



## **Linking Middle Years to Learning**

- **Characteristics of the Middle Years Learner and Instructional Implications**
- **Fundamentals of the Home Economics/ Industrial Arts Support Document**



## **LINKING MIDDLE YEARS TO LEARNING**

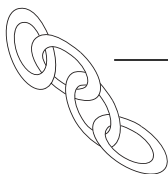
In the 1950s and 1960s, Middle Years advocates argued that junior high schools failed to realize their vision because they imitated the practices of senior high schools. These included an orientation to subjects, departmentalized teaching, a heavy reliance on lecture and didactic instruction, and competitive sports programs. It was believed that the declining academic achievement among adolescents was due to the mismatch between the developmental needs of these students and the educational environment (MacIver, 1989).

The belief is that Middle Years programming benefits students because of three factors: organizational structure, scope and sequence of curricula, and methods of instruction. The school experience for early adolescents includes a personal environment created by counselling and teacher advisor programming. The Middle Years core curricula are taught in thematic units by a team of interdisciplinary teachers who identify concepts of significance and then build extended units around those topics. Careful and co-operative scheduling accommodates exploratory curricula such as Industrial Arts and Home Economics.

- 📖 Exploratory programs allow students to explore their aptitudes, interests, and special talents as well as to develop an accurate and positive self-concept (National Association of Secondary School Principals Council on Middle Level Education, 1985).
- 📖 An activity-centred/problem-based curriculum and instructional activities provide relevance for students and a vehicle for integration. Young adolescents need more opportunities for exploration (Keefe, Valentine, Clark, and Irvin, 1993).
- 📖 Exploratory courses are a “signature” practice necessary for Middle Years schools that are dedicated to meeting the needs of young adolescents (Epstein and MacIver, 1990).

### **Fundamentals of the Home Economics/Industrial Arts Support Document**

This section of the document will apply and integrate culture and climate, ways of learning, instructional approaches, and assessment tools/methods for each of the curriculum areas.



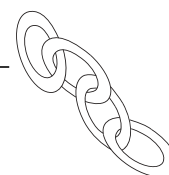
A variety of instructional strategies enables students to think critically about relationships between ideas and curriculum content. The organizational structures, techniques, and practices of Middle Years education facilitate student growth and turn classrooms into communities of learners.

Early research emphasized elementary and high school education. In a little over three decades the face of education has been remade and Middle Years education has been given a long overdue identity. While research prior to 1990 focused on how to meet student needs, the current decade is documenting the effectiveness of these programs. The National Middle School Association ([www.nmsa.org](http://www.nmsa.org)) is actively involved in disseminating research information to educators.

**Characteristics of the Middle Years Learner and Instructional Implications**

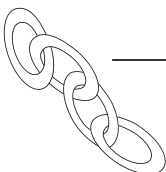
| Development Characteristics of Middle Years Learners   | Instructional Implications  |
|--|---|
| <p><i>Physical Characteristics</i><br/>include rapid growth, sexual maturation, hormonal changes; body image is important</p>  | <ul style="list-style-type: none"> <li>➤ Keep students actively involved in their learning.</li> <li>➤ Provide opportunity for movement.</li> <li>➤ Vary the activity several times in each one-hour period.</li> </ul>   |
| <p><i>Emotional Characteristics</i><br/>include mood swings, critical of self, fragile self-concept, focus on self, seek attention but do not like to be singled out; strong bond to same-sex friends; forming cultural identities</p> | <ul style="list-style-type: none"> <li>➤ Provide a "safe" learning environment that affirms diversity and encourages risk-taking.</li> <li>➤ Provide positive opportunities for releasing emotions.</li> <li>➤ Provide opportunities for students to experience success.</li> <li>➤ Provide validation for diverse cultural backgrounds.</li> <li>➤ Avoid sarcasm and judgemental statements.</li> <li>➤ Encourage acceptable work, behaviour, efforts, attitudes, and achievements by giving immediate and relevant feedback.</li> </ul> |

(continued)



| <b>Development Characteristics of Middle Years Learners</b>  | <b>Instructional Implications</b>  |
|--|--|
| <p><i>Moral and Ethical Characteristics</i><br/>include exhibiting feelings about fairness and values in others but perhaps not in self; unable to maintain an objective perspective; often show concern for others in need or pain</p>                  | <ul style="list-style-type: none"> <li>➤ Incorporate opportunities to explore and develop values.</li> <li>➤ Provide anti-racist and anti-sexist learning environments and experiences.</li> <li>➤ Provide opportunities for students to become objective, reflective, and critical thinkers.</li> <li>➤ Expect students to accept responsibility for their actions and attitudes.</li> <li>➤ Encourage cultural sensitivity and acceptance of varied viewpoints.</li> </ul> |
| <p><i>Social Characteristics</i><br/>allegiance to peers takes precedence over family and other adults; peers and media are sources of standards and views; become interested in opposite sex; desire independence but fearful of taking risks alone</p> | <ul style="list-style-type: none"> <li>➤ Provide for meaningful interaction with peers and adults as they learn.</li> <li>➤ Provide opportunities for students to “show off” in productive and positive ways.</li> <li>➤ Encourage and model positive and constructive ways of resolving interpersonal conflict.</li> <li>➤ Keep in contact with parents and involve them when possible.</li> </ul>  |
| <p><i>Intellectual Characteristics</i><br/>moving from being concrete to abstract thinkers; curious; prefer active over passive learning activities; prefer interaction with peers during learning; need learning to be relevant</p>                     | <ul style="list-style-type: none"> <li>➤ Use concrete examples to develop abstract concepts.</li> <li>➤ Set short-term goals.</li> <li>➤ Encourage self-expression and critical thinking.</li> <li>➤ Provide active rather than passive learning opportunities.</li> <li>➤ Provide for a variety of peer and group learning interactions.</li> <li>➤ Recognize and address the varied levels of ability and learning styles.</li> </ul>                                      |

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## **Impacts on Learning**

### ***Classroom Climate and Learning***

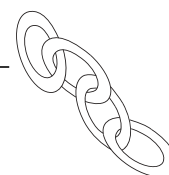
The classroom climate should be stimulating and inviting. Ways to create a stimulating learning environment include the following (adapted from Manitoba Education and Training, *Senior 1 English Language Arts: A Foundation for Implementation*, 1997, Overview 9):

- Design workstation/seating arrangements that reflect a student-centered philosophy.
- Maintain a print-rich environment that speaks of a lively connection between the Home Economics/Industrial Arts classroom and the larger world.
- Equip the classroom with a radio/cassette/cd player to provide background music. The latest brain research indicates that music has a calming effect on students.
- Provide access to a television, videocassette recorder, and emerging technology to enhance learning.
- Provide access to a video camera to record student demonstrations, presentations, and role playing. Tapes can be used for student/teacher assessment and/or reflection.
- Display student-designed posters and other work that celebrates student accomplishment.
- Involve students in classroom design.

### ***Motivation, Achievement, and Learning***

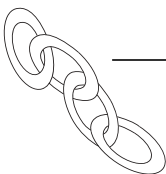
Student motivation, achievement, and learning can be greatly affected by the classroom environment. Motivation is defined as the focus of energy caused by a desire or need. We are faced with creating a classroom that enables students to channel their energy towards learning.

The chart on the following page identifies practices that foster motivation in the Home Economics/Industrial Arts classroom to enable student success. This chart is adapted from Manitoba Education and Training, *Senior 1 English Language Arts: A Foundation for Implementation*, 1997, Overview 7/8.



| <b>Fostering Motivation in the Home Economics/Industrial Arts Classroom</b>  |  |
|--|--|
| <b>Ways to Foster Expectations of Success</b>  | <b>Promising Practices</b>   |
| Help students to develop a sense of self-efficacy.   | Teachers foster a sense of self-efficacy first by teaching students that they can learn how to learn. Students who experience difficulty often view the learning process as mysterious and outside of their control. They believe that others who succeed in school do so entirely because of natural, superior abilities. It is highly motivating for these students to discover that they, too, can learn and apply the strategies that successful students use when learning.<br><br>Second, teachers foster student self-efficacy by communicating to the student that the teacher believes they can succeed and will provide the necessary support to ensure that learning takes place. |
| Help students to learn about and monitor their own learning processes.   | Utilize self-assessment to help students understand how they learn, learn more efficiently, and become more adept at transferring what they know to other situations.  |
| Assign tasks of appropriate difficulty, communicating assessment criteria clearly and ensuring that students have clear instruction, modelling, and practice so that they can complete tasks successfully. | A methodology for thorough instructional approaches is found on pages 49 to 54 of this document.   |
| Help students to set specific and realistic personal goals and to learn from situations where they do not attain their goals, and celebrate student achievements.  | Learning is enhanced when specific criteria and performance standards are incorporated into one's program.   |
| Offer choices.   | Intrinsic motivation is closely tied to students' self-selection of print resources, topics, activities, and projects. Self-selection allows students to build their learning on the foundation of their personal interests and enthusiasm.  |
| Set worthwhile learning/skills objectives.   | Meaningful learning activities/projects support transferable skills/knowledge.   |
| Ensure that knowledge and skill experiences are interactive.   | Encourage students to share their knowledge and skills with each other to foster motivation for learning.  |

**Note:** Sample learning outcomes are provided on pages 70 to 75.



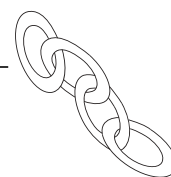
### ***Talking and Learning***

Dr. David Sousa, a leading researcher/author in *How the Brain Learns*, indicates that we are in the middle of a brain development revolution that has implications for classroom culture and climate. Our understanding of how the brain functions has changed substantially. It has been scientifically determined that the frontal lobe (problem-solving part of the brain) needs to be activated or learning will not be retained. Talking has been identified as a stimulant for the frontal lobe. The implication for the classroom and its climate is that learners must talk to aid retention. Classroom settings should encourage student discussion. Home Economics/Industrial Arts classrooms have a variety of workstations that allow for student interaction.

### ***Emotional/Physical Security and Learning***

Another implication for classroom climate identified by Sousa is that students must feel emotionally and physically secure before they can learn. Administrators and classroom teachers have taken an active role in supporting emotionally safe classrooms through the application of school or divisional interventions that deal with harassment, bullying, etc.

The secondary part of this learning equation is that classrooms must be physically safe places in order for students to learn. The number of participants should be determined by the programming nature and must not compromise safety. Home Economics/Industrial Arts facilities with specialized equipment should be maintained to acceptable health and safety standards. Administrators and classroom teachers must be aware of accident/injury liability and negligence statements found in *The Public Schools Act* as well as in the *Administrative Handbook, School Administration: Negligence and Liability* published by Manitoba Education and Training.



*The Public Schools Act:* accident liability documentation is found in sections 86-90. Section 87 of the Act outlines the claim to negligence in regard to defective or dangerous apparatus.

Section 87. Defective apparatus

Where the bodily injury or death of a pupil referred to in section 86 is caused by defective or dangerous apparatus supplied by the school division or school district for the use of the pupil, the school division or school district and its employees and agents and the trustees shall be deemed to have been not guilty of negligence unless it is shown that one or more of the trustees of the school board or one or more of the employees or agents thereof had knowledge of the defect in or the dangerous nature of the apparatus and failed to remedy or replace the apparatus within a reasonable time after acquiring the knowledge.

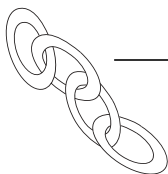
Below is a segment from the *Administration Handbook* (March 2000), which includes a three-page section of reference on negligence and liability.

It is generally assumed, in law, that teachers and others placed in charge of students have a duty to be responsible for the safety and welfare of those students during school hours and also after school hours during any school-sponsored activities on or off school premises. Failure to act reasonably under the circumstances, if this failure causes injury or death to a student, can result in a possible action in negligence.

It is generally recognized that four conditions must exist for a negligence suit to be successful:

1. The person alleged to be negligent must have a legal duty to maintain a standard of conduct that will protect others against hazards.
2. This person must fail to conform to a reasonable standard of conduct in connection with this duty. (The accepted standard is that of a prudent parent of a large family. However at least one recent court decision made a clear departure from that standard, and adopted a higher "professional" standard of care where a teacher needs specialized knowledge, training and/or experience in order to carry out his/her duties, such as gymnastics instruction in a high school setting).
3. The person or persons to whom this obligation is owed must suffer a genuine loss or injury (which could be property loss or damage, or physical or psychological injury, or death).
4. There must be a definite casual connection between the first person's failure to maintain a proper standard of conduct and the loss or injury suffered by the second person.

*(continued)*



Where teachers and other school officials are concerned, there is little difficulty in proving that a duty of care is owed to students. In any school activity, school personnel are generally assumed to be responsible, within responsible limits, for the welfare of students.

The fact that a mishap takes place does not automatically mean that there has been negligence. Genuine accidents do take place, and while they are unfortunate, no one can be blamed for them. Only if a court decides that a reasonably prudent person in the teacher's situation would have anticipated the mishap and would have acted to prevent it might the teacher be found negligent.

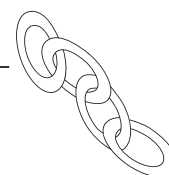
If students are to be placed in situations where the potential for injury exists, appropriate skill training and safety briefing must take place, and safety regulations conscientiously enforced. In addition, school officials are legally obligated to see that any facilities and equipment used are in safe condition. Particular caution should be exercised with regard to physical education equipment, playground equipment, vocational/industrial lab, etc.

Administrators and teachers are encouraged to advocate for emotionally and physically safe classrooms that support learning.

### ***Cultural Diversity and Learning***

Manitoba is a mosaic of people who have a variety of cultures, languages, religions, and other characteristics. Since society is composed of a vast array of individuals, the educational system must consider the needs of the diverse people. Manitoba's diverse student population is seen in the various multiracial, multi-ethnic, and multicultural classrooms. These aspects of human diversity should be recognized, accepted, and celebrated to create learning environments that prepare all students for participation in society, provide students with opportunities for cultural and linguistic development, and encourage intercultural understanding and harmony (Manitoba Education and Training, *A Foundation for Excellence*, 1995).

Multicultural diversity is a key element of Manitoban identity. Teachers must examine their own multicultural knowledge base and become aware of the way they read behaviour through their own cultural filters. They need to explore the intellectual work of groups of which they are not members, both for its implications for the curriculum and to be able to understand how people make sense of everyday life.



The urban Aboriginal population in Manitoba is expected to exceed 192,000 by the year 2016 (Graham, 2002). Teachers who work with Aboriginal students need a sound knowledge of the general culture and traditional ways of their students' communities. Refer to Manitoba Education and Training, *Success for All Learners* (1996) 3.15.

Multicultural education is the process that honours the multicultural nature of the society in which we live. Multicultural education is not a program (Bohn and Sletter, 2000). The goal of multicultural education is to develop students' ability to function competently within multiple cultures (Hall and Wortis, 1990). Students need to learn to respect and to deal with others whose attitudes, values, and abilities may differ greatly from their own.

### **Ways of Learning**

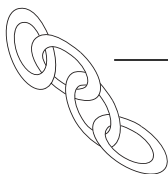
This document applies instructional methods that consider various ways of learning and demonstrating learning. Not all students learn the same way due to individual experiences, strengths, and challenges. There are various ways to describe the different ways of learning. Three models for describing student differences will be applied: learning styles, thinking styles, and multiple intelligences. Summaries of the three models are provided below (Manitoba Education and Training, *Success for All Learners*, 1996, 4.4-4.6).

### ***Learning Styles***

The model developed by Ken Dunn and Rita Dunn of St. John's University, New York, classifies students according to their learning styles:

- **Auditory learners** absorb spoken material easily and are likely to ask for information rather than read printed instructions.
- **Visual learners** learn best from information that they read or see.
- **Tactile learners** learn best by handling materials, writing, drawing, and being involved in concrete experiences.
- **Kinaesthetic learners** learn best by moving and doing, by taking part in activities and have direct relevance to their lives.

Dunn and Dunn believe that most people have two highly developed learning styles, and that within a class of 30 students, 22 will be balanced in their ability to take in information in a variety of ways.



### ***Thinking Styles***

Anthony Gregorc (1982) of the University of Connecticut has developed a theory of thinking styles based on two variables: the way we view the world (do we see things concretely or abstractly?) and the way we order the world (in sequential or random order). In Gregorc's framework, these two variables combine to describe four thinking styles:

- **Concrete sequential thinkers** are based in the physical world they can detect through their senses. They notice and recall details easily, and remember facts, formulas, and rules with ease. They learn well through "hands-on" experiences.
- **Concrete random thinkers** are experimenters—divergent thinkers, willing to take the intuitive leaps necessary for creative thought. They have a strong need to find alternatives and to do things in their own way.
- **Abstract sequential thinkers** love the world of theory and abstract thought. Their thinking processes are logical, rational, and intellectual. They prefer to work alone rather than in groups.
- **Abstract random thinkers** organize information through reflection, and thrive in unstructured, people-oriented environments. They live in the world of feelings and emotions, and learn best when information is personalized.

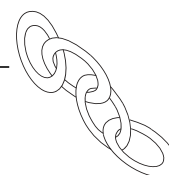
### ***Multiple Intelligences***

The theory of multiple intelligences is a cognitive model developed by Harvard psychologist Howard Gardner in the 1980s. Gardner's theory is that each of the following seven intelligences has an evolutionary history, its own symbolic system, and a separate locus in the human brain:

- **Verbal/linguistic intelligence** is responsible for the production of language and all the complex possibilities that follow: storytelling, abstract reasoning, symbolic thinking, conceptual patterning, and, of course, the written word.

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**Multiple Intelligences:** From *Seven Ways of Knowing: Teaching for Multiple Intelligences* by David Lazear. © 1991 by IRI/Skylight Training and Publishing, Inc., Palatine, IL. Reprinted with permission.



- **Logical/mathematical intelligence** is most often associated with “scientific thinking,” deductive reasoning, and problem solving. This intelligence involves the capacity to recognize patterns, to work with abstract symbols such as numbers and geometric shapes, and to see connections between separate pieces of information.
- **Visual/spatial intelligence** deals with the visual arts, navigation and map-making, architecture, and games such as chess. The key sensory base of this intelligence is sight, but also the ability to form mental images.
- **Body/kinaesthetic intelligence** is the ability to use the body to express emotion (as in dance and body language), to play a game, or to devise an invention. Individuals with high body/kinaesthetic intelligence thrive on hands-on experience; they “learn to do by doing.”
- **Musical/rhythmic intelligence** includes such capacities as the recognition and use of rhythmic and tonal patterns, and sensitivity to sounds from the environment, the human voice, and musical instruments. Many children learn the alphabet through this intelligence.
- **Interpersonal intelligence** involves the ability to communicate verbally and non-verbally, to work co-operatively in a group, and to observe the moods, temperament, and intentions of others. Individuals with high interpersonal intelligence are able to imagine and empathize with the experience of others.
- **Intrapersonal intelligence** involves knowledge of the self—of feelings, thinking processes, and spiritual realities. This intelligence involves our capacities for self-reflection, to experience wholeness and unity, to perceive higher states of consciousness, and to dream of and actualize the possible.

Gardner’s multiple intelligences theory proposes that each person has capabilities of varying degree in all seven intelligences, and that we perform most functions through a complex interaction of several intelligences. (Ongoing research may result in the identification of other intelligences.)

