



Chapter 1

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Benefits of Second Language Learning

In North America, the 1990s was a decade of renewed interest in language learning. There is a growing appreciation of the role that multilingual individuals can play in an increasingly diverse society, and there is a greater understanding of the academic and cognitive benefits of learning other languages. The last decade has seen an emerging global interest in international languages and second language education. This has led researchers, policymakers, educators, employers, parents, and the media to re-examine the advantages of learning additional languages.

Increased research on brain development has focused attention on learning processes and developmental issues. Some of this research has analyzed the effects of language acquisition on the brain. The results of these studies have generated interest in how early learning experiences, including first and second language acquisition, promote cognitive development. Most experts agree that making it possible for children to learn a second language early in life and beyond is entirely beneficial. A summary of the many benefits of learning a second language follows.

Benefits of Second Language Learning: Adapted from Kathleen M. Marcos, "Second Language Learning: Everyone Can Benefit," *The ERIC Review* 6, 1 (Fall 1998), pp. 2, 3.

A Means of Communication

Ukrainian is spoken by more than 50 million people in the world living in places such as Ukraine, Russia, Poland, Argentina, Brazil, Canada, the United Kingdom, and the United States of America. Ukrainian is closely related to other Slavic languages, and since there are almost 300 million people in the world who speak a Slavic language, Ukrainian can be an important key to communication in many parts of the world. Speakers of Ukrainian can communicate in many countries in Europe (i.e., Belarus, Bosnia, Bulgaria, Croatia, Czech Republic, Macedonia, Poland, Russia, Serbia, Slovakia, and Slovenia). Learning Ukrainian therefore opens many doors for communicating with others around the world.

Personal Benefits

An obvious advantage of knowing more than one language is having expanded access to people and resources. Individuals who speak and read more than one language have the ability to communicate with more people and read more literature, and benefit more fully from travel to other countries. Introducing students to alternative ways of expressing themselves and to different cultures gives greater depth to their understanding of the human experience by fostering an appreciation for the customs and achievements of people beyond their own communities. In many cases, the learning of a second language can strengthen the personal connection to the language and culture of one's own heritage. Knowledge of a second language can also give people a competitive advantage in the work force by opening up additional job opportunities (Villano 1996).

For many people, there's something inherently enjoyable about successfully communicating in another language. Learning a new language can be an intensely challenging and rewarding experience.

Cognitive Benefits

Some researchers suggest that students who receive second language instruction are more creative and better at solving complex problems than those who do not (Bamford and Mizokawa 1991). Other studies suggest that bilingual individuals outperform similar monolinguals on both verbal and nonverbal tests of intelligence, which raises the question of whether ability in more than one language enables individuals to achieve greater intellectual flexibility (Bruck, Lambert, and Tucker 1974; Hakuta 1986; Weatherford 1986).

Academic Benefits

Parents and educators sometimes express concern that learning a second language will have a detrimental effect on students' reading and verbal abilities in English; however, several studies suggest the opposite. Knowing a second language, according to the latest research on reading, can help children comprehend written languages faster and possibly learn to read more easily, provided that they are exposed to stories and literature in both languages (Bialystok 1997). By age four, bilingual children have progressed more than monolingual children in understanding the symbolic function of written language. By five, they are more advanced than those who have learned only one writing system.

The positive effects of bilingualism were also documented in an American study analyzing achievement test data of students who had participated five years or more in immersion-type international language programs in Fairfax County, Virginia. The study concluded that students scored as well as or better than all comparison groups and continued to be high academic achievers throughout their school years (Thomas, Collier, and Abbott 1993). Numerous other studies have also shown a positive relationship between foreign language study and achievement in English language arts (Barik and Swain 1975, Genesee 1987, Swain 1981).

Societal Benefits

Bilingualism and multilingualism have many benefits for society. Manitobans who are fluent in more than one language can enhance Manitoba's and Canada's economic competitiveness abroad, maintain Manitoba's and Canada's political interests, and work to promote an understanding of cultural diversity within the nation. For example, international trade specialists, overseas media correspondents, diplomats, airline employees, and national security personnel need to be familiar with other languages and cultures to do their jobs well. Teachers, health care providers, customer service representatives, and law enforcement personnel also serve their communities more effectively when they can communicate with people of diverse languages and cultures. Developing the language abilities of students will improve the effectiveness of the workforce and strengthen communities for years to come.

Purpose of This Guide

This document is intended to support the Kindergarten to Grade 3 portion of the *Kindergarten to Senior 4 (Grade 12) Ukrainian Language Arts: Manitoba Curriculum Framework of Outcomes* (2005). It was developed primarily for teachers, yet includes information that may be useful for administrators and other stakeholders in their efforts to plan for and implement the Ukrainian language arts curriculum framework.

Familiarity with the curriculum framework is essential as teachers plan and implement language courses in their classrooms. The curriculum framework provides a brief discussion of the value of learning a second language and lays out learning outcomes for each grade level. It defines what students are expected to achieve and, hence, what teachers are expected to teach. To obtain the current version of the curriculum framework, visit the Manitoba Education website at <www.edu.gov.mb.ca/k12/cur/languages/index.html>.

This guide to implementation will assist educators as they

- develop further understanding of the program of studies
- plan for meeting the needs of diverse learners
- plan for the use of technology in the delivery of the new program
- communicate with stakeholders, such as parents and community members

- plan for instruction and assessment that support student achievement of the learning outcomes
- monitor student progress in achieving the learning outcomes
- select learning resources to support their own professional development
- select student learning resources to enhance instruction and assessment.

Understanding the Learner

The Nature of Kindergarten to Grade 3 Learners

The *Kindergarten to Senior 4 (Grade 12) Ukrainian Language Arts: Manitoba Curriculum Framework of Outcomes* (2005) (hereinafter called the curriculum framework) is a student-centred curriculum designed to support the language learning of students in the Ukrainian bilingual program in Manitoba. The unique characteristics and needs of these students formed the basis for curriculum development.

The term **bilingual programming** is used to describe a partial immersion program where English and a second language are both languages of instruction. In bilingual programming, language arts is taught either in English or Ukrainian. Cultural knowledge, skills, and attitudes are often taught using an integrated approach.

Teachers of Ukrainian language arts need to view their students in a holistic manner, and keep in mind that these learners can also be viewed from a variety of perspectives. Foremost, students in this program need to be considered as **learners** with many of the same developmental characteristics, abilities, and individual needs as mainstream students. Furthermore, students must be considered as **second language learners**, necessitating a close examination of the unique needs, characteristics, and influences that affect their language learning. Students should also be considered as **learners of the Ukrainian language**. Finally, teachers, parents, administrators, community members, and others need to be aware of the fact that these learners are **learning Ukrainian in a Western Canadian context**.

Elementary School Learners

Language and literacy development begins with a child's earliest experiences with language. The development of listening, speaking, reading, writing, viewing, and representing skills is an interrelated process. Elementary school learners actively engage in acquiring language and constructing their own understandings of how oral and written language works. Language learning in the Early Years is fostered through experience in meaningful contexts. Social interaction is also a vital part of students' social, emotional, intellectual, and linguistic development.

In the Early Years, there is a dramatic growth in students' listening, speaking, reading, and writing vocabulary. In the first language (usually English), most students move rapidly along a literacy continuum from emergent literacy to independence in reading, writing, viewing, and representing. An increased vocabulary and a growing ability to consider other points of view greatly improve students' oral and written communication skills.

Students need to feel accepted and confident that they will be supported by others in their risk taking, learning, and growing. Self-concept plays an important role in students' learning and in their willingness to try challenging tasks. In their Early Years, learners are eager to make sense of the world and are developmentally ready to explore, take risks, construct things, and take things apart. They are also acquiring attitudes toward learning that they will carry with them throughout their school years and beyond.

Language and literacy learning at the Kindergarten to Grade 3 level requires a unique classroom culture and climate that is different from those required for older students. These students are distinguished by special intellectual, moral, physical, emotional, psychological, and social characteristics that shape the way they learn. The methods, contexts, resources, and supports chosen by teachers should be influenced by the needs, characteristics, and interests of the students, and so the teachers' styles, attitudes, and pacing may vary from classroom to classroom.

The Second Language Learner

The Ukrainian bilingual program in Manitoba meets the needs of a wide range of learners. Currently, most students enter these programs at Kindergarten or Grade 1 with little or no previous exposure to the Ukrainian language. Most of these students speak English as a first language within an English language majority environment; however, students also enter this program with a variety of language skills and experiences. For example, some students enter this program with some Ukrainian language experience, while others enter with a strong proficiency in Ukrainian or other related languages. Occasionally, students will enter this program with little or no English language proficiency. Therefore, a diverse range of student language abilities exists in Ukrainian language arts classrooms.

The Ukrainian Language Arts Kindergarten to Grade 9 curriculum framework was developed with the assumption that the majority of students entering the program at the Kindergarten or Grade 1 level would have little or no previous exposure to the Ukrainian language. Therefore, the majority of students must be considered second language learners. This requires that when planning and delivering instructions, teachers need to consider the unique needs, characteristics, and influences that affect their students as second language learners.

Second language learning is influenced by many factors that can be broadly categorized into three main areas:

Outside Influences

These include social, economic, and political influences. For example, the importance placed by the family and the community on the language being learned, as well as the availability of opportunities to use the language meaningfully outside the classroom, are both factors that can impact the acquisition of a second language.

Classroom Factors

Important classroom-based factors that impact second language learning include instructional organization, such as the amount of time spent conversing in the second language, the quality of the language input, and class size. Teaching styles, methodologies, and approaches are also key classroom factors.

Personal Characteristics

Personal characteristics include individual differences that can affect the rate and quality of an individual's second language acquisition. Elements such as previous knowledge and experiences with the first language, Ukrainian or other languages can have significant impacts on a student's future learning of a new language. Personal characteristics such as the age at which the student began learning the second language, the student's aptitude for learning languages, as well as the student's motivation, attitude toward learning the language, and learning preferences are also contributing factors. Other personality variables, such as anxiety levels, self-esteem, self-concept, and social skills, have also been thought to influence second language acquisition.

Factors that Influence Multilingual Development

There are a number of individual factors that affect students and their capacity to learn an additional language. These factors are beyond the control of the teacher or school, but they are important to consider as they help explain why students acquire language at different rates. Tracey Tokuhama-Espinosa (2001) identifies 10 key factors that impact individual learners. The following are nine of the factors that are most relevant for language learners in elementary school settings:

Aptitude

Every student is born with an inherent aptitude for different kinds of learning. While teachers cannot influence how much aptitude a student has, they can use the other eight factors to optimize whatever aptitude exists.

Timing

There is a window of opportunity in a person's life when second language learning is facilitated by various factors. Research has shown that the preschool years and the period up to approximately age 12 are particularly important in children's linguistic development. The debate over whether it is better to begin second language learning at an early age or to wait until students are more mature has not been resolved. Some evidence supports starting second language learning early, as there are differences in the brain processes between learning a second language as a young learner and learning the language as an older learner. Students who begin learning at an earlier age also would have a greater exposure to the language over time.

Motivation

Students' readiness to learn another language is partially dependent on their motivation and on internal and external factors, such as how a student feels about the language being learned and the attitude of other significant persons (e.g., parents and peers. Positive experiences with, and positive perceptions of, the second language serve to increase motivation).

Planning

In her research, Tokuhama-Espinosa found that families that had a well-developed plan to provide good language learning opportunities were more successful in developing bilingual language skills. In a school setting, it is equally important that an effective instructional plan is in place to implement a language arts program.

Consistency

Second language students exposed to language learning opportunities in a consistent and continuous fashion are most successful. In schools, it is important to schedule language arts programs in a way that provides for well-sequenced and consistent language learning opportunities.

Opportunity

A student may have great motivation, but without the opportunity to practise a second language in meaningful situations, he or she never becomes truly proficient. It is important that sufficient time be allocated for language arts programs during the school day. Students and parents can supplement and enhance classroom language learning by seeking out or building opportunities for language learning in the home and in the community, as well as by participating in related extracurricular activities.

Linguistic Relationship among Languages

The target language and those that the students are already fluent in may share a common historical root. If the student's first language shares roots with the second language, the second language is easier to learn due to similarities in grammar, vocabulary, and sound systems, and the ease of transfer of their first language skills. Teacher awareness of the linguistic diversity present in the classroom enables more effective responses to learner needs and assists in assessing student learning.

Gender

There is evidence that women and men use different parts of the brain when engaged in language learning. When planning learning activities, teachers need to consider gender differences and ensure that a variety of instructional approaches are used to address diverse student characteristics.

Hand Use

Most people have their main language area of the brain in the left frontal and parietal lobes, but, inexplicably, 30 percent of those who write with their left hand and 5 percent of those who write with their right hand may actually have language spread out over a greater area. This is not to say that these individuals are better at second language learning than others, but rather that they may favour different teaching methods.

Ensuring Student Awareness and Use of Strategies

➔ For more information ...

Kindergarten to Senior 4 (Grade 12) Ukrainian Language Arts: Manitoba Curriculum Framework of Outcomes

Successful language learners use a number of cognitive, metacognitive and social/affective strategies that help make their learning more effective. Communication and language use strategies are important to the development of communicative competence and are clearly laid out in the curriculum framework.

Many students benefit from explicit classroom instruction regarding language learning and language use strategies. Once students are aware of the various strategies and have practised them, they can select the most effective ones for a particular task. By using strategies they have selected, students see the link between their own actions and their learning, and become more motivated and more effective language learners.

Building on Prior Knowledge

The constructivist theory of learning suggests that people learn by integrating new information or experiences into what they already know and have experienced. Students do this most effectively through active engagement with tasks that are meaningful to them, in authentic contexts, using actual tools. For this reason, the content and tasks around which lessons and units are structured should be chosen from within the students' areas of experience. For example, if students are involved and interested in a particular sport, a task can be chosen that links with this interest. The learning activities will build on the students' knowledge and experience while encouraging them to increase their understanding and broaden their horizons.

Students come to their language learning experiences with unique sets of prior knowledge, even if they have similar cultural and socioeconomic backgrounds. Classroom activities that provide choice and flexibility allow students to make meaningful connections and to be actively involved in constructing their own learning.

Transferring First Language Knowledge

Students come to their language arts classes with large bodies of useful knowledge about language, even if they have never spoken a word of the language being taught. They can transfer knowledge of their first language and other languages to their learning of a new language. They may also transfer language learning and language use strategies from one language context to another. Initially, the first language may also be a source of interference as students try to apply generalizations valid for their dominant language to the language they are learning. Students benefit from an awareness of both similarities and differences between their first language and the language being learned (e.g., similarities and differences related to the sound system, grammar structures, vocabulary, and discourse features).

Understanding the Culture

Intercultural competence is an essential element of any language-learning endeavour. Knowledge of the target culture must take into account that cultures evolve over time and minority cultures exist within the dominant culture in any society. If students develop the skills to analyze, understand for themselves, and relate to any culture they come in contact with, they will be prepared for encounters with cultural practices that have not been dealt with in class.

Learning the Ukrainian Language

There are significant differences between the English language and the Ukrainian language, and educators and parents should be aware of the challenges faced when learning Ukrainian.

The Ukrainian language is printed and written in the Cyrillic alphabet. The Ukrainian alphabet consists of 33 Cyrillic letters rather than the 26 Latin letters used in the English alphabet. A few Cyrillic letters are similar to certain Latin letters both in appearance and in the sounds the letters represent; however, there are some Cyrillic letters that look like Latin letters, but stand for sounds quite different from those represented by the Latin letters. As a result, many younger students confuse the Latin and Cyrillic letters, and transfer incorrectly between languages.

Ukrainian is a language with a highly consistent sound–symbol correspondence and each letter, with few exceptions, represents only one sound. Most students who study the Ukrainian language find this to be an advantage. There are 11 vowels and 22 basic consonants in Ukrainian. The vowels are either simple or iotized. All Ukrainian vowels are plain; there are no diphthongs, and all but the Ukrainian *o* are pronounced approximately as in English. Ukrainian consonants can be distinguished from English consonants in that two sets exist—hard and soft (non-palatalized and palatalized). The softening sign may also change the sound of certain consonants. Of the hard consonants, some are pronounced differently in Ukrainian than in English (e.g., т, д, л, с).

While stresses are usually not indicated or included in Ukrainian print materials in words with more than one vowel, only one of the vowels in a word is stressed. There is no general rule to follow; therefore, students must learn which vowel is stressed when they are introduced to a new Ukrainian word. It is important for teachers to provide students with oral models of these stressed accents.

In terms of grammar, Ukrainian has a complex morphology. Ukrainian, like German and Latin, is an inflected language. This means that nouns, adjectives, and pronouns must have case endings to indicate their function (subject, object or indirect object) in a sentence. English is not an inflected language; therefore, students require considerable time and practice to acquire grammatical understanding in **modelled**, **structured**, and **unstructured** situations.

Sources for the information in the Learning the Ukrainian Language section: Assya Humesky, *Modern Ukrainian* (Edmonton, AB: Canadian Institute of Ukrainian Studies, 1980) and George Duravetz, *Conversational and Grammatical Ukrainian, Level I* (Revised Edition) (Toronto, ON: Ontario Modern Language Teachers Association, 1977).

In Ukrainian, verbs are conjugated to denote person, number, voice, tense, and mood. This is more complex than in English; therefore, more attention will need to be devoted to teaching and practising Ukrainian conjugation patterns.

On the whole, Ukrainian and English do not share many cognates. Cognates are words in one language that are similar in form and meaning to words in another language. French and English, for example, share many cognates. Many of the cognates that do exist in Ukrainian are words that have been borrowed from other languages. With advances in technology, for example, many more words are being accepted into the Ukrainian language that are cognates and may be recognizable to students.

It is important to understand that additional time is required for students with English as a first language to develop fluency in Ukrainian because of its complexity and unique characteristics. The American Council on the Teaching of Foreign Languages classifies Ukrainian as a Group 3 language—one that requires more instructional time to achieve professional working proficiency. It is important for educators, administrators, and parents not to be too hasty in comparing the language proficiency of Ukrainian bilingual students with those of other bilingual language programs.

Multiple Intelligences and Second Language Learning

Harvard psychologist Howard Gardner (1983, 1998) has spent many years analyzing the human brain and its impact on education, including language learning. According to his research, an individual possesses multiple intelligences, but these intelligences are developed to different degrees.

Gardner's Types of Intelligence

Linguistic Intelligence: The ability to read, write, and communicate with words.

Logical-mathematical Intelligence: The ability to reason and calculate.

Visual-spatial Intelligence: The ability to master position in space. This intelligence is used by architects, painters, and pilots.

Kinesthetic Intelligence: The physical intelligence used by dancers and athletes.

Musical Intelligence: The musical ability highly developed by composers and top musicians.

Interpersonal Intelligence: The ability to relate to others, used by salespeople and psychologists.

Intrapersonal Intelligence: The ability to know one's inner feelings, wants, and needs.

Natural Intelligence: The ability to learn by exploring nature.

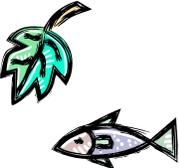
The Implications of Multiple Intelligence Theory on Second Language Teaching

- **Learning is experiential:** Students learn by engaging in real hands-on activities and tasks.
- **Learning uses all senses:** Teachers can reinforce learning with pictures and sounds, and students can learn by touching, tasting, and smelling (Dryden and Rose 1995).
- **Learning should be fun:** The more fun it is to learn a language, the more one will want to continue. Learning while playing is an effective way to learn as it creates emotional attachments, and emotion is a door to learning (Jensen 1994, Dryden and Vos 1997, Dryden and Rose 1995).
- **Learning is best in a relaxed but challenging environment.**
- **Learning is enhanced through music and rhythm:** Often one can remember the songs learned in early childhood because lyrics combined with music are easier to learn (Lozanov 1978, Campbell 1997, Brewer and Campbell 1998).
- **Learning is enhanced through action:** While traditionally students were encouraged to sit all day long, we now know that students learn more when they move as they learn. Teachers can use learning strategies that include physical interaction, and can encourage students to dance and move to the rhythm when learning a language (Gardner 1983, Doman 1984, Dryden and Vos 1997).
- **Learning is enhanced by engaging with others:** Having students practise a language by talking to each other socially (e.g., over a meal) is a great way to learn (Gardner 1983, Dryden and Vos 1997).

Gardner's Multiple Intelligences

Intelligence	Students learn best by:	Teacher's Planning Questions	Learning Activities
Linguistic 	verbalizing, hearing, and seeing words	How can I use the spoken or written word?	<ul style="list-style-type: none"> • creative writing • formal speech • humour or telling jokes • impromptu speaking • journal or diary keeping • oral debate • poetry • storytelling
Logical-mathematical 	conceptualizing, quantifying and thinking critically	How can I bring in numbers, calculations, logic, classifications or critical-thinking skills?	<ul style="list-style-type: none"> • puzzles • logic games • abstract symbols and formulas • calculation • counting • deciphering codes • finding patterns • graphic organizers • number sequences • outlining • problem solving
Visual-spatial 	drawing, sketching, and visualizing	How can I use visual aids, visualization, colour, art or metaphor?	<ul style="list-style-type: none"> • drawing • creating videos • active imagination • colour schemes • designs and patterns • drawing guided imagery • mind mapping • painting pictures • sculpture/model
Kinesthetic 	dancing, building models, and engaging hands-on activities	How can I involve the whole body or use hands-on experience?	<ul style="list-style-type: none"> • physical games • body language • dancing—folk or creative • drama/acting • inventing • martial arts • mime • physical gestures • physical exercises • playing sports and games • role-playing

Gardner's Multiple Intelligences Chart: Adapted with permission from the Nebraska Department of Education, *Nebraska K-12 Foreign Language Frameworks* (Lincoln, NE: Nebraska Department of Education, 1996), pp. 266-267.

Intelligence	Students learn best by:	Teacher's Planning Questions	Learning Activities
<p>Musical</p> 	<p>singing, chanting, and playing background music while learning</p>	<p>How can I bring in music or environmental sounds, or set key points in a rhythmic or melodic framework?</p>	<ul style="list-style-type: none"> • chanting • humming • rapping • listening to music • music performance • music creation • rhythmic patterns • singing • tonal patterns • vocal sounds and tones
<p>Interpersonal</p> 	<p>working with another person or a group of people</p>	<p>How can I engage students in peer sharing, cooperative learning or large group simulation?</p>	<ul style="list-style-type: none"> • peer assessment • collaboration skills • cooperative learning • empathy practices • group projects • intuiting others' feelings • listening • person-to-person communication • teamwork/division of labour
<p>Intrapersonal</p> 	<p>relating to a personal feeling or an inner experience</p>	<p>How can I evoke personal feelings or memories or give students choices?</p>	<ul style="list-style-type: none"> • self-assessment • reflective writing • guided imagery • focusing/concentration skills • higher-order reasoning • metacognition techniques • silent reflection methods • telling about feelings • telling about thinking • thinking strategies
<p>Natural</p> 	<p>observing, classifying, and appreciating</p>	<p>How can I relate students' learning to the physical world?</p>	<ul style="list-style-type: none"> • discovering, uncovering • observing, watching • forecasting, predicting • planting • comparing • displaying • sorting and classifying • photographing • building environments

Brain Research and Second Language Learning

Diane Larsen-Freeman (2000) observes that “the issue for teachers who wish to honour the diversity of intelligences among their students is how to represent the other intelligences and enable each student to reach their full potential, while not losing sight that their purpose is to teach language” (p. 172).

The following are implications of brain research for second language learning:

- 1. Build in reflection:** It is important to let children take time to “simmer.” There is a silent stage to language learning. First, children absorb the language. Later, they begin to speak (Krashen 1992).
- 2. Link learning:** “The more you link, the more you learn” (Dryden and Vos 1999, p. 315). Anything can be linked when learning a second language, including numbers and new vocabulary words (Dryden and Vos 1997). For example, link numbers and words in a playful way (Dryden and Rose 1995). Reciting the numbers from one to ten in the target language in rhythm is a fun way to begin language learning.
- 3. Use the whole world as the classroom:** Real-life experiences and situations engage learners and bring meaning and context to the learning process (Dryden and Vos 1997).

Brain-based Learning Theory

Brain-based learning theory asserts that all humans are born with the ability to learn. “Although all learning is brain based in some sense ... brain-based learning involves acknowledging the brain’s rules for meaningful learning and organizing teaching with those rules in mind” (Caine and Caine 1994, p. 4).

Caine and Caine (1991, 1994, 2005) outline 12 principles to provide a theoretical foundation for brain-based learning:

- 1. Learning involves the entire physiology:** Everything that happens to us, whether it is physical, emotional, or cognitive, has an effect on learning.
- 2. The brain is social:** We always search for ways to belong to a community and seek interaction with others.
- 3. The search for meaning is innate:** We strive to make sense of our experiences.
- 4. The search for meaning occurs through patterning:** We categorize our experiences so we can establish patterns and bring order to our world.
- 5. The brain is a parallel processor:** It can perform several different activities at the same time.
- 6. Emotions are critical to patterning:** Emotion and cognition are strongly tied. It is emotionally difficult to change patterns such as assumptions and beliefs.
- 7. The brain processes parts and wholes simultaneously:** The brain is designed to perceive experiences as both separate and interconnected.

- 8. Learning involves both focused attention and peripheral perception:** Even when we are paying attention to one task, we are also absorbing information reaching us from the environment outside our immediate focus.
- 9. Learning always involves conscious and unconscious processes:** Unconscious processing is ongoing and contributes significantly to understanding.
- 10. There are at least two different types of memory:** Systems for rote learning and spatial memory coexist in the brain. Memory is not only what we “store and retrieve”; it is based on what we encounter in our natural, daily experiences.
- 11. Learning is enhanced by challenge and inhibited by threat:** Feelings of self-worth and accomplishment allow us to learn. Feelings of fear brought on by fatigue, helplessness, or overstimulation cause our brains to “downshift.”
- 12. Each brain is unique:** Although our brains share physical characteristics, we each perceive and react to the world differently.

Sample Strategies to Support Brain-based Learning:

- Develop an understanding of the impact of nutrition, exercise, and stress on learning.
- Facilitate cooperative learning and provide students with opportunities to interact.
- Use various methods and approaches that have been proven effective.
- Acknowledge that students mature at different rates. Because of these natural differences, “equality” in student performance is not expected.
- Provide a learning environment that employs routines and behavioural guidelines while offering activities that challenge and excite students.
- Model enthusiasm for communicating in the second language.
- Provide a classroom environment that features changing displays of vocabulary and culturally rich materials.
- Facilitate language and culture immersion activities, such as field trips, projects, stories, performances, and drama.
- Provide opportunities for students to actively process what and how they have learned through reflection and metacognition.
- Foster a classroom atmosphere where students take learning risks yet feel safe and relaxed.
- Account for individual learning preferences.

Bloom’s Taxonomy

Bloom’s Taxonomy is a model that focuses on six levels of complexity in the thinking processes. Knowledge and Comprehension are the lower or more concrete levels of thinking. Analysis, Synthesis, and Evaluation represent higher or more complex levels of thinking. The Application level, which falls between the lower and higher levels, can be less or more complex depending on the task.

Sample Activities Organized in the Bloom's Taxonomy Model

Level	Sample Activities in the Second Language Classroom
<p>Knowledge/Comprehension</p> <p>Students recall information and restate the information in their own words.</p>	<ul style="list-style-type: none"> • Arrange lines of dialogue • Fill out authentic forms in Ukrainian • Listen for sequence • Explain the "What? Who? Where? When? How? Why?" • Describe scenes from a video presentation • Describe pictures from a Ukrainian culture • Define words • Listen to and paraphrase in English a conversation heard in Ukrainian • Draw pictures from verbal information of a Ukrainian cultural scene or object • Understand text written in Ukrainian
<p>Application</p> <p>Students apply the information in one or more contexts.</p>	<ul style="list-style-type: none"> • Dub cartoons or television shows • Instruct others to prepare a Ukrainian cultural dish step-by-step • Produce questions with correct pronunciation • Apply a cultural custom to a real-life situation • Interview classmates on their daily activities • Plan a menu for occasions typical of Ukrainian culture • Make shopping lists for various Ukrainian cultural or social events • Apply rules of cultural protocol for dining in Ukraine • Apply gestures learned to an authentic situation • Apply reading strategies to understand authentic texts
<p>Analysis</p> <p>Students understand component parts and recognize patterns so they can compare and contrast or categorize information.</p>	<ul style="list-style-type: none"> • Identify elements of a particular literary form • Analyze the lyrics of popular songs to compare two cultures' perspectives • Compare points of view found in two editorials • Analyze a story, poem, and other authentic materials • Analyze a scene from a Ukrainian culture • Find evidence to support opinion • Compare own customs with Ukrainian customs • Conduct a survey and analyze the results • Analyze typical foods of Ukrainian culture for nutritional value • Identify the best route to a historic site important to Ukrainian culture • Play the role of a tourist who bargains in Ukrainian for merchandise
<p>Synthesis</p> <p>Students make predictions and create new ideas based on their knowledge of component parts.</p>	<ul style="list-style-type: none"> • Write an alternative ending to a story • Predict consequences if historical events were altered • Write titles for a play, story or article • Write headlines in newspaper style on current issues in Ukraine • Predict future events • Write a diary of an imaginary trip • Extend a story • Hypothesize reactions to different situations based on Ukrainian cultural beliefs • Compose a poem, skit, role play or advertisement • Create hypothetical real-world situations in Ukrainian culture • Create an infomercial
<p>Evaluation</p> <p>Students judge what they have analyzed and support their opinions.</p>	<ul style="list-style-type: none"> • Evaluate solutions to cultural dilemmas • Express and justify opinions on creative Ukrainian cultural products • Give and support opinions about issues • Evaluate television shows, movies or cartoons • Write an editorial, giving and supporting own opinion • Express the pros and cons of policies • Give and support a decision in a mock trial • Write an ambassador with suggestions for the resolution of a real-world problem • Justify, in Ukrainian, decisions of what sites to visit • Read an editorial in a newspaper, respond, and send the response • Evaluate Web pages as sources of information in Ukrainian

Sample Activities Organized in the Bloom's Taxonomy Model: Adapted with permission from the Nebraska Department of Education, *Nebraska K–12 Foreign Language Frameworks* (Lincoln, NE: Nebraska Department of Education, 1996), p. 307.