

A STUDY OF STUDENT PSYCHOLOGICAL DEVELOPMENT IN FOUR DOMAINS

A Student Interview Project

by
Tim Wood

Submitted to Dr. Sallie Armstrong

of Trevecca Nazarene University

School of Education

In Partial Fulfillment of the Requirements for

EDU 551C Psychological Foundations of Learning

July, 2009

Introduction

The purpose of this research project was to learn about the characteristics of learners of various

ages in four domains – physical, emotional, social and cognitive. The main tool for learning about these characteristics was a series of interviews with learners. The grade level groups chosen were K-2, 3-5, 6-8 and 9-12.

Before the interviews were done, the graduate students in the Trevecca Nazarene University EDU 551C class gathered in groups to develop a list of characteristics of each of the chosen age groups. Two books and handouts from the teacher were used as resources to develop the list of characteristics. The books were *Essentials of Educational Psychology* (Omrod, 2009) and *Yardsticks – Children in the Classroom, Ages 4-14* (Wood, 2007).

Each group developed a list of characteristics for each of the age groups in each of the four domains. The lists were copied to large sheets of paper, which were posted around the classroom and discussed by the full class. The next step was for the students to again break into groups and develop questions for the interviews, based on the characteristics developed by the class. These were copied to poster-sized paper and presented to the class for discussion.

Following this class meeting, the teacher, Dr. Sallie Armstrong, took the students' questions and characteristics and synthesized them into a set of characteristics and questions to be used for the project. The characteristics and questions were promptly e-mailed to students so they could begin the interview process.

This researcher chose four students, striving for diversity. The students, identified here by pseudonyms, were Hank, a first-grade student; Mary, a fifth-grade student; Martha, a seventh-grade student; and Mercedes, a ninth-grade student. Hank and Mercedes are caucasians; Mary and Martha are Hispanic students. It should be noted that Hank is developmentally disabled. All of the students attend public schools. All of the students live in a traditional family unit, with two parents and siblings.

Cognitive Domain

Some of the characteristics of growth in the cognitive domain include a child's ability to acquire more effective learning strategies, the improvement of metacognitive knowledge and skills and the growth of self-regulation.

As students grow older, their ability to do abstract thinking improves. Also, their working memory increases and they can handle more complex learning tasks. Part of this is due to increasing speed and efficiency in cognitive processes, so less “space” in working memory is required. Also, the “space” in working memory increases as well.

Younger children tend to have isolated memory. Their memory contains many isolated facts which they do not integrate. As they grow older, they match up these facts and develop interrelationships and associations among concepts and ideas.

Children also tend to become more logical in their thinking as they grow older.

Mary, the third grade-student, showed skill in association. She was read a list of 12 words and could remember seven of them. She said she remembered those seven words because they were things of interest to her.

Martha, a seventh-grader, expressed a preference for hands-on projects as opposed to written reports. This reflected somewhat a younger child's preference for activity over more abstract work. The researcher's experience, however, indicates that even older children prefer hands-on activities.

When asked how she would do a simple math problem, Mercedes, the ninth-grade student, said she would do it in her head. This would indicate strong working memory and ability to do abstract problems.

Hank had some difficulty in responding to a question about differences and similarities between scissors and pencils. He did express a preference for working in groups as opposed to working alone or with a friend.

Emotional Domain

Growth trends in the emotional domain show children becoming less centered around themselves and more oriented toward others as they grow older. There also is growing individualism and tolerance as the child progresses. Students also tend to care less about the opinions of their parents and teachers and more about the opinions of their peers.

Student self-esteem tends to go down during the middle school years, but improves in high school.

As the students grow, they tend to be more reasonable and tolerant.

Mary's response to a question showed her desire for approval of her teacher. She was asked how she would feel if she worked hard on a project but the teacher didn't give her praise or notice. She said first that she would be worried about her grade. When asked again how she would feel, she said, "A little bit said." She agreed with the suggestion that it was important to get praise from teachers.

Middle school students are considered to be egocentric, Martha showed a surprising concern for others. Asked what she would do if she were given \$100, she replied without hesitation, "Give it to the poor."

Questioning of Martha also reflected a difference in her perceptions of herself in the classroom and with friends. Martha was asked what would be different in the way she would be described by her teacher as opposed to being described by her friends. The teacher would describe her as "nice and quiet," she said, while her friends would describe her as "funny and kind to them."

A characteristic of grades 9-12 is a desire for rites of passage, some of which involve dangerous activities. Mercedes' observations on this were, "The fact that they're dangerous makes them more tempting."

Hank was asked how he would feel if someone was mean to him. He responded, "It would hurt my feelings." An older student might be able to dismiss such behavior in a friend, but it's more difficult for a younger child not to be emotional about someone being mean to him.

Social Domain

In the social domain, children in the K-2 age group tend to like small group play and have same-sex friends. As children grow to the grade 3-5 level, they maintain same gender friendships and also start a transition from seeking teacher approval to peer approval. Peer acceptance also is important.

In Middle School, the desire to conform reaches its peak. Students also start to deal with peer pressure, participate in team sports, and complain about fairness. Their adult personality starts to emerge.

In grades 9-12, friendship interactions change. Girls seek intimacy, experience anxiety, jealousy and conflict. Boys seek similar skills and interests, experience competition and not intimacy. Both genders may experience after-school work, with its attendant pros and cons. The pros include self discipline, responsibility, positive attitude toward work and self confidence. Cons include less time for homework, friends, extra curricular activities; increased stress; lower grades and lower career expectations.

Hank's responses to social questions were simple and straightforward. Asked how he picks his friends, he replied, "I just look for one." His favorite activity to do with friends was to swing. Mary's favorite playmates were two girls, whom she described as best friends. On the issue of what she would do if a student copied off of her paper and the teacher asked her about it, she said she would probably say the other student was copying off of her paper. When asked if she would be worried about that person getting mad at her, she replied in the affirmative.

Martha was asked what she would do if a friend brought something dangerous to school. She replied that she would tell an adult or tell her friend not to bring the item to school.

Ini responding to the question, "How important is it to be part of a group or a team?" she said "It's important because you can work with the people you're around and make many friends."

Asked about getting along with other girls, Mercedes said, "It depends on the person. I get along with most people."

Physical Domain

Children in the K-2 range lack fine motor skills, do not have fully developed vision and play recklessly. They are very active and have trouble with small print. They need frequent breaks as they tire easily. As they grow to grades 3-5, gender differences become apparent. Large motor skills develop and these children are extremely physical in their play. There is a noticeable increase in bone growth and density.

In the Middle School age range, there is rapid growth of about 2 to 4 inches and 8 to 10 pounds a year. Their hands and feet grow faster than other parts of the body and they appear gangly and clumsy. They also are very energetic. They require more sleep, exercise and food.

High school students are reaching physical maturity, although some may not be ready for this emotionally.

In the physical realm, first-grader Hank likes to play Batman. He also likes to play on the swing set with his friends.

Mary chose physical activities over board games when asked about her preference. "I'm sort of a running girl," she said. "I go outside and don't play on the computer that much."

The interviewer asked Martha what appearance issues her friends were concerned about. She had some difficulty understanding the question. The interviewer gave examples of appearance concerns as hair, clothes and shoes. She said her friend are concerned about their hair and clothes.

Martha's hobbies and interests first are playing with her sister and friends. She also plays video games and uses the computer. Her mother, who was present for the interview, said she uses the computer "a lot."

Mercedes lists dance as her preferred exercise activity. She does it twice a week. She is active in a local arts guild and is preparing to perform in a major production.

Reflection

Any increase in the understanding of student behavior and development is going to help the classroom teacher, and this project was no exception. The most useful part of the project was doing the interviews. I regret that there was much interview material that didn't make it into the narrative due to space limitations. Nonetheless, it was useful in developing my understanding of various ages of students.

It was difficult, in some cases, to interpret the students' responses in light of the student characteristics. If anything, it seemed that the students had a maturity level beyond that indicated in the characteristics. The most memorable response in this regard was Martha's response to the question about what she would do if given \$100. Her desire to give it to the poor indicated a maturity beyond her years. It also might reflect the values of her parents, who are devout Catholics.

Hank was the most difficult interview, given his developmental difficulties and shyness. He still provided insight into his age group with his simple but succinct answers.

In addition to the usefulness of the interviews, the research on student characteristics was quite revealing. This will help me in dealing with high school students. All in all, it was a most useful project.

APPENDIX

Student Characteristics

High School

Cognitive

Increased formal thought

Abstract in math/science-deductions and hypotheses

Idealistic (not always realistic) thoughts in social studies

Ability to interpret figurative language

Emotional

Search for themselves and an adult identity

Rites of passage can be important to emerging sense of self

Risk taking behaviors-especially in males

Gradual increase in self esteem

Psychiatric disorders appear or become prominent

Physical

Reaching physical maturity

Social

Influences-adults and peers

Friendship interactions

Girls- seek intimacy, experience anxiety and jealousy and conflict

Boys- seek similar skills and interests, experience competition and not intimacy

Employment after school

Pros- self discipline, responsibility, positive attitude, toward work, self confidence

Cons - less time for homework, friends, extra curricular; increased stress; lower grades; lower career expectations

Middle School

Cognitive

Would rather learn new skills than review

Better at abstract thinking

Increasing ability to see things from various perspectives

Become unwilling to take risks academically

Need to use technology more

What they need to learn-collaborative groups, small discussion groups, hands-on learning, more opportunity with language, music, mechanics, drama, debate, performance, peer tutoring, cross disciplinary learning, journal writing, build better homework and study habits, opportunities for self evaluation

Because of personal and environmental stresses, academic motivation and achievement levels decline, sometimes drastically.

Emotional

Egocentric, self conscious, low self esteem

Moody and sensitive

Impulsive

Enthusiastic

Challenge rules

Begin to establish adult identity-want independence yet want adult attention

Trouble making decisions

Physical

Rapid growth-2 to 4 inches a year and 8 to 10 pounds a year

Signs of puberty- girls may start at 10 and peak at 12, boys at 12 and peak at 14

Hands and feet grow faster than other parts-appear gangly and clumsy

Very energetic

Require more sleep, exercise, and food

Social

Interpersonal reasoning-third person view

Desire to conform reaches peak- peer pressure, team sports, adult personality begins, rites of passage, complain about fairnessCh

3-5

Cognitive

Slight transition

Concrete to beginning abstract

Beginning of memory recall skills

Visual
Literal
Fine arts
Organizing and classifying
Challenging

Emotional
Compassionate
Approval
Positive feedback
Pride vs shame
Control over emotions

Physical
Gender differences
Puberty
Extremely physical in play
Large motor skills
Bone growth and density

Social
Personal interest
Same gender friendships
Transition-teacher to peer approval
Appropriate social conventions
Peer acceptance
Positive/negative actions
Cooperative and competitive sports
Organized sports
Rule based activities

K-2

Cognitive
Learn best through discovery/hands on learning
Often think there is only one way
Like explanations based on evidence

Love asking questions
Like to work slowly and finishing is important
Need repetition
Like to think out loud
Unawareness of not truly understanding things

Emotional
Sensitive to criticism
Upset easily
Freely express their emotions
Care about friends
Eager to please the teacher
Need constant validation and praise

Physical
Very active
Need frequent breaks or rest periods
Lack fine motor skills
Trouble with small print
Vision not fully developed
Play recklessly
Bones still not developed
Nervous habits

Social
Anxious to do well
Same sex friendships
Short but frequent quarrels
Small group play
Like routines
Become jealous easily
Overly concerned with rules
Tattletales

Interview Questions

High School

Cognitive

What does it mean to be a good citizen?

How would you solve this? Describe what you see.

Emotional

What are some things you look forward to in the next month? 6 months? Year? 3 years? Year?

Tell me 3 adjectives that you would use to describe yourself. Three adjectives your friends would use to describe you.

Physical

When you exercise, what do you do and how often?

Why do you suppose high school students participate in activities that are potentially dangerous?

Social

Describe your relationship with guys (girls).

Briefly describe your relationship with your parents.

Middle School

Cognitive

Tell about a time you felt pressured to not answer a question in class.

Would you rather make a hands on project or write a report? Why?

Emotional

What would be different in the way your friends describe you and the way your teacher describes you?

Tell me what you would do if someone gave you one hundred dollars?

Physical

What appearance issues are your friends concerned about?

What are your hobbies/interests? Why?

Social

If you knew your friends brought something dangerous to school, what would you do?

How important is it to be part of a group or team?

3-5

Cognitive

Read a list of words to the students (12 words). Ask them to recall as many as they can. Ask how they remembered the words.

How would you solve the problem $10+16$? Explain your answer.

Emotional

You have worked really hard on a project. Your teacher does not acknowledge (give you praise or notice) your effort from the project at all. How does this make you feel? Why? Pretend you are in a new school (class, situation). How do you feel? What would you do to fit in?

Physical

If given a choice between board games and physical activity, which would you choose? Why?

With whom would you choose to play these games and why?

Social

During a test a friend copies your paper. The teacher asks you about it. how would your respond...What would you do?

What makes a game enjoyable for you and why?

K-2

Cognitive

How do you learn best (group, partner, by yourself, etc.)?

Explain how pencils and scissors are alike and different.

Emotional

How do you feel when a friend is mean, your teacher is absent, you do badly in school?

Physical

What kinds of active things do you like to do? (recess)

How do you deal with having to sit for long periods of time?

Social

How do you pick your friends?

What do you like to do with your friends?