Adolescent development and learning in the classroom

In a quote by Columbia professor and philosopher, Mortimer Adler, “ The purpose of learning is growth, and our minds, unlike our bodies, can continue growing as we continue to live.” The University of Kansas’ Circle of Inclusion Project defines developmentally appropriate practices as; “ the concept of developmentally appropriate practices refers to providing an environment and offering content, materials, activities, and methodologies that are coordinated with a child’s level of development and for which the individual child is ready. Three dimensions of appropriateness must be considered: age appropriateness, individual appropriateness, and appropriateness for the cultural and social context of the child.” A teacher’s job is to make sure that what they are teaching their students is appropriate to their student’s level of development. There are three main areas of development, which are cognitive development, social-emotional development, and psychomotor development. These types of development are a part of every student’s life and it is important that teachers take them into account when they are teaching a class to ensure that every child gets the chance to learn the material required.

Cognitive development, as noted in the Classroom Assessment textbook, focuses on a child’s intellectual operations (Popham, 2011, p. 35). In cognitive development, there is a “ concept of cognitive style, which refers to a dimension of cognitive processing along which people differ from one another”(Morra, et al, 2008, p 45). When a child reaches adolescence, usually occurring between the ages 12 and 20, many changes take place. “ Thinking changes both quantitatively and qualitatively during adolescence” (Gumbiner, 2003, p. 27). “ Adolescents begin to think faster and more

efficiently than children, even their mathematical operations are conducted more rapidly” (Gumbiner, 2003, p. 27). Jann Gumbiner continues to explain Jean Piaget’s theory of cognitive development and how an adolescent enters a stage of formal operational thinking, which is the final state of cognitive development that usually occurs around the ages of 11 and 15 (2003, p. 29). “ This stage represents a fully mature, adult way of viewing the world. Adolescents in this stage perform logical operations and hypothetical-deductive reasoning. They form hypotheses and then deduce answers, whether it is about algebraic functions or real-world dating situations” (Gumbiner, 2003, p. 29). “ There are then qualitative changes in the way adolescence think about the world around them that helps them to communicate better with adults” (Gumbiner, 2003, p. 29). Once students reach this level of growth, “ they are eager to tackle relevant problems, discuss and share viewpoints about critical issues, and talk about ethical choices that impact their actions” (Crawford, 2008, p. 26).

The intellectual development of adolescents has specific learning needs. “ Adolescents that have diverse knowledge, interests and abilities need the opportunity to develop a range of skills and pursue a variety of content areas” (Crawford, 2008, p. 27). If an adolescent is capable of critical evaluation, extended focus, inferential thinking and reasoning, they should be given the time and opportunity to think critically and be given a higher-level of analytical questioning than they had before (Crawford, 2008, p. 27).

Glenda Crawford explains that a teacher’s role in teaching based on cognitive learning is to model, guide, and assist as students think about and use cognitive strategies, and through practice and over time gain a level of

proficiency (2008, p. 69). “ The typical features of this type of teaching include:

Modeling: when students observe and listen while the teacher demonstrates and explains a task.

Coaching: students perform the task while the teacher supports and makes suggestions through constructive feedback.

Sequencing: students engage in more challenging and diverse tasks as proficiency is gained.

Externalizing: students explain aloud their knowledge, thinking, and reasoning.

Reflecting: students compare their thinking and performance with that of experts.

Exploring: students are helped to apply, expand, and refine their skills independently” (Crawford, 2008, p. 69).

Social-emotional development is what a person learns from the environment around them. Thomas M. Brinthaupt and Richard P. Lipka explain that social changes begin in early to middle childhood by learning how to anticipate other’s reactions and internalize behavioral standards. They begin to compare their performance to their own work from the past and to those of other children (2002, p. 4). He continues saying that “ it is not until late childhood and early adolescence that self and identity most fully reflect the interpersonal domain, including selves that differ depending on the social

context. This is a time when children begin to show greater independence from their families and when peer relations increase in importance and intensity, particularly with regard to assessments of personal competence" (Brinthaupt et al, 2002, p. 4). An adolescent's social-emotional growth is crafted by their cultural communities, families, peers, and schools, which in turn are set to guide identity exploration toward their personal goals, values, beliefs, and practices (Azmitia et al, 2008, p. 3).

A student's family plays a major role in the social development of an adolescent teenager. Brothers, sisters, and parents are very important in the way a teenager may choose to look at school. Younger siblings will look to older siblings as role models, such as " when an older sibling is a good student, the younger sibling may also compete to become a good student also" (Gumbiner, 2003, p. 47). When it comes to parents, adolescents should be considered when making decisions (Gumbiner, 2003, p. 48). " A good parent to a teenager is democratic and guides him or her into making their own well-informed, cautious decisions. Parents and adolescents can discuss household rules, appropriate hangouts, and safety. They will sometimes disagree, and this is normal" (Gumbiner, 2003, p. 49). Many times growing up teenagers will have their own opinion on things such as driving, curfew, friends, boyfriends and girlfriends, and their parents may have a different view. Parents should listen to their children's reasoning and be prepared to negotiate. Adolescents tend to get attitudes and become rebellious towards authority, especially when a parent is controlling (Gumbiner, 2003, p. 53). The activity surrounding a teenager is what helps them grow and make better decisions later in life. Learning from mistakes is a major part of

adolescence. “ According to Aristotle, young people entered adolescence as unstable, and by the end of the period, they developed a sense of self-control. The most important characteristic of adolescence is the ability to choose” (Gumbiner, 2003, p. 18).

Adolescents face different anxieties when entering junior high and high school. “ Adolescents feel anxious about loss of control, sexuality, dependence-independence, the need to be rational, acceptance by peers, competence, and body image; these are age-appropriate anxieties that are related to the social expectations of that age group” (Gumbiner, 2003, p. 44). Teen relationships with their peers can cause the most anxiety because they are trying to break from dependence to independence from their parents and their friends become the focus of self-worth (Gumbiner, 2003, p. 45). “ The increasing impact of others’ perception of the self is partly due to the psychological changes that take place in adolescence. They start thinking about their future and can form hypotheses about what may or may not change in their personalities, behavior, education, family, and relationships with friends and intimate partners” (Brinthaupt et al, 2002, p. 33).

“ Adolescents thrive in a learning environment where they are motivated personally, guided socially, challenged intellectively, and supported intentionally as they engage in relevant and meaningful learning experiences” (Crawford, 2008, pp. 83-84). Students learn from their surroundings and when they are in a classroom, teachers need to take the classroom environment into account. Crawford also believes that the use of flexible grouping is essential to their social dimension that enables students

to interact with their peers on a variety of engaging, appropriately complex tasks (2008, p. 84). “ Adolescents thrive in a nonthreatening setting where they feel emotionally safe to test ideas, to use their diverse talents, and to negotiate and reflect upon how others perceive them and who they are becoming as human beings. A safe classroom is free of bullying, embarrassment, confusion, ridicule, frustration, boredom, and social exclusion” (Crawford, 2008, p. 86).

“ Social groupings balanced by such factors as gender, ability, leadership, problem solving, creative or artistic talent, cognitive abilities, backgrounds and languages, and energy levels are known as tribes that are helpful with classroom management and instruction” (Crawford, 2008, p. 89). Social groupings promote social skills, it builds community among the students, and it gives the students a sense of belonging; and this sense of belonging and inclusion in the classroom maximizes learning (Crawford, 2008, p. 89). In the groupings, there needs to be a sense of individual accountability. Adolescence may be very social, but they may not have the personal skills that are needed for true collaboration and teachers need to take that into account when doing group projects (Crawford, 2008, p. 93). Having a rubric for group projects on each individual’s performance would be a good way to measure what the student’s input was on the project and it guarantees that each student has done its part.

“ Some elements of an adolescent’s needs as learners when a teacher is trying to teach them are:

Affirmation: The need to feel accepted, safe, cared about, listened to, and acknowledged.

Contribution: The need to make a difference, bring unique perspectives, collaborate mutually on common goals, and help others succeed.

Purpose: The need to understand the significance of learning and how it impacts and makes a difference personally and with the extended community.

Power: The need to make choices, create quality work, and have dependable support.

Challenge: The need for work that complements and stretches strengths and, through personal effort, leads to success and accomplishment" (Crawford, 2008, p. 85).

Crawford continues to show how these elements support a positive classroom that requires teachers to reflect upon and respond continually to the many ways students' differ in readiness, interests, learning styles, background, culture, and home life (2008, p. 85).

The final type of development is psychomotor development. Webster's dictionary defines psychomotor development as a progression acquisition of skills involving mental and motor activities (psychomotor development). Popham describes assessing psychomotor by targeting a student's large-muscle or small-muscle skills (2011, p. 35). Psychomotor skills include any such activity involving movement such as playing sports games in gym class, typing on a keyboard, learning how to drive a vehicle, or playing an

instrument in band class. It has to do with coordination between your brain and the parts of your body such as your hands, arms, feet, and legs.

Objectives that are usually attempted are imitation, manipulation, precision, articulation, and naturalization (Clark, 2004). These objectives contain certain key words that teachers use when getting their students to use psychomotor skills. “ These key words are:

Imitation: Copy, follow, replicate, repeat, adhere, observe, identify, mimic, try, reenact, and imitate

Manipulation: Re-create, build, perform, execute, and implement

Precision: Demonstrate, complete, show, perfect, calibrate, control, and practice

Articulation: Construct, solve, combine, coordinate, integrate, adapt, develop, formulate, modify, master, improve, and teach

Naturalization: Design, specify, manage, invent, and project-manage” (Clark, 2004).

In the Classroom Assessment book, Popham explains how Benjamin Bloom and his colleagues were the first to introduce the distinction between cognitive, affective, and psychomotor educational outcomes (2011, p. 35). “ In Bloom’s Taxonomy of Educational Objectives, it showed that a dominant kind of student behavior was seen when teachers devise educational objectives for their students” (Popham, 2011, p. 35). These three types of development that were the focus of this paper are important to teachers

when they are teaching. Every classroom will have different types of learners, because no student is just alike, and teachers must find a way to connect and teach every child what they need to know in order to succeed in high school. Adolescents are going through so many changes and it is a teacher’s job to understand that these adolescents need guidance. By knowing what type of students are in a teachers classroom, teachers can be prepared to assess them in ways they can reach each student.