lesson, students were able to describe the unique features of the Russian matryoshka doll as forming a series of wooden dolls that nest inside each other and constructed a pop-up paper version.

Our Russian teacher described typical low-income rural Russians who farm and live near wooded areas, using the available resource of wood for homes, heating, furniture, and toys. We showed our students several Matryoshka nesting dolls. We asked students to guess the number of figures inside each and then opened them to discover the answer, using ordinal numbers to describe each figure as "first", "second", etc. Figure 3 shows some of the doll sets students examined with a warrior set on the left, woodcutters on the right, and mother and child sets in front. During this part of the lesson, students recognized the cultural universal of children having toys. Another similarity between Russian and American cultures was noted: the fact that toys for children change over time. Russian matryoshka dolls are not as popular as they used to be, being replaced by modern plastic toys.

The teacher told a Russian story about a woodcutter (referring to the woodcutter Matryoshka doll) written by Olhova (2012) that she had translated from Russian. In this story, a lonely woodcutter who had quarreled with his Love finds a magic diamond ring when cutting through a tree. The ring speaks and tells the woodcutter that if he wears the ring, he will become famous, rich, powerful, and long-lived. The woodcutter realizes all of these would be meaningless without his Love, so he discards the ring and heads for his Love's home to ask for for-giveness. Students discussed the Russian cultural aspects of this story.



Figure 1. Russian Gzhel pottery. (a) Gzhel porcelain statue of Alyonushka and goat; (b) Other Gzhel porcelain figures.

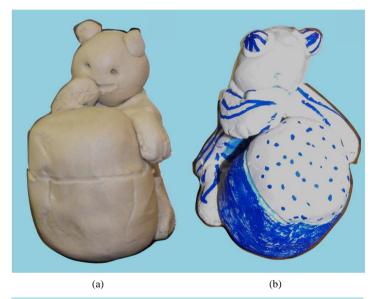


Figure 2. Student-made clay bear. (a) The figure before drying; (b) The bear after air-drying and decoration with a blue marker.



Figure 3. Warrior, woodcutter, and mother matryoshka toys.

As an expansion of the lesson, we made pop-up matryoshka dolls using the pattern shown in **Figure 4**. First, we printed **Figure 4(a)** on a cardstock page. Each student received a page and carefully cut out the five parts. The part that was shown at the far left was folded back and forth on the long white dotted line. Two cuts were made with scissors on the folded edge as indicated by the solid white lines. This "tab" was folded back and forth. The folded piece was then positioned so that the colored side was interior and the folded tab was pushed in to form a "step" or "platform." This piece was then set aside. The piece containing the next-smaller sized doll was then folded back and forth. This piece was unfolded and re-folded so that the colored side was interior and the tab was pushed in to make a step. This piece was carefully attached inside the first piece by gluing to the front vertical face of the step and by gluing the bottom folded portion to the base formed by the first piece. The next-smaller doll was glued to the front vertical face of the second step. The smallest doll was then glued flat on to the base to form the fourth doll. Finally, the remaining large piece was folded tab. After the glue dried, the carefully glued to the back of the first piece to hide the notch left from the folded tab. After the glue dried, the card was folded flat and opened to show a set of pop-up dolls. **Figure 4(b)** shows the assembled pop-up.

3.4. Russian Architecture

Many large Russian buildings have interesting onion-shaped domes on towers. After participating in this lesson, students were able to describe some unique features of Russian buildings. They were able to make a papier-mâché model of an onion-domed building using a paper-covered cardboard food box with glued-paper-covered bottle necks.

We began the lesson by passing around photographs of Russian buildings, including Saint Basil's church in Moscow, that have unique architectural features, asking students to describe what they observed as interesting building parts. Our students noticed that many buildings had multi-colored towers, onion-shaped domes, and arch-shaped windows and doors. Students told of some similar buildings they had seen in American cities they had visited, recognizing that humans often like to make majestic, impressive buildings.

Students sorted the architecture cards using complementary groups and then by using Venn diagrams of two intersecting circles. This activity assisted them in noticing how some building elements were very common in Russian buildings, highlighting cultural differences.

To carry the lesson ideas into the new domain of papier-mâché construction, each student received a cereal box that had arched doors cut into the front (opened to reveal the interior) and was covered with glued-on white paper. Each student chose various plastic bottle necks to make towers. These were covered with glued-on torn pieces of recycled white copy paper (use water-soluble white craft glue). Glue-coated crumpled paper was used to make the onion-shaped domes on top of the towers. These architectural constructions were painted with white gesso to stiffen them and then with acrylic paint. This activity celebrated Russian architecture. These were used as diorama settings for a Russian holiday scene as described in the next lesson. See **Figure 5** for a photograph of student-made buildings with onion domes.

3.5. Holiday of Maslenitsa

Maslenitsa is a Russian holiday that has pre-Christian origins but incorporates Christian ideas of celebrating before the Lenten fast. It is also a celebration of the coming spring. Students were able to make a Maslenitsa holiday scene and explain the activities and items used at this Russian celebration.

First we asked students to guess what the Russian holiday of Maslenitsa might involve. Students drew on their own knowledge of American holidays to do so. We explained that Maslenitsa is a spring holiday that happens before Lent, very much like Mardi Gras (making connections to holidays familiar to our students). Villagers gather at a central place and engage in pillow-fights or pole-climbing contests, dance to music from traditional instruments, have a bonfire in which a straw doll is burned to represent starting a new beginning, and feast on butter-soaked pancakes and hot tea. We involved students in playing a Bingo-type game featuring clipart images of Maslenitsa items or events. The teacher described the use or significance of an item and students guessed which one it was. Everyone covered that item with a marker. The images we used in this game were: a balalajka (a banjo-like instrument); garmon' (an accordion-like instrument); a straw Maslenitsa doll; gusli (a stringed instrument); bliny (butter-soaked pancakes); a samovar (large urn-like metal container for heating hot water for tea); a platok (printed scarf); lapti (basketry shoes woven of thin wood strips); valenki (fancy Russian boots

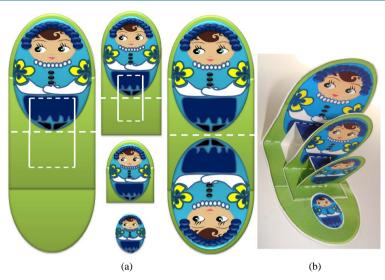


Figure 4. Pop-up figure of matryoshka doll. (a) Template for matryoshka doll pop-ups; (b) Assembled pop-up.



Figure 5. Student-made cereal box buildings with onion domes.

made of wool felt); a pillow fight scene between people sitting on a wood beam; kokoshnik (a traditional beaded scalloped fabric crown-like bonnet for women); a horse-drawn sleigh-ride scene; a pole climbing scene in which climbers reach for prizes tied to the top of the pole; onion domes of buildings; Gzhel pottery; and a matryoshka doll set.

To practice their new knowledge of Maslenitsa, and to celebrate this Russian holiday, students cut out clip art images of Russian people, items from a Maslenitsa celebration, and arched windows, gluing them into or onto their Russian buildings to make diorama scenes. Maslenitsa scenes are shown in Figure 6.

3.6. The Tsars: A Snippet of Russian History

The tsars ruled Russia as supreme monarchs for over three hundred years until the Great October Revolution of 1917 when Nicolai the Second and his family were killed by Bolsheviks who wanted riches and power to be spread among all through Communism. As a result of this lesson, students will be able to explain who the tsars were, the symbolism of Russian royalty, and to decorate a Faberge-style egg jewelry box.



Figure 6. Finished Maslenitsa scenes. (a) Scenes showing table with butter-soaked pancakes and musicians; (b) Scene in which student exhibited creativity by making a paper staircase and chair on the side of the building.

The teacher began the lesson by asking students if they had heard of Russian tsars, connecting the tsars to other royal rulers such as kings and queens and the commonality of human groups recognizing leaders. The teacher read some excerpts from children's information books about the tsars and Russian history or culture (e.g., Bartell, 2010). These selections included information about fancy, jeweled eggs made by Gustav Faberge and commissioned by Tsar Alexander III as special Easter gifts for his wife Maria Fedorovna (Faber, 2009). Students recognized ways Russian history was different from American history, in particular, the lack of royalty in America. Next, students sorted images of the Faberge eggs into complementary groups and also by using a Venn diagram. This activity helped students to notice beautiful and unique aspects of this Russian cultural item.

As a lesson extension and as a way of celebrating Russian culture, students made papier-mâché Faberge-style egg keepsake boxes. Individual plastic Easter eggs were covered with glued-on white paper pieces, both inside and outside, forming a sort of papier-mâché coating on the plastic egg. Three paper-covered beads were added at the bottom for tripod-like legs. The inside and outside was painted with acrylic paint and a line of gold paint surrounded the opening. When dry, students glued small jewels on the outside and inside of the cover to decorate the egg boxes and glued a velvet pad inside to cushion the jewelry. See **Figure 7** for two of the finished eggs.

4. Results and Discussion

Pretest—Posttest

 Table 1 presents the number of correct responses given by students on each item during the pretest and posttest.

 The pretest data show that this group of multiage students knew little about Russia before the lessons.

Posttest responses indicated that all children had learned many of the correct responses to the posttest vocabulary questions. Three students answered all questions on the posttest correctly. A paired sample two-tailed t-test was conducted with students' total scores from all questions except the final open-ended question to determine if pretest and posttest scores were significantly different. The resulting *p*-value was less than 0.01, indicating statistical significance. The effect size for these two dependent measures was calculated using the means and standard deviations of the pretest and posttest scores as suggested by Becker (2000). Cohen's d was 9.23, a very large effect size (Cohen, 1988). This indicates that students learned much about these terms from the instructional activities. Throughout the lessons, students were attentive and enthusiastic, further evidence of their positive impact on students.



Figure 7.	I wo decorated	l egg boxes.
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	Number of Correct Responses	
Term	Pretest	Posttest
Samovar (a large metal urn for boiling water for tea)	0	5
Maslenitsa (a national Russian holiday celebrated before Lent)	0	4
Matryoshka (nesting doll set)	2	6
Bliny (butter soaked pancakes)	0	6
Valenki (winter boots made of wool felt)	0	6
Lapti (traditional Russian shoes made of woven thin wooden slats)	0	6
Kokoshnik (headdress for women)	0	6
Platok (bright scarf worn by women)	1	6
Gzhel objects (hand-painted blue and white porcelain)	0	6
Crown	3	6
Monomach's hat (type of crown worn by Russian Tsars)	0	5
Orb	1	3
Scepter	1	6
Mean correct answers per student on fixed-choice questions	0.6	5.5
Additional correct facts about Russia (last item)	4	84
Overall total mean correct answers per student	2.0	25.8

 Table 1. Students' correct responses on the pretest and posttest.

During the posttest students displayed increased knowledge of Russian culture and traditions through responses to the last question that asked for additional facts about Russia. Students' answers were very specific (e.g. "Tsars and Tsarinas ruled Russia in the past; they were like kings and queens." "During the celebration of Maslenitsa people burned a straw doll as a symbol of a new beginning." "Gzhel is a pottery that was invented in the town of Gzhel and it is always blue and white"). These findings indicate that students retained much factual information from the lessons. Ideas from all of the lessons appeared in these responses provided by students. All students mentioned that matryoshka dolls had dolls inside of each other, showing the popularity of this concept.

Students also enjoyed telling about butter-soaked pancakes and other events that occur at Maslenitsa, particularly the burning of a straw doll to represent a new beginning. Faberge eggs and Gzhel pottery also seem to have made a strong impression on the students. The craft activities in which students engaged likely helped students mentally visualize their new learning, making it more memorable. Additionally, the human behavior connections students made between Russians and Americans probably made the lessons more meaningful and allowed students to internalize the concepts by recognizing connections to their own lives.

5. Conclusion

The Russian culture lessons described in this article were engaging and memorable for students. These lessons support the need of providing an effective resource for teaching cultural information about Russia. Students evidenced learning of vocabulary and cultural concepts from pretest to posttest.

Additionally, students were able to apply concepts they learned to new situations. For example, the four-yearold male student retold the Alyonushka story to his parents and changed his family members' names to end in "ushka" to show that he cherished them, thereby recognizing the cultural universal of family love and celebrating Russian culture through use of Russian language. The classroom teacher reported that during the next unit on mythology, students made a lot of spontaneous connections between Russian stories and Greek mythology, recognizing the commonality of humans having stories and myths. The enthusiasm for learning more was shown by a female student who began researching additional information about Faberge eggs on her own. She discovered through the Internet that the Detroit Institute of Arts (near a relative's home) was hosting a showing of Faberge eggs and so she and her family travelled to see them. This visit to the museum shows an appreciation of Russian cultural artifacts. Another project that the two girls from the study initiated was making their own threedimensional matryoshka dolls from recycled or found items. They gathered recycled plastic containers that fit inside each other and collected acorn caps outdoors for the smallest nesting dolls. These examples attest to the positive impact of the lessons.

We attribute the success of the lessons to the choice of content to match early childhood and elementary student interests, along with the organization of the lessons to first connect the content with human commonalities, then, recognize cultural differences, and finally celebrate them through crafts. The hands-on craft work involving the making of intriguing, unique items that were very colorful appealed to our students. Students mentioned a sense of pride in their accomplishments, including their ability to recall vocabulary and concepts during the Bingo game. Several students declared with a smile after the posttest, "I know a lot about Russia now, don't I?!" Although our sample size was very limited, the enthusiasm with which the lessons were received indicates their potential successful use with other groups of students. Future investigations conducted with a larger sample of students may provide additional evidence of the success of these lessons and their format of first focusing on human commonalities and then highlighting and celebrating cultural differences through omniculturalism.

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References

- Banks, J. A. (2002). Series Foreword. In M. Vavrus (Ed.), *Transforming the Multicultural Education of Teachers: Theory, Research, and Practice* (pp. vii-x). New York: Teachers College Press.
- Banks, J. (1994). An Introduction to Multicultural Education. Boston, MA: Allyn & Bacon.
- Bartell, J. (2010). Exploring Countries. Russia. Minneapolis, MN: Bellwether Media.
- Becker, L. A. (2000). Effect Size (ES). http://www.bwgriffin.com/gsu/courses/edur9131/content/EffectSizeBecker.pdf
- Bull, G., & Barry, R. (2007). Classroom Engineering and Craft Technologies. *Learning and Leading with Technologies*, February, 26-27.
- Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- D'Avanzo, C. (2003). Research on Learning: Potential for Improving College Ecology Teaching. *Frontiers in Ecology and the Environment*, *1*, 533-540. <u>http://dx.doi.org/10.2307/3868164</u>
- Dickenson, G., & Jackson, J. K. (2008). Planning for Success: How to Design and Implement Project-Based Science Activi-

ties. The Science Teacher, November, 29-32.

Dunst, C., Simkus, A., & Hamby, D. (2012). Children's Story Retelling as a Literacy and Language Enhancement Strategy. *CELL Center for Early Literacy Learning Reviews*, *5*, 1-14.

Faber, T. (2009). Fabergé's Eggs: One Man's Masterpieces and the End of an Empire. London: Pan Macmillan.

Gooden, K. (2005). Biome Is Where the Art Is. Science and Children, September, 28-32.

- Jenks, C., Lee, J. O., & Kanpol, B. (2001). Approaches to Multicultural Education in Preservice Teacher Education: Philosophical Frameworks and Models or Teaching. *The Urban Review*, 33, 87-105. http://dx.doi.org/10.1023/A:1010389023211
- Louie, B. (2006). Guiding Principles for Teaching Multicultural Literature. *The Reading Teacher*, *59*, 438-448. http://dx.doi.org/10.1598/RT.59.5.3
- Moghaddam, F. M. (2012). The Omnicultural Imperative. *Culture & Psychology*, 18, 304-330. http://dx.doi.org/10.1177/1354067X12446230
- Moseley, C., & Fies, C. (2007). Rainsticks: Integrating Culture, Folklore, and the Physics of Sound. *Science Activities, 44*, 2-5. <u>http://dx.doi.org/10.3200/SATS.44.1.2-5</u>
- Olhova, V. (2012). The Tale about a Woodcutter and a Magic Ring. Stihi.ru. [in Russian] http://www.stihi.ru/2012/02/03/5234
- Root-Bernstein, R. S., & Root-Bernstein, M. M. (2013). The Art and Craft of Science: Scientific Discovery and Innovation Can Depend on Engaging More Students in the Arts. *Educational Leadership*, 70, 16-21.
- Rule, A. C., & Zhbanova, K. (2012). Changing Perceptions of Unpopular Animals through Facts, Poetry, Crafts, and Puppet Plays. *Early Childhood Education Journal*, 40, 223-230. <u>http://dx.doi.org/10.1007/s10643-012-0520-2</u>
- Russian Crafts (2007). Russian Crafts: Closer Acquaintance with Russia. Sister Alyonushka and Brother Ivanushka: Russian Folk Tale. <u>http://russian-crafts.com/tales/alionushka.html</u>
- Shestakova, A. (2009). Articles of Craftsmen—Unofficial Symbols of Russia. European Journal of Natural History, 3, 64-69.

Appendix



Pretest-posttest with correct answers circled or marked in red.