AN ABSTRACT OF THE DISSERTATION OF

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Abstract approved:

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LeoNora M. Cohen

Although perceived-risk curriculum, that is, where the learner experiences effects of eustress (positive stress), has been used in Arts or outdoor activities, it has not been used in school classrooms. Milkman's 1996 studies of after-school Project Self Discovery demonstrated that at-risk students lessened their adverse risky behaviors, such as substance abuse and increased their pro-social behaviors, such as turning to the arts instead of drug abuse. Therefore, a study of perceived-risk curriculum in the secondary classroom was carried out.

In this mixed-method study, the researcher sought to determine if at-risk students who were instructed using "perceived-risk" methods (such as student showcases and galleries) performed better in school (*better* being defined in this study to include increased pro-social behaviors, higher GPA, more Carnegie Units, and improved scores in unit pre and post-tests). To understand the phenomenon of perceived-risk curriculum, the researcher further asked students and teachers about their experiences with the at-risk curriculum through activity surveys, interviews,

researcher field notes and a senior project.

The study was conducted at a district-sponsored charter school for at-risk adolescents. Throughout the term of intervention in spring 2009, teachers employed perceived-risk methods. Results were compared to control activities. Quantitative results were mixed: students made gains on unit pre and post-tests, slight gains in the credits earned and a decrease in GPA. Students made modest gains in pro-social behavior and stronger gains in their resistance to deviant-risk behavior after the term of curricular intervention. Students reported enjoying the perceived-risk curriculum and being engaged at rates significantly higher than control activities, though most students did not report that the perceived-risk curriculum evoked feelings of risk. Researcher field notes suggested that students experienced a higher level of risk than they admitted to. It may be that assessing a perception of risk should be done immediately prior to the risky activity.

This study was handicapped by the paucity of academic information relevant to at-risk curriculum and by the small size of the studied population. Further research over a more extended period of time, with a larger population, and with a more perceived-risk weighted curriculum is encouraged.

A Perceived Risk Curriculum for At-Risk Learners

by

Laurel Renee Kash

A DISSERTATION

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APPROVED:

Major Professor, representing Education

Dean of the College of Education

Dean of the Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

Laurel R. Kash, Author

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CONTRIBUTION OF AUTHORS

Dr. Greg Sampson- Gruener assisted with formatting, inputting and analyzing the quantitative data.

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A PERCEIVED-RISK CURRICULUM FOR AT-RISK LEARNERS

CHAPTER I – A PERSONAL CALL TO ADVENTURE FOR AT-RISK STUDENTS

When the curtain closes on a successful theatre production and a cheer rises from the students behind the velvet folds, the sixth grade girl inside this drama teacher cheers with them. It is an absolute certainty that these student actors will reflect upon those moments years from now with a certain nostalgia and fondness. Perhaps a few lives will be changed in an even more fundamental way, a way in which the Arts changed the life of this researcher.

Imagine a sixth grader in a rural Missouri town, one who personifies the awkward pre-teen female. Her height rapidly surpassed that of the boys around her, braces concealed her teeth, and her wardrobe failed the peer test. This student's identity fluctuated daily between gregarious singer-wannabe and solitary future novelist. Her interest in such nerdy pursuits as science fairs did not earn her friends. Because her hobbies did not center on shopping and the collection of teen magazines, and because middle-schoolers can be cruel to one another, this girl rapidly lost confidence in herself and her abilities. The girl's astute father noticed her struggle and suggested a solution. He thought that if his daughter took theatre classes, she might develop poise, confidence and concentration. The girl thought it was worth a try if it helped her realize the potential her father saw within her.

After-school acting lessons were a wonderful release from the pressures of middle school life, and our "imaginary girl" developed a confidence she had never known before. She applied for a theatre class in her own middle school and was accepted! After preparing scenes with partners, she discovered the importance of collaboration, which would become a recurring theme in her teaching life years later. In plays, the students were always stronger as a cast and crew than they were on their own. The cast could not perform well without each other. Developing an appreciation for the virtues of promptness and of meeting obligations made as members of a production team, our proto-teacher and her friends grew in responsibility, social sense, and self-esteem. They felt the validation and confidence needed to jump many of the middle school hurdles that they had thought they would never conquer.

Though now, twenty years later, our proto-teacher, now a real-life teacher of theatre and English, experiences all this from the vantage point of the production director and classroom teacher and not that of the teen-aged actress, but she still looks to theatre for the rush of adrenaline-induced excitement, the camaraderie of collaboration, and the deep sense of satisfaction and accomplishment. She no longer sees herself as the awkwardly bright girl with a gap-toothed grin hoping to make friends. This researcher sees herself as a champion for awkward and wonderful children who enter into her classroom, and, through the magic of the Arts, emerge on new paths of self-discovery.

The Development of the Authentic Question

In 2003 this researcher had the unusual opportunity to develop a public charter school for the “Applegate School District” in “Applegate” (both pseudonyms) in a small rural town in the Pacific Northwest. This school, named “The Central Applegate Academy,” hereinafter CAA or *the Academy*, was to be a place of emotional and educational support for the at-risk students who had previously been served by an alternative school. Reform of the alternative school with state-issued funds was an inspired call to action. A state funded grant provided the opportunity to change the alternate school into an effective child-oriented, child-supportive educational environment. For the first time in the academic lives of most of these students *they* came first. Such infrastructure advantages as a wireless laptop lab (at a one-to-one ratio), new desks, a video lab of Macs, and smart boards were coupled with curricular innovations like integrated curriculum and Art therapy classes. The result, the founders hoped, would be happy, healthy and well-adjusted students where previously there had been alcohol- and drug-affected dropout risks. One of the team members participating in this reclamation effort shared with the development staff the literature of addiction specialist, Dr. Harvey Milkman, who, in his *Project Self Discovery*, studied the impact of Arts experiences on at-risk adolescents. Dr. Milkman's findings suggested that if their risk-seeking stimulation provided by crime and drugs could be replaced with "natural highs" provided by successful accomplishments in the Arts, these youths might begin to drop anti-social and self-destructive behaviors in favor of pro-social behaviors. Youths would *perceive risk* as they performed live in front of an audience. Dr. Milkman found that simply perceiving risk (but, importantly, not being allowed to fail) was enough for many of the youths to adopt more pro-social behaviors including rejection of drugs and alcohol as well as improvement in familial relationships. Curiosity about neurotransmitters and brain-based learning wedded to the researcher's love of the Arts made Dr. Milkman's work very compelling, and the CAA team was similarly moved. Dr. Milkman met with the staff, and the team adopted Arts-based techniques founded on his findings. Though already teaching a full load of classes from middle school theatre to advanced placement Writing 121 for the local university, this researcher charged into the implementation of the Art based charter school with vigor and optimism.

The charter for the Academy was approved in 2002, developed in 2003, and opened in 2004. Students from Applegate and other neighboring communities could apply for the 35 spots. Though the philosophical context for the charter was enthusiastically agreed upon during its design phase, the implementation of the programs yielded numerous unexpected difficulties in the first year. This researcher happily agreed to teach Arts Exploration and Together Acquiring Skills and Techniques for Entertaining (T.A.S.T.E), a course which included instruction in nutrition, menu planning, cooking, and presentation as well as more conventional forms of the Arts.

CAA's first year was not a success. Though this researcher and the CAA staff enjoyed the challenge of the courses, scheduling and bussing problems interrupted classes, and the minimalist curriculum previously utilized did not meet student needs. Among the faculty and administrators, personalities clashed, commitments were forgotten and student needs were disregarded. The district and the design staff recognized the need for revision for year-two. A change in administration, an augmentation of the teaching staff, the use of full-time permanent employee status for some of the employees, and the researcher's being commissioned as curriculum director gave founders of the project renewed hope of success.

As a new curriculum director, it was necessary to choose methods and schedules that showcased student work in innovative ways. These methods tended to involve the risk of sharing with a legitimate audience, one that was naturally interested in the outcomes. The researcher found herself again drawn to the collaboration, interdependence, and excitement inherent in theatre while teaching everything from scientific inquiry to street law. There was a trend toward more presentational and less traditional kinds of methods, especially appropriate since our students' lives were often disrupted by conflicts, and at-home completion of traditional assignments was limited or non-existent. Unable to hide behind packets of worksheets as in the past, our students learned that their efforts would become known and their achievements recognized. The CAA methods showcased student achievement in more public ways: mock trials, Socratic seminars, art shows, science fairs and similar endeavors. Founders decided that CAA should sponsor more frequent Open Houses so parents could eat dinner with the staff and talk about their children's successes while looking at their art on the walls.

These Arts-based techniques, while not the performance exposure Dr. Milkman's youths had, still offered exciting "perceived risk" opportunities. The researcher's interest had shifted somewhat from purely performance to curricular applications of artistic methods and was as committed as ever to developing the curriculum for the CAA, seeking the best avenues of learning for the students, and searching to find meaningful ways for all to construct *meaning* together.

And yet the researcher was confronted with other data from brain-based learning experts who suggest that negative or risky environments for learning produced negative results for higher learning (Caine & Caine, 1999; Pierce, 1994; Sylwester, 2000; Wolfe, 2001). While struggling to reconcile risk and learning, numerous questions emerged:

- Do at-risk learners process learning differently from other learners?
- Can perceived-risk methods in the classroom trigger the natural highs Dr. Milkman noticed in his study with a similar population?
- How might those results be measured?

Problem Statement

Though blessed with a practical laboratory to research and explore perceived risk effects, research efforts through the medium of the Oregon State library, on-line academic facilities, and personal contact throughout the education community disclosed that there is a paucity of academic material on the subject of perceived risk methods in schools. Searches of academic search engine, Google Scholar and research database, Academic Search Premier yielded many articles on perceived risk effect in public health, and a wealth of information (albeit most from the 1990s) about at-risk students themselves, a few on the use of risk practices in programs outside of school (like Outward Bound), and still fewer on the use of arts-based strategies in the classroom (Barry, Taylor, Walls & Wood, 1990; Deasy, 2002; Fiske, 1999; Heath & Soep, 1998; Heath, Soep & Roach, 1998). Despite thorough attempts, this researcher found no studies on the use of perceived risk curriculum for use in the classroom. The lack of previous exploration of the subject suggested that a study on perceived-risk curriculum would be beneficial.

Additional research on the subject of at-risk learners revealed the importance of the perceptions: of teacher toward students, students to each other and each toward the curriculum. Reading into Howe's (2003) generational theories suggests that the current generation of students in school now very much value relationships and a need for personal relevance. An understanding of student and teacher perceptions with regard to the curriculum and each other prompted a second research question.

Research Questions

In the course of this dissertation, it became necessary to develop authentic questions based on the researcher's own student experiences in the Arts and in education. At first there was no concept that this process would lead to a study of at-risk students, curriculum and brain-research, but with growing excitement it became apparent that such a process was a natural and necessary conceptual development. Thus essential questions became clear. The planned study would focus on the following questions:

1. *Do at-risk students who are instructed using "perceived risk" methods perform better in school ("better" being defined in this study to include increased pro-social behaviors, enhanced performance as measured by higher GPA, successful completion of Carnegie Units, improved scores in unit pre and post tests)?*
2. *How do students and teachers feel about the perceived-risk curriculum and their roles, as assessed through researcher field notes, student activity surveys, teacher activity surveys, students interviews, teacher interviews, a senior project and researcher field notes?*

Epistemology as a Teacher

One of theatre's greatest strengths in a public school setting is its emphasis on collaboration and cooperation. Students from all backgrounds can find a place to belong to in theatre. As an actor and as a teacher, this researcher has worked with cast and crew members in a single production who were as diverse as National Merit Scholars and students with Downs Syndrome. Theatre celebrates the achievement of each and all, and nothing is as thrilling as seeing these same students learn to trust, to grow, to learn and to mature under those stage lights.

Because theatre is an inclusive art form, it has a vital place in the public school setting. Each student brings to the Art his or her own life experience and expertise. Examined epistemologically, Constructivism stands out as a glove-to-hand match for this research. But Constructivism is only one facet of this educational philosophy, this approach to teaching and learning. A more thorough examination of the researcher's educational philosophy would yield a better understanding of the research epistemology of this study.

Creating a climate of trust on the part of students, faculty, and guardians is important in any theater program. Similarly, the researcher has begun to realize the importance of creating the appropriate climate of trust and positive outlook in the researcher's English classroom, necessary to encourage learners to take risks and to grow. In theatre, students need to feel free to make mistakes and, perhaps, even to seem silly in order to find just the right character. In the English classroom, students of all ages need "privacy, therefore to make mistakes without fear of exposure" (Meier 2002 p. 15). Knowing that one is free to make mistakes encourages intellectual freedom and the individual pursuit of knowledge that can make learning meaningful for each student. Barth (2001) reminded us that Albert Einstein, certainly by all accounts a revolutionary thinker, once said, "Great ideas have always encountered violent opposition from mediocre minds" (Barth 2001, p.1). Students need a safe, even a sheltered place to nurture and share their great ideas. This group problem-solving and group project work and supportive environment seem to be representative of the Pragmatist teaching method (Cohen, 2004).

Further, when the researcher looks at the conveyance of curriculum in the non-theatre classroom, the thrust is to make the activity as experiential as possible – another trademark of the Pragmatist philosophy. For example, in a writing class, rather than simply providing direct instruction to students on the principles of deductive and inductive reasoning, the class pours over collections of "belongings" of an unknown "deceased victim" so for that period of time the students would not be college-level writers, but criminal investigators and forensic scientists who could structure their investigation with details, move to categories of details, and, finally, draw conclusions about the categories. Then, during the writing of their crime report, the students learn – often to their surprise – they had conducted an exercise in inductive and deductive reasoning. Content with their crime reports, morbidly curious about the identity of the "victims," and buzzing with adolescent excitement, the students had not only learned, but *experienced* these two forms of reasoning and learned which was more appropriate when. This typical lesson from a repertoire of participatory exercises demonstrates the researcher’s leaning toward Progressivist educational philosophy in which learners test ideas through active experimentation

(Cohen, 2004). But this form of experimentation also has a more theatrical side and also reflects a deep commitment to the Arts. Even teaching deductive and inductive reasoning and the lofty subjects of philosophy, religion, rhetoric, and literature can be attempted with success in a Progressivist and Constructivist classroom. Making cerebral concepts and curriculum accessible and relevant to students takes pragmatic brush strokes and a bit of creativity, but is well worth the time and effort.

The conveyance of curriculum is only one facet of this researcher's educational philosophy. The researcher's general feeling toward students and treatment of them is another very important feature – a true belief that all students can learn. They bring with them amazing, vast, tragic, joyful and vibrant experiences that make their educational experiences their own. That students come packing their own baggage is intuitive, that this baggage may be good and bad, and that their baggage can prepare them for a voyage of learning or hinder the travel is self-evident. This sensitivity to all students and their worlds of experiences helps the sensitive teacher to be a more compassionate and effective teacher, and one certainly consistent with the Pragmatic modes of thinking. John Dewey, a major proponent of Pragmatism, believed that the mind is created communally, i.e., a community in which learners bring with them certain experiences that color their learning. We constantly learn from and teach each other; there are no islands in our classrooms: we are all pieces of a continent of learning, and if one fails we are all diminished. We must be sensitive to the backgrounds of our students, if we want to have a positive impact on their futures. Therefore, a Social Justice perspective, one that insists that there are no throwaway students, is the perspective that the researcher practices in the classroom. One must be aware and know that there are students in one's classes who are without a home, and for these sad young people, *home*work is an ironic non sequitur.

The researcher's appreciation for William Glasser preceded an understanding of the contributions of John Dewey to the personal educational philosophy. His philosophy helped to shape her thinking and practice about student behavior and learning, and allowed the researcher to foster an environment of care, compassion and responsibility in the classroom. Though at first reading, Glasser (1998) seems to focus on the individual's choice of behavior and for this reason appears to have a stronger foundation in Existentialism than in Pragmatism, it is now apparent that a teacher's creation of a "Quality School" and recognition of student behavior as a "meeting of needs" is a pragmatic concern. It is with sensitivity to each student and his or her needs that a teacher maintains order in a "Quality School." The creation of this new "social order" is a Pragmatic tenet even if the philosophy being introduced is essentially Existential (Cohen, 2004). Both Pragmatism and Existentialism are on the liberal or post-modern side of the philosophical continuum and both share the same hard core research heuristics and a central metaphor, that of a living thing. They are both members of the same family of theories and are therefore compatible (Cohen, 2003). Hybridized philosophies and theories seem to be what is required to reach some of the more challenged and challenging learners, and this blend of approaches seems to supply meaningful results in the researcher's classrooms.

Epistemology as a Researcher

In pursuit for self and subject understanding, it is appropriate to examine the "cocktail party" basics. The researcher is a Caucasian, middle-class female of the

Generation-X set. From there, one finds a strange set of dualities: a Congregationalist, a Christian who believes family values include gay marriage and elevated roles for women in religious leadership. From a socioeconomic point of view, the researcher is a burdened homeowner and taxpayer and an underpaid teacher. She currently lives in a small, rural community along a major river in an area locals jokingly call "Appalachia West" because of the rustic backgrounds of the cast of characters in her town, (though the researcher first came to this community as a highly paid visiting consultant from a "ritzy" suburb of a major city in the Pacific Northwest). In this community there are no museums, no universities and no grocery stores, though the researcher's favorite pastimes are visiting museums, attending schools, and gourmet shopping. Despite the lack of amenities, life here is good; in this place teachers are the respected and educated few in a town of longshoremen and loggers. This is a town where the superintendent of schools is the most powerful economic and political figure for miles, and more people here can name him than can name the vice-president of the United States.

The researcher comes from a family committed to education, a family respectful toward law and government, a family reflecting the father's fifty years in federal law enforcement and the researcher's Mormon upbringing. This family is one of college expectations, college degrees and college professors: pursuit of this doctorate degree is the fulfillment of proud dreams and rampant intellectual curiosity.

The researcher has traveled through interesting times and places en route from rural Missouri farmland to rustic Columbia River hillsides. This travel has included liberal University of Oregon where the importance of diversity was imprinted and instruction in cultural competency was a matter of emphasis. The University of Oregon further provided access to theatre, voice and English; this liberal arts education opened minds and doors for the researcher, though the rooms behind these doors were not always occupied by old acquaintances. From there, in search of a Masters Degree in teaching, the researcher traveled to Oregon State University where she first confronted issues of racism and feminism. This time, lessons seemed more relevant as the researcher entered her first classroom as a teacher and faced the huge responsibility of teaching the young, the needy, the impressionable. While earning a Master of Arts in Theatre Productions degree, the author met many gays and lesbians in the theatre and became aware of important issues of sexual orientation and sexual identity, learning how culturally biased our teaching is against students who are struggling with these issues.

As a teacher in a financially depressed area, the researcher has become more familiar with issues of class and poverty seeing students struggle to complete "homework" literally without having a home. Finally, the researcher returned to Oregon State University where she spent many classes and hours reading while grappling with all the issues of racism, sexism, homophobia, classism, and - now - the additional issues of agism, ablism, and lookism. Responsibilities the teacher faces in front of ever growingly diversified classes loom enormously, and the responsibility the researcher faced in preparation for this dissertation was equally daunting.

To avoid pitfalls of being overly involved and having power over the subjects, the researcher left CAA to take a different position in the district. She was therefore able to distance herself and to gain some objectivity as an outsider looking in rather than directly involved in the delivery of the curriculum. However, her experiences of teaching and working in this context have profoundly affected her understandings of these students and the issues they face.

The students with whom the researcher formerly worked and with whom she conducted research, are challenging on a daily, even hourly basis. Some are overtly racist though they know the researcher's former foster son, their graduated schoolmate, is Black. Some are homophobic, though they know several students with whom they attend school are openly gay. Some are critical of each other's wardrobe and belongings, though they are nearly all living in poverty and several of these students live in converted cargo containers. These students are the most in need of compassion and the least likely to earn it because of their behavior and attitudes. These students and research subjects are among the least likely to pursue college educations, least likely to finish school, and the least likely to find jobs. As a researcher, this writer is – at least on the surface - their educational, ethical, and economic antithesis.

This contrast of values complicates this research and work with at-risk learners at CAA. Philosophically, the researcher comes from an optimistic (Ibrahim, 1993) but Existential framework in which it is believed that people have power over their own choices and are limited by their own self-incurred consequences. For the students who feature in this study, many of whom are not yet ready for the inherent responsibility and consequences of Existentialism, the researcher subscribes to cognitive-behavioral psychology since it promotes responding thoughtfully to situations rather than reacting in the moment. The researcher holds the optimistic position that healthy people seek the best for themselves and others, and their choices and behaviors reflect this. With William Glasser, the researcher believes that people's behaviors are not the result of being intrinsically "bad," but are the results of the pursuits of their perceived needs – fulfilled or frustrated. This optimistic worldview rests on the caveat that people's pursuit of needs is positive so long as their emotional and mental health is strong, a quality not always found among these at-risk populations and their families.

But coming from a Constructivist viewpoint, the researcher is forced to recognize that her methods of constructing meanings are significantly different from those of the students in this study. From surveys, conversations and discussions, the researcher has ascertained that her students possess much more pessimistic worldviews. They believe that others cause their misery and pain, and they are likely to attribute blame to external forces such as environment and miscommunication. They are likely to doubt the motives of most people. These students are convinced the world is against them, and they have told this researcher that they trust no one – parents, teachers and peers included. So to some of these students, the researcher's enthusiasm for school is suspect; her exuberance for living is feigned. For this reason, Constructivism must play a large role in this research, its preparation, and its implementation. How these students make meaning (from both emotional to mental vantage points) is critical to how this researcher attempts to understand them. Further, it is important for this researcher to remember that it is easy for her to construct meaning in a school context since her views of school are sunny, her feelings toward education are positive, and her feeling toward educators is trusting. It is also easier for the researcher to hold values of Existentialism since she is willing to accept the consequences for her actions, a responsibility that is much easier to bear when one has been dealt a good hand of cards (as the researcher has and has no desire or need to test laws and rules that govern all.

Further investigation using Ibrahim's (1993) criteria for the development of a world view has yielded another interesting contrast: the students concerned in this study live in the present, though they are haunted by traumas of the past, while the researcher places value in the future and lets the past guide her and inform her decisions. The Academy's students do not take time to consider and weigh decisions for the future since they are not certain what their futures will hold. They live from moment to moment since that is all some of these students know. The researcher always remembered her past as pleasant and her present secure, and her future promising so she has spent her life looking forward to the next big event, the next challenge. This understanding of time, particularly in the context of Ruby Payne's *Framework for Understanding Poverty (2005)*, helps to paint a more comprehensive picture of the researcher's students. Payne suggested that children in poverty are more likely to share "people" values (like entertainment and personal relationships) rather than the "paper" values of the middle class (like degrees, diplomas, and deeds). Paper values suggest an orientation toward the future, supported by sayings like "saving for a rainy day" versus poverty values which tend to manifest themselves in the present, demonstrated by sayings like "live for the moment." Given this great divide between the researcher's paper values and the people values of many of her subjects, attempting to motivate students with diplomas and resume material is starkly futile. One must look for more relevant and significant means of motivation.

Though this was to be an investigation of the researcher's contextualization in the world, she feels that in light of the students about whom research was conducted, the contrast between researcher and student is more interesting and telling. The researcher's enthusiasm, energy, and exuberance are highly valued traits in a traditional classroom setting, but it is these traits that could easily alienate more at-risk students. It is for these reasons that the researcher needed to use extreme care when teaching and studying personal traits and any of the subjects involved in this study. The researcher would rather run the risk of being accused of "over analyzing" than of practicing research malpractice by letting her biases go unchecked and unaccounted for. In part, this is why she stepped out of CAA during the year in which the study was conducted.

Context is Everything

A walk through the lobby of an alternative education conference provides one with an interesting adventure. Hawaiian print shirts and board shorts, chains and tattoos, and lace collars and ankle-length skirts abound as diverse people share diverse ideas about how to best reach and teach their at-risk students. The teachers at the conferences are a microcosm of their classrooms. There are so many in-need students in today's school, students who need relevance and rigor in their educations, but who so rarely find it in the traditional setting. Their teachers come seeking answers for tough questions and tough cases. But nearly all of these seekers have a deep commitment to their at-risk students first and foremost in their hearts.

At-risk is a label which is at once telling and confusing. As the name suggests, the students labeled by this title are at risk for failure, but this failure may take many forms. Some are at risk for drug or alcohol use, some for unplanned parenthood, some for suicide, some for dropping out of school, some for anger issues, and the list goes on. Though many of the students the researcher used to teach are at risk for any one or for all of these, the context in which these students are taught greatly impacts the techniques employed with them. Socioeconomics, race, language, and geography all play into the efficacy of various methods.

Since the CAA serves a poor, rural, primarily Caucasian school district, the situation is not as sociologically glamorous as other at-risk schools might be. Unlike urban counterparts, CAA does not attract the attention of many artists seeking community outreach, or the bookmobile looking to create new readers, or the visiting mental health programs attempting to heal wounded psyches. And unlike so many other programs for at-risk kids, CAA is a public school, albeit a small one, and that factor changes what approaches may work with our students. The spectrum of treatment programs for at-risk students generally includes outdoor retreats, after school programs, juvenile detention facilities and curricular programs like those of CAA. Each approach comes with its own challenges and advantages. These approaches will be described in the next chapter.

Even within the curricular treatment and teaching programs there is a large variation of services available and methods used. But even the seemingly consistent, homogeneous population of CAA has changed greatly in the last two years. This change in population demographics has altered significantly CAA’s approaches to student learning and, thus, the researcher’s approaches to this work.

In the first year of our project, students attended CAA thought it was the same as its previous incarnation as an alternative school for the Applegate School District. When CAA was an alternative school, it was able to offer credit recovery, and so became known as the school that offered “Hail Mary Passes” at the end of the school year to enable otherwise failing seniors the chance to earn sometimes as many as 11 credits (instead of three and a half) in a semester. In this context, students and teachers approached learning very differently than is currently done at CAA. The learning at the previous alternative school was to be as isolated as possible, and students frequently came to school for a few hours a day, grabbed their worksheet packets and left – sometimes, staff discovered, to drug houses only blocks from the school.

When the school became CAA, founders sought to change the climate dramatically. The relationships of staff to students became paramount, and their emotional well being as well as their educational growth became a chief concern. The district replaced the entire staff and specifically confirmed that replacement teachers held Constructivist viewpoints and employed collaborative methods in the classroom. The founders looked for teachers who believed that students do not invest in education until they feel invested in personally by their teachers. In short, if CAA was going to be changed into the kind of place it could become, the district was looking for relationship-building teachers.

Another contextual difference became apparent when the CAA teaching staff met with Dr. Milkman and began to employ his written materials for Life Skills. Though the cognitive behavioral elements were philosophically consistent with the school charter, and the stories, lessons and activities were otherwise engaging and effective, the dark skin tones of nearly all the cartoon characters and the gang-like graffiti style of the text was somewhat off-putting to some of our very homogeneous, largely Caucasian student body. They found that even the types of drugs discussed in the text were not necessarily those plaguing our area. In short, the kids could not relate to some of the elements of Dr. Milkman's at-risk culture. With some modifications, the Life Skills curriculum has proven effective, but it reaffirmed the construct that one size does not fit all in education.

A Debt Owed to Our Future

There is a somewhat cynical but true saying that you can invest in youths now when they are in school, or you can invest in them later when they are in prison or are unemployable. Nowhere is this truer than with many of the students at CAA. A number of CAA students choose the school because they have fallen through the cracks of the other near-by educational venues, but some have come because they have failed to thrive in more traditional educational environments. Some of our students have had severe issues with defiance, aggression, anger, drugs, legal adjudication and sexual deviance. The feeling of our staff is that if the students do not receive the attention, commitment, and the very best from staff at this point in their lives, society may regret and pay for that failure. This study dissertation is dedicated to discovering how to best help at-risk students to learn, to develop, and to thrive in the community. Perhaps as a result of this study, these students will grow to become thoughtful, concerned, engaged community members, careful voters, sensitive consumers of the Arts, and healthy and productive parents in the future. Further, if this work can illuminate the quandaries of at-risk learners, society may more gainfully make a strong investment in their lives and in the lives of their teachers.

Despite context, rural or urban, diverse or homogeneous, rich or poor, America's at-risk students are increasing in number and their needs are increasing in variety and severity. Experts, including those at the Northwest Regional Educational Laboratory, agree that approximately 30 percent of students currently enrolled in school will drop out prior to graduating (Druian, 1987). However, public opinion does not support extraordinary efforts on behalf of the most challenging and challenged students in this impoverished community. Unfortunately, this is a trend in many communities where public school resources and public assistance are diminishing. The researcher feels that time spent on these interesting children is an investment in the future of this community. The researcher hopes to show the community, through public displays of students' learning, that these students are worth the school and community's greatest efforts. The researcher hopes to see whether the "perceived risk curriculum" offer the students at CAA the chance to engage more fully in their learning while together educating the community about their needs and their worth. Further, the researcher seeks to find if safe risks provide students the opportunity to develop important resiliency skills necessary for future development.

Perhaps it is the compelling personalities of the students, or it may be the sparseness of resources available for them, but the researcher feels driven to find answers to questions about how best to serve them. It is her sincere hope that the research conducted and generated in the process of this dissertation will seek to address the needs of our students at CAA and will serve as a resource for other teachers elsewhere who are similarly committed to at-risk students.

The next chapter will feature a literature review relevant to at-risk learners; a definition of “at risk;” diagnosing at-risk status; causes of at-risk behavior; where school may be the reason; behavioral barriers to learning; generational considerations concerning at-risk behaviors; behavioral and academic strategies with promise; risk and perceived risk; perceived risk curriculum and the future of perceived risk curriculum. After studying interventions for these students, generational considerations with regard to CAA’s context, curricular options that work in other similar programs, the researcher should be able, with more authority, to make choices about what will benefit CAA’s students most.

CHAPTER II: LITERATURE REVIEW

They populate the classroom though the teacher may not be able to see past the multicolored hair and facial piercing to the struggling child beneath. The diagnosis is difficult and frustrating, and the interventions possibly even more frustrating. Strategies to assist these students are wide-ranging, results often situational and anecdotal. But breaking through to an at-risk learner can make life in one's classroom much more enjoyable and make their lives much more livable. But what does it mean to be at risk? How are these children's masks of defiance and deception, secrecy, and seclusion penetrated to find strategies that work? And why not refer them to alternative programs where their disturbing influence on the typical classroom will disappear? How are diagnoses being made, and what strategies are being used in the field to make a difference in their learning and socialization?

To arrive at an understanding of the existing literature, the researcher began with an expansive search on Google Scholar, a search engine for scholarly articles and research. Specific focus for the literature review centered on research about at-risk adolescents, perceived risk and curricular interventions that has been published in the last 15 years (ending in June 2009). Selected indexing terms included at-risk, learners, adolescent, "perceived risk," and curriculum. A search of Google Scholar, for example, yielded the following hits:

Research, At-risk learners = 17,300

Research, At-risk learners, curriculum = 17,000

Research, At-risk curriculum "perceived risk" adolescent = 662

Research, At-risk learners curriculum "perceived risk" = 168

Because “perceived risk” has meaning in the public health community, many were about medical interventions and public health. Of the searches yielding 662 and 168 hits offered by Google Scholar in the most specific searches, five featured research about outdoor wilderness education for at-risk students in an after school venue. One study examined the effect of hip-hop music and its ability to promote drug refusal and safer sex practices in 68 middle schoolgirls (Turner-Musa, Rhodes, Hicks Harper & Quinton 2008). None were directed related to the researcher’s field of inquiry.

Additional searches were used to develop a comprehensive review of the literature. The researcher examined multiple bibliographic databases, including ERIC and Academic Search Premier, specifically searching for interventions published in the last 15 years and ending in June 2009 and at the advice of research librarians, utilizing related terms functions. A recent search in Academic Search Premier Database (ASP) provided the following hits (the word “research,” used above in the Google scholar search was omitted in the ASP search because articles on this database are considered research):

At-risk, perceived risk, high school students (in 15 year time frame) = 140

At-risk, perceived risk, curriculum = 22

Again, as in the Google Scholar search, most articles and studies were public-health related. One dealt with the perceived-risk involved in the behavior of tattooing and piercing (Millner & Eichold, 2001), something with which the research participants seem fascinated, but did not deal with academic matters. An interesting article from Australia detailed how adolescents perceived risk in the activities they undertook (The articles dealing with at-risk students did not discuss academic curriculum or programs that invited students to feel “perceived risk”) (Abbott-Chapman & Denholm, 2001). None, however, offered research on the use of curriculum for use in a school setting for adolescents at risk of academic failure focusing on the phenomenon of “perceived risk,” thus establishing the importance of this research study.

In this chapter the researcher will first define “at risk,” examine the causes of at-risk status and accompanying behaviors, review common behavioral interventions including relevant therapies and curricular strategies including active engagement methods, and begin to describe the phenomena of perceived risk and perceived risk curriculum.

Definition of “At Risk”

In this section, a variety of available definitions of “at risk” are examined and are rejected as inadequate in that they do not include all of the factors that contribute to that diagnosis.

In the larger sense of life-long learning, many if not most of our young people are at life-long risk, according to teacher leadership expert Roland Barth. In his poignant definition of “at risk,” Barth laments that often high school seniors burn their notebooks after Commencement and asks if this does not make most students “at risk,” since these children will not be likely to continue to learn without an external force to make certain that they do (Barth, 2004). Though one may well agree with Barth’s frustration, for the purpose of this study, a more exclusive and clinical description of “at risk” will be attempted.

Definitions of the term "at risk" are almost as numerous as the children they describe (Howard & Anderson, 1978; Slavin, & Madden, 1989; Owings, 1992; Pierce, 1994; Manning & Baruth, 1996; Passe, 2000; Rumberger, 2006). Perhaps the most objective definition, that from The United States Department of Education Office of Educational Research and Improvement, defines "at-risk" students as those who are "at risk of educational failure because of limited English proficiency, poverty, race, geographic location, or economic disadvantage" (http://www.ed.gov/offices/OERI/At-risk/index.html, 2002). An element which seems to have been ignored in the federal government's definition, but which appears to be necessary to describe the lives of at-risk students, is the effect a household environment of drugs, abuse, conflict, or unrest can contribute to the at-risk syndrome. These conditions may exist even in wealthy homes in excellent geographic areas among advantaged people. The psychological risk factors associated with dysfunction in the home reflect heavily in the classroom, and cannot be ignored in a universal definition of at-risk students. In the context of this research, at-risk learners are those who are at risk of academic failure because of limited English proficiency, physical or mental disability, race, geographic location, economic disadvantage, and/or severe familial dysfunction due to factors including but not limited to drug use, neglect and abuse.

Diagnosing At-Risk Status

It is important to distinguish between temporary and prolonged at-risk status, since the causes, and, therefore, the treatments of these conditions are significantly different.

Some academic failure can be characterized by a temporary setback in the life of the student. A divorce, family bankruptcy, recent relocation, or employment loss, can all lead to *temporary* at-risk status. The student may need additional counseling at school, additional academic support, or just an understanding ear from a trusted teacher (Pierce, 1994). It is when these hurdles trip up the family time after time or for a prolonged or indefinite period that a more permanent at-risk status may be established, and longer-term academic and social intervention strategies may be necessary if the student is to resist dropping out of school (Earle, 1987; Rumberger, 1990).

Students who experience longer-term setbacks need stronger interventions, but often go under-diagnosed for several reasons. Students who demonstrate at-risk behaviors are often first identified by a downward trend in their grades. This can be an effective identification strategy except in the case of migratory students whose parents move frequently (Martinez, Cranston-Gingras, & Velazquez, 2001). These students are in danger of being overlooked by a grade-based diagnosis because they do not develop the long-term relationship with the teachers, which is helpful for this diagnosis.

Further, at-risk secondary students and those at-risk students in very large schools are less likely to be referred to counselors for intervention because the students have so little time each day with each teacher, and teachers are less likely to develop the close relationships which tend to reveal secrets of student success and failure. Even students whose parents are stationary may experience issues with teacher attention since attendance is frequently a problem with at-risk students and student-teacher interaction may be limited. Sometimes it is not classroom observations that reveal to staff to a student at risk, but it is rumors of a life filled with pain and disappointment that bubble up from other students and surface in teacher-lounge conversations (Breland, 1999).

Sometimes, behavior tips teachers off to a student's at-risk status. Often, however, these behaviors are sometimes viewed by teachers as annoyances and barriers to other students' learning rather than an S.O.S. from the at-risk student. In addition to being at-risk, they are often risk-takers and sensation seekers (Milkman, Personal correspondence, August, 2009). Attention-getting behaviors, which are disruptive, as well as "wallflower" behaviors, which help to hide the student, can both be distinct indicators of at-risk status. Students trying to cope with the stresses of school may resort to drugs or alcohol as they attempt to calm anxious nerves or quiet compulsions. This can negatively affect attendance and attention to academic matters, which can hamper scholastic success and provoke other at-risk symptoms. Teachers seeking solutions with parents of at-risk students will many times find themselves disappointed, since these parents often do not attend at Open House and other parent-teacher venues. Many at-risk students are from the middle class (Breland, 1999) but may lack parental support, which may reinforce if not cause at-risk symptoms. Parents of at-risk students sometimes have issues with legal authorities and historical problems with the educational system of their own which can make visits to school draining and difficult for the parent.

Besides parents and teachers, other adults important in the lives of students can help make an at-risk diagnosis. Many times, it is the number of teacher referrals to the assistant principal's office that earns a student the dubious distinction of being at risk. Taylor-Greene (2000) reported that "repeat offender" at-risk students represent only one to five percent of a school enrollment, but many times, they can represent more than 50% of the behavioral referrals. Other times it is the counselor who realizes that the student is experiencing academic failure and refers the student to programs for at-risk learners. How the administration and counselors handle these referrals can make or break the feelings a student may have about school and can advance or arrest at-risk symptoms. Sometimes school administrators can develop persistent negative feelings toward at-risk learners since they are frequently in trouble at school. This subjectivity greatly enhances an at-risk learner's distaste for school. Data-driven behavior systems like Positive Behavior Support (PBS) are helping to remove the "grudge factor" of more traditional behavior management systems and are helping to bring a more solution-oriented management system into play (Brown, Cohen, Glassman, Hall, Horner & Nelson, 1997; Sugai & Horner, 2002; Warren, Bohanon-Edmonson, Turnbull, Sailor, Wickham, Griggs & Beech, 2006), but these climate changing behavior management approaches are not being instituted universally. As PBS development team members learned, "Although many students have significant social skill needs, social skill instruction is not a conspicuous and systemic component of the school-wide curriculum. Behavioral interventions are not based on information obtained from assessments" (Sugai et al, 1999, p.5).

Causes of At-Risk Behavior

There are many known proximate causes and combinations of causes and a number of secondary environmental factors that may result in at-risk behavior. At-risk status may result from a combination of “nature” and “nurture” causes. It is clear that no one cause of at-risk behavior has been identified, i.e., no single reason why Child A becomes at risk while Child B, under similar circumstances, avoids the at-risk category. Some of the well-established causes of at-risk behavior are intellectual deficiencies and retardation, poor health, malnutrition, failure to bond, a lack of personal and familial expectations, and associated familial dystopia.

Dysfunctional Family

There is no single reason a child is more likely than another to suffer academic failure. Fractured families, growing methamphetamine use, and increasing unemployment -- especially in the Pacific Northwest -- all can contribute to family dysfunction, which in turn contributes to problems in school. School can be a safe place for children, a place of belonging. Even after their graduation from CAA, four students returned on a Saturday and in the week after graduation “because we saw cars,” (Kash, field notes, 2009) and perhaps, though they did not say it, because school was a place of belonging and safety for them. But since students spend so much more time at home than at school, parents and guardians play a critical role in the development of their children even in the teen years. Brain development through the awkward pre-teen and teen years is a time of explosive growth (Sylwester, 2007). Children are trying new strategies and need strong adults to help them reflect upon their decisions. Children need to be able to make a series of increasingly important and autonomous decisions in an environment free of threat. Families living in dysfunction do not always have responsible, sober, and reliable adults near and adolescent brains and bodies can suffer as a result (Pine, D., Helfinstein, Bar-Haim, Nelson, & Fox, 2009; Sylwester, 2007). Children left to make many of their own decisions may also be at higher risk of academic failure and high school dropout (Rumberger, 1990).

Lack of work ethic

Many teachers have, as their primary complaint about at-risk learners, a perceived lack of work ethic by this group of students, but little scientific study has been dedicated to the problem of the unmotivated and undedicated student. Hill and Rojewski's (1999) study of at-risk learners and work ethic sheds light on a problem which has until recently been only anecdotally reported. In this study, 152 ninth grade students completed several standard vocational assessments including the occupational Work Ethic Inventory (OWEI). Using a seven-item Risk Behavior Scale to collect information from each participant, Hill and Rojewski collected data regarding work ethic and work attitude responses. These results were compared against previously administrated industry standard instruments measuring interpersonal skills, initiative and dependability. The results were broken down by gender and at-risk status. Hill and Rojewski reported that there was a consistent and measurable difference between at-risk learners and their classmates demonstrating non-risk behavior with regard to all three categories of work ethic. In all cases, the non-risk students scored higher, albeit not a statistically significant at the pre-set .05 level of significance. At-risk students, perhaps predictably, scored much lower on the scale for dependability. The researchers theorize that lack of role models and positive influence at home might be a root cause of these dependability problems.

Poverty

U.S. Department of Health and Human Services statistics show that in the most recent period for which data is available (2007), 17.6% of children in all families lived in poverty (2007). This number rises dramatically to 42.9% when one considers children in families with a female householder with no husband present. According to this report, children of poverty are not necessarily abused or neglected and these terms are not synonymous, but families living in poverty suffer more grave health concerns, have a greater rate of malnutrition, and experience more limited access to medical services than their more affluent fellow students.

In addition to motivational factors, students coming from deprived homes are less likely to have access to writing instruments and manipulatives, thus leaving them less prepared for the learning process than their advantaged counterparts. Adams (1990, cited by Neuman, 1999) found that middle class students enter first grade with approximately 1,000 hours of having been read to versus only 25 hours for children of poverty. When students have had limited access to books, they are less likely to know patterns of reading (left to right reading patterns for example); and when they are denied access to writing utensils their hands can hold, basic orthography is impaired. Feitelson and Goldstein (1986, cited by Neuman, 1999) found that 60% of kindergarteners from neighborhoods where children struggled in school were found to have no books at their homes. These deprivations create setbacks that are difficult to overcome when primary school begins.

According to Norwood (1996) under most circumstances, for a student to be most successful in school, a child must already have basic needs met, including food and shelter, and belonging (Norwood, 1996). Norwood noted that Maslow's hierarchy, a pyramid-shaped schematic used to describe human needs, suggests that if people cannot fulfill basic needs of shelter and food, they will not achieve the highest level of self-actualization, and therefore will not fully develop their personalities and may not see the importance of esoteric concepts like academic content. Further, the delayed gratification of higher education is closely aligned with the needs of self-actualization, and thus, when a student's basic needs of health and wellbeing are not being met at home, it is easy to understand why a student has little or no interest in learning. Schools, including CAA, are now offering comprehensive meal programs for breakfast and lunch, even throughout summer months, for students from struggling families to help create a strong base of Maslow's pyramid in order for love and self-actualization to be attainable goals.

For students in poverty, long-term benefits are less relevant and more abstract than immediate gratification. Living in the present, is a primary and necessary preoccupation of people in poverty. Worrying about where the next meal might come from, when the electricity might be restored, and if the heat will get turned on shapes the world of a poverty-stricken student so that school pageants, geography maps, and math story problems are far from their minds. Some of these students lose an academic edge because their concerns for self-preservation are more pressing than academic enlightenment (Payne, 2005).

Public schools, even public charter schools, however, tend to embody, exemplify, and often even inculcate the values of the middle class. Students from the middle class rarely have to worry about utility payments being made, and instead are able to focus on summer camps, book fairs, and college applications. As stated in Chapter 1, Payne (2002) suggested that students of poverty tend to value people (family and friends, even those who have disappointed or hurt them in the past), over paper (including diplomas, degrees, and stock certificates), and they tend to see the world in the present tense instead of the future tense, as their middle class teachers might see the world. Further, she suggested that students of poverty even employ a particular register of language, a style of writing and speaking, which is difficult to alter if one is teaching them conventional middle class ways of writing or public speaking.

Payne (2005) also spoke of the unpredictability of life in poverty and how this impacts learning. Students who do not experience predictability in their lives are less likely to recognize it in texts. But the impact of poverty can extend far beyond academic consequences and reach into behavioral patterns. The children of poverty are less likely to be able to understand and predict consequences of their actions as well; a problem which can lead to classroom management problems and can make the students of poverty easy targets for frustrated teachers.

Failure to Bond with Family, School, Society

When a child's fundamental needs are not met in the first two years of life, failure to bond to primary-care givers may result. The resulting phenomenon is called attachment disorder (AD) or referred to as Reactive Attachment Disorder (RAD). People with attachment disorder find it difficult to trust others and some researchers speculate that empathy fails to develop in some children who have been neglected (Poole, Miller & Church, 2005). Research also suggests that a few may continue on to develop sociopathic behaviors (Holmqvist, 2008). Though AD is a relatively new field, research about later-in-life effects of attachment disorder is mounting. A 2002 study in the *Journal of the American Academy of Child & Adolescent Psychiatry* reported that among adolescent patients aged 14-18 who had demonstrated maladaptive personality patterns, "disorganized/unresolved attachment was strongly associated with multiple forms of personality pathology" (Nakash-Eisikovits, Dutra, Western, 2002, p.1111). Nakash-Eisikovits et al noted that cynicism toward authority, lack of trust toward others, and the failure to see consequences of hurtful behavior except toward self are behaviors characteristic of AD. These behaviors can impede learning in conventional public schools, and can cause at-risk symptoms. Since many at-risk students demonstrate some behaviors associated with attachment disorder, research into learning strategies effective for AD seems prudent.

Most teachers can tell you that motivation to learn is a defining factor in traditional classroom teaching. Many teachers will give even a failing student the benefit of the doubt if she or he demonstrates motivation and a willingness to learn and to try. The converse tends to be true as well. Teachers can build grudges against unmotivated students and be less likely to give them second chances and incentives for growth. This breakdown in the relationship between teacher and student can result in loss of mutual respect with concomitant inhibited learning (Payne, 2002,). At-risk students are sometimes only at risk of failure because they are unmotivated to change, to attend, or to work. Sometimes students do not see the direct relevance of the lesson to their own lives, and since they cannot see connections to their immediate circumstance, they are unlikely to participate or strive to improve. Sometimes it is the lack of expectation at home that stifles student motivation. If the bar is not raised at home, the student is often not expected to achieve much at school. If parents do not expect college attendance, self-sufficiency, or extra curricular participation, it is less likely the child will expect that for him or herself (Payne, 2002).

Diet of TV Sex, Excitement, and Violence

"American youth spend more time with media than with any single activity other than sleeping," reflects a 1999 Kaiser Foundation report (Kaufman, 2000, p. 1). The Kaiser Foundation report also noted that while the average child spends six and a half hours each day with some type of electronic media, exposure to print is extremely low. "On the average, 2-4 year olds and 8-13 year olds spend around 50 minutes a day reading; the 14-18 year olds spend only 13 minutes a day with print; and 5-7 year olds spend 10 minutes a day reading. The 7th through 12th graders sampled for the Kaiser Foundation survey reported only 22 minutes of daily leisure reading and 25 minutes of reading to complete homework assignments" (Kaufman 2000, p. 1). Time spent passively consuming television, movies, games, and the Internet is time not spent on homework and familial relationships. Positive socialization is compromised when children spend so little time in productive communication with one another. Videogame systems, MP3 players, and handheld computer games further distance students from communication with teachers, parents and peers. According to Kaufman, "Watching television (and playing video games) does not develop a child's skills in word recognition, decoding, vocabulary, spelling or high-level thinking" (Kaufman, 2000, p.1). Video games celebrate violence in homes sometimes already plagued by aggression and violence. Pediatric behavioral researchers reported in the journal *Pediatrics*, that there is a strong causal link between watching television and the prevalence of Attention-Deficit/Hyperactivity Disorder (ADHD) in young children (Christakis, DiGiuseppe, McCarty, Zimmerman, 2004). All these can contribute to at-risk behaviors and academic disappointment.

Social Networks

There is a whole world in which students live that many are not privy to. In fact, unless both parties agree to associate on many of the dozens of social networks, one cannot be privy to the secrets, musings, pictures and comments on another's page. Participants in these worlds create profiles in order to extend their reality into a cyber reality (Eberhardt, 2007). In some ways this is helpful: students can chat about assignments, solve problems and provide support for one another. Eberhardt (2007) suggests that students can help to reduce each other's anxiety (specifically as they see posts on profile pages about problems other classmates share that are akin to one's own. However, for children at risk of academic failure, the time spent in this other world can be dangerous. "Online social networks have become immense virtual communities comprising innumerable subcommunities, which students join more easily and in which they sometimes interact more frequently than at the physical campuses that they inhabit" (Eberhardt, 2007 p. 19). Students who may already be distractible spending their after-school time inhabiting another, non-academic world, may greatly enhance risk of academic failure.

Cyberbullying. Fights are no longer settled on the playground with the brawniest bully the sullen victor. Today's playground is in cyberspace, and even the physically weakest child can settle a score here. From stolen passwords, to photos taken without permission, to chains of rumors, to maligning cell phone messages, students are finding remarkable ways to abuse the Internet and each other (Darden, 2009). Students can open false web pages pretending to belong to someone else and projecting unflattering or even libelous images and statements. Unlike traditional bullying, however, victims of cyberbullying rarely tell adults that they are victims unless they are victims of photographic frauds (Slonje, & Smith, 2008). One such example of photographic fraud in the Applegate School District involved students who posted a false sexual escort service commercial on YouTube and other sites listing the actual phone number of an unknowing former student. The student was tormented with hundreds of calls requesting sex. The victim had to change his telephone number and suffered incredible embarrassment at the hands of these other students. He was too embarrassed to file charges and just hoped it would all go away.

This assault impacts the classroom because students who have been cyberbullied sometimes refuse to attend school until the bullying has passed. Another problem with cyberbullying is that it can last in some form in the ether for weeks (Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008), months and perhaps years (Darden, 2009). It is not easily remedied with a handshake in the principal's office and an apology. Cyberbullying can be difficult to trace and can be conducted from home and on weekends (Smith et al, 2008); students who were able to seek solace from the playground bully on weekends, holidays and summer breaks can no longer escape the reach of the cyberbully. This can have a devastating impact on student attendance and learning and can cause a student to become at risk for academic failure and even suicide (Vaughn, 2009).

Extent and Impact of Texting and Sexting. Instant messaging (IM), is one of the world's fastest growing technologies, currently producing an estimated 15 billion messages per month worldwide on mobile phones, personal data assistants (PDA), and personal computers (PC) (Gardner, 2006). Once thought of as a teens-only technology, IM, according to Ghosh (2009), " . . . is becoming the default mode for many people." Experts in the field of electronic communications predict that the use of the small, silent, and unobtrusive texting devices will expedite business meetings and permit multitasking productive time during otherwise unproductive activities (McCall, 2007).

Especially attractive to Millennials who are abandoning email in favor of texting and other forms of instant messaging, it is estimated that the number of text messages sent to and from mobile phones world wide will reach 2.3 trillion messages sent by 2010 (Meister, 2008). The impact on learning and the business world is expected to be significant: "Total revenues from text messaging is forecast to grow to $72.5 billion in 2010 from $39.5 million in 2008. In fact, marketers across a number of industries such as hotels, travel, and food chains are gearing up for text message marketing [to reach consumers who are always on the go] and who increasingly rely more heavily on their cell phones as their main communications device" (Meister, 2008, p. 1).

Classroom Texting. In the meantime, texting is having a decided impact in the classroom. The student whose bowed head and rapt inattention to the on-going discussion in the classroom is more than likely engaging in the teens latest educational-avoidance strategy – texting. He can do it with his eyes shut and with just the thumb of one hand hidden in a backpack, pocket, or desk blind flying over the keys of his cell phone or PDA (two elements of a range of electronic devices such as computers, laptop computers, smart phones, digital cameras, MP3 Players, and video MP3 players, favored by today's teenagers). His correspondent, who may be in the same classroom or half way around the world, is similarly equipped and similarly skilled (National Campaign to Prevent Teen and Unplanned Pregnancy Online Survey, 2008).

Teachers of the young are not alone in their concern for the impact of this new and wide spreading technology. Experts in a variety of fields are concerned with the impact of texting on the youth of the United States and of the world. In an interview with KDKA radio, Dr. Sherry Turkle (2009) said that texting could lead to anxiety, distraction in school, sleep deprivation and failing grades. She further observed that as students worry about being talked about and fear gossip, they could suffer psychological damage (2009). Students with phones are the not only who may suffer problems; in 2000, 5% of teenagers possessed cell phones, and by 2005 56% of teens had their own phones (Dryfoos & Barkin, 2006) leaving some students isolated in a "digital divide" (p. 194).

Other experts worry about the physiological effects of texting upon today youths who currently average about 80 text messages a day. Evidence is beginning to indicate that repetitive stress injuries related to texting could result in temporary and/or permanent damage to the thumbs is not too far in the future. Sleep deprivation is an accompanying symptom of late night texting. The need for constant communications, which typifies compulsive texting, impairs long-term concentration and focus impacts adversely upon school grades and thereby increases anxiety (Kulpinski, 2009; Elmhirst, 2009) and likelihood of at-risk status.

A Teenage Research Unlimited electronic survey disclosed that nearly a quarter of teens in a relationship have communicated with a boyfriend or girlfriend *hourly* between midnight and 5 a.m. (emphasis added), and one in six communicated 10 or more times an hour through the night. From 10 p.m. to midnight, almost a third of teens in a relationship call or text 10 to 30 times-an-hour (Dunnewind, 2007). A sleep-deprived student is a less than efficient student and posses a higher risk of car accidents as well as academic failure.

In the course of their texting experiences, texters have created a methodology and vocabulary all their own. Text speak consists of abbreviated words and code terms often unintelligible to the uninitiated. A typical message might look like this: “RUOK BM&Y BETTY HAD BM & IM FOMCL CWYL F2F G2G MOS,” which translated reads: “Are you OK? Between me and you, Betty had a blonde moment and I’m falling off my chair laughing. Chat with you later face to face – got to go; Mom over shoulder.”

Sexting. The immediacy and intimacy of texting has led to another form of social intercourse which sometime intrudes into the classroom: sexting, the sending of sexually suggestive pictures/videos and/or sexually suggestive messages to someone on the cell phone or similar device. The previously cited National Campaign (2008) survey disclosed that a survey of 100 boys and girls between the ages of 13 and 19, 89 % had posted a profile on a social-networking site; 61 % sent and received pictures or videos on a cell phone; 78 % posted photographs online, and 84 % sent and received text messages. In this population, 66 % stated they sent *sexy messages* to someone else; 44 % said they shared *sexy messages* with people other than the intended recipient; 49 % stated that had sent *sexy pictures or videos* of themselves to someone else; and 37 % stated they had shared *sexy pictures or videos* with people other than the one(s) they were meant for.

The population surveyed believed that 16 % of boys and that 33 % of the girls sent sexy messages; that six percent of the boys and 66 % of the girls sent sexy pictures and videos; and that only five percent of boys but 65 % of girls posted sexy pictures or videos on line. Fifty-one percent of teen girls surveyed stated that pressure from a male friend is the reason they sent sexually suggestive messages but only 18 % of the boys cited pressure from their female counterparts as their reason for sexting. Sixty-six percent of teen girls and 60 % of the boys said they sent sexually suggestive content "to be fun or flirtatious." Fifty-two percent of the teen girls considered such communication to be a "sexy present" for their boyfriends. Forty-four percent of girls and boys stated they responded with sexually suggestive messages or images in response to such content they received (National Campaign to Prevent Teen and Unplanned Pregnancy Online Survey, 2008, p. 2).

When asked, their responses to the activity of sending suggestive messages or nude/semi-nude pictures/videos of oneself, 44 % responded positively (*flirty, hot, exciting, fun, harmless*), while forty-nine percent responded negatively (*gross, lame, stupid, dangerous, immoral*). When asked how they felt about sexually suggestive messages or nude/semi-nude photographs/videos they had received, 47.8 % responded positively (*amused, happy, excited, turned on*), but only 12 % responded negatively (*angry, creeped out, disappointed, grossed out, scared, turned off*). Twenty-seven percent of persons receiving such messages reported being more interested in *hooking up* with the sender, while only 14 % indicated they were less interested in *hooking up* with the sender. Respondents by region were, respectively East, South, Midwest, and West – 28, 24, 17, and 31 %. Respondents by race were Alaskan Native/American Islander: zero percent; Asian or Pacific Islander: 13 %; Black/African American: 7 %; Hispanic/Latino: 11 %; White or Caucasian: 72 %; Other: zero percent (National Campaign to Prevent Teen and Unplanned Pregnancy Electronic Survey, October 2008).

Responses to social networking. The forensic response to sexting has not been consistent. Some jurisdictions are redefining child pornography laws to exclude teen sexting between teens. In some jurisdictions, sexting of a person under the age of 16 is considered prosecutable as child pornography. In 2007, 32 Australian teenagers from the state of Victoria were prosecuted as a result of sexting activities; though they were of the age of consent to participate in the sexual activity, they were not of an age to consent to being photographed doing so (Laucius, 2009). Child pornography charges were brought against six teenagers in Greensburg, PA, after three girls sent sexually explicit photographs to three male classmates (Brunker, 2009).

Responses to texting in schools have been almost universally negative among educators for a variety of physiological, sociological, psychological, and pedagogical reasons, and the use of IM devices are generally prohibited in classrooms. From students photographing tests and texting answers to peers, to bus riders snapping and sending sexually harassing photos taken of hazing rituals and bullying, to children filming fights in school and posting them on YouTube, there are many concerns about academics and ubiquitous and irresponsible use of smart phones. In stark contrast, a study to determine the impact of text messaging upon language skills upon 88 children aged between 10 and 12 conducted by Coventry (England) University concluded that, rather than harming literacy, texting could have a positive effect upon the way children interact with language. The study, published in the British Journal of Developmental Psychology, concluded that children's use of texting is positively associated with word reading ability and may contribute to reading development (Plester, Wood & Bell, 2008).

Whether condemned or approved by society and the educational community, texting (and probably sexting) will continue today and will undoubtedly expand in the future, and a careful, scientific inquiry into the beneficial and harmful effects of texting must be explored before a final conclusion concerning this technology and its impacts may be reached. For now, it is force to be watched and considered as some students fear the reach of their peers through a fierce electronic grasp, perhaps placing them further at risk for academic failure.

Lack of Intellectual Capacity

Studies have shown that students who regularly demonstrate conduct problems frequently score lower than average in intelligence testing than their classmates whose behavior is more normative (Jones, Dohrn & Dunn, 2003). Jones indicated that those who regularly demonstrate conduct problems tend to score in the low 90s in intelligence testing, and Kauffman (2001) reported that a disproportionate number of emotionally and behaviorally disturbed (EBD) students score in the dull to mild mental retardation range of intelligence testing. These data prompt a chicken-and-egg question about whether EBD students fall behind and stop performing in school because of problematic behavior or whether their slowness first prompted the behavioral problems. Carol Dweck's (2007) recent research on perceptions toward intelligence reminded us that students who are constantly told that they are "dumb" (even if the judgment is with regard to their behavior and not their intellectual capacity), are likely to underachieve and under perform peers who are supported in the belief that their intelligence can grow. In her 2007 study, 7th grade students – gifted and talented, special education and average - demonstrated improvement in math when they were all told that they could improve with hard work (Dweck, 2007). There is an extra burden, then, in teaching students with behavior disorders, as there are some in this group who are least likely to have their academic strengths praised and their bars raised.

At Risk – Where School May Be the Reason

Not all at-risk characteristics may be traced to personal, family, or pre-school environmental circumstances. Teachers, schools, and society may cause or contribute to the creation or aggravation of at-risk behaviors. Failure to diagnosis and effectively cope with early signs of potential at-risk problems in the primary grades can snowball over the years into full-blown academic failure and at-risk behavior at the high school level. Utilization of the assembly line or factory philosophy where all students are dealt with as "packages" to be processed uniformly through the school system and the often concomitant under-funding of the educational establishment can be factors in the development of at-risk behaviors and the subsequent failure of students whose lives might otherwise have been pointed toward success.

Ill Prepared in Earlier Grades

The early patterns for at-risk behaviors are often already set before school begins, but can be compounded by disparities in the first year or two of school (Finn, 1993). When students are behind in the early grades, they can lose ground overall in school, and these patterns are likely to continue into middle and high school. A Yale University Longitudinal Study reported that 75 percent of children who are not proficient readers by the end of third grade would struggle to become proficient by ninth grade, and many of those never attain proficiency in reading (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; Shaywitz, Fletcher, Holahan, & Shaywitz, 1992). Children who cannot read and write become at risk for future academic failure. Denno (1990) found that the inability to read became a strong indicator of future delinquency. Reporter Colman McCarthy, in a 2001 interview with a warden at a maximum security prison, learned that “. . . as many as 75 percent of the prisoners read at a third grade level. On release … they won’t be able to find even unskilled jobs. Almost two-thirds will return to prison” (McCarthy, 2001, 1).

Inexperienced or Mediocre Teachers

Advanced placement and International Baccalaureate courses, those populated with the most academically gifted students, are often viewed as a teaching rite of passage and professional achievement among teachers in public education. Teachers who have the most longevity, experience and training are likely to be given classes with students who find school a joy. Remedial classes, often populated by at-risk students, are frequently taught by beginning teachers with recent schooling, but relatively few pedagogical tricks in their repertoire. The students who need the most patient and resourceful teachers are the least likely to get them. Because of this mismatch, dislike for school may be more likely to continue the cycle of academic failure. Education reformer and urban education advocate Martin Haberman suggested that one of the biggest problems facing troubled youth (in his research in urban settings specifically) is the failure to hire “star” teachers. These “star” teachers have experience and training and are more mature than their neophyte counterparts (McKinney, Haberman, Stafford-Johnson, & Robinson, 2008; McKinney, 2007; Haberman, 1995). This researcher would argue that the same principle applies to work with rural at-risk youth. Too often, teachers having the best strategies for working with challenging students are not available to these students. Perhaps incentives in the form of enhanced emoluments and professional recognition should be utilized in certain contexts to encourage these teachers to accept assignments with at-risk students where their skills are most needed.

The modern American education system was modeled after the factory systems of the early 20th Century’s Industrial Age. In this model, children in school were treated as though units on an educational assembly line to prepare them for factory work. Though there has been a move to the Communication Age to apply a more imaginative and flexible structure, some teachers still manage the classroom as though their students were products passing along an assembly line to be processed (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000). Teaching students depending on their own individual needs (differentiated instruction) has been a relatively modern addition to the pedagogical palette. At-risk students who need a variety of innovative pedagogical approaches are left wanting by the production line model.

Insufficient Resources

Oregon, as many other states, has recently experienced unprecedented educational budget shortfalls and appears destined for even more dramatic reductions. The collapse of the dotcom industry in the 1990s, the decline of logging and the wood products industries, and double digit unemployment rates which exceed the nation's high unemployment rate by almost 150% (Bureau of Labor Statistics, 2009), have caused Oregonians to adopt a cynicism foreign to their "dreamer" reputation (*Taxing Issues*, 2004). This cynicism has resulted in the approval of many tax limitation measures and the resulting failure to fund schools adequately. "Oregon voters have not approved a hike of the state income tax in 75 years, but with fewer people on payrolls, local schools are feeling the squeeze from decreased state revenue" (*Taxing Issues*, 2004). In rural Applegate School District, funding dropped from $10,000 per pupil in 1985 to less than $5,000 in 2005 (in unadjusted dollars) (School District Superintendent, Personal Communication, April 3, 2006, [name not provided to protect anonymity]). Students and the services provided them suffer greatly, and at-risk students continue to fall through the cracks as band-aid solutions and basic minimums are imposed upon school systems by economic circumstances. Finn's 1993 study, "School Engagement and Students At Risk," suggested that among 15,737 eighth graders studied, those who took part in school co-curricular and extra curricular activities were more likely to engage in school and less likely to be at risk for academic failure even when factors like gender, socioeconomics, and ethnicity were controlled (Finn, 1993). When programs are cut due to budget shortfalls, students are more and more at risk for disengagement and in turn for academic failure. Investing a modicum of tax dollars while children are in school may prevent the expenditure of millions of dollars in tax expenditures for incarceration, remediation, and rehabilitatio in the future, not to mention the adverse effects of crime, lost productivity, lost opportunity, and lost lives.

Behavioral Barriers to Learning

At-risk students sometimes have behavioral disorders which can impede learning but which may not qualify them for special education programs. Many at-risk students demonstrate symptoms of oppositional-defiant disorder (ODD), obsessive-compulsive disorder (OCD) and similar anxiety disorders, attention deficit/ hyperactivity disorder (ADHD), and/or major depressive disorder. The numbers of students demonstrating these behaviors greatly outnumber those diagnosed, since the stigma attached to a diagnosis of an emotional disturbance is difficult for many families to accept and testing is sometimes not approved by parents for this reason. Though a diagnosis of any of these disorders does not guarantee that an individual may be considered at risk, they may go hand-in-hand and can complicate a student’s academic experience greatly (Jones, Dohrn, & Dunn, 2003).

Oppositional Defiant Disorder (ODD)

ODD is perhaps one of the most common disorders affecting at-risk adolescents, and is thought to affect 20% of the school-age population (Quay & Hogan, 1999). DSM IV Symptoms of oppositional defiant disorder may include (Rowe, Maughan, Costello, & Angold, 2005):

Table 2.1 *Symptoms of Oppositional Defiant Disorder*

Symptoms of Oppositional Defiant Disorder (ODD)
Frequent temper tantrums
Excessive arguments with adults
Refusal to comply with adult requests
Always questioning rules; refusal to follow rules
Behavior intended to annoy or upset others, including adults
Blaming others for his/her misbehaviors or mistakes
Easily annoyed by others
Frequently has an angry attitude
Speaking harshly, or unkindly
Seeking revenge

Attention Deficit Hyperactivity Disorder (ADHD)

The long-reaching effects of Attention Deficit Hyperactivity Disorder have already been addressed in various contexts in this study because of its incredible impact on teaching and learning in the classroom as well as its impact long-term on personality characteristics (Miller, Miller, Newcorn, & Halperin, 2008). Because ADHD is so prevalent and because the symptoms are so varied, it is perhaps best to refer to The Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV), (American Psychiatric Association, 2000) as declared in Table 2.2:

Table 2.2
Characteristics of Attention Deficit Hyperactivity Disorder

Inattention	Hyperactivity	Impulsivity
Fails to pay close attention to details or makes careless errors in schoolwork, work or other activities	Squirms in seat or fidgets	Answers questions before they have been completely asked
Has trouble keeping attention on tasks or play	Inappropriately leaves seat	Has trouble awaiting turn
Doesn't appear to listen when being told something	Inappropriately runs or climbs (in adolescents or adults, this may be only a subjective feeling of restlessness)	Interrupts or intrudes on others
Neither follows through on instructions nor completes chores, schoolwork, or jobs (not due to oppositional behavior or failure to understand)	Has trouble quietly playing or engaging in leisure activity	
Has trouble organizing activities and tasks	Appears driven or "on the go"	
Dislikes or avoids tasks that involve sustained mental effort (homework, schoolwork)	Talks excessively	
Loses materials needed for activities (assignments, books, pencils, tools, toys)		
Easily distracted by extraneous stimuli		
Forgetful		

Obsession/Compulsion Disorder (OCD)

OCD is an anxiety disorder characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive or ritualistic behaviors (compulsions). Sometimes students engage in these behaviors to create order where there is no order and to form patterns to give order to the chaos of their lives. Hoarding, excessive organization and cleaning, and agitation if ritual is interrupted can be correlated strongly to symptoms of OCD (Coles, Frost, Heimberg & Steketee, 2003; Pertusa, Fullana, Singh, Alonso, Menchón, & Mataix-Cols, 2008) and can even be genetically linked to a predisposition toward OCD (Samuels et al, 2007).

*Major Depressive Disorder (*MDD)

Major Depressive Disorder, or Depression, a disorder affecting more females than males, plagues many adolescents beyond the weeklong blues or the fight with the boyfriend (Herman, Ostrander, Walku, March & Silva, 2007). Depression is ranked fourth in the worldwide disability impact (Haavet, Christensen, Sirpal, & Haugen, 2007). Depression is a measurable decrease in the joy and fulfillment of one's life over a period of time. It can manifest itself as a currently popular trend of self-mutilation called cutting (Swanell, Martin, Scott, Gibbons & Gifford, 2008; Swenson, Spirito, Dyl, Kittler & Hunt, 2008); or the more typically melancholy and disinterested moody teen. The American Association of Child and Adolescent Psychiatry (2008) lists the following symptoms for depression:

Table 2.3 *Symptoms of Major Depressive Disorder*

Symptoms of Major Depressive Disorder
Change of appetite with either significant weight loss (when not dieting) or weight gain
Change in sleeping patterns (such as trouble falling asleep, waking up in the middle of the night, early morning awakening, or sleeping too much)
Loss of interest in activities formerly enjoyed
Loss of energy, fatigue, feeling slowed down for no reason, "burned out"
Feelings of guilt and self blame for things that are not one's fault
Inability to concentrate and indecisiveness
Feelings of hopelessness and helplessness
Recurring thought of death and suicide, wishing to die, or attempting suicide

Depression among adolescents is prevalent; a recent study showed that during pediatric screening, there was about a 20% cumulative prevalence of adolescent depression (Haavet et al, 2007), but only 25% to 33% of those with depression were treated for it (Zuckerbrot, Maxon, & Pagar, 2007). Depression can have a negative impact on home, social and school lives and likewise, negative experiences can have an impact on emotional wellness and depression (Chapman, Whitfield, Felitti, Dube, Edwards, & Anda, 2004).

Generational Considerations Concerning At-risk Behaviors

There are distinct qualities exhibited by adolescents, at risk or otherwise, but perhaps some behaviors and qualities are a result of the cultural context of a whole generation. Though many individuals and institutions have attempted to identify generational group characteristics and to name these assumed entities, William Strauss and Neil Howe are currently considered preeminent authorities in this field. Straus, an alumnus of Harvard Law School and the author of several books dealing with aging and populations, is a strong supporter of Arts in Education and is the founder of Cappies, America's largest theatre awards program for high school students. Howe is a senior advisor to the Concord Coalition and a senior advisor to the Blackstone Group. Both are experts on generational issues and are the co-authors of *Generations* (1992), which deals specifically with the history and essentials of generation theory, and its sequel, *Millennial Rising (2000)*, which deals specifically with the millennial generation and boldly predicts "Over the next decade, the Millennial Generation will entirely recast the image of youth from downbeat and alienation to upbeat and engaged – with potentially seismic consequences for America (Howe & Straus, 2000, p. 4). Howe asserts this is applicable to at-risk and non-risk students (Howe, personal communication, October, 2008). Does this mean that the current generation of at-risk students, often depicted in the literature as even more downbeat and alienated than their non-risk peers will begin to demonstrate cheerful and positive behaviors we have typically not seen?

For purposes of this study, the Howe-Strauss generational theory may be encapsulated as follows:

Each generation is shaped by and shapes history. As a result, the individuals in each generation (called a *turning*) share a significant number of similar characteristics, described in part by an *archetype*. The four types of *turnings* are cyclical and follow a knowable order, thus providing the astute follower of generational theory not only to predict characteristic behaviors of individual members of a generation, but also to predict the probably behavior of the following generations. As a result of their application of their generational theory to the history of the United States, Howe and Strauss have identified current generations as follows:

Table 2.4 *Generational Types according to Howe and Strauss.*

Generation	**Type**	**Birth Years**	**Archetype**
Great Power Generation			
G.I.	Civic	1901-1924	John F. Kennedy
Silent	Adaptive	1925-1942	Walter Mondale
Millennial Generation			
Boom	Idealist	1943-1960	Newt Gingrich
Thirteenth (Gen X)	Reactive	1961-1981	Tom Cruise
Millennial	Civic (?)	1982-	Jessica McClure

While not accepted by academic historians, economists, such as H. S. Dent and Charles P. Kindleberger have used generational theory to predict economic trends and future social conditions (Howe & Strauss, 1992). The question remains: if most literature for at-risk students was published in the 1990s, during the Thirteenth Generation, or Generation X, but generations behave differently based on their "turning," will at-risk adolescents in the current generation, the Millennials, behave as their Gen X predecessors will? Howe would argue no (Howe, Personal Communication, October, 2008).

Millennial Topologies

Studies by Howe and Strauss (1992; 2000) provide credible and interesting observations by two highly respected authorities on generational matters concerning what our current generations are and how they behave.

The Millennial Generation

According to the Howe-Strauss topology, the cohort presently occupying each of the three public school divisions is the *Millennial Generation*, which includes in its group characteristics an aversion to risk and an affinity for " . . . teamwork, group projects, service learning, and community service" (Howe, 20003, p. 1). In his recent publication entitled *Millennials Go to College: Strategies for A New Generation on Campus* . . .Howe (2003, p. 1) offered the following advice to college faculty:

Millennial children have been sheltered, so colleges should:

> Play up tradition and the public trust dimension of college policies;
> A**ssume there are no acceptable risks**; (emphasis as particularly relevant this study)
> Market a safe environment;
> Emphasize a top health staff;
> Expect *in loco parentis* to dethrone FERPA; and
> Promise protection from corrupting values and commercialism.

Howe and Strauss claimed that the foregoing is applicable to all educational levels, though research has not definitively determined it is applicable to all social classes, and given the dysfunctional nature of many of the families involved in the lives of at-risk students, the claim that they are sheltered, may be overstated in some cases.

It is intended that an element of this study will be concerned with comparing the results of this study with the theories posited in both books.

Behavioral Strategies with Promise

There are many successful programs for improving the behavior of at-risk students. Some programs offer boarding school or camping atmospheres while others offer after-school activities; some programs stress drug rehabilitation, conflict resolution, and academic support. Each employs different strategies to reach the participants and effect change. Most have a psychological premise underlying their program, but little scientific comparison has been done regarding the efficacy of each therapeutic approach with an adolescent contingent.

Diamond et al, (2002) studied five different therapeutic approaches in his multi-site randomized field trial of adolescent marijuana users. His research suggests that, properly applied and supervised, each of the approaches he studied (Motivational Enhancement Treatment with Cognitive Behavioral Therapy (5 and 12 session courses); Family Support Network; Adolescent Community Reinforcement Approach; Multidimensional Family Therapy) benefited adolescent users and their families, and that many effective therapies exist for the youth population (Diamond et al, 2002). A review of the literature reflects that many programs for adolescents utilize one of the following listed therapies, though many combined different elements of both or of all three.

Cognitive Behavioral Therapy (CBT)

Cognitive Behavioral Therapy (sometimes called Cognitive Behavior Therapy or CBT) relies on the combination of more traditional behavioral therapy and newer cognitive therapy. Traditional behavioral psychology, a la Skinner, suggested the reinforcing and breaking of habits through positive and negative reinforcement, but

CBT goes the next step to understanding how and why choices are made (Bloomquist, August & Ostrander, 1991; Braswell, 1993). CBT teaches people to think about their needs and to make choices about a response before reacting. CBT has been found to be especially effective with depressed patients. A recent study of adolescents showed that when teens with symptoms of a history of depression engaged in a course of CBT and were assessed after eight weeks, six months, and nine months, as long as they did not have a parent with depression, the teens treated with CBT (versus a control group treated with traditional therapy) showed statistically significant improvement (Garber et al, 2009).

Existential Counseling (EC)

In Existential Counseling, participants learn that they are constantly changing and developing individuals only bound by the context of their environment. "With attention given to this entire context of the client's life, the existential approach is all about exploring meaning and value and learning to live authentically -- that is, in accordance with one's own ideals, priorities and values" (Mulhauser, 2009, 1). EC is closely aligned with Constructivism. It can be a very empowering form of therapy since it helps participants take responsibility for their own lives and provides for growth and change in the future. Moving students from a culture of blame to one of self-governance and self-reliance is an important goal, and one that would be accomplished in an environment of existential counseling, perhaps using cognitive behavioral therapy as a bridge.

Transpersonal/Mythological Therapy, Transpersonal Psychology

A more unusual choice, but one that presents a valid and often useful resource in work with at-risk adolescents, is transpersonal psychology. Springing from Carl Jung’s term, "transpersonal" ("*uberpersonalich*") psychology attempts to unite the spirit, mind, and body to help an individual achieve mental health, wholeness, and transcendence. Transpersonal psychology embraces Maslow's hierarchy of human needs and peak experiences and its connection to spirit, love and belonging. As opposed to Freudian psychoanalysis, which is based primarily on a study of mentally ill patients, transpersonal psychology's focus on peak human experiences is based on a study of heroes, saints, peaceful leaders, and mystics (Hutchins, 2006).

Though some quantitative studies of the impact of spirituality in the classroom have been conducted (Nelms, Hutchins, Hutchins, & Pursley, 2007), applications to the public school classroom can be problematic, and discussion of spiritual concepts are usually left for other venues. But encouraging students to aspire to their own personal best and achieve healthy peak experiences links very closely to successful work being done with at-risk adolescents. Encouraging students to accept calls to adventure and quest for betterment in their own lives is an element of transpersonal psychology which can be readily adapted to the at-risk classroom. To prepare staff for this at CAA, Bret Stephenson, an adolescent addiction specialist and transpersonal psychology advocate provided training early on in the development of CAA to encourage development of meaningful rites of passage (Stephenson, 2006) which culminated in some CAA students building 60’ diameter stone labyrinth, the state’s largest peace sign, at Richard K. Bacon’s EdenArts Nature Learning Center in 2006.

It is the commitment to healthy risks and to personal betterment that underlies important work with at-risk learners inside counseling programs and classrooms and which is the essence of transpersonal psychology (Clinebell, 1981).

Project Self Discovery

Dr. Harvey Milkman's Project Self Discovery in Colorado is one of a growing number of treatment programs utilizing CBT. In his program, students chart their emotional states and the decisions they have made and, in doing, begin to see the correlation between decisions they make, the resulting consequences, and the emotional outcomes (Milkman, Wanberg & Parker-Robinson, 1996). The hope is that eventually, students will not only reflect thoughtfully upon their choices, but will proactively consider consequences to help avoid the dangerous behaviors.

Milkman began his program in the dawning of the Natural Highs movement for which he is considered a founder. Natural Highs is a concept that suggests that addictive cravings for chemicals like drugs is based more fundamentally in satisfying chemical cravings in the brain. That is why some drug addicts can seem to quit drugs but often become addicted to church or sex or exercise or anything else that helps to satisfy the chemical craving in the brain and the emptiness in the psyche. Milkman and Sunderwirth (2009) speculate that cravings fill an intimacy void as well, solidifying the chemical and emotional bonds to the activities. Milkman suggested that if people who are addicted to chemical highs and a lack of intimacy could have that replaced by Natural Highs like the endorphin rush from hearing an audience applaud artistic endeavors and accolades that follow, perhaps the chain of addiction could be weakened and pro-social behaviors can follow (2009).

Milkman and Sunderwirth (2009) also depict a typical performance arousal curve (Yerkes-Dodson law) that demonstrates how top levels of performance can be achieved with the correct amount of arousal, but that too much arousal can lead to diminished performance. Milkman (Personal Communication, April 10, 2006) suggested that for at-risk youth, the amount of arousal needed to achieve peak levels of performance might be higher than for other students. Debate remains whether this arousal promotes success in physical pursuits only or if this arousal-performance ratio can be seen in academic work as well. It was from these themes that CAA's perceived-risk curriculum was designed.

Milkman's 1996 study of at-risk youth has some similarities to CAA, but several significant differences. Milkman's program sought to assist students from around the Denver area in a 12-week, after-school context, a time when many would have been engaging in high-risk activities. Students were referred to PSD by school counselors and the juvenile authorities, and many came with juvenile records for criminal activity and/or drug use. Milkman began with 497 referrals to his Project Self Discovery (hereafter PSD) who were interviewed rigorously with multiple intake instruments. This served the dual purpose of collecting information of the participants as well as providing an indication if the potential participant would be a good fit for PSD. Some students who were found during the interviews to have a high disruptive characteristic or who were found to have attitudes that supported their drug-use and did not indicate a willingness to change were less likely to be selected for PSD. Of the 394 applications, 298 made it through the screening, and 198 successfully completed the 12-week course. During a six-month follow up study, Milkman's PSD participants had continued resisting drugs and maintain more pro-social behaviors than the control groups who were on waiting lists to join PSD or who were treated in another program

(Milkman, et al, 1996). Like Milkman, CAA serves a number of students who have demonstrated academic failure and high levels of minor criminal activity or alcohol or drug use. Unlike PSD, CAA is a public school district-sponsored charter school, not an after-school program. Although the decision to move students from one school to another is made with staff of both buildings and with counseling about the choice, unless CAA reaches capacity (30), staff may not turn students away for being a poor fit for the school. If capacity is reached, a lottery is held for the positions. The primary focus of the work at CAA is academic, not social-behavioral, though the charter for the school specifically addresses the physical and emotional well being of the students served.

Academic Strategies with Promise

Since some at-risk students have become marginalized because they have learning disabilities and traditional classroom experiences cannot seem to reach them, innovative approaches are often necessary (Deshler, Schumaker & Woodruff, 2006; Druian, Butler, 1987; Graham, Harris & Reid, 1992; Slavin & Madden, 1989; Wolfe, 1998). Students can become at risk for academic failure for so many different reasons that teachers may need to attempt myriad diagnostic and intervention approaches. Repeatedly, the literature suggests that engagement is a key component of the education of at-risk students (Gentry, 2007), but how engagement is achieved depends greatly upon a number of factors. Local service and occupational opportunities and teacher specialty and interest all play into student interest and engagement. Anthony S. Dallmann-Jones, of the National At-Risk Education Network (NAREN), has suggested that separate standards be adopted for at-risk education programs, and in doing so, has developed, “The NAREN Nine,” a list of nine facets for effective programs for at-risk youth. These recommendations include: accelerated academic curriculum, strong literacy component, deliberate self-management program, personalized curriculum, project-experiential-work orientation, smaller school and class size, solid planning and administrative support system, collaborative community model, and comprehensive staff development programs (Dallmann-Jones, 2002). The NAREN Nine has much merit, and reflects thoughtful consideration of the many successful and unsuccessful at-risk programs that have been established recently, though it was difficult to find externally assessed research corroborating the success of NAREN Nine, a for-purchase program.

Interventions, Hill and Rojewski suggested, include modeling, and placing students in contexts that challenge the negative performed assumptions about work. These interventions are consistent with these researchers’ subscription to social cognitive career theory (SCCT), a constructivist-based theoretical framework which helps the learner to see change in themselves, “ . . . as a person gains confidence in personal ability to succeed, recognizes rewards, and experiences an expansion of self-efficacy and outcome expectations” (Hill and Rojewski, 1999, p. 268). In this way, these researchers encouraged staff at CAA to help students see, through positive interactions and reinforcement, that they can change their occupational or educational circumstances and the resulting feelings toward them. Hill and Rojewski suggested that at-risk students could be helped to develop the work ethic so vital to occupational and educational success.

While the NAREN Nine and Hill and Rokewski's SCCT framework demonstrate principles of excellent programs overall, more specific pedagogical approaches also present themselves in the at-risk literature. These methods often encourage students to make curricular choices about content, increase visibility, and increase accountability – all emerging hallmarks of the perceived risk curriculum. Many of these methods are already used in limited ways in alternative education programs, but the perceived-risk curriculum specifically encourages the teacher to be aware of the visibility and accountability aspects while still looking for powerful safeguards against student failure. The Central Applegate Academy Perceived Risk Curriculum Teacher Resource Guide goes into much more detail about the implementation of these methods. Some of the many strategies recommended in the literature are explored below.

Problem-Based Learning

Problem-based learning (PBL) offers students a chance to participate in role playing while engaging in complex scenarios, and is as old as Dewey's term, "problematic" (Dewey, 1938). Problem-based learning is focused, experimental learning "minds-on, hands-on" which centers on real world issues and problems and their solutions (Torp and Sage, 2002). PBL curriculum encourages vocabulary acquisition by creating disequilibrium and a desire to know in order to successfully complete the role and perform within the scenario. For example, a student in the role of a first aid provider at a swimming pool might need to know that paramedics glove-up to prevent the spread of blood born pathogens – and consequently – what a blood born pathogen is. The students engage in the learning because there is a genuine need to know created by the scenarios and the roles. In PBL there is a spirit of fun and play while learning; a chance to remind students of the ways in which they learned as children. Sometimes timelines are implemented so that students feel a sense of urgency and engage more completely in the drama of the moment. Field trips and other supplements to the curriculum can greatly enhance the engagement in a PBL activity. Students learning about ancient cultures, for example, may conduct an archeological “dig” in the yard behind the classroom with a little preparation from their teacher and a little imagination from the students.

Collaborative / Cooperative Learning

Pairing and grouping students who are working toward a common goal is the thrust of collaborative or cooperative learning (Slavin, 1989). In collaborative learning, teachers carefully select which groupings will work best for each classroom scenario in order to best maximize learning. Groupings may be ability-based, homogeneous or heterogeneous. In these groupings, students readily share ideas, and students who would not otherwise talk aloud in class find voices within the smaller pairings. Group and individual goals are typically set to create reliable assessment methods (Slavin, 1989). Students can learn in cooperative groups as well as produce evidence of their learning through project-based learning. Much evidence exists in the literature to substantiate the efficacy of collaborative learning in the elementary and secondary classrooms. Further, in a study of 48 college students, Gokhale (1995) found that, despite fears that collaborative learning “dumbs-down” its participants, statistically, collaborative learning improved critical thinking while also producing drill and practice test scores equal to the students’ individually-studying counterparts.

Collaborative learning is also consistent with Howe's conceptualization of the "millennial generation" which, he concludes " . . . are into teamwork, group projects, service learning, and community service" (Howe, 2003, p. 1).

Service Learning

A common complaint about some at-risk students is that they have not developed a sense of community pride and civic responsibility. Service learning encourages a spirit of helpfulness and respect through work with community organizations, businesses and charities. A 1993 study, *Treasure of the Trail*, *Youth as Volunteers*, reports that in addition to the above mentioned benefits, students who participated in service learning also learned to be helpful and kind and cultivated decision-making skills (West Virginia University Extension Services, 1993). Duberstein-Lindberg, Boggess, Porter & Williams concluded in their 2000 study, *Teen Risk Taking*: *A Statistical Portrait,* "nearly all teens, even those engaging in multiple risk behaviors, participate in positive behaviors…While multiple-risk teens engage in positive behavior, participation in positive behaviors declines with increased risk-taking" (p. 7). Engagement in community service activities, such as extracurricular, community or faith-based activities can promote efforts to reduce risk-behaviors in favor of increased positive behaviors. Service learning, through efforts in the community, charities, and churches, can help at-risk students more easily embrace sharing and stewardship and, if Duberstein-Lindberg *et al's* conclusions are correct, students may be able to reduce at-risk behaviors while doing it.

Vocational Education

Vocational education utilizes programs that emphasize work training and job experiences in an effort to prepare students for present scholastic success and for future careers. Students may have a particular career path in mind, and others may explore a wide variety of job experiences. Students can learn cold calling, interviewing, and resume writing skills as well as discrete job skills like construction, horticulture, health and human services, and home economics skills. It is not assumed in vocational programs that the students will not go on to college, but rather that the skills they acquire will help promote scholastic and occupational success in any pursuit after high school. Some school programs even assure income for students engaged in vocational work-study programs (Broussard, Mosley-Howard & Roychoudhury, 2006). Finally, kinesthetic learners and students with high needs for freedom (Glasser, 1998) can benefit greatly from the more hands-on approach to learning as well as the concentration on demonstration of skills rather than memorization of content.

Internet-Based Learning

A cost-effective and increasingly popular avenue for alternative education is internet learning. School districts subscribe to a license to use software like NovaNET, Plato, 20/20 and OdysseyWare, and in return, their students can learn at their own pace from computer-aided “edutainment.” Districts strapped for cash from recent statewide budget cuts are opting to provide internet education, sometimes under the supervision of a less-expensive instructional assistant instead of a more costly certified teacher. For some students, including those with social or emotional disorders such as Asperger’s Syndrome, of which CAA has several, computer-mediated learning can be an effective way to provide education or therapy without over stimulation and strenuous socialization (Tanaka et al, 2003). For others, including other at-risk students, the self-direction required to complete most on-line or server-based educational programs can limit success. Some students do not have the discipline to work independently for the long periods of time it takes to be successful at Internet learning, and others with ADHD sometimes struggle with the myriad distractions the Internet has to offer (Markel, 2008). Further, students with an abstract-random learning style (as many CAA students have been identified) are at a distinct disadvantage in computer-interfaced learning (Ross & Schultz, 1999).

Multiple Intelligences

Harvard's Project Zero and its leader, Howard Gardner, have for the last twenty-five years produced very exciting research celebrating individual learner differences. Gardner believes that learning is more than reading and writing and includes eight or nine kinds of intelligence. At-risk learners often possess intelligences not easily assessed by traditional measures. Many, for example, learn by moving and doing, and the kinesthetic learning style, rarely attempted in the conventional classroom, is difficult to assess on standardized tests. Kinesthetic engagement offers significant promise with at-risk learners especially if there are real-life applications to the activities. Gardner suggests that his Multiple Intelligences provide many entry points to a particular topic or issue, analogies or metaphors for understanding it and model languages for describing it (Brockman, 1997). For example, a unit on the Holocaust, a favorite of Gardner's, may include poetry, dance, maps, essays, dramatic presentations, or any of myriad other entry points for learning and connecting or may use various model languages to share what a student has learned.

Further, researchers and teachers like Shepard (2004) employ multiple intelligences as a framework for developing strengths. Strengths-based learning is thought to help develop protective factors against risk (Burns, 1994) and to promote resiliency. Creating a classroom friendly to multiple intelligences can be a challenge for a teacher, whose time or creativity is limited, but successful programs for at-risk students attempt to address the needs of many learners, and Gardner's (Gardner & Moran, 2006) continued commitment to multiple intelligence and learning styles celebrates those differences and helps to bridge the gaps in student learning.

Arts-Based Programs

Critical Links, a compendium of 62 studies regarding Arts and its impact on social effects of learning published by Project Zero at Harvard Graduate School, thoroughly demonstrates the importance of the Arts and their role in education. The impact of the Arts on at-risk students is also examined. In a study conducted by Barry, Taylor, Walls & Wood (1990) regarding the dropout rate and arts participation, 30 of 36 (83%) students surveyed reported that the Arts course played a direct role in their decision to stay enrolled in school. Of the 22 who revealed they were seriously considering dropping out, 27% said it was participation in the Arts that kept them enrolled in school. Despite the limited numbers included in this study, the indicated trend is encouraging. Heath's (1998) study, also cited in *Critical Links*, found that the 143 at-risk students surveyed after voluntarily involvement in an after school multi-Arts program were, among other positive achievements, eight times more likely to win a public service award, nearly twice as likely to read for pleasure, and four times more likely to win school-wide acclaim for academic achievement when compared with 17,000 10th grade students surveyed in the National Educational Longitudinal Sample. Interestingly, though the public performance of the Arts places at-risk students in danger of embarrassment and public failure (to some literally a fate second only to death), many at-risk students find it the perfect venue for their talent and energy and admitted that engagement in the Arts kept them from dropping out of school (Deasy, 2002)

Fiske's (1999) *Champions of Change: The Impact of the Arts on Learning*, a compendium of studies whose focus included Arts and at-risk learners, reported that through participation in the Arts (specifically Steve Seidel's Shakespeare & Company program) at-risk students were able to "manage" risk and did not find their personal academic risk factors to be a barrier to learning through their work in the Arts. Through the Arts, students made aesthetic decisions and problem-solved, finding new sources for personal power and seeing it manifested in artistic outcomes. Students found that through the Arts, they had permission to fail, a concept perhaps missing in other areas of their academic and personal lives, but one which promoted personal growth and self-confidence.

The Arts can, as studies in *Critical Links* (Deasy, 2002) demonstrated, encourage students to stay in school, but the Arts can also be used to enhance opportunities for at-risk students who have already left public school. One of these many programs is the Youth Arts program. This study was commissioned and, in part, funded by the Office of Juvenile Justice and Delinquency Prevention, (OJJDP) which – as with most bureaucracies – has an investment in reporting successful results. Further, this study was conducted under the auspices of employees of Caliber Associates, a consulting firm located in Fairfax, Virginia, and a for-profit organization.   Unfortunately, in the case of Youth Arts, these motives appear to significantly mar an inquiry which, if designed, managed, evaluated and reported properly might have produced a valuable and instructive product, but in this instance, did not.

This examination of at-risk students and risk raises the question of the role risk plays in the Youth Arts study. Risk by participants was addressed in only two areas of the study, and then essentially only in passing: one finding being that when student participants saw artist participants engage in risk behaviors while developing the program parameters, the students participants were also more willing to engage in risk behavior. This came as no surprise since Milkman's Arts curriculum specifically engages student artists with performance artist/teachers so that students are not alone in their artistic performances, and the potential for true failure is greatly reduced (Milkman, Personal Communication, April 10, 2006).

Many of the studies painting the picture of Arts education were, however, more successful. One such study was Conrad's (2004) study, which demonstrated that the Arts can not only help to convey curriculum and help to engage at-risk students, but it can also assist them in an understanding of their social context. Conrad's students were encouraged, with her prompting, to create skits and scenes about social problems and issues adolescents face. In this way, Arts education can also help record performance ethnographies to tell the stories of real people in circumstances without the direct threat of telling one's *own* story. Conrad admitted that the accounts are partially fictionalized, but suggested they can still illuminate issues within the lives of at-risk students and their community.

Brain-Based Learning

Brain-based learning, a movement gaining momentum in mainstream education (Sylwester, 2007; Sylwester, 1995; Sousa, 2001; Wolfe, 2001), but which has been in existence for decades, seeks to bring new discoveries about cognitive neuroscience to the classroom. Researchers like Patricia Wolfe, Robert Sylwester, Eric Jensen and David Sousa lead the way in this exciting field. Several common principles are emerging in the literature with regard to brain-based, learning, and one of particular interest has to do with risk and threat and learning. Caine and Caine (1994) wrote that one principal of brain-based learning is that the brain learns best when appropriately challenged in an environment which encourages taking risks. However, the brain/mind slows down into a more primal mode under perceived threat (Caine & Caine, 1994). When the learner is threatened she is less likely to engage higher learning processes, and more likely to revert to primitive procedures (Caine & Caine, 1994). But they also reminded that, “Occasional stress and anxiety are inevitable and are to be expected in genuine learning. The reason is that genuine learning involves changes that lead to a reorganization of the self. Such learning can be intrinsically stressful, irrespective of the skill of, and support offered by, a teacher” (Caine & Caine, 1994, p.1).

Jensen (2008) asserts that there is good stress (eustress) and bad stress (distress) to which students have different reactions. Eustress might include the anticipation of mastering a new skill, feeling prepared to take on a new challenge, feeling able to solve a problem; these are all things which make a student stronger and make learning more successful. Bad stress, or distress, discourages learning by triggering fight, flight or freeze responses and limiting the student's ability to respond appropriately to subtle clues in his/her environment and prompting the student to revert to familiar – even if not mature or successful – strategies (Jensen, 2008).

It seems a balance must be struck between risk and threat. With more and more being learned each day about cognitive neuroscience, brain-based researchers continue to expand the field, helping teachers to make conveyance of their curriculum more engaging and meaningful to their students. The goal then would be to encourage eustress, through supported risk to encourage positive risk-taking and personal and intellectual growth. Some common problem-based learning activities include mock trials and science fairs depending upon the context in which the concept is introduced.

The Brain – Function and Evolution

The nervous system, with its 100 billion neurons, serves as the communication network in the body. The brain acts as the command center for this ultra-sophisticated network. The mind is the identity of the brain which thinks, learns, remembers, and dreams. If the brain is like a computer, the mind is like the ghost in the machine. David Sousa, a brain researcher whose books are designed to help teachers use contemporary research in their classroom, reminded us that every neuron in a brain will replace itself in a matter of only a few years, yet our minds – the memories we have filed, the skills we have mastered, and the concepts we understand -- live on (Sousa, 2001). The mind and brain work together to learn and to help the organism to survive. Survival is the primary function of the brain, though in recent human history survival is only the beginning of the roles the brain and the mind must play.

The oldest part of the brain includes the brain stem (also called "the reptilian brain"), which is responsible for respiration, heart rate, and blood pressure. It connects the spinal cord and the thalamus, regulating the autonomic nervous system. The most primal and basic functioning of the body is controlled in this part of the brain, and 11 of 12 body nerves terminate in the brain stem (Sousa, 2001). Above the brain stem is the limbic system which includes the thalamus, hippocampus, and amygdala. This system is critical for the production of emotions and for learning. It is in the limbic system that decisions are made about what information and memories are stored in the long-term memory (Sousa, 2001).

The cerebrum, the largest of the areas of the brain, contains the frontal lobe, a system that problem-solves, organizes and considers consequences. The frontal lobe is the latest evolutionary identity of the brain. The frontal lobe also assists in social development by aiding recognition of the motives and intention of others (Sylwester, 2001). Interestingly, new research suggests that many disorders, including schizophrenia and attention deficit disorder, are associated with malfunctions in the frontal lobes (Rothenberger & Banaschewski, 2007). Adolescence is a time of brain change similar to that of early childhood with regard to neural branching and pruning (Sylwester, 2007). It is the time when the child brain begins to reason and think for itself, developing a sense of consequences and outcomes, slowly becoming the adult brain. It is a much more important part of development, beyond the obvious acquisition of secondary sexual characteristics, than previously thought (Sylwester, 2007). Since the myelin sheathes on the axons of the neurons in the frontal lobe develop slowly throughout adolescence (Sousa, 2001), sometimes teens are less organized, more emotional and less considerate of costs. When adolescents falter and stumble into selfishness, poor organization, and bad decision-making, it may be a reminder that the teen brain is not yet finished, and the frontal lobe, the last to achieve completed development, is responsible for managing these important traits. Therefore, encouraging adolescents to ‘take good care of their brains’ and encouraging their parents to have patience and to create supportive and constructive environments can help to shape life-long better thinkers.

The brain is composed of neurons which send signals electrically and chemically. Signals through the axon of a neuron are transmitted electrically, and messages between neurons are delivered chemically. A delicate balance exists between the 100-plus neurotransmitter chemicals and elements in the brain to ensure proper communication of thought, pain, and emotion (Sousa, 2001). An overwhelming majority of psychologists agree that many disorders including depression, anxiety, obsessive compulsive disorder and attention-deficit hyperactivity disorder may be due, in part, to imbalances of these chemical exchanges or the ways in which they are distributed or re-absorbed to and from the synaptic gaps. These chemical messengers can tell the brain to make the body run in the event of danger and can enable the mind to recall the face of a distant relative at a reunion.

The Brain and Survival

Since the primary function of the developed brain is to help the organism survive, memory and attention -- two major forces in learning -- are designed, at least in an evolutionary sense, to facilitate basic functions, such as food procurement, safety, and sexual reproduction. The brain uses the sensory organs (eyes, ears, skin, nose and tongue) to collect millions of pieces of sensory information in an instant and is designed to interpret the signals, deciding if there is a threat to survival, a potential food source, or a possible mate. The signals are decoded in the sensory lobes. It is the job of the amygdala, the almond-shaped fear center, to determine if the sensory information will be acted upon or ignored. Only perhaps one percent of the sensory information obtained by the sensory organs and interpreted by the brain is noticed on a conscious level and set aside for potential rehearsal and long term memory (Wolfe, 2001). If the goal is survival, this paring of information is a necessary function; remembering that at 9:48 AM the temperature of the air was chilly will not assist in survival. Noticing the smell of smoke and understanding the significance of that impression in an office building at 9:48 AM may save one's life. Only imperative information comes to the conscious attention of the person so that the brain and body are not overwhelmed by too much information.

In a 21st century world, expecting students to master discrete content about esoteric topics seems odd when you realize we are thinking with 30,000 year old brains whose main goal is to help us to avoid danger, find food, and procreate (Sylwester, 1993). Our brains have not evolved much in these past 300 centuries, but the demands we put on them have grown. One way this concept of neural evolution can impact the classroom is by our understanding the brain's basic purpose is survival. Relating learning to the brain's purpose of survival can help to elevate the relevancy of the skill or concept being learned. This may be especially important in the learning lives of at-risk students whose survival may be more of an issue with them than with many of their non-risk classmates. This realization about the brain also closely parallels Maslowe's Hierarchy, the psychological model that reminds us that survival and safety are the main concerns of the individual.

Students who view their daily lives as a struggle for survival might find learning at school irrelevant. Finding ways to make learning relevant to survival is important for most students but for students at risk, it may be the key to opening the door for acceptance of education. Some students will pay attention and memorize material out of fear of academic failure, and in this way, the student's brain may perceive learning as scholastic survival. For students whose actual survival is at stake, academics may not been viewed as "the way out," and school may be seen as a distraction in the pursuit of survival. Helping at-risk students to see the relevance of learning to their survival, and ensuring that the learning truly *is* relevant to their lives, can certainly impact their ability to pay attention and memorize new skills and content, two important steps in cultivating new learning.

The Brain and Learning

The brain, the amazing, resilient organ that it is, receives, interprets, pieces, stores, retrieves and reassembles information every. As with every important function, the brain has a default mode in which it performs at its greatest efficiency, given its primary function. When the brain takes in information, it will quickly act on it if the information impacts survival. The limbic system makes the choice about how the information will be stored or acted upon. Otherwise, unless survival is the primary purpose of the information, the information can still be learned if it is deemed important for some other reason, and the information is rehearsed and prepared for long-term storage (Wolfe, 2001). Learning requires attention and memory. Getting and holding attention is an art in teaching. Sousa (2001) reminded us that student attention begins to wane twenty minutes into the learning process. If this fact can guide the way instruction is structured, students may be helped to keep better focus throughout the lesson. Once students' attention is gained, the goal is to encourage memorization of the skill or content. Non-vital information is most likely to be remembered if it relates to the first or last time something has occurred, a phenomena called the primacy-recency effect (Wolfe, 2001). To illustrate this, a professor asked her students if they remember their first kiss, typically a powerful memory. When asked to recall their most recent kiss, they can remember this one as well. When asked to recall all the rest the kisses in between, students are likely to reply that they cannot. It is the same way with the recall of information from a school lesson; students need a "zing" in the middle of a lesson to help to maximize their learning. Using primacy-recency in the classroom can have exceptional results especially if one considers the optimal time for attention span. The brain is also a pattern-seeking device (Wolfe, 2001), and looks for ways to relate new learning to old learning and find patterns within new learning. For this reason, using memory tricks like acronyms, acrostics, loci, chaining, and mnemonic devices can be very helpful in the brain-based classroom.

Effective information storage relies on attachment to a schema, or a scaffold system, on which the brain builds information for effective storage and retrieval. Teachers should help build new information on the scaffold of previous academic and emotional learning. A careful consideration of the emotional context of learning, a fundamental precept of Constructivism, is vital. Without positive connections to previous learning, information gets lost and isolated in the brain. Without synaptic connections, or what one may call "the driveways to the main road" people cannot revisit and retrieve the information. The connections must be traveled repeatedly to create a solid pathway of learning. Neural pathways not traveled are lost, overgrown and forgotten. In brain research, the phrase, "use it or lose it" is used to describe this loss. In this way, teachers need to build repeated rehearsal of skill or content into their lessons to insure retention in long term memory (Sousa, 2001).

Anatomy of an At-risk Brain

To understand what is happening in the learning lives of our students, they can be examined from several vantage points. Student behavior, academic test scores, psychological test results, personal interviews and surveys can be studied or conducted. But each of these tools has its problems and subjectivities. Many standardized academic and psychological tests have been found to be biased against the poor and people of color because such tests are usually based upon middle-class experiences and income. Surveys and interviews often reflect the biases of the researcher. Although this researcher is committed to Constructivist ideology and accepts and recognizes the inevitable biases and context, she was hoping to find something more definite and objective to explain the phenomena observed in her classroom from previous years. Personal curiosity revolves around more fundamental and less circumstantial differences between at-risk and non-risk learners. It was hoped that a review of the literature would provide analyses of the brains of the two different types of learners and demonstrate in colorful positron emission tomography (PET) scans or the recently discovered magnetic resonance imagining (MRI) or variant functional magnetic resonance imaging (fMRI) key differences in one of the 50 learning centers in the brain. The expectation was that there would be identifiable differences in one of the more than 100 neurotransmitters identified by Sousa (2001), which would unlock the mysteries of at-risk brains. Unfortunately, this question is much more complex because of the cultural nature of the social definition of "at risk" and there has been no resolution of this problem through these techniques.

For many years, it has been known that the brains of adult schizophrenics were different than their unaffected peers, though for many years it was incorrectly thought that schizophrenia only emerged in early adulthood. Again, the brain shares clues through its physiology. Jacobsen and Rapoport (1998) found incredible similarities between the psycho-physiological measures between brains of subjects with adolescent schizophrenia and subjects with adult schizophrenia. MRIs indicated that both groups showed, "decreased cerebral volume, relative white matter sparing and ventricular dilatation" (Jacobsen & Rappoport, 1998, p. 101). But Giedd et al (1999) also found that adolescence is a very peculiar time in the life of the brain and that the psychophysiology of the brain of a schizophrenic changes drastically during the years between 14 and 16. It is during that formative time when so much goes awry in the brain of the schizophrenic (Giedd, Shaw, Wallace, Gotay & Lenroot, 2006; Giedd, & Kaplan, 2001; Spron, 2003).

Since America is home to the most violent adolescents in the industrialized world and the USA lead the world in adolescent homicide by a factor of 20 times (Field, 2002), examining youth at risk for violence in our schools is especially critical.

Interesting findings suggest that EEGs of the brains of violent adolescents demonstrate abnormalities (Rain & Dunkin, 1990; Raine, Venables & Williams, 1990a; Raine, Venables & Williams, 1990b), including right hemisphere dominance and unusually slow EEG theta wave activity (Scarpa & Raine, 1997). Additionally, Raine, Venables, & Williams, (1990a) also found that 74% of 15-year-olds who they predicted to be criminals based on psycho-physiological measures, including levels of central nervous system arousal, had indeed become criminals by age 24. Adolescents with chronically low levels of arousal, characterized, said Field, (2002) by right frontal EEG hypo activation, are likely to seek out risky behaviors including crime (Scarpa & Raine, 1997). Classroom applications for this risk-seeking behavior is, in part, what inspired this inquiry and what is prompting the researcher to investigate the impact of heightened level of concern and perceived risk in the classroom.

In a study by Iacono, Carlson and Malone (2000), one hundred twenty-nine 17 year-old boys were examined using three psycho-physiological measures including a P300 event-related potential (a measurement of brain waves brought about by thought), an electro dermal response modulation measure (a measurement of skin response to stimulus), and an antisaccade eye-tracking task (a measurement of the eye's ability to follow an unsmooth path) to determine if these measures could identify adolescents at risk for substance abuse. P300 event-related potential tests measure brainwave responses to visual stimuli, asking each participant to detect patterns in a series of pictures. An "oddball" picture is included to detect the brain activity of the participant as they attempt to make sense of the picture. In Iacono's study, boys were sorted into three groups: high risk (reduced P300 amplitude and poor modulation), intermediate risk (a good or high measure on one and a low or poor measure on the other) and low risk (high P300 amplitude and good modulation). High risk boys were four to six times more likely to have problems with alcohol and two to three times more likely to struggle with nicotine addiction than their low or intermediate risk counterparts. The findings suggested by Iacono et al promote the idea that "poor electrodermal response modulation may reflect an inhibitory control deficit in the frontal lobes" (Iacono et al, 2000, p. 13), thus verifying that there are physical differences in the brains of addicted youth. In fact, the researchers found a distinct and statistically significant linear trend as risk rose and substances abuse rose right along with it. As psycho-physiological factors increased from low to intermediate to high, use of substances doubled at each interval (Iacono, 2000). Though this does not mean that there is a quick and easy test to see what children are likely to become addicts, the study demonstrated that there are measures that may, in the future, help families and doctors to be less reactionary and more proactive in treatment protocols.

For students who are not just at risk, but who are risk takers, there is much revealing brain research available (Hargreaves & Davies, 1996). Though psychophysiology is relatively new, many neurochemical connections for risk-seeking or risk-surrounded students have been revealed through this technique. At this time, no Rosetta stone exists to decode every chemical messenger, but many common conditions are being translated. Potential neurochemical causes for depression, obsessive-compulsive disorder, generalized anxiety, and schizophrenia have been identified and neurochemical-balancing treatments for each developed. For example, violence and aggression have been associated in many studies with elevated testosterone and dopamine levels and lowered levels of serotonin and nor epinephrine (Field, 2002). Chemical and non-chemical treatments for violent behavior, including massage therapy (which has been determined to reduce dopamine in some patients), have been developed (Field, 2002). Changing the balance of chemical in the brain can change behavior which can change learning which can change lives.

Perhaps it is because teen crime is of such immediate concern and excites so much public concern, considerable time and energy has been spent mapping the minds of violent youth. But though much more has been learned in the last 40 years about the brain than was learned in the preceding 400 years, an examination of research has not definitively demonstrated a psycho-physiological difference in the learning of general at-risk students and of non-risk students that is more accurate or definitive than a study of the social elements in the lives of students (Kagan, 2009). At this time, no practically assessed map exists which depicts the anatomical landscape of the at-risk learner's brain.

Instead of seeing with perfect clarity into these students' brains, teachers can only see the faintly reflected images on the walls of Plato's cave, the flickering shadows of our students' behavior and performance. At-risk learners are not all alike; each learner challenges teachers in fundamentally different ways. Some students are at risk of failure for their own physiological and mental differences, some for behavioral disorders, some for the unstable lives of their families, and some for unfortunate combinations of these factors. Excellent teachers strive to meet the needs of their students whatever their needs seem to be. It may be there is no mind map for the typical at-risk learner because there is no typical at-risk learner.

Risk and Perceived Risk

Since the brain, as suggested earlier in this writing, decides in the limbic system (the emotional control center), whether or not to act upon information, emotions become the key to learning. If a context or information is deemed by the amygdale to be fear-inducing, the limbic system triggers its fight-or-flight response. When fight-or-flight is initiated, adrenaline, cortisol, and epinephrine flood the system preparing the body to take flight, to freeze in order to avoid detection, or to take on an adversary. In this state, the hair follicles stiffen, blood flows to the extremities, the heart pounds, and the sweat glands generate perspiration (Wolfe, 2001). The brain utilizes much of the body's blood supply and burns up to 20 % of our calories (Sousa, 2001), so during fight-or-flight (or freeze), blood retreats from the brain to better empower the body. In this way, the body prepares itself for battle. But the classroom should not become a battlefield, because learning cannot take place when blood retreats from the frontal lobe of the brain. This is not to say that threat is not memorable; in fact, negative emotions can have a scarring effect because of the strong reaction of the amgydala and limbic system. The organism learns not to repeat the threatening situation from this heightened emotional moment. However, though memory may be enhanced and attention may be maintained during a threatening experience, the frontal lobe cannot be engaged to make higher-level decisions, and thus higher learning cannot be expected to occur (Wolfe, 2001). Now humans are not running from saber-toothed tigers, and threats in the modern Western world have become deadlines at work and tests at school. Still, since thinking occurs with brains barely changed in thousands of years, an acknowledgment that the fear-factor inhibits higher learning, regardless of the cause of the fear, is needed. This should serve as a warning to teachers that their classrooms should be as free from threat as possible. Negative emotional contexts may positively impact memory, but they can negatively affect learning.

Negative and positive experiences and threat can also impact behavior. As suggested above, basic behavioral psychology suggests that when negative consequences are experienced for actions, these actions are unlikely to be repeated. When a child touches the burner of a hot stove, she learns from the unpleasant and painful experience to avoid the hot burner. This is reinforced in the brain with blasts of adrenaline, cortisol, and epinephrine. For at-risk learners, failure in school can be like the hot burner waiting to scald a child's hand. As a result, many of these students avoid the pain and embarrassment of school failure by not even trying to be successful. Conversely, when people experience positive or pleasurable outcomes, they desire to repeat the behavior that earned the pleasure. This is reinforced in the brain with bursts of dopamine, serotonin or other endorphins. Drug use follows this pattern, with addicts seeking the highest highs time after disappointing time (Milkman and Sunderwirth, 2009). Showing at-risk students that life – even school – can bring them more happiness and pleasure than drugs is a war waged against their minds, their hearts, their brains and their environments. It is a war Milkman successfully waged with the Arts and the effects of perceived risk.

Perceived Risk Phenomena

Milkman (1996) reported that when at-risk students perceive risk but are not allowed to fail, they engage more fully with the activity. Milkman's use of Arts-based activities - specifically performing arts activities because of their immediate sense of perceived risk - promoted pro-social behaviors and encouraged the suppression of anti-social behaviors including drug use and other risky behaviors. It is Milkman's premise that at-risk students need the excitement and engagement of risks, but that these risks need not be all bad. Several studies support Milkman's suppositions about at-risk youth seeking stimulation by whatever means necessary. Dodge, Bates, & Pettit (1990) found that youth who had suffered physical abuse, acquired over reactivity, which led to aggressive tendencies later in life. Orbach (1999) found that when children had suffered physical abuse, their pain thresholds were changed, and because of their under responsiveness to sensory stimulation, the abused later engaged in stimulation-seeking behavior. Sunderwirth and Milkman (1991; 2009) found that subjects who displayed compulsive behaviors involving sex, drugs, and crime were likely to be dopamine deprived in the reward centers of the brain, tended to lack feelings of well-being, and may have suffered from anxiety and cravings. These subjects often sought satisfaction through behaviors that restored dopamine production. Though not all at-risk students have suffered abuse, commit crimes, take drugs, or engage in sexual intercourse, this evidence is still compelling and explains much about stimulation and risk-seeking behavior.

The substitution of positive risk for negative risk may help at-risk students to modify their behavior while still meeting their needs for the excitement that accompanies risk. Further, students who engage in risk and succeed can develop their personal courage and self-mastery, something alternative education and Native American education researchers Brendtro, Brokenleg, and Van Bockern (2002) claimed is necessary to developing resilient at-risk students in successful alternative programs and something which they agree is missing in the inflexible environments of most programs for at-risk learners. Too often positive risk, like the kind that can be found in the Arts, is avoided in an effort to keep education "safe," but it really results in sterilization of the educational experience, thus leaving students with few opportunities to develop courage and confidence.

The Arts served as an excellent avenue for Milkman's perceived risk theory since performing arts employ elements of vision, planning, preparation, practice, revision, and public performance exposure. Students may experience the nervous butterflies and the pulsing of adrenaline as they feel the spotlights first hit their faces, and this rush of neurotransmitters, Milkman (Milkman, Personal Communication, August, 2004) contended, can serve to fill the need many at-risk students have for stimulation. Milkman's art practitioners perform along-side the students so that the students feel secure and are assured a greater degree of success. In this way, cycles of failure so many at-risk students have experienced in their pasts are interrupted, and success is demonstrated in a very public way and in the presence of parents and teachers and friends. Though the students studied in Milkman's Project Self-Discovery (PSD) (1996) demonstrated an increase in pro-social behaviors and a reduction in anti-social behaviors during the duration of the study, Milkman recently conducted a follow-up study to see the potential long-term outcome of PSD ten years from first engagement in the initial study (Milkman, Personal Communication, April 10, 2006) with positive results.

Review of other literature suggests that little else has been done regarding perceived risk phenomena with the following exceptions. Outdoor education and adventure programs offer perceived risk in their programs and feature many of the qualities demonstrated in Milkman's study. In outdoor education, students are encouraged to differentiate between real and perceived risk and to use fear as their ally. It is suggested by Ewart (1986), in his examination of risk, fear and adventure in outdoor education programs, that skills dealing with fear experienced in the outdoor adventure context can be transferred to a student's daily life and can help the student better deal with real fear in other real-world contexts. At-risk students may enjoy the indulgence in fear as well as they seek natural highs from exciting activities like ropes courses. They are bonded to other participants in the programs as they learn to depend on themselves and each other. They collaborate in meaningful ways as they explore nature and themselves. Little information on perceived risk, outside of an outdoor-education or rehabilitation context could be found.

The Personal Nature of Risk

What makes one student's heart pound with excitement can make another's pound with fear. The circle of failure is strong with many at-risk learners, and some may resist entering into any risky proposition in which failure is a possibility. This is the sensitive nature of the Constructivist classroom. So how do researcher/educators obey rules of research and remember that they should first do no harm to their research subjects while fulfilling their promise to educate their students? Differentiated instruction, teaching practices that emphasize individualization of the curriculum, holds answers. Adjustments in the Hunter (2004) level of concern variables will serve as a way to help personalize the levels of risk. One student may need less visibility at first, and may choose to present her science fair project to her class before it is displayed in public. Another may need an artificial deadline to encourage timeliness but to give more room for development of the product. Still another may need a contrived context to finish work – like a yearbook or newspaper with its firm deadlines of publication. Further, perceived-risk curriculum for each content area will be piloted so that students who find some content areas “riskier” than others have had a variety of approaches though which they can prove themselves successful.

Perceived Risk Curriculum

Risk applied to at-risk students seems counterintuitive in some ways. If students who are at risk of failure see risk in their daily lives, and they seek to engage in risky, often dangerous behaviors, what positive role could risk play in their academic curriculum? After examining brain research and risk, adventure and risk, and Arts and risk, a pattern began to emerge. Excitement, engagement, and adrenaline throb when students approach risk – real or perceived. Risk is not in itself bad or good; rather it is the opportunity for either. It is that uncertainty that most “adrenaline junkies” find appealing. Neurotransmitters like dopamine provide natural highs whether the student is seeking risk through the committing of a crime, the taking of a drug, or the performance of a singing solo. Students who are somehow missing dopamine and other important neurotransmitters seek sensation (Milkman & Sunderwirth, 1991, 2009). Why not employ a certain level of excitement and risk when students are learning as well? Elements of performance, scenario, engagement, risk and movement may play into many of the most successful academic strategies for at-risk students. As scholars in the brain-based movement suggest, *risk* is not the enemy of learning, it is *threat (*Lane & Nadel, 2002; Caine & Caine, 1999). Threat initiates fight-or-flight-or-freeze responses (Lane & Nadel, 2002) and sends the brain into a “lockdown” mode. But risk can heighten the learning experience rather than diminish it. Risk can aid in changing behavior, as Milkman (1996) suggests. And, like it or not, risk is appealing to many at-risk students. Risk is how most people learn in real world contexts. People most often do not learn from simple successes but from risking much and winning or losing much. Rarely has history been made by those who did not risk their security for principles, exploration, or inquiry.

In academia, perhaps because the line between threat and risk is so vague in the minds of most, the increase of engagement and risk is called by lesson planning expert Madeline Hunter, “level of concern” (Hunter, 1986). Since 1982, Madeline Hunter’s methods of lesson planning and student motivation for teachers have been taught in teacher education programs nationwide. Though her methods were called into question in the mid- and late 80s by Slavin (1987), Gibboney (1991), and Berg & Clough (1991), Hunter has reclaimed a prominent place in teacher education programs since brain researcher like Patricia Wolfe (2001) are rediscovering and recommending her work. Should teachers want to increase the intensity of the assignments, Hunter recommended that teachers heighten the level of concern (risk) by increasing visibility, accountability, and reducing time to produce. Conversely, teachers can reduce the level of concern by reducing visibility and accountability and increasing time to produce assignments. These are criteria by which this study utilized in examining the perceived risk curricular methods. For example, in project-based learning, smaller steps would be expected in shorter intervals, public displays of work would happen quarterly, and members from the community would be invited to share the display of the work. In this way, in this study, strategies were chosen which attempted to maintain the engagement of the learner by perceived risk: a combination of heightened level of concern, dramatic presentation, and personalized teaching.

Maintaining attention is the cart before the horse in education. Finding curriculum that is meaningful and relevant to the learners is vital, since many at-risk learners are certain they will fail and have, as a result, given up the fight. Thus, ensuring that students have opportunities to exercise choice is imperative. *They* know better what topics are of interest, and when the curriculum permits (for example, when the teaching of a skill is more important than the content to accompany it), some latitude for student choice should be given. Too many choices can overwhelm many learners and can weaken objective scoring criteria and expected outcomes, but given consistent parameters from which students can make choices, students can be given the feeling of freedom without abandoning standards and high expectations. In order to keep the delicate balance between risk and threat, teachers should provide supportive student feedback about their learning processes, and should put in place constant monitor-and-adjust teacher behaviors need to be in place. Removing potential for failure is a cornerstone of perceived risk curriculum (Milkman, 1996). The question is that by adjusting visibility, accountability and time frame, can even the most risk-shy student be encouraged to take more chances in the classroom as they could on Milkman's stage?

Future of Perceived-Risk Curriculum

Though no literature exists regarding perceived-risk curriculum in the classroom, it is a goal of this study to continue to seek it out. Brain-based learning seems to offer the most connections to the topic. A major objective of this study is to more fully understand the cognitive neuroscience behind learning, specifically how at-risk adolescents learn and represent their learning. In the course of this study, different methods for engaging students in perceived-risk curriculum was examined, and the results will be used to pilot additional studies in the following school years. Emphasis will be placed upon the employment of skills in teacher leadership to help promote these methods and model for the teachers at the Applegate charter school. As teacher leaders McCammon & Betts (1999) found in their study about helping students to "imaginate," sufficient professional development must be provided to teachers so they can expand their repertoire to include these interactive and risk-promoting teaching methodologies or "the new ideas are doomed to a corner of cobwebs." Training in mentoring teachers provided by the New Teacher Center from the University of Santa Cruz and participation in a six-month training in educational leadership by the Reeves Institute are intended to assist with this goal. In the course of this study, instruments to assess student interest, engagement and risk with regard to classroom activities and other methods of curricular conveyance were designed and implemented. Existent data like grades and standardized test scores were examined and evaluated to determine academic improvement. Findings from these data, as well as through case studies of the students and teachers involved in the project, were used to demonstrate whether or not a perceived risk curriculum has an effect on learning among at-risk learners and the degree of its receptivity by teachers at the Central Applegate Academy in Applegate, Oregon. Hopefully, the information generated from this work will not only assist students in a rural Oregon community, but may have wider applications for more generalized populations since so many students are in need of innovative and effective approaches in today's classroom. In the next chapter, the methodology employed for this study is described.

CHAPTER III - METHODOLOGY

The researcher employed a mixed methodology to obtain as much data from diverse sources as possible in an effort to paint a rich picture of the phenomenon of perceived-risk curriculum as seen from the evidence of improved school performance and perspectives of students and teachers. To answer the first research question {*Do at-risk students who are instructed using "perceived risk" methods perform better in school ("better" being defined in this study to include increased pro-social behaviors, enhanced performance as measured by higher GPA, successful completion of Carnegie Units, improved scores in unit pre and post tests)?},* the methodology is quantitative, and as such, this researcher collected existing Carnegie unit and grade point average data kept on students at the Central Applegate Academy for the 2006-2007 and 2007-2008 school years in addition to data collected in the 2008-09 school year to identify academic trends over the period of this research. The 2008-2009 data included grade point averages, Carnegie units, and pre- and post- unit instruction testing. In an effort to obtain information about student pro-social or anti-social behaviors, a drug, alcohol and Arts-use instrument, designed for Central Applegate Academy by psychometrician Dr. Kenneth Wanberg and titled the Wanberg Instrument, was used in the 2008-09 school year and was administrated in early-April and mid-June.

To answer the second research question (*How do students and teachers perceive the at-risk curriculum and their roles as assessed through student activity surveys, student interviews, teacher activity surveys, teacher interviews, researcher field notes and a senior project?),* the methodology is qualitative, and as such the researched gathered activity surveys regarding the efficacy of treatment curricula from teachers and students, interviews data from eight students and two teachers, and researcher field notes from three observations. In executing this mixed methodology technique, the students were required to assess the curriculum with regard to their feelings of comfort, risk, threat and engagement. The teachers provided their reflections upon student success and failure, ease or difficulty in preparing the lessons using these methods, and relative comfort teaching using the new methods.

IRB Proposal

To obtain Oregon State University's Institutional Review Board (hereinafter IRB) approval for work in the public schools, the Applegate school district superintendent was briefed about the research project, initial permission was granted, and a formal board presentation was made. Oregon State University IRB coordinators were contacted by phone at the beginning of the dissertation process to obtain permission to use the Wanberg's instrument, and it was agreed that the survey was within the regular procedures of the school. In this approval process, the cognitive-behavioral life skills course in which it was offered, the fact that it was administered by a school counselor not affiliated with the research at hand, and that the school, a public charter, has a code of conduct all parents sign upon enrollment of their children which gives CAA permission to assess student drug use were recognized. This made the survey existent data, and therefore, permissible for use within the scope of this research.

Oregon State University's IRB Board granted permission after a two step process: the first was an expedited review granting permission to use existent data; the second, a lengthier review examined the additional measures (qualitative) to be administered above and beyond the regular classroom work. Once IRB permission was secured, research was begun. In June 2008, students were reminded about the research project, and parents were made explicitly aware of their child's participation in the research project through the informed consent documents (See Appendix B). No students were refused enrollment or were placed at an academic disadvantage as a resultant of parental disapproval of their children's participation in the case studies or interviews. No students who participate in case studies and interviews were advantaged academically or compensated financially. In the end of this process, 21 enrolled students returned the necessary assent and consent documents in order to participate.

Prior to August in-service training, the researcher met with the teaching team at CAA to discuss the implications of the research, and plans were made for designing consistent pre- and post-unit tests so that measures of student learning might be obtained on a regular basis from in-class instruments. Given some at-risk students' propensities for losing or failing to complete homework, in-class measures were thought to give a better picture of true student learning than a reliance on quarterly grades and progress reports. These instruments were targeted to measure the content and skills being conveyed in the treatment methods as well as the control methods. Student surveys for perceived risk, threat, comfort and engagement were designed at this time. Instruments to measure teacher perception of student success, ease of preparation, and comfort of use were designed at this time as well. These were submitted to IRB and designed and revised in compliance with IRB standards in

March 2007. This authority was renewed by IRB in 2008. After doing some additional research based on Howe and Strauss' work on the Millennial generation following the first IRB renewal, the researcher added several additional interview questions to the student case study interviews. These questions included a study of student perception of their teachers, their perception of their teachers' attitudes toward them, and their perception of the importance of this relationship to education. Another question was added to determine if students of this generation were more or less likely to take risks if they were in the presence of their peer group. These questions were reviewed in February 2009 and the IRB application was approved and renewed in March 2009.

Ethical Considerations

When conducting research with students under 18, special considerations must be given. Therefore, assent and parental consent documents (See Appendix B) were used so that parents and their children could decide together if they wanted to participate in the study. Especially when studies deal with potentially sensitive issues such as drug use and interpersonal relationships, it is imperative that students and their parents make an informed decision and that they understand the safeguards that will be taken to ensure individual and data confidentiality.

Further, when first the planning for the research began, the researcher was employed as a teacher at CAA and at another point, was an administrative intern charged with the responsibility of disciplining students as well as designing curriculum. The year prior to the year of the active research cycle, the researcher removed herself from the teaching and administrative context at CAA to better ensure objectivity and to remove any sense of coercion potentially felt by students or teachers. At the point of active research, the researcher was not employed at CAA, was not a supervisor of teachers, was not a disciplinarian of students and did not assign grades to any students.

Mixed Methods

Qualitative researcher Bryman (2006) suggests that a researcher should maintain consistency between her epistemological viewpoint and her research methodologies. Given the Constructivist framework of this researcher's ideological paradigm, a wide variety of data, both quantitative and qualitative, were collected from participants to craft a rounded picture of the students and teachers at CAA. Mixed methodology is defined as a practice that seeks both quantitative and qualitative data (Brewer & Hunter, 1989; Bryman, 2007; Bryman, 2006; Miles & Huberman, 1984; Patton, 1990; Howe, 1988).

Because social science research is always couched in a cultural context, collecting many different snapshots of students, teachers and curricula in action using mixed methodology helped create the vivid picture necessary to understand the phenomenon of "perceived risk." Strengths of mixed methods include its ability to triangulate information and context as well as to determine potential threats to and causes for trends in data. Quantitative data can help provide an element of objectivity about trends; qualitative data can help to provide reasons for quantitative data and enrich and deepen analysis and interpretation, relying in part on the explanations provided by participants and not only the researcher (Greene and Caracelli, 1997).

Admittedly, quantitative student data like grade point averages, drug and alcohol assessments (Wanberg Instrument), and pre- and post-unit testing have merit in mapping trends of performance. As a Constructivist, the researcher also recognized that the tests represent many other variables that cannot be successfully isolated. Traditional standards of quantitative research include objectivity, reliability and lack of bias. However, tests measure people in a time-and-place-context that may include emotional state, physical state, and many other factors having nothing to do with the understanding of the content. Student feeling toward the test, the test administrator, or the material can all play into the relative success of the test, and for that reason, quantitative data, while offering a sometimes-compelling insight into a student, is only the first part of this research process (Wilson, 1998).

Jacob (1988) categorized the typical roles a qualitative educational researcher takes. The researcher approached this research as a human ethnologist and cognitive anthropologist. A human ethnologist uses observational data (analyzed quantitatively) to understand human behavior while a cognitive anthropologist uses interview data (analyzed qualitatively) to understand "underlying schema or categories that participants employ in making meaning of their experiences" (Wilson, 1998, p. 6). Using this guiding principle, the researcher designed student and teacher activity surveys and student and teacher interview questions to provide additional depth and context.

Mixed method theory also provides a "theoretical lens or perspective to guide study" (Creswell, 2008 p. 66). Greene and Caracelli (1997) identified a form of mixed method research called transformative design (Mertens, 2007). "Transformative-emancipatory" theories provide a guiding social justice value system throughout the process of research in mixed method studies. Careful consideration of the research subjects and practices with regard to equity, gender, racial, sociopolitical and other qualities is imperative for compliance to the transformative-emancipatory theory. This is consistent with the researcher's ideology as well as her practice at the research site. One of the questions to guide transformative-emancipatory practice in mixed method studies includes "Does your mixed methods approach arise from spending quality time with these communities?" (Mertens, 2003 as cited in Creswell, 2008, p. 67), something the researcher can attest to, having spent several years working with the CAA prior to her research there. Transformative design is primarily concerned with action-oriented research, again, a quality consistent with this research design. Below are outlined the researcher's preferred techniques for collecting data in both quantitative and qualitative methodologies.

Quantitative Procedures

To most thoroughly answer research question #1, the primary concern of which was to determine the efficacy of the perceived-risk curriculum, quantitative measures were chosen. These included the Wanberg Instrument, G.P.A. (grade point average), Carnegie Units (credits earned). In some cases, as reported in Chapter 4, extant data, specifically G.P.A. and Carnegie Unit accumulation was used for comparison against current trends because extant data is not intrusive and expedient (Cooley & Bickel, 1986). Standardized testing, typically a standard instrument in student performance assessment, was not used in this study because CAA's test administrator was unable to test all students this year, citing inadequate computer lab resources and other issues beyond the control of the CAA teachers and the researcher.

The Wanberg Instrument

The Wanberg Instrument, a 145-question survey assessing drug and alcohol use, participation in the Arts, awareness of emotions and social situations, and attitudes toward school, drugs and alcohol, teachers and family was designed by psychomatrician Kenneth Wanberg (2005) for use at CAA. When a similar instrument was used in Project Self Discovery, Milkman (1996) advocated administering the instrument in a face-to-face interview, though this would not have been possible due to time constraints at CAA. A more efficient administration method was sought, and though “bubble sheets” were expedient, and though students demonstrate comfort with computerized testing formats, research with 610 adolescents showed that teens are more likely to be accurate and honest when they use more traditional paper tests when asked to disclose potentially sensitive information about drug use, mental health and sexual practices (Beebe, Harrison, Park, McRae & Evans, 2006). Therefore, paper copies of the Wanberg Instrument were provided for each student at CAA to promote honesty and accuracy. Students circled each of their responses with pens or pencils on the Wanberg Instrument itself so that fewer errors would present themselves from transferring answers to a separate “bubble” sheet.

It was planned that the Wanberg Instrument would be administered at least three times: January, March and June. Because of scheduling problems, the Wanberg Instrument was administered first administered in early April and was repeated in June. The school counselor with whom the students have a good relationship administered the instrument both times. The students were assigned a numbered code, and the code with associated names was kept by the school counselor in a locked location away from the secured test. The researcher was not given the data with student names, and the data reviewed by the researcher reflected coded numbers only to assure student confidence in the assessment and impartiality. Results from the April test were compared to see if students demonstrate a reduction in social deviance and an increase in pro-social behaviors by working with the perceived-risk curriculum.

Table 3.1 shows the categories for questions on the Wanberg Instrument (See Appendix A-5). The first 25 questions are on a five-point scale (a-e), and the remaining questions are on a four-point scale (a-d). The specificity of the five-point scale helped to carefully pinpoint the extent and frequency of the arts experiences of participants since that was one of the stronger variables in the original Project Self Discovery on which the Wanberg Instrument and the CAA program were originally based.

Table 3.1 The Original Wanberg Instrument Key.

Question Numbers	Optimal Answer	Quality Targeted by Questions
1 - 25	E - Almost every day	These questions represent frequency of the use of the Arts
26 – 29	D - All the time	These questions represent forethought in decision-making
30 - 33	D - Very often	These questions represent the frequency of reflection upon actions and consequences.
34 – 37	D – Very Often	These questions represent the frequency of choosing a healthy alternative over drugs or alcohol
38 - 46	D – All of the Time	These questions represent the frequency of successful refusal strategies and implementation of more cognitive choices.
47 - 54	D – Yes, A lot	These questions represent how comfortable students are speaking about themselves in a group or a classroom.
55 - 61	D – A lot	These questions represent how much a student knows about the effects of drugs on the brain and body.
62 - 64	D – Yes, A lot	These questions represent how a confident a student is with regard to emotional control.
65 - 80	A – No	These questions represent emotional stability and risk-seeking behaviors in a group in the previous three-month period.
81 – 87	D – Very Good	These questions represent feelings toward school in the previous three months.
88 – 92, 95	A – No	These questions represent feelings toward and closeness with family.
93, 94 96	D – All the Time	These questions represent feelings toward and closeness with family.
97 - 103	A – For Sure No	These questions represent attitudes toward drugs and alcohol.
104 - 111	A – No	These questions represent the frequency of criminal activity in the previous three months.
116 – 119	A – Never Used	These questions represent frequency and type of drug use.
120 - 132	D – For Sure Yes	These questions represent attitudes toward planning for the future.
133 - 145	A – For Sure No	These questions represent interest in future anti-social behaviors and strategies for refusal in the future.

Pre and Post Unit Testing

Throughout the second semester (February to June), different “perceived risk” methodologies were used to deliver various content in Science, Social Studies, Language Arts and Health classes. To maintain teacher autonomy and to measure how easily planned and readily used the perceived-risk curriculum methods were, teachers were allowed to select and plan their own perceived-risk activities, though the researcher attended several planning meetings to answer questions and to provide instructional support.

Pre- and post unit tests were composed by the lead teachers to assess student success throughout a unit of instruction. Teachers wrote the tests to reflect what they were attempting to teach in their units of instruction in each course. The tests included content and concept questions related to classroom instruction. As is common practice in educational settings, the pretest was the same instrument as the post-test. Though by itself a pre- and post-unit test without strict control of all other variables is not a scientifically strong practice (Cohen, Manion, & Morrison, 2007), along with the other measures, the pre and post unit testing can help to measure the specific growth within a unit of instruction even if it cannot precisely say what the cause of the growth, stagnation or regression might be. One unit of instruction that specifically targeted the use of perceived-risk curriculum was a Holocaust Unit taught in English and Social Studies.

Transcript Data

After grades were posted in June, 2009, the researcher collected transcripts to determine how many Carnegie Units (credits) had been earned by each student each semester from 2006-2009. Credits were earned if a student passed a class with a grade of “D” grade or above at a rate of .5 credits per semester course for a total of 3.5 credits available per semester and seven credits per year. Several students were engaged in an after-school credit recovery program and were able to earn up to four credits per term. Data was examined to determine how many credits students from CAA compared to their previously attended high schools (if they had attended school elsewhere in the timeframe of 2006-2009 as most had). Grade Point Average (GPA) was also collected by semester and computed over the same period.

Qualitative Procedures

As mentioned above, different “perceived risk” methodologies were used to deliver various core content throughout the spring semester. After intervention curriculum was employed, students and teachers answered brief surveys to determine their perception of risk, engagement and competence brought about by the intervention curriculum at time periods determined by the teacher.

Student and Teacher Activity Surveys

Student response surveys were attitude scales (Teddie & Tashakkori, 2009) designed specifically for this research study, which measured comfort, risk, threat, and engagement with the activity. The surveys were self administered (Fink, 2002) after each prescribed perceived-risk activity in six cases and after two control activities that did not reflect perceived-risk curriculum intervention. Teacher response surveys were attitude scales (Teddie & Tashakkori, 2009) designed specifically for this study, which measured student success, teacher comfort and ease of use. These were self administered (Fink, 2002) after each prescribed perceived-risk activity and after two control activities. Both the student and teacher-activity surveys were designed to take no more than five minutes each, and CAA teachers confirmed that this was the case.

The surveys contained five qualitative questions and five quantitative questions that provided outlets for qualitative explanation. The quantitative responses on the teacher and student surveys were measured on a five-point Likert scale because it offered students a neutral option and was a manageable number of divisions for students to master quickly. A numeric system enhanced by very short qualitative descriptors in student language was used to reduce the amount of reading required for the students, since many struggle academically, thus promoting ease and speed of administration while hopefully assuring accuracy of results. Though some studies support the elimination of a midpoint in a Likert Scale because it offers a safe answer for respondents unwilling to make a decision or those not wanting to displease the researcher (Garland, 1991), others suggest that the elimination of midpoint tends to push responses to the positive end of the spectrum (Worcester & Burns, 1975). Favoring accuracy over concerns over too many neutral responses, a five-point Likert scale was chosen for these surveys.

The researcher collected surveys after the completion of each activity to provide a basis for review of the efficacy of each perceived-risk and control activity. The surveys self-administered by all students at CAA, were cross-sectional, that is, the surveys were all administered at the same time and in the same context (Creswell, 2008) and represented a single reflection on a single activity after the activity had been completed.

Student and Staff Interviews

To obtain great depth and examine potential reasons for trends noticed in other data collection methods (Teddie & Tashakkori, 2009), the researcher interviewed two staff members and eight students from CAA. The students were chosen from the list of participating students by the CAA staff (two lead teachers and one secretary) to attempt to ensure that both highly successful and less successful students were selected and to maintain researcher objectivity. Gender of participants reflected the gender make-up of the school whenever possible. Special efforts to diversify the samples by race or socioeconomics were not attempted given the 94% racial homogeneity and the over 70% free-and-reduced-lunch status of the school, though the interview sample set coincidentally included one student of color.

Individual student interviews were conducted on three afternoon occasions at CAA in the student cafeteria with seven students being interviewed over two sessions, and one student being interviewed in one session (because of student absence). Interviews were conducted with only the researcher and student present and the door closed to ensure privacy. The researcher typed student responses as they were spoken, and if the response was long, the researcher read back what she had typed to ensure accuracy. Students were read the interview questions in the same way each time. No additional clarification was offered except with regard to the word “curriculum” which was not well understood by students. In this instance, a definition for curriculum (“Curriculum can be a subject area, but it can also be the way in which a subject area is taught.”) was designed and read along with the question in every student interview. Students were asked if they were comfortable, but no incentives were offered.

Students were not penalized for their time in the interview since they were conducted during free time periods within the school day.

Teachers were given the choice of location and time of their interviews. One chose her classroom on a Saturday morning, and the other chose an off-campus location after school. The interviews consisted of eleven questions, all of which were asked in once sitting which lasted approximately 90 minutes.

Researcher Field Notes

During four of the perceived-risk activities, the researcher was in attendance and took observational notes. The researcher observed one activity of which she was a part (The Outsider), a “poetry slam” evening in which some CAA students took part, the senior advocacy project, and the CAA Holocaust Art Gallery evening.

Notes are a superior way to collect data when the observer is looking for non-verbal cues and behaviors (Bailey, 1994) as this researcher was observing with regard to engagement and risk. Although there are risks of researcher bias in personal observation (Cohen, Lawrence & Morrison, 2007), when the data is triangulated, it can provide an insight about the context that may otherwise be lost. In an effort to reduce observer error, observational notes were typed within a few hours of the events (Cooper & Schindler, 2001). Observational field notes included comments made by student and teacher relationships to one another, the environment of the intervention and observations about student and teacher movement patterns and physicality (movement within the space of one’s own body including, but not limited to gestures, carriage and posture).

Senior Advocacy Project

Senior students analyzed their GPAs from their four years of high school to see if there had been general improvement or decline since their enrollment at CAA. Students learned to graph the results in their math classes and present the data in their speech class (See Figure 5.1). Two senior students presented the data before the ASD school board in their June 2009 meeting, in an effort to share their improvement with the school board and community. The students advocated for the continued funding for their school citing the data that all seven graduates had demonstrated marked academic improvement in their four years of school (which culminated in graduation from CAA), and that they felt a spirit of acceptance that they had not encountered anywhere else in their school experiences. At this event, the researcher conducted an observation of the two CAA student presenters as well as the other CAA students, CAA teacher and parents who came to offer support for The Academy.

Analysis and Interpretation of Data

Given the mixed method nature of this study, a variety of approaches consistent with constructivism were chosen to analyze and interpret the data collected. The methods are described below.

Analysis of Transcript Data

For quantitative measures like grade point averages and Carnegie units, the researcher compared student performance from the previous years (2006-07 and 2007-08 in the case of juniors and seniors) to academic performance in the 2008-09 school year. In this way, the researcher has been able to track individual students and their growth or regression throughout up to three years of schooling. For new students, these data were taken from their previous school data and some conclusions were reached from this review. The researcher's area of concentration was essentially to determine the effect of CAA's perceived curriculum on the general student population. So, though individual students can be tracked using transcript data (GPA and Carnegie units), the analysis will be of the overall student body at CAA to determine if they improve or regress though the term of intervention and if the GPA and Carnegie units earned reflect a typical or atypical pattern.

Analysis of Pre and Post Test Data

For analysis of pre- and post-unit test data, the researcher examined data taken from the 2008-09 school year only. The researcher compared student growth or regression from the beginning of each unit to the end of the unit to determine if the relative effectiveness of the curriculum delivery methodologies. Though the teachers benefited from the capability to track each student individually, for the researcher the emphasis of this research was upon data collection in terms of the overall student perspective.

Analysis of the Wanberg Instrument

Analysis of the Wanberg Instrument was more complicated, as the researcher wanted to be able to examine trends within the sub-groups of questions in the instrument, compare pre and post tests for each student, and examine the school as a whole. Attitude assessments, especially ones where each item has a particular difficulty, are well analyzed by use of a Rasch Model. The Rasch Model is used in social science, psychology and health research specifically to analyze assessments of attitudes and beliefs (Engelhard, 2003; Waugh, 2002). Though students responded to questions on a Likert Scale, and the researcher must acknowledge that in most cases, a Likert Scale is simply measuring opinions, but by using a precise and prescribed form of analysis like the Rasch Model to analyze the results, the data can become more substantial (Bond & Fox, 2007). The Rasch can be run as a dichotomous model or a polychotomous model. In the dichotomous model, an answer is either right or wrong, and in a polychotomous model, an answer has varying degrees of correctness, given partial credit for answers closer to the desired behavior being assessed ("desired response") (Cervellione, Lee & Bonanno, 2009). The design of an instrument is important so that a Rasch model can be employed, allowing for each item difficulty to be weighed (Bond & Fox, 2007). A sample question from the Wanberg Instrument follows:

In the past three months, have you...........	**No**	**A few times**	**Many times**	**All the time**
26. Stopped and thought before acting?	a	b	c	d

In the sample question above, if a student is asked if they had "Stopped and thought before acting?," the desired response would be "D. All the time." In a dichotomous Rasch model scoring of this question, the "D" answer will earn four points and any other answer will earn it zero. In a polychotomous Rasch model scoring of this question, the "D" answer will earn four points but the student who answers "C. Many times," will not be discounted entirely; his or her response will still earn three points, "B. A few times" will earn two points and "A. No" will earn one point. In this way, each item has a relative difficulty and the researcher determined what the general group answered with regard to this question. From here, the researcher has a point of comparison for each student and each item on the instrument.

Both the dichotomous and polychotomous scoring methods were attempted and the best fit for the analysis was used.

Analysis of Teacher and Student Survey Data

The teachers selected the perceived-risk and control activities for assessment though the researcher was available for instructional conferences if questions arose. An activity could be designated as a perceived-risk activity if it attempted to maintain the engagement of the learner by utilizing perceived risk: a combination of heightened level of concern, dramatic presentation, and personalized teaching while creating safeguards to help students avoid failure. Some activities deemed perceived risk included an Art Gallery, presentation of current events, and attendance at a presentation by a Holocaust survivor. For examples of potential perceived-risk activities, see Appendix D.

Teachers administered the student activity survey to all students after activities completion of activities deemed “perceived risk,” and two that were not for purposes of control. The teachers also filled out a teacher activity survey for each activity assessed by the students. The researcher collected teacher and student activity surveys after each exercise and compiled the results to observe the overall reaction to each exercise. Responses to the Student and the Teacher Activity Surveys are tabled in Chapter Five.

Using techniques found in Grounded Theory (Glaser, 1998; Seaman, 2008), the researcher read through the qualitative answers to questions looking for threads to let themes reveal undercurrents of student and teacher thought about perceived risk, threat, engagement and learning. Student and teacher interview data were also reviewed using Grounded Theory techniques, and these observations were used to generate a theory about perceived risk in the at-risk classroom.

The researcher compiled results of the surveys, testing data, standardized testing data, case studies, Wanberg instrument and personal observational data in order to more thoroughly explain perceived-risk phenomena in the at-risk classroom, specifically as it relates to the students at the Central Applegate Academy in a rural community in the Pacific Northwest. The researcher has written recommendations for curricular applications of “perceived curriculum” at the Academy and provided feedback for further curriculum redesign at CAA, based on the findings from the research.

CHAPTER IV – QUANTITATIVE RESULTS

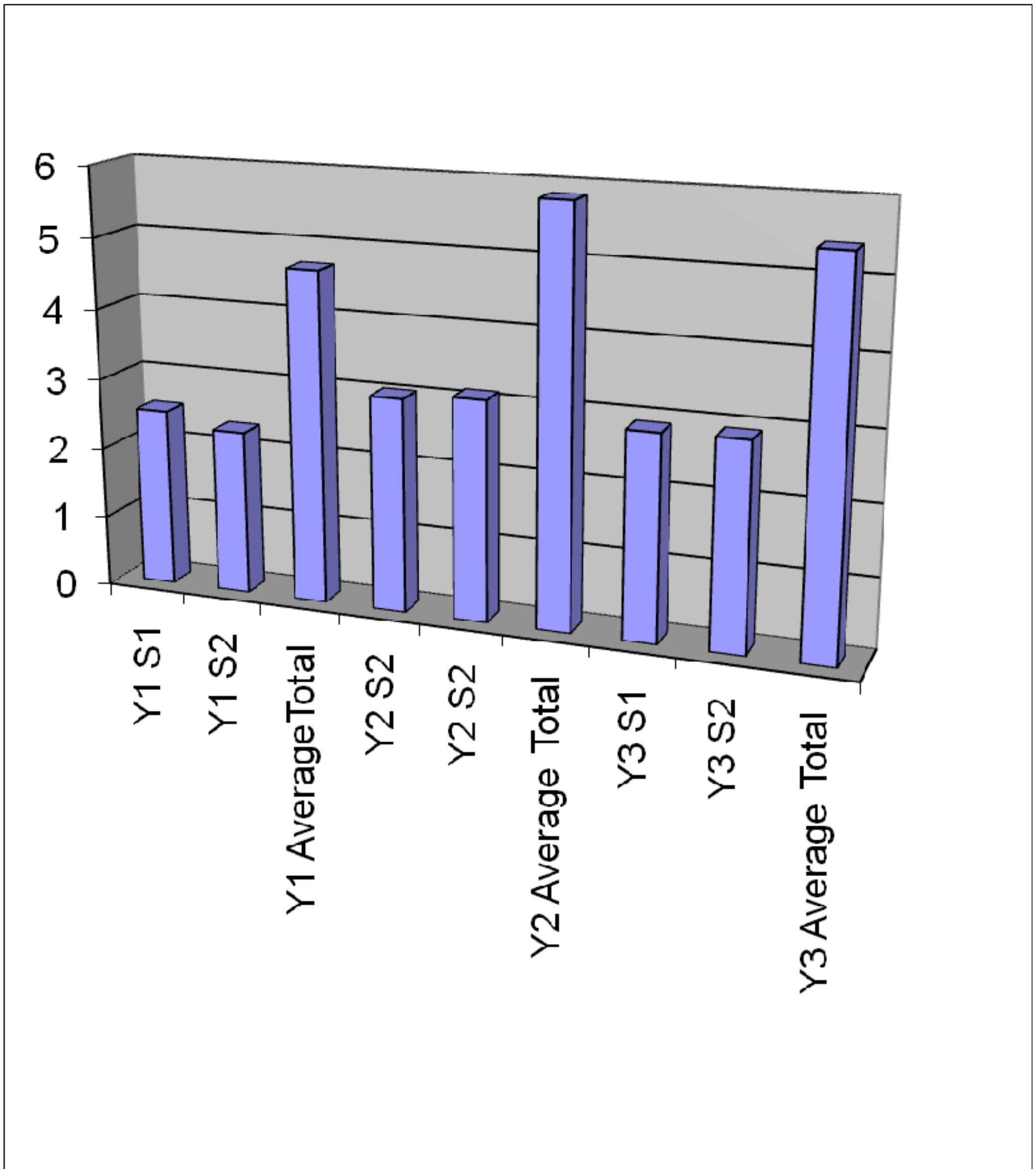
To most effectively answer research question #1, {Do at-risk students who are instructed using "perceived risk" methods perform better in school ("better" being defined in this study to include increased pro-social behaviors, enhanced performance as measured by higher GPA, successful completion of Carnegie Units, improved scores in unit pre and post tests)?}, the researcher employed some quantitative measures including an analysis of Carnegie Units; an analysis of grade point averages; a comparison of pre-post unit tests; and an analysis of selected items from the Wanberg Instrument, an assessment designed for CAA to examine attitudes toward and participation in pro-social behaviors and deviant risk behaviors. The data from each will follow in this chapter.

Carnegie Units Earned

When students complete approximately 90 hours of seat time and complete the required coursework at a level assessed by teachers as being 60% proficient and sufficient, students may earn .5 credits, also called Carnegie Units. Students have seven course opportunities each semester (18 week term) for a total of 3.5 possible credits per term.

The following data reflects the number of Carnegie Units earned each semester of the years 2006-07, 2007-08, and 2008-09, the second semester of which was the term of the intervention curriculum. The results indicate that many students did not make significant gains in Carnegie unit attainment during the intervention curriculum. However, the data also suggests that students made steady progress in NCA and that the intervention curriculum was not a detriment to their progress. That is, student baselines, on average were comparable to the intervention period.

Figure 4.1 Carnegie Units earned 2006-09.



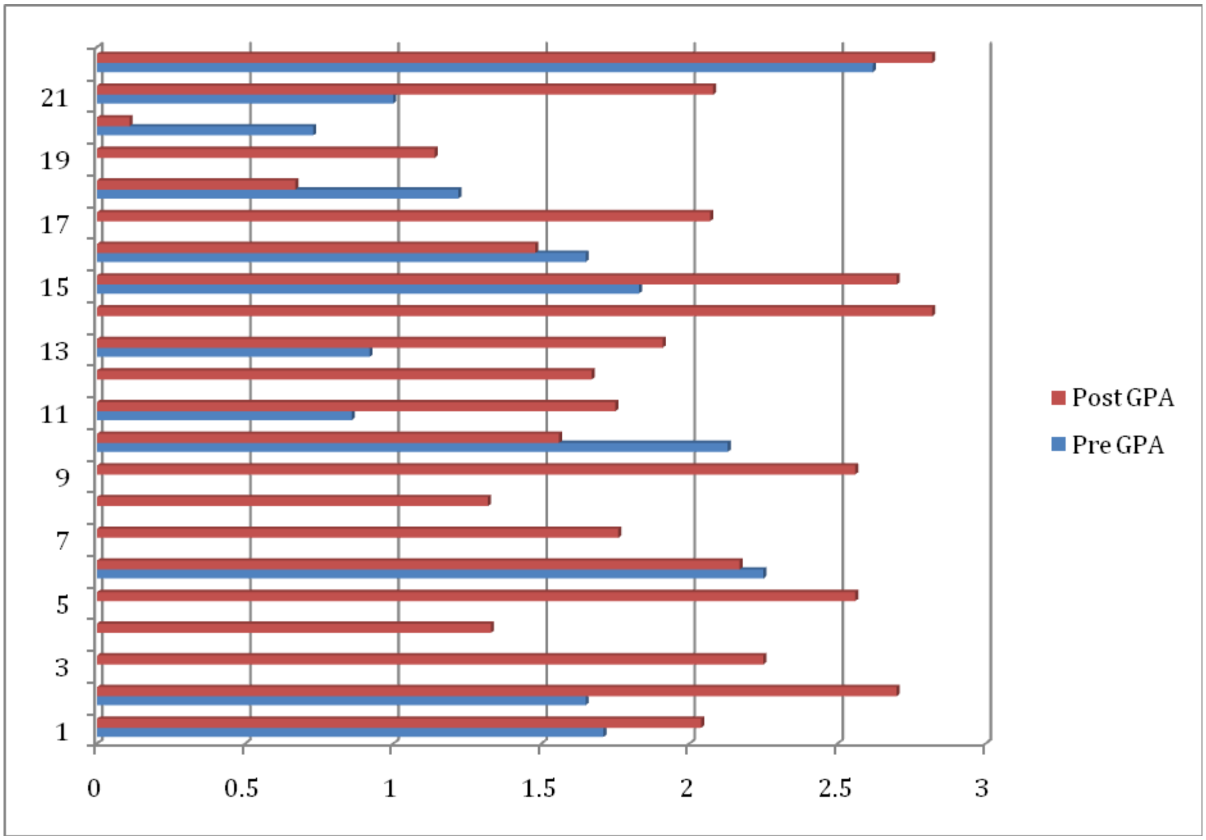
Grade Point Average Earned

Teachers most often assess student work on its accuracy and sufficiency. These judgments belong to the teachers. Teachers assign point values to these assignments, and the cumulative totals are averaged to obtain a semester grade. Though the teachers assign individual course grades, the grading scale is mandated by the school district. The grading scale is as follows:

Table 4.1 Grading Scale.

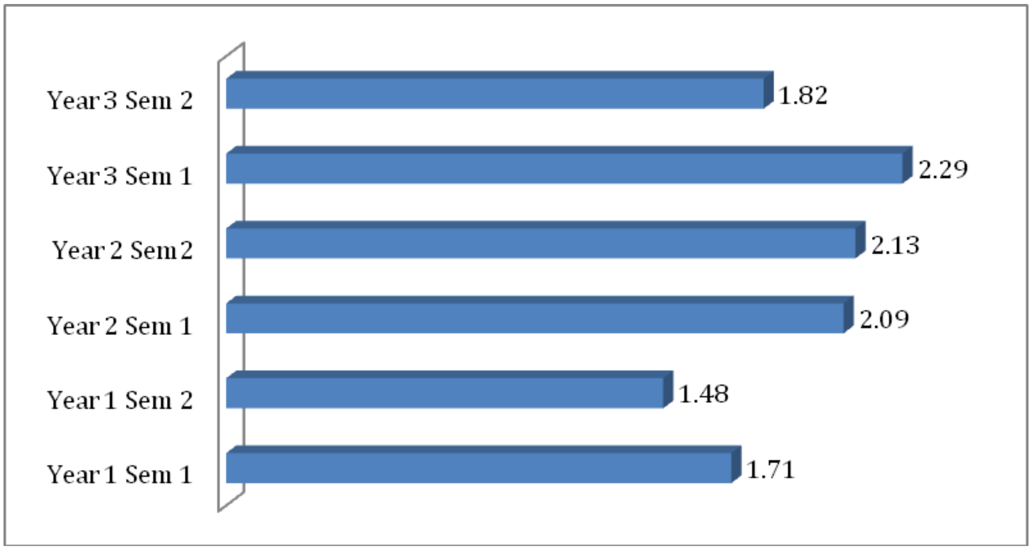
Percentage	Letter Grade	Grade Point Average
90%-100%	A	4.0
80%-89%	B	3.0
70%-79%	C	2.0
60%-69%	D	1.0
0%-59%	F	0.0

Figure 4.2 Student GPA Before Coming to CAA and During.



In Figure 4.2, student's GPAs are shown. Note that students who transferred to CAA have a second line below the first indicating their GPAs from their previous schools. In over half of the transfers (7 of 12), GPAs improved at CAA. Most students transfer to CAA when they are experiencing academic or social problems at their other school already, and often it takes a year to demonstrate ample GPA gain (See Figure 5.1).

Figure 4.3 CAA Student Grade Point Average 2006-09.



From the above graphs two trends are evidenced: (1) First students tend to increase their GPA once they enter the CAA and, (2) students, on average, maintain a consistent GPA from term to term. Generally, there were not huge gains or decreases in GPA once enrolled in the CAA program.

Overall, GPA by semester was not necessarily a precise enough measure to pick up on student learning gains at CAA. When pre and post-tests were explored with unit measures, a more sensitive measure was obtained.

Pre and Post Unit Testing

Teachers designed a pre-test and post-test to assess the accumulated skill and content knowledge gained throughout a unit of instruction using the perceived-risk curriculum. The pre and post-tests contained the same test items. The following table illustrates that many students made significant gains in content knowledge and skills. The results follow.

Figure 4.4 Holocaust Unit Gains.

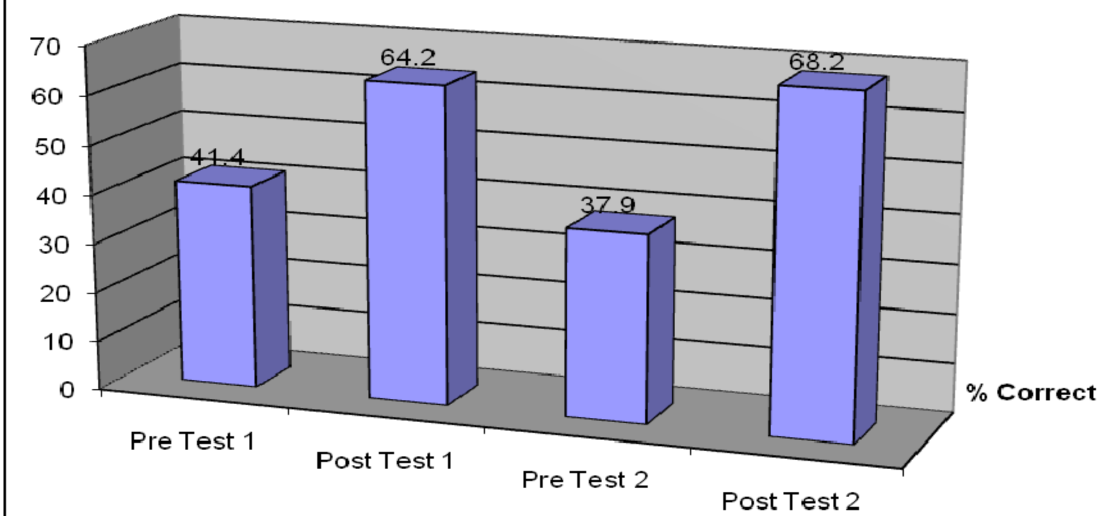


Figure 4.3 demonstrates that the unit of instruction in which most perceived-risk curriculum was employed yielded student gains. On average, students improved 22.8% from Pre-test 1 to Post-test 1 and 30.3% from Pre-test 2 to Post-test 2.

The Wanberg Instrument

This is a comprehensive, 145-item self-report instrument that was administered in a classroom setting at CAA by a school counselor. This instrument is designed to give feedback about student alcohol and other drug risk factors and use, family disruption, peer influence, attitudes toward alcohol and other drugs, attitudes toward school and family, use of the arts, self-control and self-reflection (See Table 3.1)

Data from the Wanberg instrument was collected in two administrations: pre and post. The items that were selected were entered into a common array and concurrently analyzed to obtain item parameter estimates and person skill level estimates. The points of interest in this particular analysis were the person level skill estimates, to compare across both administrations. While there is extensive literature on the way to employ Rasch Models (Bond & Fox, 2007; Schumacker & Smith, 2007) the researcher was simply interested in gaining a crude estimation of whether individual student estimates changed. Simply put, researchers recognize the limitations of completing a probabilistic analysis of the data with a sample of 22 participants that had a repeated measure. Readers will notice that most of the items have a high standard error of measurement. This is due to limited sample size. Thus readers are encouraged to interpret it with caution.

To make sense of the large amounts of data, two subsets were chosen from the items, one focusing on pro-social behavior, the other on decreasing deviant risky behaviors, as these were the central focus of the study. Items on the assessment were analyzed for basic fit, but even this is tenuous. Empirical data was plotted against the predicted Item Characteristic Curve and item fit data was analyzed. Fit was used to determine the test items best suited for the students at CAA so that in future years, students will not be asked to take a length 145-question survey in order to determine trends in student behavior. The questions best representing the qualities staff wish to examine which also demonstrate the best item fit could be chosen in the future to help reduce testing fatigue and provide accurate responses. Remaining item-fit data and analysis can be found in Appendix C.

From the following list of fifteen test items, which represent pro-social behavior, the twelve with the best fit on the Rasch model were chosen to represent the "Pro-Social Behavior Subset." Test items 1, 14 and 15 (formerly 1, 82 and 123 respectively on the original Wanberg Instrument) were discarded, as their fit was not as predictive of measurement as the other twelve test items.

Table 4.2 The Modified Subset for "Pro-Social Behaviors" from Wanberg Instrument.

Question Numbers	**Optimal Answer**	**Quality Targeted by Questions**
18, 19	E - Almost every day	These questions represent frequency of the use of the visual art.
26, 28	D - All the time	These questions represent forethought in decision-making.
30 - 33	D - Very often	These questions represent the frequency of reflection upon actions and consequences.
34	D – Very Often	This question represents the frequency of choosing a healthy alternative over drugs or alcohol.
39, 45	D – All of the Time	These questions represent the frequency of successful refusal strategies and implementation of more cognitive choices.
47	D – Yes, A lot	This question represents how comfortable students are speaking about themselves in a group or a classroom.

Figure 4.5 displays the optimal Item Characteristic Curve for all of the items that were used to develop the scale. Figure 4.6 displays the Item Characteristic Curve for an item with poor fit demonstrating why the item was struck from the scale. The remaining Item Characteristic Curves are including in Appendix C.

With this Rasch modeling procedure, readers will notice a series of lines and curves. The line with the "x" demonstrates the empirical findings; the solid line demonstrates the predicted model, while the thinner lines model the standard error of measures. Appendix C lists the overall item error measurement. Not surprisingly with such small samples, the standard errors of the measure are large.

Figure 4.5 Successful Fit Item Characteristic Curve plotted with Empirical Data for Item #7, Been able to make good decisions on your own. (Wanberg 31).

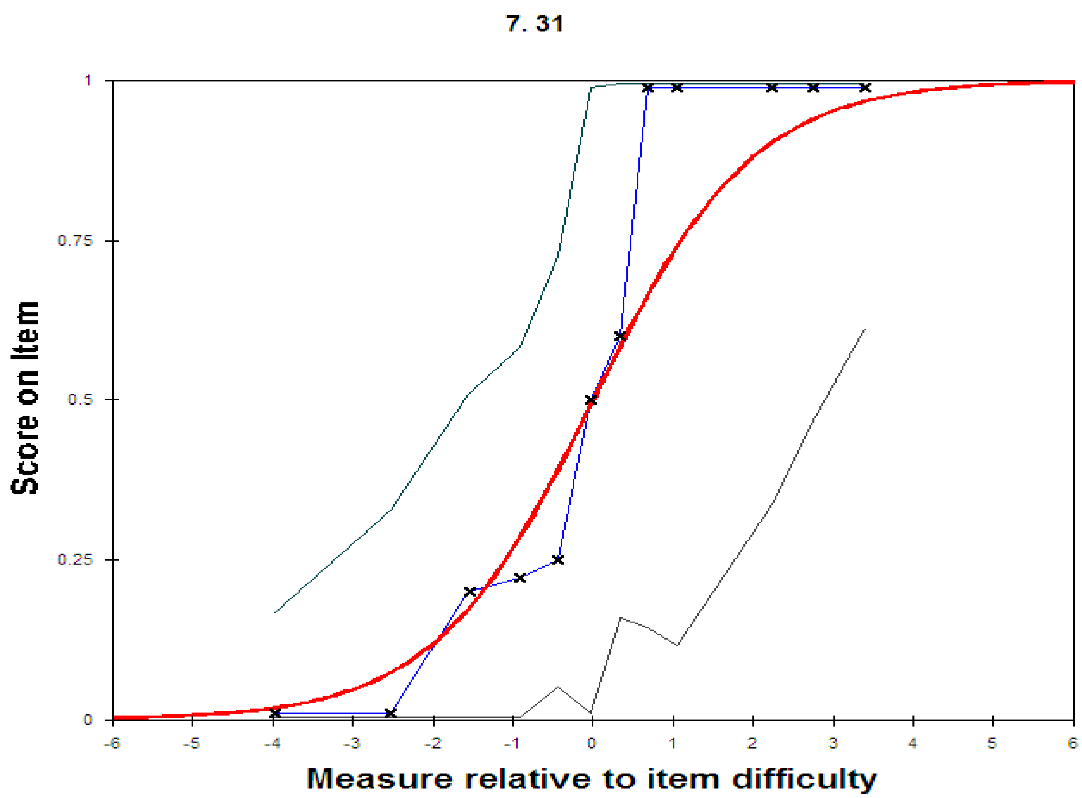


Figure 4.5 shows the Item Characteristic Curve for Item #7 in the revised "Pro-Social" sample. This item related to the construct of pro-social behaviors (Been able to make good decisions on one's own), as defined in chapter three. This item demonstrates that as students increase in their ability level on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure 4.6 Poor Fit Item Characteristic Curve plotted with Empirical Data for Item #9, Did you get a ticket for traffic violation? (Wanberg 111).

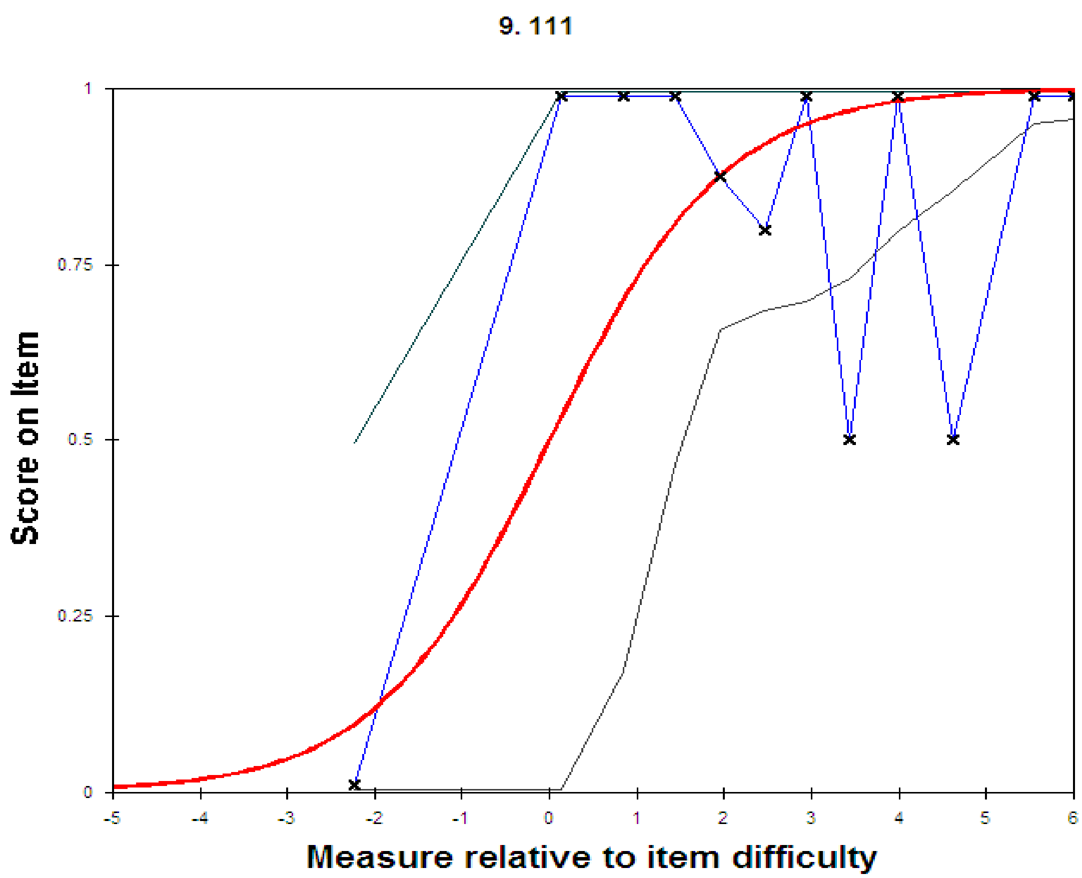


Figure 4.6 shows the Item Characteristic Curve for Item #9 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Did you get a ticket for traffic violation), as defined in chapter three. This item

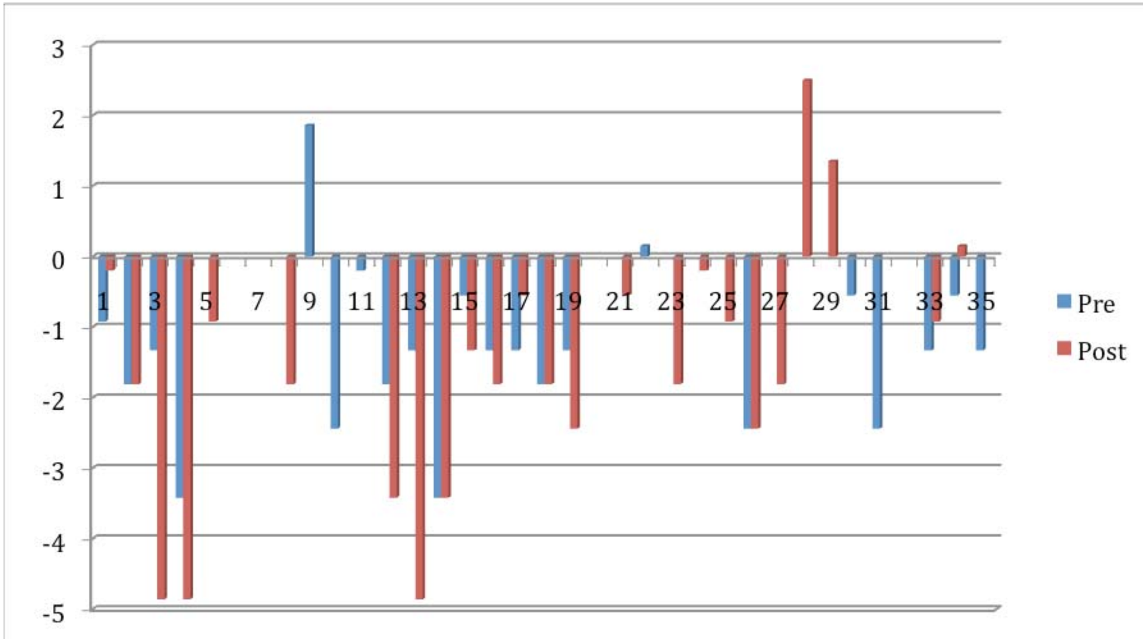
demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a very erratic response pattern. Thus, the item is probably functioning poorly. This item was struck from the "Deviant Risk" subset for its poor fit.

Table 4.3 The Modified Subset for "Deviant Risk Behaviors" from Wanberg Instrument.

Question Numbers	**Optimal Answer**	**Quality Targeted by Questions**
99-102	A – For Sure No	These questions represent attitudes toward drugs and alcohol.
104, 110	A – No	These questions represent the frequency of criminal activity in the previous three months.
113, 115, 116, 119	A – Never Used	These questions represent frequency and type of drug use.

From the following list of twelve test items, which represent deviant risk behavior, the ten with the best fit on the Rasch model were chosen to represent the "Deviant Risk Behavior Subset." Items 1 (formerly 42 on the original Wanberg Instrument) and 9 (formerly 111 on the original Wanberg Instrument) were discarded, as their fit was not as solid as the other ten test items. Fit can be described as following a distinctive pattern specific to this assessment model, and in this case, the pattern represents how difficult certain behaviors are to achieve by certain numbers of students.

Figure 4.7 Wanberg Summary Data of Pro-Social Data from Pre to Post test.



In Figure 4.7, CAA students demonstrated their participation in pro-social behaviors. A lower score correlates to lower participation in pro-social behavior, and conversely, a higher score correlates to higher participation in pro-social behavior. Seven students showed improvement though not necesssarily in a statistically significant way. Three students reamined the same, and four students showed declines.

Figure 4.8 Wanberg Summary Data of Deviant Risk Behavior from Pre to Post test.

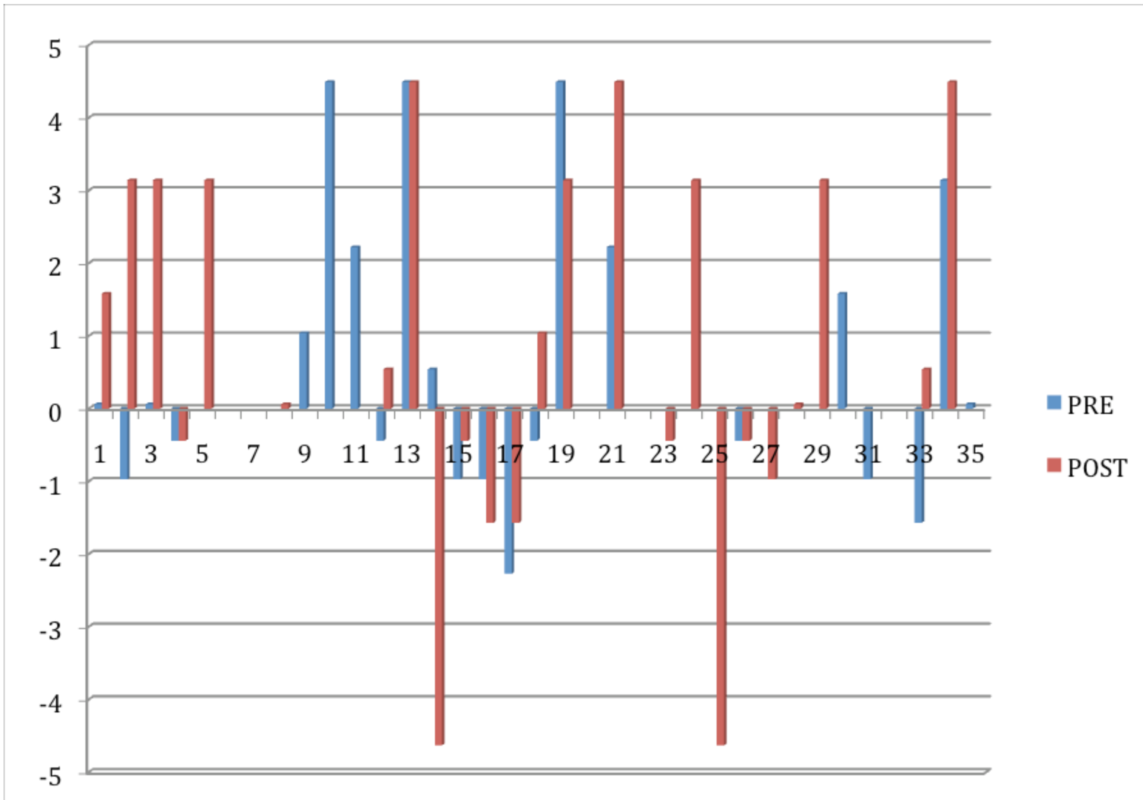


Figure 4.8 illuminates pre-post scores at the individual level, not at the aggregated level. These averages include extreme person estimates. Ten students showed improvement though not necesssarily in a statistically significant way.

Figure 4.9 Pre and Post Test Wanberg "Pro-Social Behavior" Data - Averaged.

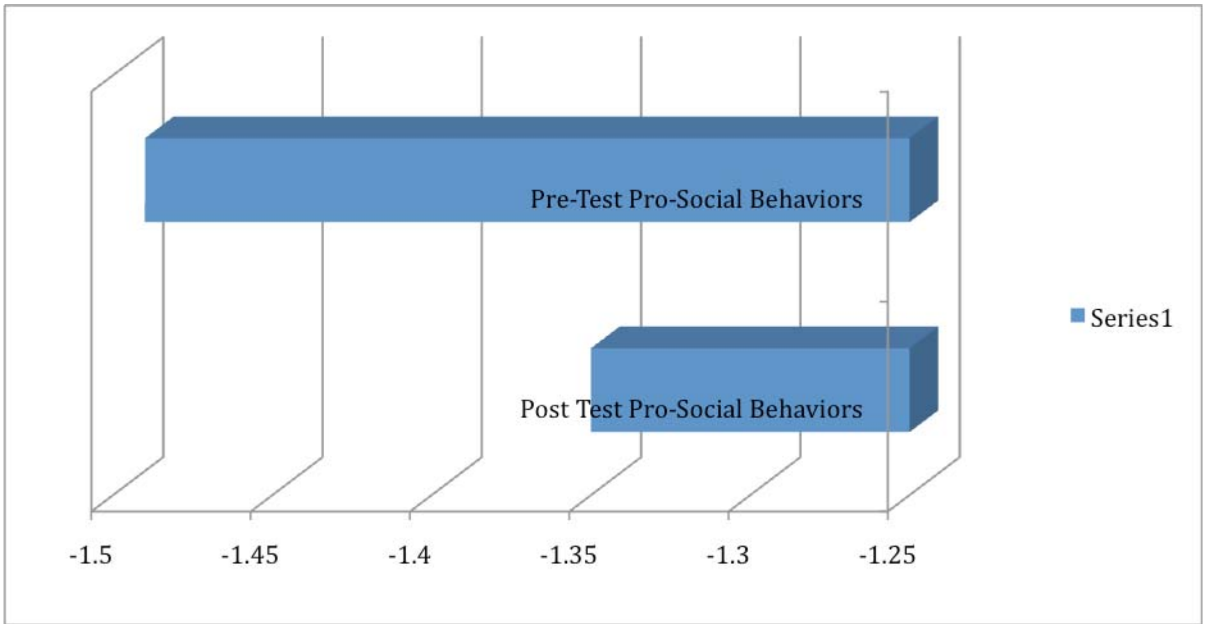


Figure 4.9 shows a small (approximately .13 logit) increase in average participation in pro-social behaviors. This is an average of all student participants, and not an intact cohort. Lower scores indicate lower participation in pro-social behaviors in this figure, and higher scores indicated higher participation in pro-social behaviors. Thus, students improved from an average score of -1.5 to -1.37 in their participation in pro-social behaviors.

Figure 4.10 Pre and Post Test Wanberg "Deviant Risk Behavior" Data - Averaged.

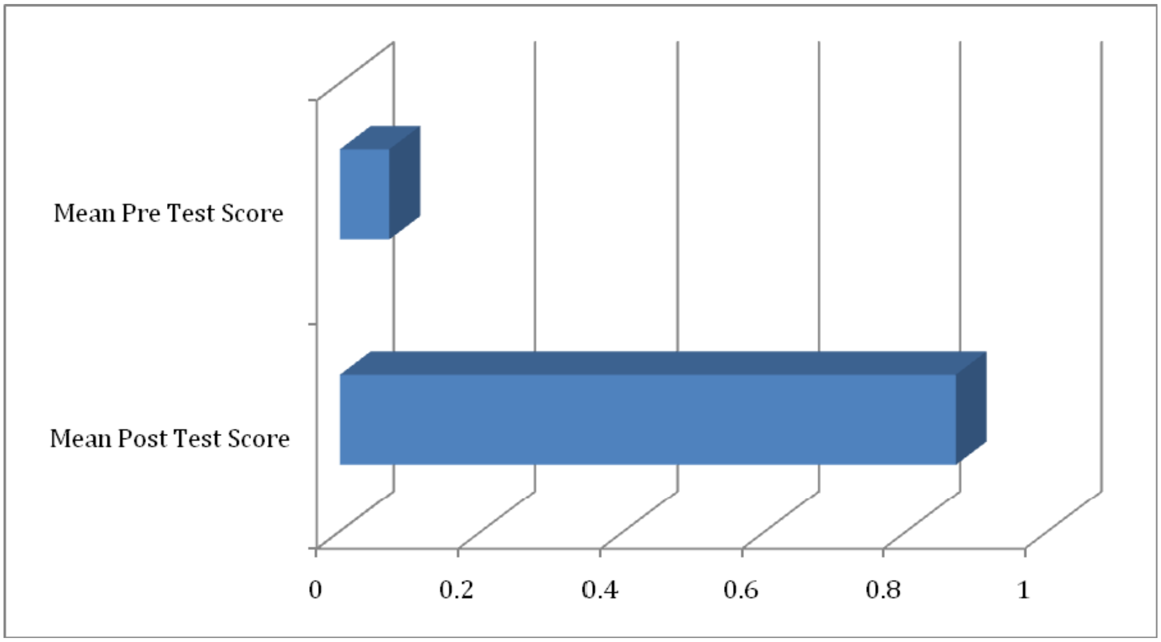


Figure 4.10 shows nearly a .8 change in the logit value between averaged pre and post on "Deviant Risk" Behaviors. This is an average of all student participants, and not an intact cohort. Lower scores indicate greater participation in deviant-risk behaviors in this figure (meaning failure to reject risky behaviors), and higher scores indicated lower participation in deviant-risk behaviors (meaning success in rejecting risky behaviors). Thus, students improved from an average score of 0 (pre-test) to .8 (post-test) in their rejection of deviant-risk behaviors.

Quantitative Data Summary

Quantitative data demonstrated mixed results. Though GPAs decreased during the term of intervention (See Figure 4.3), Carnegie units earned increased very slightly (See Figure 4.1) and pre/post test unit data was promising (See Figure 4.4). On average, students demonstrated improved participation in pro-social behaviors (See Figure 4.9) and decreased participation in deviant risk behaviors (See Figure 4.10).

Sample sizes were very small so causal connections between perceived-risk curriculum and improvement or decline cannot be determined with certainty, though there is reason to advocate for continued testing of perceived-risk curriculum in larger sample sizes.

CHAPTER V – QUALITATIVE RESULTS

To most effectively answer research question #2, “How do students and teachers feel about the perceived-risk curriculum and their roles” the researcher employed qualitative measures including field notes, student activity surveys, teacher activity surveys, student interviews, teacher interviews, and a final perceived-risk, senior advocacy project. The data from each will follow in this chapter.

Perceived-risk curriculum activities include: The Outside, Holocaust Survivor Presentation, Holocaust Memorial Trip, Newspaper Search and Presentation, Mental Health Project and Presentation and the Holocaust Art Gallery. In this chapter, these perceived-risk activities will be described by the teachers who taught them, then the activity description will be followed by data from student and teacher activity surveys. In instances where the researcher was observing and taking field notes, those will follow the teacher activity surveys. This information will be followed by the control activities, similarly analyzed. Control activities include Chapter 4 Review and Chapter 4 Test. The student surveys were administered after the activity was completed and the teacher surveys were similarly completed following the activity. Analysis by survey question follows.

After the curriculum is examined by activity, eight student interviews are detailed by question with threads noted beneath each. Two teacher interviews follow. An account of the senior advocacy project rounds out of the chapter.

Researcher Field Notes

Though the study primarily focuses on the use of perceived risk curriculum within the school day context, the researcher had the opportunity to observe the CAA students engage in artistic, perceived-risk activities in several outside-of-school contexts throughout the term. Themes emerged and are documented below.

Researcher Field Notes from Outside of School Events.

CAA students participated in artistic venues outside of school during the second semester of 2009 (the intervention term). No CAA student chose to participate in sports or other non-artistic district-sponsored activities. Three CAA students had notable roles, and four more worked backstage on make-up and house management in the school district's musical production of *Aladdin.* The students who joined the crew suggested they wanted to support their onstage friends. All made it to the cast and crew party after the play despite the attendance of other students, most of whom attend the regular high school and some of whom had not always been kind to the CAA students in the past.

Poetry Night featured the poetry of three CAA students, one who was too nervous to read her work aloud. The second place winner for the district-wide event was a student from CAA. He had recently come out about his sexuality, and his poem made vague references to this self-discovery. He admitted to the researcher having been very nervous about "sharing a part of himself," but his presentation was well received. He was relieved and proud to have shared his poem in front of the community.

Broadway Night, the regular high school's theatre showcase at the end of the year, was attended by several CAA students, two of whom joined the other cast members on stage to sing the finale. One of the students who reported that she did not like engaging in the perceived-risk curriculum because she was shy attended the event and stood in the back to watch the entire show.

Field Note Findings – Overall Assessment.

Though most of the students reported on surveys and in interviews that they did not experience risk in most of the perceived risk or control activities, their physical behaviors and verbal self-admissions do not support these assertions. Physical symptoms of eustress (positive stress), excitement and sometimes distress were evidenced by the researcher in the situations she observed. Interestingly, the students who were involved in two of the three events listed above demonstrated higher grades and more credits completed than their CAA peers who did not participate in the artistic events: on average students who engaged in two or more outside of school artistic venues during the second semester earned a GPA of 3.09 (B average) versus the CAA average GPA of 1.82 (C+ average) for the same term.

The Outsider – Perceived Risk Curriculum (as conveyed by the instructing teacher, Teacher W)

Activity Goals.

1. Introduce the Holocaust unit by bringing history to life and reinforce the idea that history is more than events that happened to others in the past.
2. Help students to feel in a visceral way what it would be like to ostracize a friend or peer and not be able to stop the process.
3. Help students connect history to the moral choices they make in their own lives today.
4. Help students look at the choices ordinary people made – or did not make – that allowed this horrific chapter in history to occur.

Activity Process.

1. Arrange students in a large, open area like the gym.
2. Have them take their shoes off and leave the shoes in pairs around the floor.
3. Excuse the students and have them wait outside the room for one moment as the instructor take one shoe from one student's pair.
4. The instructor hides the single shoe and invites the students back to find their shoes.
5. When the student missing a shoe realizes that s/he has only one shoe, the game begins.
6. The remaining students put on their shoes, take a newspaper from the stack provided and join each other in a circle around the shoeless student.

7. The shoeless student has no newspaper, and s/he must ask, beg, cajole, or use any non-physical strategy to gain admittance to the circle.
8. Students in the circle with the newspapers read their papers and ignore the shoeless person in the center.
9. When the student has determined that s/he cannot take the rejection and being ignored anymore, s/he falls down in the center of the circle.
10. The remaining students take newspapers and shred them, covering the shoeless person in the center of the circle.
11. When all the papers have been shredded and the person is covered completely, the circle stands around the covered person and chants the years of the Holocaust aloud together.
12. When the group has finished by chanting the last year, “1945,” all members of the circle reach through the newspapers and help up the shoeless person.
13. All circle members have to welcome the shoeless person back into the group with a hug or handshake or backslap (whatever is appropriate for the student).
14. The shoe is returned and all students stand together in the circle until the instructor asks them to sit together.
15. Students reflect upon the experience in the circle.

Activity Perceived Risk.

1. Students may feel anger for not being allowed to let their classmate re-enter the circle.
2. The student who is in the center can become anxious as s/he is disallowed entry to the circle and is ignored.

3. Some may enjoy excluding the student, but, upon reflection, these students may feel a sense of guilt about their own prejudices and intolerances.
4. Students may feel a sense of helplessness in their ability to prevent current similar situations in the world.
5. Students may feel put on the spot or self-conscious as the shoeless student asks them for admission to the circle and they have to refuse.

Table 5.1 *Student Activity Survey Data for The Outsider.*

Perceived Risk The Outsider N=13						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Results
3. I enjoyed today's activity…	1 (7.7%)	0 (0%)	4 (30.8%)	7 (53.8%)	1 (7.7%)	53.8% Pretty much
4. I felt connected to and engaged in learning during this activity…	0 (0%)	1 (7.7%)	3 (23.1%)	8 (61.5%)	1 (7.7%)	61.5% Pretty much
5. During this activity, I felt that the activity was (for me)… Risk for yourself	9 (69.2%)	1 (7.7%)	3 (23.1%)	0 (0%)	0 (0%)	69.2% Not at all
6. During this activity, I felt that the activity was (for other students)…	8 (61.5%)	2 (15.5%)	2 (15.5%)	1 (7.7%)	0 (0%)	61.5% Not at all
9. I felt academically successful…	2 (15.5%)	0 (0%)	2 (15.5%)	6 (46.2%)	3 (23.1%)	46.2% Pretty much

Overall assessment.

The perceived-risk activity, *The Outsider*, was fairly enjoyable (53.8%, Pretty much). The activity was engaging (61.5% Pretty much, and 7.7% A lot). The activity was not deemed risky (69.2% Not at all). After *The Outsider*, students felt academically successful (46.2% Pretty much, 23.1% A lot).

Table 5.2 *Student Activity Result Survey Comment Data for The Outsider Activity.*

Negative Comments	**Neutral Comments**	**Positive Comments**
	People seem to care what other people think of them.	
	This was weird.	
	I learned that it would not feel good to be left out. I was glad I was part of the group.	
		It was fun, it was something I was interested in.
		I learned what the Jews may have gone through
		I learned a lot! It was really fun!
		I liked that we were active.
		It was fun.
I didn't like standing for a long time.		
		I liked when we teared (sic) up the paper and what is symbolized.
		I liked that Ms. W was teaching it.
	Nothing was un-enjoyable.	

Overall assessment.

Students offered seven positive remarks and one negative remark. Student comments demonstrate that the perceived-risk activity, *The Outsider*, was generally considered to be "fun" and "active" and a successful opportunity for learning. One student noted the novelty of a new instructor. One pregnant student commented that she did not like "standing for a long time." Another demonstrated the point of the lesson by saying, "I learned that it would not feel good to be left out. I was glad I was part of the group."

Table 5.3 *Teacher Activity Result Survey Data for The Outsider.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	As an Anticipatory Set
4. I felt most students connected to and engaged in learning during this activity…1-5	(4) Pretty much. The students demonstrated engagement in facial expressions, compliance with instructor requests and non-verbal cues. They understood the point of the exercise after the discussion.
5. During this activity, I felt that the activity was (for most of my students)	(3) Some risk. This is a risky exercise for some students. The student who is shoeless is most at risk 5. Although the students think this student was chosen at random, I chose the student knowing he was a well-balanced student with a good self-image so the risk would be minimized.
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(2) A little hard (managing, not planning) Keeping the kids engaged is not so hard but you have to also keep them a bit off base and cannot tell them too many instructions too soon.
7. How time consuming was the lesson to prepare and to conduct?	(2) A little hard - It takes about 40 minutes and the instructor is “on” the whole time.
8. In this activity, how academically successful were most students?	(4) Successful. They understood the point, and they enjoyed the exercise.
9. How likely is it that you would repeat this activity?	(5) Very likely

Overall assessment.

Instructor comments demonstrate that the perceived-risk activity, *The Outsider*, was generally considered to be successful, and that students were generally engaged throughout. The instructor thought that this exercise would have produced a risk effect in most students to a moderate level and to a high degree in the student selected to be in the spotlight.

Researcher Field Notes for The Outsider

The researcher conducted the perceived-risk activity *The Outsider* to model the technique for CAA teachers.   One teacher was in attendance the other chose not to watch. Students giggled as they removed their shoes and set them around the gym. One very pregnant student was hesitant to participate but did. Students seemed eager to please the researcher and stayed on task for the most part. Students did not seem nervous or anxious once their own shoes had been identified. They seemed somewhat relieved to not have been chosen as the student in focus. The student who was chosen balked for a moment as he realized his shoes were missing and that he was chosen to be in the spotlight. Some peers checked behind each other's newspapers to see if they were "doing the right thing." Students each exhibited different strategies for keeping the shoeless student out of the circle. The shoeless student was not terribly resourceful. He gave up easily and had to be encouraged to keep moving in the circle. Students relished covering him in newspaper shreds. Some students revealed feeling bad that they could not help him. The teacher was as interesting to watch as the students. She was trying very hard at first to maintain order, wanting to make certain the researcher would not judge her classroom management harshly.

Holocaust Survivor Presentation – Perceived Risk Curriculum (As conveyed by the instructing teacher, Teacher X)

Activity Goals.

1. Help students acquire knowledge and skills outside of books and lectures.
2. Bring history to life and reinforce the idea that history is more than events that happened to others in the past.
3. Help students connect history to the moral choices they make in their own lives today.
4. Help students understand the impact of their own everyday choices and help them realize their potential as active participants in creating history. They look at the choices ordinary people made – or didn't make – that allowed this horrific chapter in history to occur.

Activity Process.

1. Arrange through the Oregon Holocaust Resource Center's *Speakers' Bureau* for a Holocaust survivor to present his/her personal experiences to the students. This activity is best done as the last activity in the Holocaust Unit, so the students can better relate to and understand the significance of the survivor's experiences.
2. Brief students on appropriate manners, behavior and type of questions to ask the survivor.
3. Remind students of assessment to take place covering the content of the presentation, which will include personal comments and feelings about the event.
4. Make all necessary arrangements with the district for transportation, etc.

Activity Perceived Risk.

1. Students may feel anger for the lack of early intervention by the USA/world during that time in history.
2. Students may feel a sense of guilt about their own prejudices and intolerances.
3. Students may feel a sense of helplessness in their ability to prevent current similar situations in the world.
4. Students may feel self-conscious about their own relatively easy teenage lives in comparison to the survivors.
5. Students may become confused about their belief in God or other spiritual values, asking the question “Why didn’t God stop the Holocaust?”
6. Students may feel fear that something like this could happen to them.

Table 5.4 *Student Activity Survey Data for Holocaust Survivor Presentation.*

Perceived Risk Holocaust Survivor Presentation N = 14						
Question	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	2 (14.3%)	1 (7.1%)	2 (14.3%)	4 (28.6%)	5 (35.7%)	35.7% A lot
4. I felt connected to and engaged in learning during this activity…	1 (7.1%)	1 (7.1%)	4 (28.6%)	3 (21.4%)	5 (35.7%)	35.7% A lot
5. During this activity, I felt that the activity was (for me)… Risk for yourself	7 (50%)	6 (42.9%)	1 (7.1%)	0 (0%)	0 (0%)	50% Not at All
6. During this activity, I felt that the activity was (for other students)…	7 (50%)	4 (28.6%)	2 (14.3%)	1 (7.1%)	0 (0%)	50% Not at All
9. I felt academically successful…	2 (14.3%)	3 (21.4%)	2 (14.3%)	4 (28.6%)	3 (21.4%)	28.6% Pretty much

Overall Assessment

The perceived-risk activity, Holocaust Survivor Presentation, was enjoyable to 64.3% of students (28.6%, Pretty much, and 35.7% A lot). The activity was engaging (21.4% Pretty much, and 35.7% A lot). The activity was not deemed risky by the great majority of students (50% Not at all, 42.9% Not Much). After Holocaust Survivor Presentation, half the students felt academically successful (28.6% Pretty much, 21.4% A lot).

Table 5.5 *Student Activity Result Survey Comment Data for Holocaust Survivor Presentation.*

Negative Comments	**Neutral Comments**	**Positive Comments**
	It was risky for others because it could cause emotions.	I learned a lot.
It was stupid		
		He (the speaker) was really nice. It was really sad.
		I was really paying attention and I was emotionally connecting. Learning it was sad for me, but I liked learning about it. I felt what he was saying.
		I liked listening to his story.
		Being able to share what I have to say about the subject.
		It was eye-opening. It was sad. But I liked getting to hear about someone who has actually went (sic) through that.
He was monotone during his speech.		It was good. I liked him coming and sharing with us about what it was like during the Holocaust.
		Ms. X is a great teacher and I loved how she has taught us.
I almost fell asleep		I liked that he explained what specific things that happened to him.
		Didn’t have to go to school during his speech.
I was tired and I almost fell asleep.		I liked learning about his story.
		I liked that he was nice and explained things very well. I love Ms. X
I was stuck in a chair.		I liked learning something.

Overall Assessment.

Students offered fifteen positive remarks and five negative remarks. Student comments demonstrate that the perceived-risk activity, Holocaust Survivor

Presentation, was a good opportunity for learning. One student wrote that the event was “stupid,” but according to an interview with the teacher, verbally told the teacher that the presentation was very rewarding. Apparently one student made comments during the event, as s/he reported that s/he most enjoyed “being able to share what I have to say about the subject.” Three students remarked that the event was sad but that it was a positive learning opportunity.

Students seemed to care about their relationships to the speaker and the teacher. Students thought the speaker was “nice” and enjoyed hearing his story. Two students specifically mentioned the teacher who arranged the trip and their positive feelings toward her.

Table 5.6 *Teacher Activity Result Survey Data for Holocaust Survivor Presentation.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	As an Anticipatory Set To Convey Content
4. I felt most students connected to and engaged in learning during this activity…	(5) A lot
5. During this activity, I felt that the activity was (for most of my students)	(2) A little risky
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(1) Not hard. Another teacher set it up at the high school, and we were invited to come along.
7. How time consuming was the lesson to prepare and to conduct?	(2) A little hard. I just had to set up bussing and that kind of thing.
8. In this activity, how academically successful were most students?	(5) Very successful
9. How likely is it that you would repeat this activity?	(5) Very likely

Overall Assessment.

Instructor comments demonstrate that the perceived-risk activity, Holocaust Survivor Presentation, was generally considered by the teacher to be successful and that students were generally engaged throughout. The instructor thought that this exercise would have produced a slight risk effect in most students. It was not difficult to prepare for or to administer, and she would be very likely to conduct this activity again in the future.

Holocaust Memorial Trip – Perceived Risk Curriculum (As conveyed by the instructing teacher, Teacher X)

Activity Goals.

1. Help students acquire knowledge and skills outside of books and lectures.
2. Help students learn the importance of paying homage to those who lost their lives during that period.
3. Encourage students as future generations to be accepting of all good people, regardless of personal choices.
4. Show students concrete evidence of victims in the names engraved on the Memorial Wall of local families' losses.
5. Help students understand how important it is to the families to have an actual place (like a grave) to visit – the purpose of this site is to memorialize their loved ones and other millions murdered in the Holocaust.
6. Finally, show student how relevant the teachings of the Holocaust are to life today – the memorial stands as a living testament to courage.

Activity Process.

a. Prior to the Oregon Holocaust Memorial tour, students are taught a lesson from the National Holocaust Museum, which includes a *virtual* tour of the museum with questions and explanations of the artifacts. The students are to look for similarities and differences in the two tours.
b. Arrange though the Oregon Holocaust Resource Center a tour of the Memorial, including two guides who are direct family member of a victim of the Holocaust.
c. Make all necessary arrangements with the district for transportation, etc.

Activity Perceived Risk.

1. Students may be overcome with emotion at the somber reminder of how close to home is the impact of the Holocaust.
2. Students may feel small and helpless in how little they are able to do to prevent similar events. 3. Students may be reminded of a personal loss in their own lives.

Table 5.7 *Student Activity Survey Data for the Holocaust Memorial Trip.*

Perceived Risk Holocaust Memorial Trip N = 20						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	1 (5%)	0 (0%)	4 (20%)	7 (35%)	8 (40%)	40% A lot
4. I felt connected to and engaged in learning during this activity…	1 (5%)	0 (0%)	6 (30%)	4 (20%)	9 (45%)	45% A lot
5. During this activity, I felt that the activity was (for me)… Risk for yourself	14 (70%)	3 (15%)	1 (5%)	2 (10%)	0 (0%)	70% Not at all
6. During this activity, I felt that the activity was (for other students)…	15 (75%)	2 (10%)	3 (15%)	0 (0%)	0 (0%)	75% Not at all
9. I felt academically successful…	1 (5%)	2 (10%)	3 (15%)	8 (40%)	6 (30%)	40% Pretty Much

Overall Assessment

The perceived-risk activity, Holocaust Memorial Trip, was enjoyable (35%, Pretty much, and 40% A lot). The activity was engaging (20% Pretty much, and 45% A lot). The activity was not deemed risky (70% Not at all). After Holocaust Memorial Trip, students felt academically successful (40% Pretty much, 30% A lot).

Table 5.8 *Student Activity Survey Comment Data for Holocaust Memorial Trip.*

Negative Comments	**Neutral Comments**	**Positive Comments**
		It was really powerful.
		I learned a lot.
		The tour was good.
	It was hard to see people there thinking about their families and stuff.	
		I am glad I am learning about this.
		The guide was good.
		I was real interested the whole time.

Overall Assessment

Students offered six positive remarks and zero negative remarks. Student comments demonstrate that the perceived-risk activity, Holocaust Memorial Trip, was a successful opportunity for learning. Students thought the tour was “powerful,” “good” and interesting. One student was particularly moved by the people s/he saw on the benches, presumably “thinking about their families.”

Table 5.9 *Teacher Activity Survey Data for Holocaust Memorial Trip.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Review Content To Convey Content As an Anticipatory Set
4. I felt most students connected to and engaged in learning during this activity…	(5) A lot
5. During this activity, I felt that the activity was (for most of my students)	(3) Some risk; There were people there visiting the names on the wall, and the students saw them there thinking. They were almost embarrassed for them - or lack of a better word. It made the kids realize their problems are so small.
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(2) A little hard – I worked for the Holocaust Center for years, so it was not hard. If I were a beginning educator, I would have said it was harder. But I have been teaching for 30 years, so this was not hard for me. I know how to organize a trip.
7. How time consuming was the lesson to prepare and to conduct?	(4) Hard. It was not difficult, but it was a full day, but the tour was an hour. I teach a lesson on the way there and conduct a discussion on the way back. It is a time called reflection. A whole lot of learning happens in reflection. They were to think of one thing that came to them from the experience. If someone says “your thing,” you can chime in at that time.
8. In this activity, how academically successful were most students?	(5) Very Successful
9. How likely is it that you would repeat this activity?	(5) Very likely, not at this school for these kids because they are the same kids. But in a few years I would.

Overall Assessment

Instructor comments demonstrate that the perceived-risk activity, Holocaust Memorial Trip, was considered by the teacher to be successful and that students were very engaged throughout. The instructor thought that this exercise would have produced some risk effect in most students. It was not difficult to prepare for or to administer, though it did take full day of time. She would be very likely to conduct this activity again in the future.

Newspaper Search and Presentation – Perceived Risk Curriculum (As conveyed by the instructing teacher, Teacher X)

Activity Goals.

1. Support language and literacy development
2. Provide opportunities for student to improve listening skills and respect for speakers.
3. Help students learn about news media
4. Stimulate an interest in current events
5. Support learning across the curriculum, especially public speaking.
6. Promote higher level thinking, making comparisons among stories, associating stories with personal experiences, recalling similar stories on T.V. or radio.
7. Stimulate independent reading outside of school
8. Support character development, i.e. articles about people who have returned things that they've found, people who have set goals and worked hard to achieve those goals, articles about heroes, people who help others, about people, especially kids, who have made bad choices.

Activity Process.

a. Establish a specific day for the activity (every Friday).
b. Collect daily papers throughout the week.
c. Explain the grading process, which includes a listening and reporting-out grade.

d. Explain which articles count for the activity and which do not, i.e. advertisements do not count.

e. Select a different student each newspaper day to make a speaking-order list.

f. Ask for student volunteers to distribute papers/sections of papers on newspaper day.

Activity Perceived Risk.

1. Risk of ridicule for choice of article.
2. Fear of speaking in front of class.
3. Risk of not reading carefully enough to report-out without looking at the article.
4. For the list-maker, fear of retaliation for the speaking order.

Table 5.10 *Student Activity Survey Data for Newspaper Search and Presentation.*

Perceived Risk Newspaper Search and Presentation N = 11						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	1 (9.1%)	2 (18.2%)	2 (18.2%)	2 (18.2%)	4 (36.4%)	36.4% A lot
4. I felt connected to and engaged in learning during this activity…	1 (9.1%)	3 (27.3%)	1 (9.1%)	4 (36.4%)	2 (18.2%)	36.4% Pretty Much
5. During this activity, I felt that the activity was (for me)… Risk for yourself	6 (54.5%)	3 (27.3%)	1 (9.1%)	1 (9.1%)	0 (0%)	54.5% Not at all
6. During this activity, I felt that the activity was (for other students)…	4 (36.4%)	4 (36.4%)	1 (9.1%)	1 (9.1%)	1 (9.1%)	Tie: 36.4% Not at all, Not much
9. I felt academically successful…	2 (18.2%)	0 (0%)	3 (27.3%)	3 (27.3%)	3 (27.3%)	Tie 27.3% - Some, Pretty much, A lot

Overall Assessment

The perceived-risk activity, Newspaper Search and Presentation, was enjoyable (18.2%, Pretty much, and 36.4% A lot). The activity was engaging (36.4% Pretty much, and 18.2% A lot). The activity was not deemed risky (54.5% Not at all). After Newspaper Search and Presentation, most students felt academically successful (27.3% Some, 27.3% Pretty much, 27.3% A lot).

Table 5.11 *Student Activity Survey Comment Data for Newspaper Search and Presentations.*

Negative Comments	Neutral Comments	Positive Comments
I was stuck in the room.		I liked reading the news
		I still love Ms. X I like bookwork
		I learned about various things.
I had to watch people show their Powerpoints. I want to do packets, and Ms. X won't do packets.		
		I learned a lot from other people Ms. X is AWESOME! Love it!
I don't like speaking aloud		
Boring class.	IDK (I don't know)	
(What I liked least…) When some people don't do their work and then fight with the teacher about not doing their work.	Some kids here act like they don't know how to read a freakin' newspaper.	We are learning about what is going on in the world today.
		I got to read the article I wanted.
		I (heart symbol) Ms. X
		Ms. X, Get a better job. You are too good for CAA

Overall Assessment

Students offered eleven positive remarks and six negative remarks. Most student comments demonstrate that the perceived-risk activity, Newspaper Search and Presentation, was a relatively successful opportunity for learning. One student did not like that the assignment was not in a packet form though another liked that it was "bookwork." Four students specifically mentioned their positive feelings toward their teacher even suggesting that she "get a better job" because she was "too good for

CAA." At this time in the year, budget cuts were discussed, and Ms. X's job was in jeopardy for the following school year. Students felt the pressure to preserve their teacher, and this seems to be one way to demonstrate that loyalty.

Table 5.12 *Teacher Activity Survey Data for Newspaper Search and Presentations.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Reinforce Skill To Convey Content To Assess Learning
4. I felt most students connected to and engaged in learning during this activity…	(5) A lot. At first, they didn't like it, but it got better as we went on. They GOT it. Some of them started listening to more news so they could add to what they were reading and discussing what they were reading in the paper.
5. During this activity, I felt that the activity was (for most students)	(3) Some risk. Depending on the student, for some it was risky – those who hate speaking out. Others liked it and wanted to be first every time.
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(1) Not hard. I contacted the librarian at the high school and I just got the number of papers delivered after I asked for them, and they would be delivered every day at lunch, and Friday we would sort the news for the whole week. Once the routine was established, it went really well. That is the whole idea of classroom management.
7. How time consuming was the lesson to prepare and to conduct?	(2) A little hard at first. They did not know the expectations at first. Kids learning the routine was hard. And people complaining as we taught the lesson of responsibility. It was tough to get students to respond appropriately to other speakers. To not put down others for their article choice. But as time went on, and 5 minutes after we began, they were quiet and reading and they looked forward to it. Then they began to search for more interesting articles. They wanted to be the one to find the most interesting articles. Even one of the most despondent student would try to find the most interesting article.
8. In this activity, how academically successful were most students?	(5) Very successful. In they end, even kids who would not speak in front of a group would do an oral presentation by the end.
9. How likely is it that you would repeat this activity?	(5) Very likely. You can do it every year because it is current events.

Overall Assessment

Instructor comments demonstrate that the perceived-risk activity, Newspaper Search Presentation, was considered to be very successful and that students were very engaged throughout. The teacher thought that this exercise would have produced a risk effect in most students to a moderate level since there was an expectation of presentation. She did not think it was very difficult to prepare for or to conduct once the patterns had been established with the delivery of the papers and once students had rehearsed the routine.

Mental Health Project and Presentations – Perceived Risk Curriculum (As conveyed by the instructing teacher)

Activity Goals.

1. The students will create an appropriate and effective visual display that will convey meaningful information about their chosen mental health topic.

2. Students will learn about important issues in teen mental health and relationships.

3. Students will work effectively in groups to determine what information is most relevant.

Activity Process

After studying many different mental health issues, students were asked to pick one of those topics and create a public display conveying that information to their classmates and also displayed at open house.

Activity Perceived Risk.

Create their own project and publicly display their learning at Open House for parents, which can, for some of them, be risky.

Table 5.13 *Student Activity Survey Data Mental Health Project Presentations.*

Perceived Risk Mental Health Project and Presentations N = 12						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	2 (16.7%)	1 (8.3%)	5 (41.7%)	4 (33.3%)	0 (0%)	41.5% Some
4. I felt connected to and engaged in learning during this activity…	2 (16.7%)	1 (8.3%)	8 (66.7%)	1 (8.3%)	0 (0%)	66.7% Some
5. During this activity, I felt that the activity was (for me)… Risk for yourself	9 (75%)	1 (8.3%)	2 (16.7%)	0 (0%)	0 (0%)	75% Not at all
6. During this activity, I felt that the activity was (for other students)…	9 (75%)	0 (0%)	2 (16.7%)	1 (8.3%)	0 (0%)	75% Not at all
9. I felt academically successful…	1 (9.1%)	0 (0%)	4 (36.4%)	4 (36.4%)	2 (18.2%)	* Tie: 36.4% Some; Pretty much

* 11 responses to this question

Overall Assessment

The perceived-risk activity, Mental Health Project and Presentation, was somewhat enjoyable (41.5% Some). The activity was somewhat engaging (66.7% Some). The activity was not deemed risky for self or for others (75% Not at all). After Mental Health Project and Presentation, students felt somewhat to pretty academically successful (36.4% Some, Pretty much).

Table 5.14 *Student Activity Survey Comment Data for Mental Health Project Presentations.*

Negative Comments	Neutral Comments	Positive Comments
Sitting in one spot		Doing the work was fun and easy.
(The least enjoyable part is that…) I had to think about dating and depression.	This was about teen dating and depression, and I have lots of experience with dating and depression.	
		I learned about the causes and effects of certain things.
		It was fun and easy.
	It was okay.	
It was so boring.		
		I liked making my poster.
		I liked learning about things I didn't know.
It was boring!		
		I liked making my poster.
		I like drawing.

Overall Assessment

Students offered seven positive remarks and four negative remarks. Student comments demonstrate that the perceived-risk activity, Mental Health Project and Presentation, was a successful opportunity for learning. Students liked that they got to make posters. One student did not like the topic because it targeted emotional issues he faced. Two students reported that the activity was boring.

Table 5.15 *Teacher Activity Survey Data for Mental Health Project Presentations.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Review Content To Assess Learning
4. I felt most students connected to and engaged in learning during this activity…1-5	Questions = (3) Some; Projects = (5) A lot
5. During this activity, I felt that the activity was (for most of my students)	Questions = (2) A little risky, Projects = (3) Some
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(2) A little hard
7. How time consuming was the lesson to prepare and to conduct?	(2) A little hard
8. In this activity, how academically successful were most students?	(4) Successful
9. How likely is it that you would repeat this activity?	(3) Pretty likely

Overall Assessment

The teacher explained she thought this represented perceived-risk curriculum because the students researched the information for posters, crafted posters, and then presented them to an audience of their peers leaving the posters for public display. The researcher might suggest that this exercise did not meet the threshold for perceived risk, and that this represents a more common classroom assessment. The teacher seemed less committed to doing the activity again, perhaps given that the students, in her opinion, were not completely engaged in the learning and were more committed to crafting the project.

Holocaust Art Gallery - – Perceived Risk Curriculum (As conveyed by the one of the instructing teachers, Teachers X, Y and W)

Activity Goals.

1. Provide an opportunity for students to regain interest in school and heal emotionally from their traumas by engaging in hands-on activities.
2. Help students broaden their minds in the areas of art, history, and public speaking.
3. Help students learn that rewards are not only in prizes and public recognition, but also in learning and developing advanced verbal and artistic skills.
4. Help students evaluate history and foster an awareness of the Holocaust through an alternative methodology, where their own creativity and personal abilities become the lesson.
5. Help students demonstrate thinking skills using artistic processes.
6. Present concrete evidence of learning to the parents, district staff and community.
7. Provide an opportunity for students to develop self-esteem and pride in learning.
8. Provide an opportunity for NCA teachers and staff to work as a cohesive educational team.
9. Finally, assess student factual knowledge and comprehension through the question and answer section of the activity (questions from the gallery visitors).

Activity Process.

1. Meet with stakeholders to plan activity.
2. Announce and explain the activity to the students.
3. Distribute project proposal forms to students with deadline for submitting returns.
4. Assist students in developing proposals – type of art media they want to use, message they want to present, creative process used, and materials needed.

5. Discuss student proposals and approve or refine for approval.
6. Procure materials for projects and allow time for students to work on projects.
7. Complete details of Gallery night – invitations, refreshments, room set up, etc.
8. Students set up for Gallery night and practice speeches.

Activity Perceived Risk.

Perhaps the riskiest of all the activities attempted this term, the Holocaust Art Gallery could evoke feelings of risk in students because they are sharing of themselves by creating art, and they are also displaying it to members of the community, peers, parents and teachers. Students are graded on the presentations they make as well as the art and its display. Students may feel risk that their conceptual art is not understood by the community especially since the theme of the gallery is such a deep and touching one.

Table 5.16 *Student Activity Survey Data for Holocaust Art Gallery.*

Perceived Risk Holocaust Art Gallery Review N= 9						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	0 (0.0%)	0 (0.0%)	1 (11.1%)	4 (44.4%)	4 (44.4%)	Tie: 44.4%, Pretty Much, A lot
4. I felt connected to and engaged in learning during this activity…	0 (0.0%)	0 (0.0%)	1 (11.1%)	6 (66.7%)	2 (22.2%)	66.7% Pretty much
5. During this activity, I felt that the activity was (for me)… Risk for yourself	6 (66.7%)	3 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	66.7% Not at All
6. During this activity, I felt that the activity was (for other students)…	2 (22.2%)	5 (55.6%)	2 (22.2%)	0 (0.0%)	0 (0.0%)	55.6 Not Much
9. I felt academically successful…	0 (0.0%)	1 (11.1%)	0 (0.0%)	4 (44.4%)	4 (44.4%)	Tie: 44.4%, Pretty Much, A lot

Overall Assessment

A vast majority of students reported that the perceived-risk activity, Holocaust Art Gallery, was enjoyable (44.4%, Pretty Much, 44.5% A lot). The activity was engaging to a majority of students (66.7%). The activity was not deemed risky for self (66.7%), but was deemed a bit risky for others (55.6% Not much). After the Holocaust Art Gallery, students felt academically successful (44.4%, Pretty Much, 44.5% A lot).

Table 5.17 *Student Activity Survey Comment Data for Holocaust Art Gallery.*

Negative Comments	**Neutral Comments**	**Positive Comments**
The part I liked least was that I didn't win.		I did the project. It was fun and creative. I liked that I got to pick what project I got to do.
		I thought it was very fun!
The part I liked least was the open house that went with it.		It was fun! I'm showing my art to others. I enjoyed seeing other peoples' art
	I had to make footprints and when kids were born and when they died.	
The beginning, because I had a hard time figuring out what I wanted to do. I wanted to do a lot.	The purpose was to make art that reminds us of the Holocaust. I did research and listened during class	Fun and intriguing to learn about. I enjoyed showing my project off to people, and the accomplishment I felt. It was really fun. Exciting to learn something new.
		I liked the drawing and learning about everything It was fun!
I disliked when my project broke and redoing the thing.		I learned new things. I had a lot of fun, but my balloon broke.
It was hard having to burn into the wood. It took so long.	It was a little risky because a lot of people express themselves during this activity.	I enjoyed writing. So it was fun. It was fun. I enjoyed it.
		I liked that we got to choose our own projects.

Overall Assessment.

Students offered sixteen positive remarks and five negative remarks. Student comments demonstrate that the perceived-risk activity, Holocaust Art Gallery, was an excellent opportunity for learning. Seven students reported it was “fun.” Some students reported that it was somewhat risky because “a lot of people express themselves during this activity.” Students who said the activity was risky said it was risky for others, but did not own risk for themselves. The student who complained that s/he did not like displaying the art at Open House ironically said that s/he liked “…showing my art to others. I enjoyed seeing other peoples' art.” What she did not like about displaying at the Open House, she did not say.

Table 5.18 *Teacher Activity Survey Data for Holocaust Art Gallery – Teacher Y.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Convey Content To Review Content To Assess Learning
4. I felt most students connected to and engaged in learning during this activity…1-5	(5) A lot
5. During this activity, I felt that the activity was (for most of my students)	(3) Some risk
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(2) A little hard
7. How time consuming was the lesson to prepare and to conduct?	(2) A little hard
8. In this activity, how academically successful were most students?	(4) Successful
9. How likely is it that you would repeat this activity?	(4) More likely – Or a similar activity with different content.

Overall Assessment

To follow Teacher X's survey.

Table 5.19 *Teacher Activity Survey Data for Holocaust Art Gallery – Teacher X.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Reinforce Skill As an Anticipatory Set A secondary motive was to have them express themselves in a way other than text to demonstrate content. Something so that someone your own age could see what you were trying to express about the Holocaust.
4. I felt most students connected to and engaged in learning during this activity…1-5	(5) A lot. Except for two students who had excellent projects but would not express themselves aloud. The risk of talking to the audience was too great. They could talk to people one-on-one, but when it came to the public talk, they could not do it. The risk was too great.
5. During this activity, I felt that the activity was (for most of my students)	(4) Risky for most and (5) Very risky for the two (girls mentioned above). They had to pull everything out of themselves. At first, everything from them was resistance. No one had expected that much from them. They said they were not artists as an excuse. They did not think they could do it. There was a great deal of risk from the project to the speaking…I wanted it to be such a big thing. They needed to get to the point where they wanted to do it to grow, to be educated – to get beyond grades, beyond the extrinsic. They needed to show their talents to show their growth for themselves. Some of them got there with the art gallery.
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(5) Very hard. Everything was difficult. Collaboration was tough. Communication was tough. Organizing supplies, the concept for display, the event itself required communication with my colleagues that we had not really developed. They didn't really get the set up, the gallery concept. I was the visionary, and my colleague taught the art class so we had to share the I wanted the tables up, the backdrops set, I needed things we did not have and I then realized that most of the children did not have a concept of gallery because many had never had been to art galleries and they did

	not conceptualize it. Then I began to doubt myself. I assumed that too much was happening in the other class. But they did it. When they talked about it with other people, they were so proud and they could not believe they had pulled it off.
7. How time consuming was the lesson to prepare and to conduct?	(5) Very time consuming.
8. In this activity, how academically successful were most students?	(5) Very successful. Even their written work, their description of the art, showed excellence. They learned about revision and rewriting. They learned about brainstorming and revising in art and in writing. I had to remind them to catch their ideas like they had a butterfly net and get those ideas on paper.
9. How likely is it that you would repeat this activity?	(5) Very likely. I would do it again in a heartbeat. Because of the satisfaction on the kid's faces. Their feelings of completing something…they begin lots of things, but they finished this and they felt good about completing it, bringing it to fruition.

Overall Assessment

The teacher comments demonstrate conflicting opinions about the difficulty of conducting the perceived-risk activity, Holocaust Art Gallery, but common commitment to doing the activity again in the future (with different content). Teacher Y reported that the activity was "A little hard" to conduct, while Teacher X was emphatic that the activity was very difficult and was very time consuming. This conflict in expectations (both with artistic process and final showcase) was evident in the interview conversations as well. One teacher designed the activity and promoted the event (See Appendix A-6), and the other was responsible for leading the students through the artistic process. This led to communication breakdowns. Both teachers called for a need for greater communication, though Teacher X was much more emphatic about this issue. Teacher Y claimed that Teacher X made many excuses for student under-achievement and this accounted for Teacher Y's additional burden in planning and setting up the Holocaust Art Gallery. Teacher Y said in personal conversations that she did not feel prepared enough in Art to lead the students successfully through the process without more assistance, perhaps opening more opportunities for teacher leadership in the future.

Researcher Field Notes for Holocaust Art Gallery

The researcher helped students prepare concept statements, provided supplies, and welcomed parents at the Holocaust Art Gallery, where she signed guests in and took notes on student behaviors. During the creative process, students were generally excited about creating art. For the most part, Teacher X helped students brainstorm project ideas and managed communication about their projects, and Teacher Y facilitated the crafting of the projects. Students did not demonstrate excessive favoritism toward one teacher or the other. Several said they were not artists and therefore could not do a good job. One of these students recanted his statement the evening of the Gallery, saying that he really felt like an artist.

That evening of the Gallery showing, students freely admitted that they were, "nervous," "scared shitless," "sick," and "excited." Most demonstrated common symptoms of anxiety and excitement including pacing, excessive talking or unusual silence. Some volunteered that they had to use the restroom and that their hands were sweaty. Two students stood by their exhibits chatting with the one or two people who came by at a time, but when the occasion came to deliver their address to the assembled crowd, the two students had disappeared. (The researcher later learned they had been hiding at a local gas station and convenience store until there was no chance they would have to present).

The comment cards were numbered and each guest who shared comments was required to sign in to get the numbered set of comment cards so that feedback could be tracked and there was a sense of accountability. Students encouraged their parents to grab comments and, “Make sure you grade mine!” so that the student had positive feedback waiting the following school day. Students seemed excited at the prospect of getting feedback about their art, though they were somewhat nervous as each patron wrote comments on the cards.

Control Activity – Chapter 4 Review (As conveyed by the instructing teacher, Teacher Y)

Activity Goals

To convey the content of Non-Western art history

Activity Process

Students were asked to read a chapter in a textbook and in groups answer review questions over the content.

Activity Perceived Risk

None really.

Table 5.20 *Student Activity Survey Data CONTROL ACTIVITY Chapter 4 Review.*

CONTROL ACTIVITY Chapter 4 Review N=12						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	2 (16.7%)	5 (41.7%)	5 (41.7%)	0 (0%)	0 (0%)	Tie: 41.7% Not Much 41.7% Some
4. I felt connected to and engaged in learning during this activity…	1 (8.3%)	5 (41.7%)	5 (41.7%)	1 (8.3%)	0 (0%)	Tie: 41.7% Not Much 41.7% Some
5. During this activity, I felt that the activity was (for me)… Risk for yourself	8 (66.7%)	3 (25%)	1 (8.3%)	0 (0%)	0 (0%)	66.7% Not at all
6. During this activity, I felt that the activity was (for other students)…	8 (66.7%)	3 (25%)	1 (8.3%)	0 (0%)	0 (0%)	66.7% Not at all
9. I felt academically successful…	1 (8.3%)	3 (25%)	5 (41.7%)	1 (8.3%)	2 (16.7%)	41.7% Some

Overall assessment.

The control activity, Chapter 4 Review, was not particularly enjoyable (41.7% Not much, 41.7% Some). The activity was not particularly engaging (41.7% Not much, 41.7% Some). The activity was not deemed risky (66.7% Not at all). After Chapter 4 Review students felt academically somewhat academically successful (41.7% Some).

Table 5.21 *Student Activity Survey Comment Data for CONTROL ACTIVITY Chapter 4 Review.*

Negative Comments	**Neutral Comments**	**Positive Comments**
I didn't enjoy much. It's really boring.		
I didn't really enjoy anything about this.		
I was trying to do it in a short period of time, so I didn't pay much attention.		I liked learning about things I didn't know.
There was alot (sic) of questions.		I liked that we got to work in a group.
So many questions.		I liked that we were learning about art.
		I turned my work in. Awesome!
It was berring (sic) and there were a million questions (sic) to answer.		
Let's not do the sec. reviews ever again!!!		
	Every section had 10 questions and there were 8 sections.	
I didn't like reading a lot.		I didn't know the history of art before.
It sucked.		The best part was being done.
The worst part was we had to read.		I liked that it was a group activity.

Overall Assessment

Students offered seven positive remarks and eleven negative remarks. Student comments demonstrate that the control activity, Chapter 4 Review, was “boring,” and it “sucked.” Two students liked that the activity was about art and two liked that they worked in groups. Three commented on the large number of questions and two did not like all the extensive reading involved.

Table 5.22 *Teacher Activity Survey Data for CONTROL ACTIVITY Chapter 4 Review.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Review Content To Assess Learning To Convey Content
4. I felt most students connected to and engaged in learning during this activity…	(2) Not much
5. During this activity, I felt that the activity was (for most of my students)	(1) Not risky
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(1) Not hard
7. How time consuming was the lesson to prepare and to conduct?	(1) Not hard
8. In this activity, how academically successful were most students?	(2) A little successful
9. How likely is it that you would repeat this activity?	(2) Less likely

Overall assessment.

Instructor comments demonstrate that the control activity, Chapter 4 Review, offered little engagement. The teacher thought that this exercise would have produced a no risk effect in most students. Though the lesson was not difficult to prepare, perhaps because the students were not rated academically successful, the teacher would be less likely to repeat it.

Control Activity – Chapter 4 Test

Activity Goals

Demonstrate content knowledge of non-western art on a written exam.

Activity Process

Students were given a written exam that they must do alone within 45 minutes.

Activity Perceived Risk

The risk can be found in the time limit. Work alone on written exam to demonstrate knowledge. Otherwise, there is no risk effect expected.

Table 5.23 *Student Activity Survey Data CONTROL ACTIVITY Chapter 4 Test.*

CONTROL ACTIVITY – Chapter 4 Test N = 8						
Response	1 Not at all	2 Not much	3 Some	4 Pretty much	5 A lot	Strongest Result
3. I enjoyed today's activity…	3 (33.3%)	3 (33.3%)	1 (11.1%)	1 (11.1%)	0 (0%)	Tie: 33.3% Not at all 33.3% Not much
4. I felt connected to and engaged in learning during this activity…	3 (33.3%)	2 (22.2%)	2 (22.2%)	1 (11.1%)	0 (0%)	33.3% Not at all
5. During this activity, I felt that the activity was (for me)… Risk for yourself	8 (88.9%)	1 (11.1%)	0 (0%)	0 (0%)	0 (0%)	88.9% Not at all
6. During this activity, I felt that the activity was (for other students)…	8 (88.9%)	1 (11.1%)	0 (0%)	0 (0%)	0 (0%)	88.9% Not at all
9. I felt academically successful…	2 (22.2%)	2 (22.2%)	4 (44.4%)	0 (0%)	1 (11.1%)	44.4% Some

Overall Assessment

The control activity, Chapter 4 Test was found by most students to be not enjoyable (33.3% Not at all, 33.3% Not much). A majority said the activity was not engaging (33.3% Not at all, 22.2% Not much). The activity was not deemed risky by a vast majority of students (88.9% Not at all). After Chapter 4 Test nearly half the students felt academically somewhat academically successful (44.4% Some) and nearly half felt not academically successful (22.2% Not at all, 22.2% Not much).

Table 5.24 *Student Activity Survey Comment Data for CONTROL ACTIVITY Chapter 4 Test.*

Negative Comments	**Neutral Comments**	**Positive Comments**
I enjoyed nothing – it was a test.		
It was boring.		
I enjoyed nothing.		
The least enjoyable thing – the test!		I got 100%!!
The test was dumb.		
	It was a little risky because I was not positive about my answers.	I like to learn so I was engaged in it. I think I did well.
I HATE TEST (sic)		

Overall Assessment

Students offered three remarks and six negative remarks. A majority of student comments demonstrate that the control activity, Chapter 4 Test, was “boring” and was “dumb.” Two students liked that they think (or knew) they did well on the test. 86% of students who commented had negative remarks to make about the test though, in general, they did not think it was risky.

Table 5.25 *Teacher Activity Survey Data for CONTROL ACTIVITY Chapter 4 Test.*

Question Asked of the Teacher (Number correlates to the question on the teacher activity survey.)	**Teacher Response** (Number correlates to the rating scale on the teacher activity survey where 1 = Not at All and 5 = Very Much)
Way(s) in which you used the perceived-risk methods:	To Assess Learning
4. I felt most students connected to and engaged in learning during this activity…	(5) A lot
5. During this activity, I felt that the activity was (for most of my students)	(3) Some risk
6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?	(2) A little hard
7. How time consuming was the lesson to prepare and to conduct?	(2) Reasonably hard
8. In this activity, how academically successful were most students?	No answer supplied
9. How likely is it that you would repeat this activity?	(2) Less likely

Overall Assessment

Instructor comments demonstrate that the control activity, Chapter 4 Test, was considered very engaging, perhaps because of the high stakes of a chapter test. The teacher thought that this exercise would have produced a moderate risk effect in most students. She did think it was moderately difficult to prepare but she would be less likely to repeat it.

Table 5.26 *Student Activity Survey Enjoyment Ratings*

	1 Not at all	2 Not Much	3 Some	4 Pretty much	5 A lot
PERCEIVED RISK The Outsider	7.7%	0%	30.8%	53.8%	7.7%
Holocaust Survivor Presentation	14.3%	7.1%	14.3%	28.6%	35.7%
Holocaust Mem. Trip	5%	0%	20%	35%	40%
Newspaper Search & Presentation	9.1%	18.2%	18.2%	18.2%	36.4%
Mental H. Pro./Pres.	16.7%	8.3%	41.7%	33.3%	0.0%
Holocaust Art Gallery	0.0%	0.0%	11.1%	44.4%	44.4%
CONTROL Chapter 4 Review	16.7%	41.7%	41.7%	0.0%	0.0%
CONTROL Chap. 4 Test	33.3%	33.3%	11.1%	11.1%	0.0%

Overall Assessment

A significant majority of students enjoyed the perceived-risk activities more than the control activities. The Holocaust Memorial Trip was the most enjoyable activity with 40% of students reporting that they enjoyed it "A lot." The second most popular was the Newspaper Search and Presentation with 36.4% of students saying they enjoyed it "A lot." The control activity, Chapter 4 Test was the least enjoyable with 33.3% reporting that they enjoyed it "Not at all."

Table 5.27 *Student Activity Survey Engagement in Learning Ratings*

	1 Not at all	2 Not Much	3 Some	4 Pretty much	5 A lot
PERCEIVED RISK The Outsider	7.7%	0%	30.8%	53.8%	7.7%
Holocaust Survivor Presentation	14.3%	7.1%	14.3%	28.6%	35.7%
Holocaust Mem. Trip	5%	0%	20%	35%	40%
Newspaper Search & Presentation	9.1%	18.2%	18.2%	18.2%	36.4%
Mental H. Pro./Pres.	16.7%	8.3%	41.7%	33.3%	0.0%
Holocaust Art Gallery	0.0%	0.0%	11.1%	66.7%	22.2%
CONTROL Chapter 4 Review	16.7%	41.7%	41.7%	0.0%	0.0%
CONTROL Chap. 4 Test	33.3%	33.3%	11.1%	11.1%	0.0%

Overall Assessment

Students found the perceived-risk activities more thoroughly engaged them in learning than the control activities. The Holocaust Memorial Trip was the most engaging activity with 40% of students reporting that they were engaged “A lot.” The control activity, Chapter 4 Test was the least engaging with 33.3% reporting that they were “Not at all” engaged in learning through that exercise.

Table 5.28 *Student Activity Survey Risk-for-Self Ratings*

	1 Not at all	2 Not Much	3 Some	4 Pretty much	5 A lot
PERCEIVED RISK The Outsider	69.2%	7.7%	23.1%	0.0%	0.0%
Holocaust Survivor Presentation	50%	42.9%	7.1%	0.0%	0.0%
Holocaust Mem. Trip	70%	15%	5%	10%	0.0%
Newspaper Search & Presentation	54.5%	27.3%	9.1%	9.1%	0.0%
Mental H. Pro./Pres.	75%	8.3%	16.7%	0.0%	0.0%
Holocaust Art Gallery	66.7%	33.3%	0.0%	0.0%	0.0%
CONTROL Chapter 4 Review	66.7%	25%	8.3%	0.0%	0.0%s
CONTROL Chap. 4 Test	88.9%	11.1%	0.0%	0.0%	0.0%

Overall Assessment

Students found the perceived-risk activities riskier for themselves than the control activities. The Newspaper Search and Presentation was rated the riskiest for self with 9.1% rating it “Pretty much” risky, 9.1% rating it “Some” risk, and 27.3% rating the risk “Not much.” Despite the fact that the control activity, Chapter 4 Test was a unit test, and the instructor reported that there was “some” risk inherent in the activity, it was rated the least risky activity with a vast majority of students (88.9%) reporting that it was “Not at all” risky.

Table 5.29 *Student Activity Survey Risk-for-Others Ratings*

	1 Not at all	2 Not Much	3 Some	4 Pretty much	5 A lot
PERCEIVED RISK The Outsider	61.5%	15.5%	15.5%	7.7%	0.0%
Holocaust Survivor Presentation	50%	28.6%	14.3%	7.1%	0.0%
Holocaust Mem. Trip	75%	10%	15%	0.0%	0.0%
Newspaper Search & Presentation	36.4%	36.4%	9.1%	9.1%	9.1%
Mental H. Pro./Pres.	75%	0.0%	16.7%	8.3%	0.0%
Holocaust Art Gallery	22.2%	55.6%	22.2%	0.0%	0.0%
CONTROL Chapter 4 Review	66.7%	25%	8.3%	0.0%	0.0%
CONTROL Chap. 4 Test	88.9%	11.1%	0.0%	0.0%	0.0%

Overall Assessment

Students found the perceived-risk activities riskier for others than the control activities. The Holocaust Art Gallery was rated the riskiest for others with 22.2% rating it possessing “Some” risk, and 55.6% rating the risk for others “Not much.” Only 22.2% of students said there the risk to others was “Not at all.” The control activity, Chapter 4 Test, was rated the least risky with 88.9% reporting that it was “Not at all” risky for others.

Table 5.30 *Student Activity Survey Feelings of Academic Success Ratings*

	1 Not at all	2 Not Much	3 Some	4 Pretty much	5 A lot
PERCEIVED RISK The Outsider	15.5%	0.0%	15.5%	46.2%	23.1%
Holocaust Survivor Presentation	14.3%	21.4%	14.3%	28.6%	21.4%
Holocaust Mem. Trip	5%	10%	15%	40.0%	30.0%
Newspaper Search & Presentation	18.2%	0.0%	27.3%	27.3%	27.3%
Mental H. Pro./Pres.	9.1%	0.0%	36.4%	36.4%	18.2%
Holocaust Art Gallery	0.0%	11.1%	0.0%	44.4%	44.4%
CONTROL Chapter 4 Review	8.3%	25%	41.7%	8.3%	16.7%
CONTROL Chap. 4 Test	22.2%	22.2%	44.4%	0.0%	11.1%

Overall Assessment

Students found the perceived-risk activities promoted stronger feelings of academic success than the control activities. The perceived-risk activity, Holocaust Art Gallery, promoted the strongest feelings of academic success in the most students (44.4% “A lot”). The control activity, Chapter 4 Test promoted the weakest feeling of academic success in the largest percentage of students (22.2% “Not at all”).

Student Interviews

CAA staff chose eight students for the researcher to interview without input from the researcher. Four students were chosen because of their relative success with the intervention curriculum and four were chosen because of their relative lack of success with the intervention curriculum. The results of the interviews follow.

Table 5.31 *Student Interview Question 1.*

1. Which element of the curriculum did you find most challenging? (When challenging was defined as "difficult but rewarding.")
N = 8

Art Responses (N = 3)	**Math Responses (N = 2)**	**Single-Themed Responses (N = 3)**
Art – because getting the background of the Holocaust was difficult and rewarding.	Math – because I am the kind of person who has to know WHY it works. It doesn't go through like a breeze. It takes time. Which is great for this school because it is self-paced.	Science – they do a lot of hands-on science and I am not someone who has enjoyed science
When we do the art projects, that is a big one because when I do art, and I am completely opening myself up to people and that is something I don't do and it scares me.	Math, anything other than hands on learning is hard…	IDK (I don't know), school's pretty easy…probably essays.
Art – not easy because I am not an artist.		History – because of the way she teaches. It is not easy to learn it the way other teachers teach it.

Overall Assessment

Three of eight students said that Art was "Challenging" when challenging was defined as "difficult but rewarding." One student mentioned that s/he liked the subject based on the way the teacher taught. One student liked that the school was "self-paced." Another student said that any way other than "hands on" learning was "hard."

Table 5.32 *Student Interview Question 2.*

2. Which element of the curriculum did you find most rewarding?
N = 8

Art and Performance-related Responses	**Single-Themed Responses**
Art – because considering when we did the Holocaust…how do I put this in words? I got a positive feedback and compliments for trying to relate to the Jewish sufferings and everyone else with my art. The message behind it was what made it artistic. The message made it so good.	Graduating…I don't know
Art project for the reason that it taught me that it really is okay to open up and for the most part people are not going to judge you on it.	German – because I have always wanted to learn German and if I go to Germany, I can go and speak with the people in their native language.
That is difficult. Speech / Drama class. I have learned a lot out of speech. Prepares my social skills for the future, and just how to talk to people.	History – because I actually learned something. WWII and the Holocaust and stuff. Community service. It makes me feel better.
Health – when we made a game, charades, for words like tension in science.	

Overall Assessment

Four of eight students said Arts or Performance-related classes or exercises were the most rewarding parts of the curriculum. One student mentioned that s/he felt positive about Art because s/he got "positive feedback" and "compliments" while another praised Art because it taught him/her that "…it is really okay to open up and …people are not going to judge you on it." One student said that s/he liked community service because "it makes me feel better."

Table 5.33 *Student Interview Question 3.*

3. What element of the curriculum did you find most difficult? N = 8		
Rote Memorization (Non Intervention Curriculum) Responses	**Art Project-Responses**	**Relational-Themed Responses**
I would say science, trying to remember certain parts of the periodic tables and other complex elements…we just wrote it down and just memorized.	Art – it was hard opening up. Academically I have not had a problem with that stuff – I am a quick learner. It is more the emotional stuff that gets me.	Class work…like the alone time is hard. Working in a group helps me.
Science – because I don't know anything because I don't like it.	The projects are hard…after we get one project we get one more. Some people like me cannot get one done and then they keep piling up.	I don't think there is one. They all can be at certain times. If I am interested, it will go like a breeze. If I am not, it will be harder.
20/20 (computer-aided curriculum) is difficult; the quizzes are hard. Being able to read what it says and remembering what is says through the next 20 lessons until you get to the quiz is difficult.		

Overall Assessment

Three of eight students said that non-intervention style curriculum, defined by students as "just memorization," was most difficult. One student mentioned that s/he finds curriculum more difficult if s/he is not interested in the topic. Another said working alone is difficult. Art was found to be difficult by one student because, "it is more the emotional stuff that gets me."

Table 5.34 *Student Interview Question 4.*

4. What element of the curriculum did you find very easy? N = 8			
Personal Mastery Reponses	**Independent Work Responses**	**Collaborative Themed Responses**	**No Preference Responses**
The easiest would be science because I love science and it comes naturally to me. I pick it up quick – faster than everything else.	Worksheets and out-of-book work. It is easy.	The discussions – I can interpret what the teachers say because in other schools they only say it once and don't give you one on one teaching about it.	I don't really have anything … no preference
	Math – read it and do it yourself.	Probably the projects we do.	
	Health – you work in a book and it is simple.		

Overall Assessment

Three of eight students said that independent bookwork was very easy. One student mentioned that s/he finds curriculum easier if s/he likes the topic and if "it comes naturally to" him/her. One student said that s/he though that discussions were easy because of the efforts of teachers to make certain s/he understood even if it took more than one iteration.

Table 5.35 *Student Interview Question 5.*

5. What element of the curriculum would you remove to make the curriculum better? N = 8	
No Removal Recommended	**Single-Themed Responses**
I would remove…I wouldn't remove any of it.	All the projects
Nothing.	Speech – I'm not really in that class, but I don't like speaking in front of people, so…
I don't have one.	Social Studies. Because it is not important to me. I don't really know why.
I like it the way it is.	

Overall Assessment

Five of eight students recommended nothing be removed from the curriculum to improve it. One student recommended removal of projects. Another recommended removing social studies because "it is not important to" him/her. Though social studies cannot be removed from the curriculum by state graduation requirements, this information may help teachers to make the curriculum more relevant to some of the students. One student recommended removing speech class though s/he admits that s/he is not even enrolled in the course.

Table 5.36 *Student Interview Question 6.*

6. What would you add to the curriculum to make the curriculum better? N = 8		
More General Options Responses	**More Arts and Kinesthetic-related Options Responses**	**Single-Themed Responses**
More teachers. More classes.	Some sort of theatre or hand-on art like choir or band.	IDK (I don't know)
Different options to learn other than what the school offers. Older languages; they only teach certain languages. Older history…like, they won't teach anything before WWI.	More stuff where we get to move like theatre games and stuff.	More bookwork – we hardly ever work in a book except for health. People would learn more – because they would have to find the answers…when we work in a group people just GET the answers.
	I would like to see PE, and we are supposed to have that, but I think it is good to keep kids healthy, and even if we do not play a sport, since we do not have enough people to play a sport, w can still exercise and stuff. Lately, I have gotten (since she became pregnant) into health…food groups etc.	
	More PE. Because I enjoy it.	

Overall Assessment

Six of eight students recommended adding more options to the curriculum to improve it. Four of eight students said they would add more kinesthetic and Arts-based options. One student said that there should be more independent bookwork because when participating in group work "people just GET the answers." Whether this means that students cheat from one another in groups or whether students are learning more from each other is not able to be determined from this comment. Another student complained that there was no history before WWI taught, but the curriculum of CAA is cyclical, and other eras of history are taught in different years. Since CAA is designed with a one-room-schoolhouse model, curriculum is designed in a four-year cycle so that a student attending all four years would not repeat any coursework and so that students transferring in or out of CAA, as is common, would not be behind their peers in neighboring high schools.

Table 5.37 *Student Interview Question 7.*

7. Did you find public display of your work product risky or threatening? N = 7 If yes, please indicate which elements of the curriculum you found most and least threatening or risky using, using a scale of 0 for not risky and 10 for very threatening.	
No Risk Reponses	**Yes Risk Responses**
No.	Yes. Art museum 5….because after the poetry night I did my art project was another poem. Poetry Night was an 8 – I was terrified – because it was only a few months ago I started showing my poetry to anybody. No one even knew I wrote.
No.	Risky for the fact that they would like it. Threaten if they felt provoked by it if they didn't understand the idea.
No.	
No.	
No, unless I have to talk about it.	

Overall Assessment

Five of seven students did not find the public display of the their work risky or threatening. One student was on maternity leave during the public displays of student work and did not respond to this question. Two students found the display of their work risky for fear people "would like it." Despite his/her concern for potential risk, one of these students consistently chose to engage in artistic performances including a leading role in the district's musical *Aladdin*, as well as performances in the district's Broadway Night, and a recitation of his own poetry at the district-wide Poetry Night.

One student suggested, specifically with regard to his/her artwork displayed at the Holocaust Art Gallery, that the experience might be considered threatening because his/her art might be misunderstood. His/her symbolic piece of visual art contained swastikas, and, though it was in condemnation of hates crimes, s/he feared others would not understand the symbolism and would perceive him/her as a racist. This was especially troubling to him/her as s/he was of an ethnic minority. In fact, his/her piece was so well received and understood that it was voted one of the best in show for its moving and thought-provoking symbolism.

Interestingly, two of the students who volunteered that the public display of student work did not invoke feelings of risk or threat demonstrated (according to researcher field notes) obvious physical signs of eustress (positive stress) and distress at the Gallery and even hid at a local gas station and convenience store during the public address at the Gallery. This incongruence leads to several hypotheses to be explored in Chapter Six.

Table 5.38 *Student Interview Question 8.*

8. Did you enjoy public display of your work product?
N = 7

No, Did Not Enjoy Public Display Responses	**Yes, Enjoyed Public Display Responses**
No because they wanted me to talk to people about it. It would have been okay if they had not wanted me to speak.	Sure. I guess. It was fun.
	Yes, of course. The fact of getting to be yourself is rewarding.
	In the end I did. At first I was terrified…
	I liked it and the community enjoys it.
	Yeah, because I got a chance to get my artwork out there and show everybody.
	Yes, because it gave the public a reason to come look at CAA.

Overall Assessment

Six of seven students said it was enjoyable to publically display their work products. One student was on maternity leave during the public displays of student work and did not respond to this question. One of seven students said it would have been enjoyable if s/he had not been asked to speak about his/her product. Three of seven students mentioned public or community recognition as a positive incentive for public display of work.

Table 5.39 *Student Interview Question 9.*

9. What audience for your work product did you find most (least) risky?
N = 7

Most Risky Audience Responses	**Least Risky Audience Responses**
People I don't know.	Friends.
People I wouldn't know.	People I know.
People close to me.	People I don't know
People I don't like or people I don't feel comfortable around.	Least is teachers and friends.
The community is the hardest because I don't know them.	My friends are the easiest because they are just going to deal with it – put up with it.
My peers because they are more judgmental and I see them more than the other so I take what they say very seriously.	
Friends.	People I don't know.

Overall Assessment

Three of seven students said peers and friends were the most risky audience in front of which to display one's work. One student admitted that, "My peers (are risky to display in front of) because they are more judgmental and I see them more than the others so I take what they say very seriously." Four of seven students said people they did not know were most risky audience, suggesting, "My friends are the easiest because they are just going to deal with it – put up with it." One student was on maternity leave during the public displays of student work and did not respond to this question.

Table 5.40 *Student Interview Question 10.*

10. Please comment in your own words how you *feel* about the 2008-09 CAA curriculum: N = 7		
Teacher-Related Responses	**Art Project-Responses**	**Relational-Themed Responses**
I feel that it is challenging in some ways but in others it is easy. They way they decide what math class you are in is hard, because they place you in a class too high for you, but the way they teach other classes makes it easier to learn. They discuss it with you one on one if you don't understand it they elaborate so that everyone can understand it.	The Holocaust because we did art on it and stuff was great.	It feels pretty good CAA is the best place to bond. Small school – you are bound to get used to a person you don't like or don't know.
I like it better than last year. The teacher last year handed out a bunch of packets and just expected us to do them. We get an explanation about what we are supposed to do and what they want done.		
I feel it has helped me out – I feel if I had been in the regular curriculum, things would have turned differently, and I probably would not get the grades that I have here (Cs and above). The fact that the teachers come to you and don't just pretend they don't see you helps me to be successful.		
I liked it – every year is different and I have liked the curriculum all around. The reason I like it the most this year is that Ms. X is here.		
	In the Holocaust unit, I got to find a part of myself in the art, and that was cool. I did things I didn't think I could.	

Overall Assessment

Six of seven students had positive comments to make about the curriculum. One student said that, “I feel if I had been in the regular (high school) curriculum, things would have turned differently, and I probably would not get the (good) grades that I have here.” Another liked the artistic venues for exploration: “In the Holocaust unit, I got to find a part of myself in the art, and that was cool. I did things I didn’t think I could.”

Four of seven students specifically cited the teachers as the best part of the curriculum experience. One student explained, “The fact that the teachers come to you (at CAA) and don’t just pretend they don’t see you helps me to be successful.” Perhaps having seven teachers for fifty-five minutes a day at the regular high school promotes a feeling of invisibility among some at-risk students.

One student was on maternity leave and was not engaged at school during the time of this interview.

Table 5.41 *Student Interview Question 11.*

11. Did you enjoy community service activities?
N = 7

No Reponses	Yes Responses
	Yeah, It was something to do.
	Yes. I liked the idea of helping.
	Yeah, I enjoyed all that. I helped with every one of them. I liked it because it got me out of class.
	Yes.
	Yes, because it shows the community how great the people of CAA are. We respect the community and we are willing to help them.
No, I don't like being around people I don't know.	
	Yes, I enjoy it because it makes me feel like I am helping the community.

Overall Assessment

Six of seven students said they enjoyed the community service activities integrated in the CAA curriculum. Three students said they liked helping and two specifically mentioned a connection to their community. Said one student, "Yes, because it shows the community how great the people of CAA are. We respect the community and we are willing to help them." This seems particularly important given this history of CAA. When it was first an alternative school, students were known to leave at will and gather at the local gas station to smoke before crossing the street to visit known drug sellers in neighboring apartments. Community members were not excited to see Central Applegate Academy establish itself. A local minister who bought the former elementary school building from the school district and in return leases classrooms to CAA took a chance on the students when it became reorganized as a charter school and has become one of CAA’s biggest advocates. For community service, students have worked at the church’s second-hand store, the local food bank, city hall, and the city library. Some students, like the one cited above, remember what it was like to be the students no one wanted, and have worked to rectify their reputation through community action.

One student was on maternity leave and was not engaged at school during the time of this interview though she previously had been very involved in community service.

Table 5.42 *Student Interview Question 12.*

12. Are you more likely to take a risk if you are in a group?
N = 8

No Reponses	**Yes Responses**
	Probably, yeah.
	Yeah, I could – depending on what they do.
No. Because I would rather take risks on my own than with other people.	
	Yes. There is someone there to get help and protect you if you take a risk with other people.
	Yeah.
	Yes, because I feel more secure when I am with other people.
	If the person is someone I trust.
	If my friends put in a good word for what we are to do, then I am more likely to do it. In general.

Overall Assessment

Seven of eight students said they were more likely to take a risk if they were in a group. One student mentioned a need for protection when taking risk, and suggested that someone would be there to help presuming the risk would lead to harm. This adds to the sense that risk is different in the eyes of some of the at-risk students than for the general purposes of the study. One student said s/he would rather "take risks on my own than with other people," which does not suggest a desire to avoid risk, just to do it alone.

Table 5.43 *Student Interview Question 13a.*

13a. Do you like your teacher(s)? / Do you feel they like you? N = 7	
No Reponses	**Yes Responses**
	Yeah. / Yeah.
	Yes. / Yes, I am pretty sure they do. I didn't give them any hard times at all.
	Most of the time. Sometimes they are unreasonable / Most of the time they like me. Most of the time they think I am unreasonable. But they like me for that because it is just me.
	Most of the time. / Yeah.
	Yes! Very much. / Very much so.
	Yes / Sometimes, I think so.
	Yeah / I think they like me too.

Overall Assessment

100% of student said that they liked their teachers at CAA and their teachers at CAA liked them. Degree of "like" ranged from "Most of the time" and Sometimes, I think so" to "Yes, very much!" Feelings toward teachers paralleled perceived feelings from teachers. When students liked their teachers emphatically, they thought the teachers liked them very much in return. When a student said s/he liked the CAA teachers "Most of the time," suggesting that sometimes they were sometimes "unreasonable," s/he balanced by saying that s/he was probably liked most of the time, and that the teachers probably thought that most of the time s/he was also "unreasonable." S/he summed up (with a smirk) by saying that, "But they like me for that because it is just me." One student was on maternity leave and was not engaged at school during the time of this interview.

Table 5.44 *Student Interview Question 13b.*

13b. Does it matter in teaching and learning? (Do you like your teacher(s)? / Do you feel they like you?) N = 7	
No Reponses	Yes Responses
No because you don't have to like each other to learn.	
	Of course –in order to teach or learn you have to at least bond with them in a way. It could be distant or you could actually be friends – you are definitely going to be helpful.
No, because no matter how you like a person because the way they teach it is the supposed to be taught, and you should not care… Although they might be harsh on you if you don't like them and they might teach it the same but give you harder assignments – which in the long run might be good because it prepares you for more.	
	Yes.
	I think so. Because you can connect with the teacher more and when you connect with someone you like, you can learn more and understand more. You can see that from my grades – I did NOT like Mr. Z and my grades were low.
	I think you have to like someone in order to work with them properly.
	I think it is pretty important to like your teachers and have them like you.

Overall Assessment

Five of seven students said they thought it mattered if they liked their teachers and that their teachers like them in teaching and learning. One student cited his previous year's performance as an example of the importance of liking your teachers and being liked in return: "…you can connect with the teacher more and when you connect with someone you like, you can learn more and understand more. You can see that from my grades – I did NOT like Mr. Z and my grades were low."

One student thought liking and being liked by teachers was not important in teaching and learning, but suggested that if a student did not like a teacher, the teacher may "be harsh on you" and might "give you harder assignments" but saw the silver lining of this hypothetical situation when s/he said "in the long run might be good because it prepares you for more." For what it prepares you, the student did not say.

One student was on maternity leave and was not engaged at school during the time of this interview.

Table 5.45 *Student Interview Question 14a.*

14a. Do you think risk should play a role in school curriculum?
N = 7

No Reponses	Sometimes or Maybe Responses	Yes Responses
		Both safety and risk. Because you're gonna have to do it eventually anyways (go out in public).
		Depending on what it is. In a way, yeah.
		Yeah, it teaches you more efficient ways to handle risks that come your way.
	Sometimes.	.
		Yes, because it is like If you are putting yourself out there – you are making yourself vulnerable to opportunities and it can prepare you for the future.
	Sometimes.	
		Yeah, I guess if it is safe too. Not too much risk.

Overall Assessment

Five of seven students said yes, risk should be a part of school curriculum, though two cautioned, "Not too much risk," and "Depending what it is." One student said risk was important because, "if you are putting yourself out there – you are making yourself vulnerable to opportunities and it can prepare you for the future." Two students said that risk should "Sometimes" play a part in school curriculum.

Interestingly, one of the students who ran from the Art Gallery night and demonstrated evidence of anxiety that evening, was one of the affirmative voices in this question, though s/he also said that the Art Gallery did not evoke feelings of risk for him/her. The other student who ran from the Art Gallery said that risk should "Sometimes" be a part of school curriculum. This disconnect between definitions of risk, perceptions of risk will be explored further in Chapter Six.

One student was on maternity leave and was not engaged at school during the time of this interview.

Table 5.46 *Student Interview Question 14b.*

14b. Did risk impact your learning at CAA?
N = 7

No Reponses	**Sometimes or Maybe Responses**	**Yes Responses**
No.		
No. Not really.		
No. All the risks they have shown are things I have already gone through…like the community stuff and the art stuff. I have already had to show my art and stuff.		
	Sometimes.	.
	Somewhat.	
	Sometimes.	
	Maybe it impacted me. I didn't feel really stressed.	

Overall Assessment

Four of seven students said that risk played some role in their education at CAA. Three of seven students said no, risk did not play a role in their education at CAA. One of the students reasoned that there was not risk because there was no novelty in showing his artwork. One student equated risk with stress. One student was on maternity leave and was not engaged at school during the time of this interview.

Table 5.47 *Student Interview Question 15.*

15. Is there anything else about your experience at CAA you would like to share? N = 3
Responses
I don't know how it put it in words – the bond between everyone is fulfilling although you do have your differences. In the end you're gonna end up graduating together.
I wish they would get rid of all the drama (personal drama) that is always about me. Worse at a small school like this because everyone knows everyone and it is easier to spread it around. At a bigger school, it gets around to more people.
Some kids turn to drugs; I turn to CAA.

Overall Assessment

Three students added comments for this question. Two of three students mentioned the relationship dynamic of the small school setting. One found it "fulfilling" and offered a chance to "bond."

Another said it opened up opportunities for human "drama." The student who was especially critical of the human drama that surrounded herself/him had become homeless during the term of curriculum intervention and found him/herself at the center of conversation and meetings to help him/her with the situation.

A third said that CAA served as an alternative to drugs for him/her.

Staff Member Interviews

CAA's two teaching staff members were interviewed after the completion of the school year. The results of the interviews follow with one teacher's remarks in each column.

Table 5.48 *Staff Member Interview Data*

1. Please comment in your own words how you feel about the 2008-09 CAA (intervention) curriculum:	
Teacher Y	**Teacher X**
I had a lot of fun with it in health and science and art. Could not make it work so well for math for me.	It is how I really like to teach when I have the time and I am at the top of my game. I love to have fun activities and options for the students to help them understand the topic.
2. Did you find the 2008-09 CAA (intervention) curriculum easier or more difficult to teach than a conventional curriculum?	
Is neither a choice? I think whatever you pick, it takes more *preparing* and less *correcting*, or vice versa, so it changes where you put your time, but not the amount of time itself.	No. It is how I like to teach.
3. What element of the curriculum would you remove to make the curriculum better?	
Can you give me choices…strategy… I think actually because it is such a small school, there were some students who did not do well with it, especially in front of an audience. They knew what was coming so they would run away – maybe of all the kids, maybe 3 kids. They did not improve – they just ran away. There have to be options for those kids.	I would not remove anything. I would *add* to it. I would add more opportunities for this kind of teaching style. I would collaborate more with my colleague and work to make more of this work more of the time.

4. What element of the curriculum would you enlarge to make the curriculum better?	
I really want more place-based stuff where they are communicating with different they do not know how to communicate with anyone outside of their peers. I have not defined it yet, but we have to do something…we have to build on the peer part. The student has been sucking off of others people It has to be kind of risky but kind of safe at the same time. They already know how to work in groups – they need to know how to work alone. That IS risky for them. I want to develop something to help with that.	I would like to do more with what we had planned and finish more of what we started. I would like to do more with art, delve deeper. Have higher expectations.
5. Do you believe the records keeping supporting the 2008-09 CAA curriculum burdensome or acceptable?	
Well it is hard to say, it's burdensome, but necessary - a necessary burden. I didn't feel some of them (the students) were honest on the questionnaires. Some of them didn't read it.	It was fine. It was easy. There is nothing to it. Students are willing and ready to fill out the forms. 5 minutes. Max. More, if I say to them, I want you to put some thought into this. It is a very efficacious way to do things. Which is appreciated by the way. I have been in studies before, and it is not always like that.

6. How do you think your students responded to the (intervention) curriculum?	
Some of them respond very positively. Some of them actually said, "I like it when we do things like this." Some of them did not show that they liked it but they did better (academically). They liked change – something new. Kids scared of time risks, the ones who do not like an audience, maybe two of them (CAA students) would not do as well.	I think they liked it. I hoped they liked it. I don't think it was that much different. They appreciated doing something that was out of the normal. They felt more important being asked. Their opinions were valued. The first papers they did not take it very seriously. I did a lesson with it the second time. There will be a paper written about this…so I want you to understand it…I did a lesson on it. I asked them to think about what they were thinking. The first time I gave it to them, I just gave it to them. The second time, I reminded them that this is your chance to be included in a study about learning.

7. Do you believe the time requirements of the curriculum are reasonable? Too long? Too brief?	
They are reasonable.	No. Reasonable is one of my favorite words. To me it would be unreasonable NOT to do it. It is a reasonable conclusion that we do this kind of thing – that we reflect on our practice. The form – reflection is so important. If we never reflect on a lesson, what worked and did not work… we cannot improve. It gave a chance for reflection in a structured way. I like to know what they think about what I am doing, and I do not think most students – particularly this group of kids – they are given the chance to share what they think. They are thought of as not being able to give authentic feedback that is useful. I tell them, "You don't think about what you just did, but your thoughts are important." It is so much easier to gather on a form. We should not water it down…they should ask if they do not understand and we should ask them what they think.

8. Was arranging public display of work products for individual students easy or difficult?	
Hard to get the kids – well - some were excited. Some just didn't care. You had to help them more than you would think necessary, but that is a learning process.	We went through some struggles together with it. Not with the kids as much as with the staff. We had not done this kind of thing together before, and I had such high hopes and expectations, and my colleague did not have the same expectations. So it was hard to let her know how much it meant to me and how much I wanted this to work. I think next time we should communicate more about who will do what and what it will look like in the final product. The kids came through. They were nervous, sure, and lots got done at the end, but it was worth it. It was frustrating at times with the staff, but we did not make that the problem of the students.
9. How do you think parents have responded to the 2008-09 CAA (intervention) curriculum?	
I don't think they knew it was happening – but when we did have public events, they were helpful. We have only two parents involved in helping. We have a lot more homeless kids than we used to.	I am not sure. I would like to know. I think the parents love it! We had the kids singing in German at Open House. We served dinner and labeled the items in German so that parents we hear the kids explain the words in German. Student X's part, "Ja, Ja…" (she laughs at the memory of a rather stoic students singing in German.) Parents thought it was really good. I don't know the parents as personally. But they had an opportunity to be proud of their children who had not given them a lot of opportunities to be proud. There was a product so they could see what the children had done. The kids did not object to it. They did at first, but there they all were there at the end. They showed up. Some of these parents did not feel proud themselves when they were in school or proud as parents, but there is something in them that is basic and inert…they want their offspring to be successful, and they want to believe that they are not the failures. Open House is to show off. It is to show off what the kids are doing and what they can be proud of.

10. Do you like teaching this (intervention) curriculum?

Yeah. As long as it is effective for the kids, it works for me. I need the flexibility to help the kids who it was not effective for.	It is the way I normally like to teach. Unless you have seen it happen, you might not know what it looks like, but the metaphor of seeing a light bulb; there is a look on a student's face… I feel sorry for teachers who don't engage in teaching that does not give them that kind of joy. Otherwise you just have a job. There is no product in teaching. It is hard to see the product, so I decided long ago, if I don't recognize the learning…I would have burned out long ago. So I like this kind of teaching because you can see the light bulb.

11. What would you add to make this (intervention) curriculum better?

I am not sure what we are teaching next year, so I am not sure what we would do.	More collaboration. More time to plan. More teacher evaluation where they are doing it for each of them. I think we need planning time, more evaluation, more reflection. Something else, I have to be honest, with these kids, the teaching is secondary. Whatever method we choose, the teaching is secondary. The emotional support, parenting, that is what we are here for too. One of the other teachers is familial, she is a mother to these kids. They do not have that at home sometimes. We each have a role to play in the lives of these kids who have so many holes in their lives. I push them harder, help them see more. She (the other teacher) is like their mom. We are the consistency. We are sometimes the only consistency they have. We are the people to they can count on. She (the other teacher) is so consistent; they can ask her to 16 times something, and she can find 16 ways to be consistent and say no. She holds the line, and they need that. They need me to push them. They need you, (referring to the researcher) to show them there is a chance to have a great job and a great education and to travel. We all give them role modeling they need so much.

Overall Assessment

The teachers seemed to respond well to teaching the perceived-risk curriculum in most regards. Despite Teacher X's remark, "It is how I really like to teach when I have the time," the time required for developing most activities (with the notable exception of the Holocaust Art Gallery) was not a deterrent in using the intervention curriculum. Said Teacher Y, "I think whatever you pick, it takes more *preparing* and less *correcting*, or vice versa, so it changes where you put your time, but not the amount of time itself."

In general, Teacher X's responses show that s/he is much more committed to perceived-risk curriculum than Teacher Y as demonstrated by remarks like, "It is how I really like to teach when … I am at the top of my game" and "It is the way I normally like to teach." Teacher X's background in speech and some experience with theatre may have enhanced her/his interest in perceived-risk curriculum as well while Teacher Y's background in teaching math and home school might have diminished his/her interest in the more interactive intervention curriculum. As engaged as the students reported they were, perceived risk may not work for all students. Teacher Y, herself for whom perceived risk may not have been a strong curriculum method, reminded the researcher that all children are different and some need different approaches when s/he said, "As long as it is effective for the kids, it works for me. I need the flexibility to help the kids who it was not effective for."

The end of the year, when the interviews were conducted, brought a certain amount of the tension to the two teachers at CAA. The lack of collaboration time together and lack of a consistent curriculum facilitator (a role the researcher used to play when she was active with CAA) hampered a strong professional and collegial relationship between the two teachers. Teacher X commented at length about his/her desire to increase communication ad collaboration with Teacher Y. It made some of the more elaborate elements of showcasing student work more difficult. Some of these challenges of teacher leadership will be addressed in Chapter Six.

Teacher X mentioned something at the heart of teaching at-risk students no matter what curriculum is used when s/he remarked, "…with these kids, the teaching is secondary. Whatever method we choose, the teaching is secondary. The emotional support, parenting, that is what we are here for too." Perhaps the relationships the teachers share with their students become one of the most important elements of any curriculum and perhaps through perceived-risk curriculum that relationship can be more easily built.

Senior Advocacy Project Data

Seven seniors, all of whom graduated, studied their own grade trends throughout high school. Two of the students have attended CAA since their freshman year, but the other five transferred to CAA after encountering social or academic failure at the main high school for the school district. At the June Board meeting of the Applegate School District, two senior students from CAA presented the results of their Senior Advocacy project which was a joint project between their math and speech classes. All seven senior students prepared speeches about their feelings about attending CAA, and the top two speakers were chosen to address the Board to advocate for the continued funding of CAA. This was a culminating perceived-risk activities for the participating students because they had to address the community on their community's terms: at the school board meeting instead of at the safety of CAA, an audience of board members who have the power to terminate funding to the program, and being watched by many people whom the CAA students would not know. Citing their reports from the Holocaust Art Gallery, about half of the students found an audience of strangers to be riskier.

The two seniors chosen to address the board in this final perceived-risk activity cited the successful GPA data (see figure 5.1), which demonstrated that all seniors had improved their GPAs while continuing the journey through high school at CAA. The two students also shared more personal stories of their reasons for attending and graduating from CAA. One student shared his story for the Board and agreed to allow it to be included here.

A Senior's Story

A CAA senior, who spoke before the School Board and his graduating class, shared his feelings about CAA. The student with his colorful tattoos and myriad piercings spoke articulately about how CAA "changed his life" and why some "kids choose drugs, and he chose CAA."

"I chose to go to CAA because the school environment I was in before was so bad for me. I heard CAA was more one-on-one, and it would be better for me. The environment I was in wasn't … I didn't feel safe or that I connected with anybody, I guess, and I was bullied a lot. So, I thought, maybe, I need to get out of here because something … I don't want something bad to happen, you know, to myself. I don't know how to explain it. I never thought suicide, but suicide could have been … but it *did* get out of control the way people treated me. And I never thought suicide; I wouldn’t do that ever, but it could have happened because it was so bad, and I heard CAA was a safer environment.

My greatest academic work at CAA was, I think English and Drama. It helped me to open myself up to people and helped me to become who I am today, I mean, myself. I am a free-spirited person who does not care what people think anymore. I mean, I care to an extent: maybe if I go out, I will do my hair or something; of course I want to look good, but I don’t really care anymore. Like what people think of me. I am an Independent, I am not an elephant. I am not a donkey. I am an elephonkey.

Now that I am not there (at the regular high school), my relationship with the regular high school … it’s better. When I was there before, I was kind of anti-social there more because of what was going on. Now that I am not there, the relationship has opened up, and I can be friends with them. Like more people I am friends with there. When I worked on the Haunted House (a theatre project at the regular school), before, when I was at the other school, people called me gay and stuff like that because I am a passionate kind of person, and I am nice. Like I said, I am a free-spirit, I guess. But now, when I work with them, they (the students from the regular high school) treated me nice, and people get all excited and people call out, like, “John, John! It’s John” (a pseudonym). They freak out and say, “It’s John!” And they looked up to my leadership.

I was the President of the Student Body at CAA. And everyone looked up to me because I was a good role model for students. I don’t do drugs, and I am really kind. Some people have their conflicts up there, but I have not really had a conflict with people at CAA. I am open to people, and I can adjust to any kind of person. My relationship with the staff is like my relationship with the students: we are all family there. It feels like we are all a part of a big family. They are nice, and I like them.

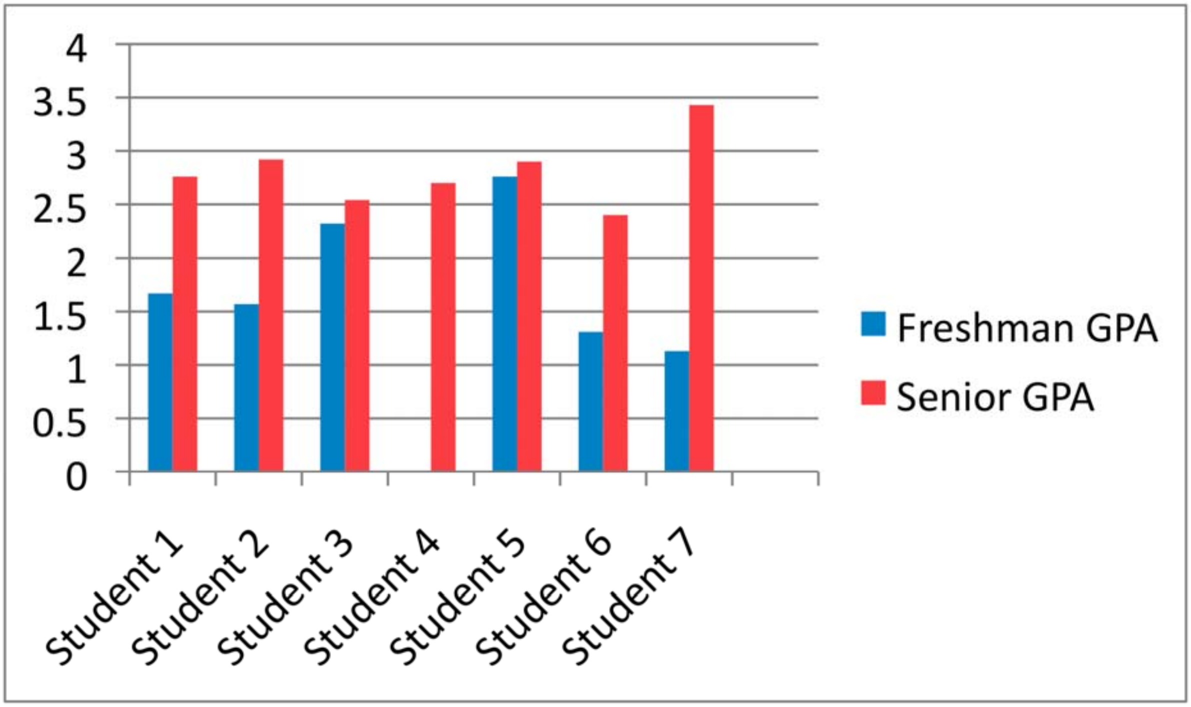
If I had advice for the regular high school from my experience at CAA, you cannot change how people are, that's who they are, but we need to encourage people to step back and think that we are all people, and realize that no one is higher than them, and they are not higher than anybody. They are all just people in the end. And I also think that drug testing would be good for the (regular) high school. I am not saying there are a bunch of druggies up there, but I am not saying there are not, you know. And it (drug testing) has helped a lot of people at CAA stay off drugs. Just knowing that you might have a drug test, randomly, and they won't do the drugs, and their friends won't pressure them to do it because they know they might have a drug test. It gives them an excuse.

My future is a bit indecisive right now. I don't really know what my future is. I kind of want to be a teacher. It's weird, I never thought about it until graduation day that I would want to be a teacher, but I think history because it would be fun. Or a drama teacher. But if I went to history, I would want to act it all out, they way it happened back then. Reenactments. Role plays, so that it would be fun.

I think that Central Applegate Academy has been the best experience for me. It changed my life. I am who I am today because of Central Applegate Academy. I am more open to people, and I am myself. I can dress however I want, and hang out with whoever I want, and I feel good about myself instead of being picked on.

I was a caterpillar, hiding, and when I went to CAA, I became a butterfly."

Figure 5.1 *CAA Senior student GPA growth from freshman to senior year generated by senior students for their presentation to the school board.*



Researcher Field Notes for Senior Advocacy Speech

Two students spoke before the Applegate School District Board in June 2009. The researcher was in attendance and took notes on student behaviors. The two students were eager and excited, faces flushed. One student sweated visibly and admitted that he was "so nervous." The student spoke in a bit of a hushed tone, but his volume increased after his personal introduction. He shared slides featuring data (See Figure 5.1) and slides to move the speech along. He complained of sweaty hands and being nervous, but his speech was well rehearsed and fluent. The second student, a female with Asperger's Syndrome, kneaded her hands nervously as she waited for her turn to speak. She spoke up, a bit unnaturally loud in volume, but eager and excited to share how CAA "may have saved my life." She admitted that she had contemplated suicide several times because of teasing and bullying before she came to CAA where she felt accepted and successful. She had rehearsed watching for social cues so that she did not speak too long, as is her tendency, probably due to her spectrum disorder. Both students were applauded by the board for their efforts and the students answered the questions posed to them with grace and good form. Their parents and other CAA students and a CAA teacher supported them from the audience and hugged them as they finished their speeches.

Conclusions from these quantitative and qualitative results as well as limitations of this study and the future of perceived-risk curriculum will be explored in Chapter Six.

CHAPTER VI – CONCLUSIONS

Central Applegate Academy – a Perspective

Upon the adoption by CAA of the Milkman curriculum in 2005, the researcher was hired as an Arts-facilitator. In that role, the researcher implemented an integrated Arts course in which students learned about various forms of artistic expression and used them to learn more about themselves and the curriculum. Utilizing and developing the "rites of passage" technique (Stephenson, 2006), the students collected "beads" for their successful social behaviors and used them to advance to higher status in a hierarchical animal kingdom. This student designed system was based on their perceptions of what pro-social behavior looked like: all CAA students began as Zebras, safer in herds but not thinking for themselves; second, Rhinoceroses, thick-skinned and able to resist social pressure; advancing to Giraffes, far-sighted and peaceful; then, Chimpanzees: sentient, tool-using, thoughtful and compassionate; and finally, ending as Elephants: social, family-oriented leaders with long memories. During the year, students participated in a variety of on and off campus activities, each of which achieved complimentary commentary in local media (Appendix A-7). These initiatives, it was thought, created a favorable environment for the perceived-risk curriculum and this study.

In order to pursue the current study and at the suggestion of her dissertation committee, the researcher transferred from CAA to a position in the same district. Immediately thereafter, as a result of statewide budget cuts and the resultant staff reductions, CAA teachers suffered a pronounced lowering of creative energy, and, lacking an impartial intermediary, allowed interpersonal conflicts to develop to serious levels. Teacher planning and preparation time dropped precipitately, and CAA, once an almost perfect instrument for the perceived-risk trials, lacked the enthusiasm necessary to initiate and carry out the at risk curriculum in full measure. The perceived-risk trial executed in 2008-09, therefore suffered and the curriculum was not implemented with total fidelity As a result of these events, the full effects of this study were handicapped.

CAA Today

Even in the unfortunate climate at CAA that immediately preceded and affected this study, significant results were achieved.

The goal of this research was to determine if answers could be found to the two research questions outlined in Chapter One:

1. Do at-risk students who are instructed using "perceived-risk" methods perform better in school (“better” being defined in this study to include increased pro-social behaviors, enhanced performance as measured by higher GPA, successful completion of Carnegie Units, improved scores in unit pre and post tests)?
2. How do students and teachers feel about the perceived-risk curriculum and their roles as assessed through researcher field notes, student activity surveys, teacher activity surveys, students interviews, teacher interviews, a senior project and researcher field notes?

To answer these questions, research on pedagogical methods was conducted, curricula and assessments were designed, teachers were instructed, students were taught, methods were assessed and results were analyzed. Interpretation of these data follows in this chapter.

Research Question One

To determine if at-risk students who are instructed using perceived-risk methods perform “better” in school, quantitative measures were taken and analyzed. The analysis of quantitative results follow.

Carnegie Units Earned

Students earned a greater number of credits in the semester of intervention (2.92 credits) at CAA than in the previous semester (2.90 credits), a difference not statistically significant between the Carnegie units earned in either of the two terms in the 2008-09 school year (See figure 4.1). Though it is good news that students earned more credits toward graduation during the term of intervention, it cannot be determined from this slight difference if perceived-risk curriculum is the factor to which the upward trend in Carnegie units earned might be attributed. The trend was very similar to that of previous years at CAA. In 2006-07, students earned slightly fewer credits in the second semester, in 2007-08, students earned slightly more credits in the second semester (See Figure 4.1). The change in credits earned in 2008-09 was not significantly different than any other year of record, and the trend was relatively constant.

Grade Point Averages

Students earned a lower grade point average in the semester of intervention (1.82 GPA) than in the previous semester (2.29 GPA), though the difference was not significant between the GPAs earned in either of the two terms in the 2008-09 school year (See figure 4.3). It cannot be determined from this difference if perceived-risk curriculum is the factor to which we may attribute the downward trend in GPAs earned. In the second term of the year (the term of intervention curriculum), however, two students gave birth, one became homeless, one left home and moved in with friends, and one was institutionalized for a suicide attempt, all of which tended to diminish the students' grades. In a population of students this small, (N = 21), it is reasonable to conclude that these social factors help to explain the downward trend on the overall average GPA of CAA students rather than the use of the intervention curriculum. The GPA trend was similar to that of previous years at CAA. In 2006-07, students earned slightly lower GPAs in the second semester; in 2007-08, students earned slightly higher credits in the second semester (See Figure 4.3). The change in GPAs earned in 2008-09 was not significantly different than any other year of record.

The Wanberg Instrument

Analysis of the Wanberg Instrument proved daunting given the number of test items (145), and the number of respondents (46 total pre and post). When the Rasch model was applied to the entire Wanberg Instrument, it was overwhelming and not particularly instructive. When the Rasch model was applied to pre-determined subsets of questions, some of the questions had too few items to guarantee reliability. Two new subsets of questions were developed for analysis purposes based on the themes of "pro-social behavior" and "deviant risk-taking behavior."

Students demonstrated through the term of intervention, an increase in pro-social behaviors (.13 logit value) (See Figure 4.9) and a decrease in deviant risk-taking behaviors (.8 logit value) (See Figure 4.10). Empirically, results were supportive of the perceived-risk curriculum. The sample size was too small to determine statistical significance on the Wanberg Instrument.

Though the empirical data from the Wanberg Instrument supports the perceived-risk curriculum, one reason there may not have been more significant change is that the test was not administered in February at the beginning of the semester term of intervention as intended. The school counselor was unable to schedule time at the school until the first week of April, after the intervention curriculum had already been initiated. There was not, in this researcher's opinion, enough time between the administration of the first and final Wanberg Instrument to see a significant effect. Secondly, Milkman (1996) recommends the administration of an instrument similar to the Wanberg Instrument in a face-to-face interview context so that a student hears the questions read aloud to him or her. Perhaps this would have eliminated some effortless test taking by some students or would have enhanced accuracy among students at CAA, many of whom have limited reading abilities. Unfortunately, the shortage of time and personnel at the school made independent interviews impossible. Finally, the 145-item test is a long one, and the limited attention span of our students undoubtedly impacted. In the future, perhaps the test could be administered in sections to maximize student attention spans. Should the Rasch test-item data indicate sound questions, future iterations of the Wanberg may include fewer questions better suited to the students and the topics staff would like to target. With a Wanberg Instrument featuring fewer questions, more repetitions of the test can be offered with less impact on the instructional time, yielding greater data.

Pre and Post Unit Testing

The most compelling quantitative evidence suggesting that students performed better in school as a result of being instructed using a perceived-risk curriculum was the pre and post unit testing conducted by the teachers of the unit (Teacher X primarily). The pre and post tests were comprised of content and concept questions about the Holocaust and WWII. Students improved considerably from the pre to the post test (See figure 4.) almost doubling the average score on pre and post test 2.

Summary of Evidence for Research Question One

Quantitative results were mixed; evidence suggesting that perceived-risk curriculum, in this limited trial run, produced slightly higher numbers of Carnegie units (an increase from 2.90 during the term preceding intervention to 2.92 during) (See Figure 4.1). There was increased pro-social behavior with an increase of .13 logit values (See Figure 4.9). Deviant risky behavior decreased, declining .8 logit values (See Figure 4.10). Quantitative evidence did not substantiate a resultant higher GPA among the CAA students during the term of intervention and showed a decrease of .47 points (See figure 4.3). With regard to GPA, the wide variations in student life circumstances during the term of intervention (including giving birth, homelessness, and long-term hospitalization) argue against averaging with the entire student body and would argue for an individual growth model. Perhaps stronger GPA results for CAA students would have been seen if the few students enduring extreme life circumstances had been contextualized through individualized GPA measurement.

The intervention curriculum was not delivered as thoroughly or extensively as the researcher had hoped, again due to a shortage of teacher time. In a more extensive trial, however, it is believed that the quantitative measures would reflect more substantive results. Should the curriculum be developed and delivered with more fidelity over a longer period of time, it is believed that each of the areas reviewed would show stronger gains.

Research Question Two

To determine how students and teachers feel about the perceived-risk curriculum, qualitative measures were given and analyzed. The results were very supportive of the perceive-risk curriculum over the control curriculum. Specific qualitative results follow.

Student Activity Surveys

In all areas assessed (enjoyment, engagement, risk-to-self, risk-to-others, and feelings of academic success), the perceived-risk curriculum was rated higher than the control curriculum. A significant majority of students reported that they enjoyed the perceived-risk activities more than the control activities (See Table 5.26). The Holocaust Memorial Trip was the most enjoyable activity with 40% of students reporting that they enjoyed it "A lot." This is compared to the control activity: Chapter 4 Test was rated the least enjoyable with 33.3% reporting that they enjoyed it "Not at all."

Students found the perceived-risk activities more thoroughly engaged them in learning than the control activities (See Table 5.27). The Holocaust Memorial Trip was the most engaging activity with 40% of students reporting that they were engaged "A lot." The control activity, Chapter 4 Test was the least engaging with 33.3% reporting that they were "Not at all" engaged in learning through that exercise.

Students did not find the perceived-risk curriculum to be particularly risky for themselves, but they did feel it promoted more risk than the control activities. The

Newspaper Search and Presentation was rated the riskiest for self with 9.1% rating it "Pretty much" risky, 9.1% rating it "Some" risk, and 27.3% rating the risk "Not much." Despite the fact that the control activity, Chapter 4 Test was a unit test, and the instructor reported that there was "some" risk inherent in the activity, it was rated the least risky activity with a vast majority of students (88.9%) reporting that it was "Not at all" risky. The discrepancy between researcher field notes about student behavior and demonstration of eustress (positive stress) and distress symptoms and student self-reporting will be discussed below.

Students found the perceived-risk activities somewhat more risky for others than the control activities (See Table 5.28). The Holocaust Art Gallery was rated the riskiest for others with 22.2% saying it possessing "Some" risk, and 55.6% rating the risk for others "Not much." Only 22.2% of students said there the risk to others was "Not at all." The control activity, Chapter 4 Test, was rated the least risky with 88.9% reporting that it was "Not at all" risky for others. It seems students were more willing to volunteer their peers for being at-risk than identifying themselves in the risky group. Percentages for risk-to-others were generally higher throughout the study than for risk-to-self.

Students found the perceived-risk activities promoted stronger feelings of academic success than control activities. The perceived-risk activity, Holocaust Art Gallery, promoted the strongest feelings of academic success in the most students (44.4% "A lot"). The control activity, Chapter 4 Test promoted the weakest feeling of academic success in the largest percentage of students (22.2% "Not at all").

Student comments on the student activity survey also supported these findings. Students offered twice as many positive remarks (10.33 remarks per activity), on average, for perceived-risk activities than for control (3.67 remarks per activity). The control exercises garnered an average of 5 positive remarks per activity and 8.5 negative remarks per activity.

Teacher Activity Surveys

Teacher activity surveys from one staff member were extraordinarily thorough and from the other were scant. The teacher more supportive of the perceived-risk curriculum voiced her opinion very much through her plentiful comments, while the teacher less in support weighed in with only numeric responses to questions. The teacher more supportive of the intervention curriculum was less congruent with her students' estimates of engagement (she overestimated a bit) though her curriculum was better received than her colleague's. The teacher of the control exercises seemed aware that her exercises were not particularly engaging or enjoyable with one notable exception: she estimated that her students were "Very engaged" in learning while taking the Chapter 4 test. A vast majority of students, however, reported that they were "Not at all" engaged (88.9%) during this exercise. Neither teacher took significant negative issue with the perceived-risk curriculum, and both seemed pleased with results they had achieved with students while using it.

Student Interviews

The CAA staff selected four of the eight interviewed students specifically because they had experienced some success with the perceived-risk curriculum. Four of the eight students were chosen because they were considered by CAA staff to be struggling with the perceived-risk curriculum. Given the predisposition of the students, not surprisingly, half surveyed saying that the Art and related activity curriculum was the most rewarding of the year (See Table 5.32) and half argued that more should be added in the future (See Table 5.36). Surprisingly however, most students were overall positive about perceived-risk curriculum, with 85.7% of students saying they enjoyed the public display of their work (See Table 5.38). Sixty two point five percent of students said nothing should be removed from the curriculum to improve it (See Table 5.35) and of the things the students wanted to change, one of the responses was “Social Studies,” though it is a course required by the state for graduation, because “it is not important to me.” This student did not cite the teacher’s methods or the perceived risk curriculum as the reason for her dislike of the course.

One student who argued that Art was most difficult nevertheless performed in optional artistic venues including Poetry Night, Broadway Night, the district musical, *Aladdin*, as well as the curricular venues provided at CAA. He suggested that it was accessing his emotional life that was difficult for him (See Table 5.33), but in other questions, he said that Art was his favorite activity as well. The Arts seemed to provide emotionally charged but positive experiences for this student, and his complex and least dichotomous responses to interview questions (Art is most challenging, most difficult, most rewarding…) showed that the student has a rich and complicated relationship with the Arts.

Seventy one percent of students did not see the public display of their work as being risky (See Table 5.37), though several made comments saying that being judged by their peers and community was a risk (See Table 5.39). Researcher field notes challenge the notion that students did not feel risk, as many students displayed physical symptoms including sweaty palms, reddened faces, and accelerated speech. Further, students volunteered statements about their nervousness to the researcher. This discrepancy between student reporting and other observations will be discussed below.

Seventy one percent of students interviewed said that risk should play a role in curriculum, and 29.6% said that risk should sometimes play a role in curriculum (See Table 5.45), though only 57.2% of students interviewed said that risk played “Some” role in educational experience at CAA, and 42.8% of students said it played “No” role. Again, this may be an issue of hindsight: when students have successfully completed tasks that were once risky, they are perhaps less likely to report them as risky upon their completion. Also, because the risk was, as Milkman calls it, perceived risk, and students were really relatively safe from failure in all contexts, they did not report events as being risky weeks later.

Teacher Interviews

Staff members generally enjoyed the curriculum and found it highly effective and not too taxing on their time. The Holocaust Art Gallery, which was the most rewarding activity in many respects and which best exemplified the spirit of perceived-risk curriculum, was considered by one staff member to be “A little hard,” while another said it was “Very difficult.” Perhaps with better communication between the teachers, the joint project would have been only moderately difficult for both rather than so extreme in its difficulty. Teacher X’s previous interests included theatre and speech, and she found the intervention curriculum “natural,” easy and "fun." Her activities were better received on Student Activity Surveys than her colleague. The other staff member, Teacher Y, whose previous interests do not include the Arts, found the perceived-risk curriculum to be another way to reach students, but that other alternatives needed to be available for the students who did not thrive in the more public exposure featured in perceived-risk curriculum.

Senior Advocacy Project

Senior students demonstrated during the senior advocacy project that CAA was a place that encouraged their academic growth. All seven senior students demonstrated a positive trend in their grades from freshman to senior years. All seven students who entered the 2008-09 school year at CAA graduated in good standing in June. For the student who shared his personal story before the school board, CAA was "the best place for him" and a place where he went from being "… a caterpillar, hiding, and when I went to CAA, I became a butterfly." These remarks, along with the field notes taken when senior students returned after graduation and on weekends, "just to hang out because we saw your (staff members') cars," demonstrate that CAA is a place that provides for the academic, emotional and social needs of some of its various at-risk students.

Researcher Field Notes

Researcher field notes indicated that students who engaged in perceived risk were likely to demonstrate physical symptoms of eustress (positive stress) and anxiety. Students verbalized comments that suggested they were excited and anxious to demonstrate their work products. Students who engaged fully in the artistic and other perceived-risk activities in school and in two or more outside of school artistic venues were more likely to earn higher grades than peers who did not (GPA 3.09 versus 1.82 during the term of intervention). Students who reported most emphatically in interviews and surveys that they felt no risk at all were also most likely to demonstrate symptoms of eustress and distress and be nervous enough to avoid or escape from tasks that had a high risk-quotient like the Holocaust Art Gallery. This factor seemed to emphasize the discrepancy between student self-reporting of perceived risk and behavioral observation noted elsewhere in this chapter. Students were observed to have a roughly similar affinity for both CAA teachers with each teacher having some students who liked her more strongly. 100% of students interviewed said they liked their teachers and felt their teachers liked them (See Table 5.43). Neither teacher was observed to have students who were strongly aligned against her or her teaching methods. This being stated, however, students were generally more positive about the activities led by Teacher X than those led by Teacher Y according to Student Activity Surveys.

Summary of Evidence for Research Question Two

It is evident from researcher field notes, student activity surveys, teacher activity surveys, student interviews, teacher interviews and the senior advocacy project that students enjoyed and were more engaged in perceived-risk activities than control activities. Students felt more academically successful, felt more elements of risk, and made more positive comments regarding perceived-risk curriculum than control curriculum.

A major part of this study was to see if perceived-risk curriculum could create enough eustress symptoms to trigger natural highs (Milkman & Sunderwirth, 2009) to replace deviant risk in at-risk students. A key measurement device for this was the Student Activity Survey (Appendix A-1) and student interview questions (Appendix A-3) in which students rated the risk they felt they were taking for themselves and risks they perceived others might be taking. Most students did not report feeling at risk for themselves or others during most of the perceived-risk curriculum activities.

Two factors may have influenced these statistics. Teachers administered the surveys after the conclusion of each activity, at which time students were no longer in risk (if they had felt risk in the first place). Students were secure again having successfully (or unsuccessfully) completed the activity, and risk was no longer an issue in their minds if it had been prior to the activity. In future research, to more accurately measure exposure to perceived risk, student reactions should be measured *during* the intervention, immediately prior to its conclusion in a public presentation or forum.

Implications of Perceived-Risk Curriculum

Much has been learned about perceived-risk curriculum throughout this study, including what factors would be likely to influence a more successful implementation and assessment of the curriculum in the future. This study has called for, though not completely answered, a reconciliation of the 1990s at-risk youth literature with the patterns of the current Millennial generation. This study has reminded the researcher of the importance of effective teacher leadership and in-servicing in using the methods and appropriate definitions of curriculum and risk in assessment surveys play a role in future iterations of perceived-risk curriculum. For example, Teacher X admitted in her interview that the students did not take Student Activity Surveys seriously the first time, but when she conducted a mini-lesson in how to complete the survey and explained that completion of a survey was contributing to research about the student's own learning and ultimately for their benefit, students, she said, put more effort into the subsequent surveys (See Table 5.48). With lessons like these from the first trial, more specific and structured administration procedures would be developed for future trials.

A call has been made for more scientific inquiry into the brains and learning styles of at-risk students and a return to a reexamination of CAA's curriculum versus that of Milkman's proven strategies. These implications for the future of perceived-risk curriculum will be discussed below.

Generational Considerations

Not surprising given Howe's (1992, 2000, 2003) generational work on Millennials, 85.7% of CAA students interviewed (See Table 5.42) said that they were more likely to take a risk if they were in a group. This statistic has interesting ramifications for curricular design as well dealings with this student-group in general. Additionally, CAA students are relational: 100% of students interviewed felt liked by their teachers and liked them in return. Five of seven students felt this was important in education. This supports Howe's assertion about the Millennial generation, which is that they are more interrelated and social than the preceding Generation X about whom most of the at-risk literature is written. Future research may want to consider this interesting generational change at the nature of risk-taking may appear different in different generations.

Recommendations for Future Research

Thought the quantitative data on perceived-risk was less than compelling, the qualitative data was supportive of perceived-risk curriculum. Considerations for future research will be discussed below.

Challenges of Teacher Leadership. In future research, the balance between teacher autonomy and instruction would be more carefully observed. Also, the activity surveys were administered *after* the activities, and in some cases, even days after the activities had occurred. This may have diminished the potency of student responses regarding risk. In future trials, the researcher would recommend providing teacher in-service about the importance of timely data collection.

In the future of perceived risk at CAA, the researcher would become the teacher leader, and would more assertive and more instructive to teachers, offering to let them see her teach multiple lessons to her own students or to theirs. She would make certain there was communication between and among the staff members on a regular basis that would encourage the kind of risk-taking that leads to curricular innovation and success. But this would not be possible given implementation of perceived-risk curriculum in other sites. For more effective implementation in other schools, the researcher would develop the current teacher handbook for Perceived-Risk Curriculum (Kash, 2006) and make it readily available to interested teachers. The guide would be enhanced to include a video of some of the teaching strategies in practice and would include more walk-through lessons with stronger scripting for teachers new to the methods.

"Curriculum" Defined. Survey design and language was somewhat of an issue in this study (Marshall & Rossman, 2006). In future research, the words "curriculum" and risk would be more fully explained and explored with students so that the most accurate information can be gathered on surveys and in interviews. For example, when asked what was most challenging about the curriculum, students replied with a subject they found challenging, for example, math or science. To protect research validity, a definition of curriculum was designed and used in every student interview to help explain the word curriculum. The researcher said, "Curriculum can mean a single subject in school, but it can also mean the way in which the subject is taught; the methods and activities that are used to teach the subject." Despite this clarification, students left their answers unchanged despite the definition correction, making deeper probing answers about specific methodologies and activities more difficult to obtain. Later questions in the interview that used the word "curriculum" yielded better results, for example, students answered "hands-on activities," "projects" and "field trips."

"Risk" Defined. The word "risk" proved to be more complicated than expected. The definition of at-risk learners, as defined in Chapter I (as students who are at risk of academic failure because of limited English proficiency, physical or mental disability, race, geographic location, economic disadvantage, and/or severe familial dysfunction due to factors including but not limited to drug use, neglect and abuse) seemed to be apt in this study.

According to student surveys and student interviews, students did not tend to view the curricular activities as risky though field note data confirmed the presence of physical indicators of eustress and distress on some occasions. As mentioned in Chapter I, perhaps the incongruence has to do with class values and the language of poverty. Children who live in poverty, as over 70% of CAA students do, have little to risk but themselves. For them, risk is not always viewed as a prerequisite to growth and success; it may seem to be about giving up the only thing you control – yourself. .

This incongruence between the researcher's definition of risk and the student's definition of risk could also be indicative of one or more of the following situations: Perhaps the most obvious and intuitive reason may be that students did not find the activities to be risky, but there may be other reasons as well. Since the surveys and interviews were administered *after* all perceived-risk activities, the unsettling effects that represent risk may no longer be present, and students may not feel that they took a risk since it ended in relative success. Students may not define risk as the researcher did. Many students at CAA are not from stable, middle-class homes where risk is failing school classes or not meeting teachers' expectations. For many CAA students, risk is coming home when dad is drunk and combative or engaging in criminal activity; risk is being offered sex without a condom or taking drugs whose name is not known, let alone its side effects. Thus, participating in a survey about a school activity may not match a preconceived definition of risk. Students may not have wanted to self-disclose taking a risk. They may have wanted to save face and fail to admit that they were "put on the spot" by the activity. Students may not have been metacognizant enough to recognize feelings of risk when it does not look familiar to them; when a researcher defines risk in this new way, students may not be able to make the paradigm shift necessary to answer the reflective question accurately.

For the sake of research validity, the researcher did not attempt to clarify or modify for the students a definition of risk beyond that which was listed on the IRB-approved student activity survey (See Appendix A-1). In future research, a more thorough, culturally sensitive and student-centered definition of risk would be beneficial. Perhaps the words, “challenge” or “constructive-risk taking” would be more appropriate choices in future trials to help avoid the discrepancy in definitions

The At-Risk Brain in the Future. Though in the scope of this study sophisticated technologies could not be utilized to examine PET scans of the cognitive neuro-function of at-risk students, the researcher predicts that this may be possible in the not-too-distant future. So much can be learned when technology is applied to the social sciences, but financial support is simply not there for that kind research at this level. In this time, behavioral data and student grade data provided our limited view of the adolescent at-risk brain, and though it provided insight in this study and others, perhaps there will be a future where technology can be applied to better understand student learning and barriers to it allowing new strategies to be developed and more students to flourish and thrive academically and socially.

Milkman Full Circle. This study began with an interest in Milkman’s perceived-risk methods (specifically artistic methods) in an after-school context to help reduce social deviance and promote pro-social behaviors. It sought to continue Milkman’s work into the classroom to see if students could more fully engage in curricular materials through perceived risk. The results have been promising and argue for continued practice at CAA. Students were not threatened or scared out of completing and displaying their hard work. Learning was not sacrificed for enjoyment in the perceived-risk curriculum. The researcher also learned from this research that CAA may have moved from its original intent, and in the subsequent years, the researcher intends to provide teacher leadership and mentoring to help CAA light the spark of creativity that has once flourished there.

A Call for Additional Research

It can be argued that this study opened a door for inquiry into a classroom-based perceived-risk curriculum for at-risk learners. There is so much more to know. What is certain is that there is intriguing potential in the minds of our students and teachers, and with their creativity and ingenuity, and our unfailing support of these challenged and challenging students and their teachers curriculum can be developed that capitalizes on their strengths and pushes them to new zeniths of success even if these methods fly in the face of commonly accepted beliefs about how students learn. Perhaps some of these innovative methods can be employed with success in the regular education classroom as well. As teachers experiment in their classrooms, as administrators make this experimentation and its inherent risk of failure acceptable and as our political system recognizes the need for innovation in education, America's students will be better served and will in turn serve better throughout their lives.

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Appendices

APPENDIX A -1 Student Activity Survey

<u>Date</u> <u>Activity Title</u>

1. What were you being asked to learn in today's activity?

2. How did you go about learning it or showing your learning?

3. I enjoyed today's activity…

1	2	3	4	5
Not at all	Not much	Some	Pretty much	A lot

4. I felt connected to and engaged in learning during this activity…

1	2	3	4	5
Not at all	Not much	Some	Pretty much	A lot

<u>Engagement – Please explain:</u>

5. During this activity, I felt that the activity was (*for me*)… Risk for yourself (risk is defined as feeling scared about what your peers will think when you display your work product or about how you will feel about displaying your work product publicly).

1	2	3	4	5
Not risky	A little risky	Some risk	Risky	Very risky

Please explain:

6. During this activity, I felt that the activity was (*for other students*)…

1	2	3	4	5
Not risky	A little risky	Some risk	Risky	Very risky

<u>Risk for others – Please explain:</u>

7. What did you enjoy most about today's activity?

8. What was least enjoyable about today's activity?

9. I felt academically successful…

1	2	3	4	5
Not Successful	A little Successful	Somewhat Successful	Successful	Very Successful

<u>Academic Success – Please explain:</u>

10. Any comments about this activity to share?

APPENDIX A -2 Teacher Activity Survey

Teacher Name Date Activity Title

1. What did you ask the students to learn in today's activity?

2. What perceived risk methods did you employ in the activity?

3. Way(s) in which you used the perceived risk methods (circle all that apply):

- As an Anticipatory Set
- To Convey Content
- To Reinforce Skill
- To Review Content
- To Assess Learning
- Other (please describe)

4. I felt most students connected to and engaged in learning during this activity…

1	2	3	4	5
Not at all	Not much	Some	Pretty much	A lot

Engagement – Please explain:

5. During this activity, I felt that the activity was (for most of my students)

1	2	3	4	5
Not risky	A little risky	Some risk	Risky	Very risky

Risk (as defined by student resistance due to fear of public display, peer reaction etc.) - Please explain:

6. How difficult was the lesson to prepare (finding resources, planning, managing etc.)?

1	2	3	4	5
Not hard	A little hard	Reasonably Hard	Hard	Very hard

7. How time consuming was the lesson to prepare and to conduct?

1	2	3	4	5
Not hard	A little hard	Reasonably Hard	Hard	Very hard

8. In this activity, how academically successful were most students?

1	2	3	4	5
Not Successful	A little Successful	Somewhat Successful	Successful	Very Successful

Academic Success – Please explain:

9. How likely is it that you would repeat this activity?

1	2	3	4	5
Not at all	Less likely	Pretty Likely	More likely	Very likely

10. Any comments about this activity for future use?

APPENDIX A -3 Student Interview Questions

First Interview – May 2009

1. Which part(s) of the curriculum are you finding most challenging?
2. Which part(s) of the curriculum are you finding most rewarding?
3. What part(s) of the curriculum are you finding most difficult?
4. What part(s) of the curriculum are you finding very easy?
5. What part(s) in the curriculum would you remove to make the curriculum better?
6. What would you add to the curriculum to make the curriculum better?
7. Have you found public display of your work product risky or threatening?

A. If yes, please indicate which elements of the curriculum you found most and least threatening or risky using, using a scale of 0 for not risky and 10 for very threatening.

8. Have you enjoyed public display of your work product?
9. What audience for your work product did you find most (least) risky?
10. Are you more likely to take a risk if you are in a group?

Final Interview – June 2009

11. Please comment in your own words how you *feel* about the 2009 NCA curriculum:
12. Do you like your teacher(s)? Do you feel they like you? Does it matter in teaching and learning?
13. Do you think risk should play a role in school curriculum? Did it impact your learning at NCA?
14. Is there anything else about your experience at NCA you would like to share?

APPENDIX A- 4 Teacher Interview Questions

1. Please comment in your own words how you *feel* about the 2007 NCA curriculum:

2. Did you find the 2007 NCA curriculum easier or more difficult to teach than a conventional curriculum?

3. What element of the curriculum would you remove to make the curriculum better?

4. What element of the curriculum would you enlarge to make the curriculum better?

5. Do you believe the records keeping supporting the 2008-09 NCA curriculum burdensome or acceptable?

6. How do you think your students responded to the curriculum?

7. Do you believe the time requirements of the curriculum are reasonable? Too long? Too brief?

8. Was arranging public display of work products for individual students easy or difficult?

9. How do you think parents have responded to the 2008-09 NCA curriculum?

10. Do you like teaching this curriculum?

11. What would you add to make this curriculum better?

APPENDIX A- 5 Wanberg Instrument

Here are some activities that people your age can do. In the past three months, how many times have you done the following things? Circle the letter under the answer of your choice.

	None	**1-3 times a month**	**1-3 times a week**	**4-6 times a week**	**Almost every day**
1. Listened to CDs or tapes.	a	b	c	d	e
2. Danced with someone.	a	b	c	d	e
3. Sang or chanted.	a	b	c	d	e
4. Danced by yourself to music or rhythm.	a	b	c	d	e
5. Moved your body to music or rhythm.	a	b	c	d	e
6. Did artistic movement.	a	b	c	d	e
7. Kept rhythm to music.	a	b	c	d	e
8. Expressed emotions to music.	a	b	c	d	e
9. Expressed emotions through dancing or body movements.	a	b	c	d	e
10. Expressed ideas and thoughts through music	a	b	c	d	e
11. Played a musical instrument.	a	b	c	d	e
12. Listened to classical music.	a	b	c	d	e
13. Looked at paintings and works of art.	a	b	c	d	e
14. Drew or painted pictures.	a	b	c	d	e
15. Sculpted out of clay or other material.	a	b	c	d	e
16. Watched an artist work.	a	b	c	d	e
17. Made something with your hands.	a	b	c	d	e
18. Expressed emotions through doing art work.	a	b	c	d	e
19. Expressed thoughts through crafts or art.	a	b	c	d	e
20. Were in a play or acted on a stage.	a	b	c	d	e

Here are some activities that people your age can do. In the past three months, how many times have you done the following things? Circle the letter under the answer of your choice.

	None	**1-3 times a month or less**	**1-3 times a week**	**4-6 times a week**	**Almost every day**
21. Role played.	a	b	c	d	e
22. Acted out a story or an idea.	a	b	c	d	e
23. Watched a play.	a	b	c	d	e
24. Expressed emotions through acting out a story.	a	b	c	d	e
25. Expressed thoughts through acting out a drama.	a	b	c	d	e

In the past three months, have you...........	**No**	**A few times**	**Many times**	**All the time**
26. Stopped and thought before acting?	a	b	c	d
27. Thought about what would happen if you did a certain thing?	a	b	c	d
28. Thought about your problems and the things you have done wrong?	a	b	c	d
29. Felt you had control over your actions?	a	b	c	d

In the past three months, have you.........	**No**	**A few times**	**Often**	**Very often**
30. Realized what your actions do to others?	a	b	c	d
31. Been able to make good decisions on your own?	a	b	c	d
32. Taken time out to think about who you are?	a	b	c	d
33. Thought about the problems you have had?	a	b	c	d

In the past three months, have you.........	**No**	**A few times**	**Often**	**Very often**
34. Listened to music rather than drink or use drugs.	a	b	c	d
35. Exercised or did something physical rather than use drugs or alcohol?	a	b	c	d
36. Done art work rather than use drugs?	a	b	c	d

37. Used relaxation exercises to not drink?	a	b	c	d
In the past three months, have you...........	**No**	**A few times**	**Many times**	**All the time**
38. Decided not to go to a drinking party with friends?	a	b	c	d
39. Made a decision not to drink or use drugs?	a	b	c	d
40. Used alcohol?	a	b	c	d
41. Used drugs other than alcohol?	a	b	c	d
42. Had friends talk you into wrong behavior?	a	b	c	d
43. Taken time out to think about who you are?	a	b	c	d
44. Thought about the problems you have had?	a	b	c	d
45. Talked with your family?	a	b	c	d
46. Talked with a counselor about problems?	a	b	c	d
Now, please answer these questions:	**No not at all**	**Just a little**	**Quite a bit**	**Yes a lot**
47. Do you feel comfortable working in a small group?	a	b	c	d
48. Do you have trust working as a team with people your age?	a	b	c	d
49. Do you feel OK talking about yourself in a group?	a	b	c	d
50. Is it easy for you to say what you think?	a	b	c	d
51. Do you like working with teachers in a classroom?	a	b	c	d
52. Do like being in a situation where you learn new things?	a	b	c	d
53. Have you learned the skill of telling someone that you are angry without getting them mad at you?	a	b	c	d
54. Do you think the things you have learned in the classes you have been in help you to get along in the world?	a	b	c	d

Now, please answer the following questions:	No not at all	A little bit	Quite a bit	A lot
55. Have you been able to take the things you have learned from teachers and make them work in real life?	a	b	c	d
56. Do drugs make a person more sexually powerful?	a	b	c	d
57. Do you understand how the brain talks to the body?	a	b	c	d
58. Do you understand how drugs keep the brain from working right?	a	b	c	d
59. Do you know what natural chemicals you have in your body?	a	b	c	d
60. Do you understand how drugs fool the body?	a	b	c	d
61. Do you know how drugs damage the body?	a	b	c	d

Now, please answer these questions:	No not at all	Just a little	Quite a bit	Yes a lot
62. Do you usually know how you feel inside?	a	b	c	d
63. Do you know how your thoughts and feelings work together?	a	b	c	d
64. Have you learned the skills to look for a job?	a	b	c	d

Below are ways that people can feel or think about themselves. Choose the answer for each question which best describes how you see yourself IN THE PAST THREE MONTHS.

	No	Somewhat	A lot	All the time
65. Have you felt down in the dumps and depressed?	a	b	c	d
66. Have you been nervous and tense?	a	b	c	d
67. Have you felt irritated and angry?	a	b	c	d
68. Have you had times when you were very happy and then felt very sad?	a	b	c	d

	No	Somewhat	A lot	All the time
69. Did you tend to worry a lot?	a	b	c	d
70. Did you feel like not wanting to live?	a	b	c	d
71. Did you have a lot of personal or emotional problems in your life?	a	b	c	d
72. Were you an unhappy person?	a	b	c	d
73. Did you have nervous habits like chewing your finger nails?	a	b	c	d
74. Did you have problems sleeping at night?	a	b	c	d
75. Did you most likely do what your friends want you to do?	a	b	c	d
76. Were you more likely to get into trouble when you were with your friends?	a	b	c	d
77. Did your close friends have problems with their parents?	a	b	c	d
78. Did your parents run down or say bad things about your friends?	a	b	c	d
79. Did your friends get into trouble?	a	b	c	d
80. Did you follow more what your friends want you to do rather than what your parents want you to do?	a	b	c	d

	Poor	Fair	Good	Very good
81. How did you get along with your teachers in in the <u>past three months</u>?	a	b	c	d
82. How do you get along <u>today</u> with your teachers	a	b	c	d
83. Your school grades in the past three months	a	b	c	d
84. Your school grades <u>today</u> are	a	b	c	d
85. My school attendance in the past three months was.....	a	b	c	d
86. My school attendance right now is..	a	b	c	d
87. Overall, in the past three months, how have you done in school?	a	b	c	d

As to your relationship with your parents and family in the past three months.........	No	A few times	A lot of times	All the time
88. Have felt neglected?	a	b	c	d
89. Have been upset with my parents.	a	b	c	d
90. My parents have been upset with me.	a	b	c	d
91. Had problems with my parents.	a	b	c	d
92. My parents fought a lot.	a	b	c	d
93. Felt cared about by my parents.	a	b	c	d
94. Felt close to my parents.	a	b	c	d
95. Unable to talk with my parents.	a	b	c	d
96. Family did things together like go on picnics or to movies?	a	b	c	d

Below are some attitudes and ideas that people have about using drugs. Please choose the answer for each question which best describes how you see yourself around these ideas IN THE PAST THREE MONTHS

	For sure no	Maybe no	Maybe yes	For sure yes
97. It should be legal for 18 year olds to drink beer.	a	b	c	d
98. Marijuana (Pot) should be legal.	a	b	c	d
99. Do your friends feel it is OK to use drugs?	a	b	c	d
100. It is all right to use drugs if your parents approve.	a	b	c	d
101. I feel it is all right for me to use alcohol.	a	b	c	d
102. I feel it is all right for me to use drugs other than alcohol.	a	b	c	d
103. There is nothing wrong with people using drugs as long as they control their use.	a	b	c	d

In the past three months...........	No	1-2 times	3-4 times	More than 5 times
104. Have you stolen something from others?	a	b	c	d
105. Have you been into a fist fight with your peers or adults?	a	b	c	d
106. Did you steal something worth more than 50 dollars?	a	b	c	d
107. Have you stayed away from the place you live a day or two without permission?	a	b	c	d
108. Have you broken the law but was not caught?	a	b	c	d
109. Have you been involved in selling or dealing drugs?	a	b	c	d
110. Have you been arrested for breaking the law?	a	b	c	d
111. Did you get a ticket for traffic violation?	a	b	c	d

Now, as to the use of alcohol or other drugs, answer the following questions as to how they apply to you during THE PAST THREE MONTHS.

112.How many times did you drink alcohol such as beer, wine or liquor (spirits)?	**No use**	**1-5 times**	**6-10 times**	**11-20 times**	**More than 20 times**
	a	b	c	d	e
113.How many times did you use marijuana (hashish, pot, weed, grass)?	**Never used**	**1-10 times**	**11-20 times**	**21-30 times**	**More than 30 times**
	a	b	c	d	e
114.How many times did you use cocaine or crack?	**Never used**	**1-2 times**	**3-6 times**	**7-10 times**	**More than 10 times**
	a	b	c	d	e
115.How many times have you used amphetamines (speed, uppers, meth, diet pills, crystal, black beauties, white crosses methamphetamines, etc.)	**Never used**	**1-2 times**	**3-6 times**	**7-10 times**	**More than 10 times**
	a	b	c	d	e

Now, as to the use of alcohol or other drugs, answer the following questions as to how they apply to you during

THE PAST THREE MONTHS.

116.How many times have you used hallucinogens such acid, LSD, PCP, mescaline, mushrooms, peyote?	**Never used** a	**1-2 times** b	**3-4 times** c	**5-6 times** d	**More than 6 times** e
117.How many times have you used sedatives or tranquilizers for non-medical reasons?	**Never used** a	**1-5 times** b	**6-10 times** c	**11-20 times** d	**More than 20 times** e
118.How many times have you used ecstasy?	**Never used** a	**One time** b	**2-3 times** c	**4-10 times** d	**More than 10 times** e
119.How many times have you used inhalants?	**Never used** a	**1-5 times** b	**6-10 times** c	**11-20 times** d	**20 times** e

Now as to your plans in the future:	**For sure no**	**Maybe no**	**Maybe yes**	**For sure yes**
120. Do you want to change the group of friends you spend time with?	a	b	c	d
121. Do you want to attend school?	a	b	c	d
122. Do you want to have a better relationship with your family?	a	b	c	d
123. Do you want to finish high school?	a	b	c	d
124. Do you want to get to know your family better?	a	b	c	d
125. Do you want to have more self-control?	a	b	c	d
126. Do you want to be less depressed?	a	b	c	d
127. Do you want to like yourself better?	a	b	c	d
128. Do you want to feel less nervous?	a	b	c	d
129. Do you want to feel better about yourself?	a	b	c	d
130. Do you want to obey the law?	a	b	c	d

131. Do you want to get into less trouble?	a	b	c	d
132. Do you want to be a better citizen?	a	b	c	d
Now as to your plans in the future:	**For sure no**	**Maybe no**	**Maybe yes**	**For sure yes**
133. Do you want to no longer use alcohol?	a	b	c	d
134. Do you want to no longer use drugs other than alcohol?	a	b	c	d
135. Do you plan to stop using alcohol?	a	b	c	d
136. Do you plan to stop using drugs other than alcohol?	a	b	c	d
137. Will you drink alcohol when you are an adult?	a	b	c	d
138. Will you use marijuana when you are an adult?	a	b	c	d
139. Will you use drugs other than alcohol or marijuana when you are an adult?	a	b	c	d
140. Do you need help with family problems?	a	b	c	d
141. Do you need help staying out of trouble with the police?	a	b	c	d
142. Do you need help with emotional problems?	a	b	c	d
143. Do you need help with school problems?	a	b	c	d
144. Do you have problems with alcohol or drug use?	a	b	c	d
145. Do you need help with drug or alcohol problems?	a	b	c	d

APPENDIX A-6 Holocaust Art Gallery Criteria

The objectives of the Art Gallery is to encourage CAA students to evaluate history, to foster awareness of the Holocaust, to broaden their minds in the areas of art, history, civics, sociology, and literature, and to make connections to similar events in today's world. Judges will come from the school board, CAA advisory board, other occupants of our building, and people from the community. The exact date for the judging has yet to be determined, but it will probably be in late April.

The topic is: ***Never Forget***

PROMPT

Victims of the Holocaust came from many diverse groups: Jews, Jehovah Witness, Roma, physically and mentally handicapped, homosexuals, communists, political dissenters, and intellectuals. Create a piece of art that will, through its message, educate people of all ages about the consequences of discrimination, persecution, and hate.

Before you enter the competition, however, you must submit a ***proposal of your project*** to Ms. Y and Ms. X. Your *proposal* will be graded as a writing assignment.

What You Do:

1. First, with what medium do you want to work?

Watercolors	Pencils/Colored Pencils	Crayons
Acrylics	Ink/Markers	Other ____________
Chalk	Oil Paints	

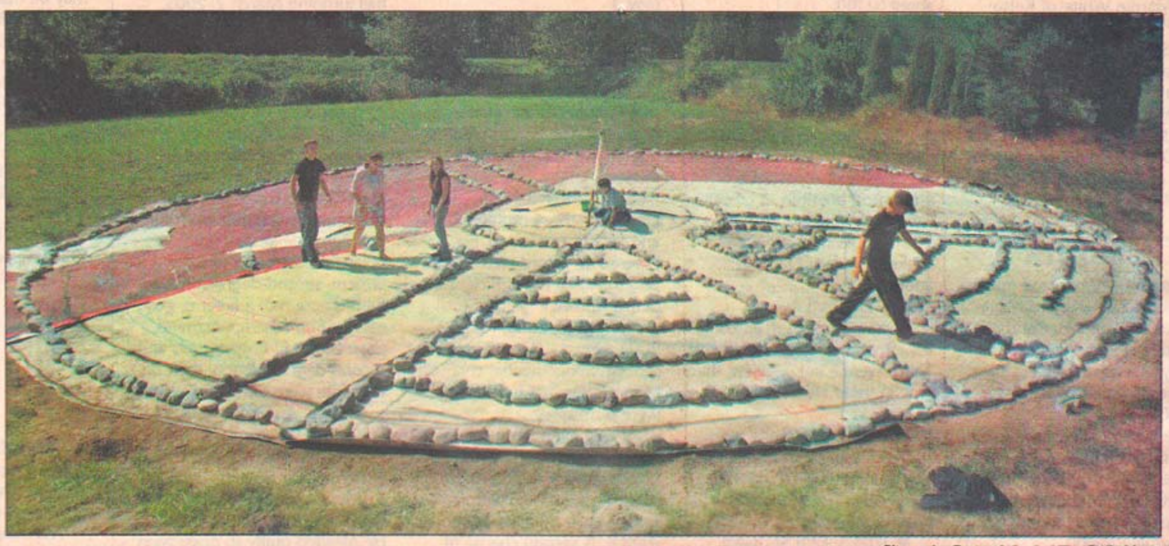
   Once you've decided your medium, make sure you **list** ALL materials you will need to complete your masterpiece.

2. Next step is to write a paragraph describing your work of art and your purpose for selecting a particular idea. Write a description that gives the teachers a clear and exact picture of your project and your purpose. Use your senses. Choose details that fit the prompt and the topic. Use exact words; don't generalize. What is your picture about? Where does the scene (if you use a scene) take place? If abstract, describe what different elements/colors in the picture mean or symbolize? From where did your inspiration come? If people are in the picture, describe age, clothing etc.? Describe the colors and details you plan to use – these may change as your art develops, but you need to *think* about them before you begin.
   After you have written your first draft, share it with a parent or guardian. Ask for feedback and then begin the editing process that takes place before you can write out your final draft.

3. Once your proposal has been approved by the teachers, you may begin. Your masterpiece must follow the criteria below.

   a) Must be the original work of the student – no cut and paste
   b) Must clearly address the topic
   c) Name appears on the back of the art piece ONLY

APPENDIX A– 7 Press Coverage of Academy Projects



Photos by Roger Werth / The Daily News

Students from the North Columbia Academy in Rainier are helping to build a peace sign-shaped labyrinth at All Season Garden Center in Kelso. From left are Nick Carlough, teacher Laurie Kash, Madeleine King, Pat Gore and Brandon Wika.

Building a path to success

Rainier alternative school caters to students who want to learn in a different way

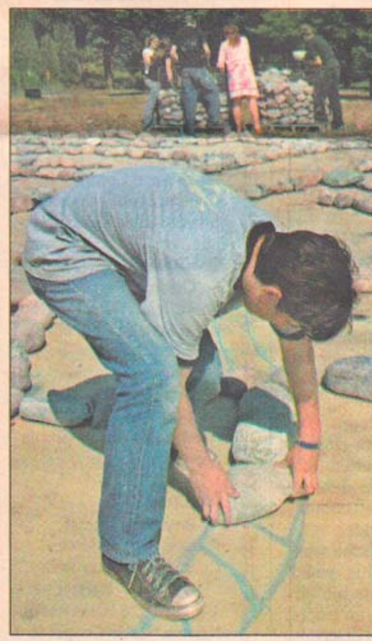
By Janine Manny
THE DAILY NEWS

The staff of North Columbia Academy, an alternative high school in Rainier, does not want the school to be thought of a "last resort" for students.

"We've got kids who want or need to learn in a different way," said Laurie Kash, NCA curriculum director. "The smaller setting is more stable. For some students, there is too much stimuli in a larger school."

The public charter school usually has about 27 students from the Rainier and Clatskanie area. Kash said the staff can handle more and would like to boost enrollment to 35.

This is the third year of the Rainier School District's public charter school. It was designed for underachieving students, those with learning difficulties and others who would benefit from nontraditional teaching styles. Students can earn a standard diploma and a certificate of initial mastery.



Left, Pat Gore, 16, a junior at North Columbia Academy, places a stone of the 'Pathway for Peace' labyrinth students are building in Kelso.

"It's moved beautifully from a typical alternative school to being a place with a variety of learning styles," Kash said. "We're more structured, and our students are more successful here than they would be in a traditional school. We cater to a wider clientele than just kids who are there as a last resort."

As an example, students are earning community service hours this summer helping to create a labyrinth at All Season Garden Center in Kelso.

Garden Center owner Richard Bacon, 45, who has been in the area for less than a year, had always wanted to build a labyrinth. A friend of his recently had been to a labyrinth in France and was helping Bacon design the labyrinth when they met Kash, who wanted her students to build a labyrinth but didn't have the budget.

"I want to create not just a garden center, but a place to heal and renew," said Bacon, who along with many of his customers is involved with meditation.

The labyrinth will be a "Pathway for Peace." Not only will it be shaped like a peace symbol, the students are researching famous quotes about peace to use as messages in the center.

"A labyrinth is a good metaphor for life for these students," Kash said. "In a maze, there are roadblocks to stop you and you can get lost. In a labyrinth, there are no roadblocks. As long as you follow the path, you always make it to the center."

NCA sophomore Alyse Toulouse, 15, said attending NCA has given her the opportunity to explore different ways of learning.

"The staff is supportive in helping students find what they really want to do in life," she said. "They don't want us to end up with burger jobs."

See School, Page B4

APPENDIX B – 1 IRB Proposal 2009

1. Brief Description:

In the pursuance of my dissertation for a Ph.D. in Teacher Leadership, I have been researching the development of a new curriculum to be used in the teaching of at-risk learners at the North Columbia Academy in Rainier, Oregon. These teaching methods include increasing display of student work products, requiring shorter-term responses, and measuring achievement against teacher and student expectations. I am curious to see if at-risk learners are more likely to engage in learning if the cycle of failure is interrupted through an effect called “perceived risk.” Perceived risk, for the purpose of this study involves creating an environment in which the student has a perception that his or her work is worth doing, success is important and public review of his or her work product follows. I would like to examine how effective the curriculum is in terms of student engagement in the learning process, development of positive social behaviors, and academic growth; teacher ease of use and satisfaction with the curriculum; and overall success of the program. The quantitative and qualitative research will be analyzed and interpreted and published in my dissertation and potentially in other venues including journal articles.

2. Background and Significance:

I have been working with the North Columbia Academy, a publicly funded charter school for at-risk learners, since its inception in 2003. I have participated as an Arts teacher, curriculum director, and as a major contributor to the concept of the school. It was decided in 2003 that we would found the school on several platforms: addressing the emotional and academic needs of our students; developing a program to teach better decision making techniques; and utilizing student and teacher input in the teaching and learning environment. In preparation for this new program, the work of Harvey Milkman was studied, and his drug addiction work using the Arts and other forms of “perceived risk” was adopted to help promote positive social behaviors among our at-risk youth. I desired to know if, in addition to behavioral changes, academic growth could occur using the same perceived risk phenomena in the classroom.
<u>I have since moved to another position in the same school district, though I desire to continue my research about NCA.</u>

3. Methods and Procedures:

The primary method is qualitative research, using interviews and surveys, to learn how the students and teachers feel about and respond to the new curriculum; however, strong secondary method will be quantitative to measure the effectiveness of the new curriculum. The qualitative research methods include student and teacher responses (See attachment) parent responses (See attachment), personal journaling, and case study interviews with the lead teacher and four NCA students. The quantitative research methods include, all as parts of the normal NCA procedures: standardized test scores (CIM), The Wanberg Instrument (drug, alcohol and the Arts assessment), quarterly grade reports, attendance reports, and scores on pre- and post unit testing.

A chart demonstrating individual responsibility for collecting information for this research study attached (See attachment).

The Perceived Risk Curriculum has components that include some of the following methods:

Problem-based learning

Problem-based learning (PBL) offers students a chance to participate in role playing while engaging in complex scenarios, and is as old as Dewey's "problematic" (Dewey, 1938).

Collaborative/Cooperative Learning

The thrust of collaborative or cooperative learning is pairing and grouping students who are working toward a common goal.

Vocational Education

Vocational education utilizes programs which emphasize work training and job experiences in an effort to prepare students for present scholastic success and for future careers and employment.

Service Learning

Service Learning encourages a spirit of helpfulness and respect for self and others through work with community organizations, businesses, and charities.

Brain-Based Learning

Brain-based Learning – a movement gaining momentum in mainstream education, but which has been in existence for decades – seeks to bring new discoveries about cognitive neuroscience to the classroom.

Multiple Intelligences

For the past 20 years, Harvard's Project Zero and its leader, Howard Gardner, have produced very exciting research celebrating individual learner differences. Gardner believes that learning is more than reading and writing, and includes as many as nine kinds of intelligence.

A. Qualitative research will be carried out through use of the following surveys and interviews.

1. Student Activity Survey - Student response (10 questions) –

This survey seeks to determine how the students feel about academic success, levels of interest, and the perceptions of threat and risk for each use of the new curriculum units. This survey will be administered after each of the new activities within the broader curriculum. Students will answer the ten-question survey. There is no time limit for their responses, though the survey expected to take no more than five minutes to complete.

Student surveys will be distributed by the teachers after each perceived risk activity is used. The students will return the completed, anonymous surveys to the teacher who will return them to me for data analysis. This survey is in addition to previously established NCA requirements and is for research purposes.

2. Teacher Activity Survey– Teacher Survey (10 questions)

This survey seeks to determine how the teachers feel with regard to the ease of preparation, the academic success, and the perception of risk for each activity within the new curriculum. This survey will be administered after each of the unit activities is performed. The teachers will answer the ten-question survey. There is no time limit for their responses, though it is expected to take no more than five minutes to complete.

Teacher surveys will be collected after each perceived risk activity is used. The teacher will have a supply of the surveys and will fill them out. The teacher will return the completed surveys to me for data analysis. This survey is in addition to previously established NCA requirements and is for research purposes.

3. NCA Home Survey (8 questions)

This survey seeks to determine how the parents feel the student is doing at home with regard to relationships and responsibilities. It will be administered at NCA Open House time (approximately quarterly). The parents or guardians of NCA students will answer the eight-question survey either on paper or over the telephone depending upon parent/guardian availability or preference. Paper surveys will be collected, and telephone responses will be transcribed by the NCA Program Assistant, **Rachell Coffee**. There is no time limit for their responses, though it is expected to take no more than ten minutes to complete.

Home surveys will be distributed and collected by **Rachell Coffee**. She will return the completed surveys to me for data analysis. This survey is in addition to previously established NCA requirements and is for research purposes.

4. Student Case Study Interviews

In the second semester, eight students will be chosen to be interviewed about their reactions to the new curriculum. Interviews will be conducted **three times throughout the second semester of the 2008-09 school year: in February, April and June.** They will be interviewed at the NCA office and boardroom. Four of the students will be chosen based on their general resistance to or lack of success with the curriculum, and four of the students will be chosen based on their general acceptance of or success with the curriculum. The students will be chosen by the two NCA teachers and program assistant. Parents of the students chosen to participate will be called on the telephone to gain informal permission, and a letter will be sent home with formal consent documents, and a self-addressed, stamped envelope will be enclosed. Once written permission from parents and students have been obtained, the case study interviews will be conducted. Case study interviews of each individual student will by conducted by me and will be audio recorded for purposes of accuracy. Student interviews are private, and students will not be identified by name on the tape, but the tapes will be number coded so that any future quotations can be checked with the student for accuracy ("member checking"). I will maintain the confidential identification log. Tapes will be stored in a locked filing cabinet **at Hudson Park Elementary, a school off-site from NCA**, and will only be available to me. Interviews will be reviewed to discover common concerns and to discover ways in which to improve the students' learning experiences. Tapes will be erased and discarded after completion of the research or not later than September 1, **2009.** Should any quotes from students be used in publication, though their names will not be used in publication, the quotes will be made available to the students prior to publication for review to insure accuracy and to obtain use approval. These interviews are in addition to previously established NCA requirements and are for research purposes.

5. Staff Case Study Interviews

In spring quarter, two teachers and NCA's program assistant will be chosen to be interviewed about their feelings about the new curriculum. Interviews will be conducted in June after the school year has been completed and the following years' contracts have been awarded so that teachers do not feel pressured to participate. Once written permission from the staff members has been obtained, the case study interviews will be conducted. Staff members will be privately interviewed at the NCA office and board room. Case study interviews will by conducted by me and will be audio recorded for purposes of accuracy. Staff members will not be identified by name on the tape, but the tapes will be number coded so that any future quotations can be checked with the staff members for accuracy ("member checking"). Tapes will be stored in a locked filing cabinet at **Hudson Park Elementary, a school off-site from NCA**, and will only be available to me. I will maintain the confidential identification log. Tapes will be erased and discarded after completion of the research or not later than September 1, **2009.** Interviews will be reviewed to discover common concerns and ways in which to improve the staff members' teaching experiences. Should any quotes from staff members be used in publication, though their names will not be used in publication, the quotes will be made available to the staff members prior to publication for review to insure accuracy and to obtain use approval. These interviews are in addition to previously established NCA requirements and are for research purposes.

6. Personal Reflection

As the student researcher, I will record my experience with curriculum implementation and my world view through regular journaling. I will use students' initials to represent student names in the journal. The journal is on my personal computer, will be password protected, and will not be available to any one else. I will examine the journal for common themes to identify possible program faults and improvements. I will record personal observations about my experiences, but should any of the observations be used in publication, only those about students who have chosen to participate in the study will be used, and students will not be identified.

This journal is in addition to previously established NCA requirements and is for research purposes.

B. Quantitative research will be carried out through use of the following data collection instruments.

All of the following quantitative measures are done as a regular part of the NCA procedures. Permission is being sought to use the data we already collect. These measures are **not** above and beyond the scope of what we already do at NCA.

1. Wanberg Instrument

The Wanberg Instrument is a regular part of the previously established NCA requirements, given three times each year, to allow the staff to determine whether interventions at our charter school are making a difference in students' drug and alcohol abuse.

This instrument, designed by psychomatrician Ken Wanberg for NCA in 2004, measures student use of drugs, alcohol and participation in the Arts to see if the Arts-based elements of the curriculum are having an impact on students' positive social behaviors. The questionnaire has 140 questions, may be broken into several sections if need be, and is administered by the school counselor, Wes Armstrong, during the established Pathways Program period. A four-digit number is assigned to each student to make certain their identity is protected, and this identification log is maintained in confidence by the school counselor.

Wanberg instruments are distributed by the school counselor. Students are given a four digit number to code their identity. The four digit code is applied to the instrument. The instrument is administered by the school counselor. They will be collected at the time of administration, and will be scored by the school counselor. Holistic results will be reported to me without any connection to student identity. I will only use data for students who have signed consent and assent forms. I will provide the list of signed consent forms to the counselor, so that he can omit data for non-approved students.

2. Other Quantitative Measures

The other quantitative measures will include common school measurements:

State-wide standardized testing –- OAKS testing includes tests measuring levels of achievement in reading, writing, science, social science and math. These tests are administered by Oregon Department of Education and are conducted by the participating classroom teachers. They are assessed by the Oregon Department of Education.

Grade point average – Grade point average is determined quarterly on a scale of 0 – 4.0 based on letter grades provided by teachers in each subject area in assigned classes.

Carnegie units - Units of credit earned at each semester (twice yearly) totaling .5 credits per hour-long class, per semester.

Attendance records – The number of days present compared with the number of possible school days.

Pre- and Post Unit Testing - Teachers design their own pre- and post unit testing to determine growth and student learning. Teachers use these measures to determine if re-teaching is necessary and if learning objectives have been met.

All of these assessments are state and/or districts required, and are part of the previously established NCA requirements. I am requesting permission to use this data through consent and assent forms.

4. Risks/Benefit Assessment:

Risks – Risk to participants is minimal. Upon enrollment at NCA, students and their parents sign contracts allowing for drug assessments to be conducted. At NCA, the school counselor administers The Wanberg Instrument (see Section 3.B.1 above). The risk to the students may include a degree of discomfort, as questions on The Wanberg Instrument are somewhat invasive since they ask about use of drugs and alcohol. However, this instrument is routinely given in our school and I am asking permission to use the data in my dissertation study. All other surveys are neither invasive nor should occasion discomfort since they deal with student reactions to the curriculum in the form of anonymous responses.

Risk is minimized through de-identification (use of a coding system using numbers instead of names) is used in the following areas of the study: Student Case Study Interviews, Staff Case Study Interview, and The Wanberg Instrument. The NCA Home Surveys and the Student Activity Survey are anonymous.

Benefits – There are no direct benefits to the participants.

Conclusion – Through use of The Wanberg Instrument, success of our Pathways drug and alcohol program can be assessed, and we can in this way, measure social growth of our students and the strengths and weaknesses of our program. <u>**I am no longer a staff member at NCA, and consequently, I have no impact on student grading or matriculation or on staff evaluation, so the overall risk to participants is very low.**</u>

5. Participant Population:

All (approximately) thirty students at NCA participate in state and district mandated programs as stated above. Students and staff members will not be penalized for declining to participate in case study interviews or surveys.

6. Subject Identification and Recruitment:

Since NCA is a school of choice, all students are volunteers. Since students participate in the quantitative measures (see section 3.B.) as a regular part of the NCA curriculum, the recruitment for the quantitative section of the study will be equitable. Participation in qualitative elements including case study interviews and surveys are informed volunteers.

7. Compensation:

There is no compensation for participants, however should staff members work beyond their contracted hours to complete research tasks, overtime compensation, up to $200 per staff member, has been authorized by the Rainier School District superintendent.

8. Informed Consent Process:

Parents, student and staff members will be contacted after IRB approval of the Perceived Risk Curriculum Study to obtain formal written consent (and in the case of students, assent) to participate in the various elements of the study. Separate consent and assent documents were designed to address the following elements of the study:

Teacher Activity Survey Consent
Staff Case Study Interview Consent
Home Survey Consent
Student Activity Survey and Student Records Consent (parents) and Assent (students)
Student Case Study Interview Consent (parents) and Assent (students)

9. Anonymity or Confidentiality:

The information provided during this research study will be kept confidential to the extent permitted by law. To help protect confidentiality, code numbers will be assigned to the case study interviews and Wanberg Instrument results in lieu of names. None of the individual results will be made public to other teachers, counselors, parents, parole officers, or school officials. Also, the questionnaires will be locked in a filing cabinet in a secure location at NCA to protect participant privacy. If the results of this project are published, student and staff identities will not be made public.

APPENDIX B – 2 - IRB Extension 2009
Extension Proposal for Kash 3380 –
Perceived Risk Curriculum for At Risk Learners

1. Brief Protocol Summary

In the pursuance of my dissertation for a Ph.D. in Teacher Leadership, I have been researching the development of a new curriculum to be used in the teaching of at-risk learners at the North Columbia Academy in Rainier, Oregon. These teaching methods include increasing display of student work products, requiring shorter-term responses, and measuring achievement against teacher and student expectations. I am curious to see if at-risk learners are more likely to engage in learning if the cycle of failure is interrupted through an effect called "perceived risk." Perceived risk, for the purpose of this study involves creating an environment in which the student has a perception that his or her work is worth doing, success is important and public review of his or her work product follows. I would like to examine how effective the curriculum is in terms of student engagement in the learning process, development of positive social behaviors, and academic growth; teacher ease of use and satisfaction with the curriculum; and overall success of the program. The quantitative and qualitative research will be analyzed and interpreted and published in my dissertation and potentially in other venues including journal articles.

2. Brief Summary of Study Progress to Date:

Last year, I requested a one-year extension for my IRB permission for my Ph.D. research. I began the process of renewal in January – though my work was officially renewed in the spring. Work offered some real challenges in 2007 and 2008 and I was unable to collect data. After reconfiguring my job assignment and after some new and innovative people joined our district, I am ready to finish everything up. I am no longer at the school where research was being conducted, so have no power relationship to students there. At this time, interventions are being implemented and data is being collected with the survey instruments re-approved by IRB in March 2009. Last year, 21 students entered the study. None have dropped to date. Students have completed student surveys, teachers have completed teacher surveys, and students and teachers have employed curricular interventions. Eight of them have been through phase one of the interviews. I have two more phases of interview questions for the eight students selected and students and teachers are still participating in interventions and surveys.

I am aiming for a July 2009 defense, but I would like to please request a one-year IRB extension to ensure that all my work will be completed and revised within the scope of my IRB permission timeline.

APPENDIX B – 3 - Superintendent Permission to Conduct Research

January 17, 2007

Dear Superintendent _______________,

As you know, for several years I have been examining effective ways to reach at-risk students in preparation for our work at the ____________________. Through my readings I have discovered an interesting curricular phenomenon I am calling, "Perceived Risk Curriculum." It is my hope that the teachers at ____ can employ some of these strategies and we can conduct pre and post testing to determine student and teacher response to the curriculum. I would like to use this research for my dissertation. . I would like to use this research for my dissertation. I would also like to examine existing measure that we already employ including grades, attendance, credits, CIM testing scores and the Wanberg Instrument.

I feel that the risks to our students are minimal, and the potential for gain is exceptional. A full copy of the IRB protocol is included so that you are aware of all of the issues surrounding this research.

In accordance with FERPA regulations, written consent will be obtained from every parent before school records including attendance, grades, and standardized test scores will be utilized in my doctoral research or summarized in journal articles. To further protect our students, no student names will be used in the publication of the research.

As for additional teacher time required for de-identification of documents, the design of pre and post testing materials, or analysis of how the curriculum worked, advocacy of this study would require that these teachers would be appropriately compensated for these additional efforts if they extend above and beyond the school day.

Please indicate your willingness to allow the implementation of the Perceived Risk Curriculum and the necessary pre and post testing by signing below. I am excited about this partnership and what we can do to best serve our students.

Sincere thanks,

Laurie Kash

Student Researcher

Oregon State University

I approve of Laurie Kash's doctoral research project being conducted at ____________________. I understand that Ms. Kash will conduct her research with ________ School District's students, parents and teachers. If teachers provide time above and beyond the school day for this study, I will provide up to $200 per instructor to ensure that they are compensated for their participation in the study.

X____________________________________ date

____

Mr. ____________________, _SD Superintendent

APPENDIX B – 4- Principal Permission to Conduct Research

January 17, 2007

Dear Principal ______________,

As you know, for several years I have been examining effective ways to reach at-risk students in preparation for our work at the ___________________. Through my readings I have discovered an interesting curricular phenomenon I am calling, "Perceived Risk Curriculum." It is my hope that the teachers at ____ can employ some of these strategies and we can conduct pre and post testing to determine student and teacher response to the curriculum. I would like to use this data for my doctoral dissertation research. I would like to use this research for my dissertation. I would also like to examine existing measure that we already employ including grades, attendance, credits, CIM testing scores and the Wanberg Instrument.

I feel that the risks to our students are minimal, and the potential for gain is exceptional. A full copy of the IRB protocol is included so that you are aware of all of the issues surrounding this research.

In accordance with FERPA regulations, written consent will be obtained from every parent before school records including attendance, grades, and standardized test scores will be utilized in my doctoral research or summarized in journal articles. To further protect our students, no student names will be used in the publication of the research.

As for additional teacher time required for de-identification of documents, the design of pre and post testing materials, or analysis of how the curriculum worked, advocacy of this study would require that these teachers would be appropriately compensated for these additional efforts if they extend above and beyond the school day.

Please indicate your willingness to allow the implementation of the Perceived Risk Curriculum and the necessary pre and post testing by signing below. I am excited about this partnership and what we can do to best serve our students.

Sincere thanks,

Laurie Kash

Student Researcher

Oregon State University

I approve of Laurie Kash's doctoral research project being conducted at _____________________. I understand that Ms. Kash will conduct her research with ____ School District's students, parents and teachers. If teachers provide time above and beyond the school day for this study, the district will provide up to $ 200 per instructor to ensure that they are compensated for their participation in the study, based on Superintendent _________________'s approval.

Print principal's name Date

X______________________________________ date

____

Ms. __________ – ____ Principal

APPENDIX B – 5 Informed Consent Document – Transcript and Survey Data

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen, College of Education**
Student Investigator: **Laurel R. Kash**

WHAT IS THE PURPOSE OF THIS STUDY?

You child is being invited to take part in a research study designed to see if students who are participating in the __________________________'s new curriculum are learning to improve their success in school and their enjoyment of the learning activities at school. Your child will be asked to respond on a short survey to see if they are enjoying and learning from various new activities we are trying at _____ this year. Also, test scores on things we normally do at _____ would be examined. I am hoping information will be used in the development of my dissertation and perhaps in any articles that may be published later from these research findings. I am studying this because I hope to learn more about how educators can make a positive difference in the behavior of our students inside of school and out.

WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to allow your child to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your child's rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want your child to be a part of this study or not.

WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to take part in this study because you are parent or guardian of a student from _____. If you give permission, your child will also be asked to assent (agree) to the records review.

WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

During this study, your child will be asked to complete a 10 question survey which will take about 5 minutes to complete. Your child will be asked to complete the survey about once every month. Your child will not have his or her name written on these surveys, so they can answer honestly.

Also, your child's academic records, including OAKS test scores, grades, attendance and number of credits earned will be reviewed to see if they have made improvement with our new curriculum. Permission to participate in the study means that you will allow me to use your child's data in the study as a part of trends within the whole school. I will not use your child's name with regard to any student data in any publication in which this study might appear.

WHAT ARE THE RISKS OF THIS STUDY?

The possible risks and/or discomforts associated with the completion of this survey are minimal. Sharing personal information can be difficult sometimes, but I will treat this information with care and privacy.

WHAT ARE THE BENEFITS OF THIS STUDY?

Neither you nor your child will benefit directly from being in this study. However, we hope that, in the future, other people might benefit from this study because we hope that information you share can let us know if what we are doing with your children is helping them to be successful in school and out.

WILL I BE PAID FOR PARTICIPATING?

Your child will not be paid for being in this research study.

WHO WILL SEE THE INFORMATION I GIVE?

The information you provide during this research study will be kept confidential to the extent permitted by law. To help protect your confidentiality, we will lock your child's responses in a filing cabinet. They will not be shared with other teachers or law enforcement agents. If the results of this project are published your child's identity will not be made public.

DO I HAVE A CHOICE TO BE IN THE STUDY?

If you decide to let your child take part in the study, it should be because you really want them to volunteer. He or she will not lose any benefits or rights he or she would normally have if you choose decline to volunteer. Your child can stop at any time during the study and still keep the benefits and rights he or she had before volunteering.

Neither you nor your child will be treated differently if you decide to stop taking part in the study. He or she may skip any questions he or she would prefer not to answer. If you choose to withdraw your child from this project before it ends, the researchers may keep information collected about your child and this information may be included in study reports.

WHAT IF I HAVE QUESTIONS?

If you have any questions about this research project, please contact:
Laurie Kash, ___________________________.   Phone: ___________
Address: _______________________________ or
Dr. LeoNora Cohen /____________________________

If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at ____________ or by email at __

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Participant's Name (printed): ____

____
____
(Signature of Participant) (Date)

APPENDIX B – 6 Informed Consent Document – Student Interview

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen, College of Education**
Student Investigator: **Laurel R. Kash**

WHAT IS THE PURPOSE OF THIS STUDY?

You are being invited to take part in a research study designed to see if students who are participating in the ___________________________'s new curriculum are learning to improve their behavior in school and out of school. We are hoping to see from these interviews whether or not the curriculum we are using is having an effect on your children. We are hoping to see from your child's responses during this interview how they liked the curriculum, whether or not they thought they learned using these methods, and whether they liked it. This information will be used in the publication of my dissertation and perhaps in any articles that may be published later from these research findings. We are studying this because we hope to learn more about how we can make a positive difference in the behavior of our students inside of school and out.

WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not.

WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to allow your child to take part in this study because you are parent or guardian of a student from _____ who is being asked to be interviewed. If you give permission, your child will also be asked to assent (agree) to the interview.

WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

During this study, your child will be asked several questions about how the curriculum worked for them.

If you agree to let your child take part in this study, your child's involvement will last for between 30 minutes and 1 hour as they answer several questions with me. This interview will take place the week after school is over in June. The interview questions will be administered by Laurie Kash, curriculum director and student researcher for this study, and the answers your child provides will be tape recorded. These interviews will occur in the administration room of ___________________________ in June after the close of school. In this way, grades will already have been submitted, and students can feel like they can be honest.

WHAT ARE THE RISKS OF THIS STUDY?

The possible risks and/or discomforts associated with the completion of this survey are minimal. Sharing personal information can be difficult sometimes, but I will treat this information with care and privacy.

WHAT ARE THE BENEFITS OF THIS STUDY?

Your child will not benefit directly from being in this study. However, we hope that, in the future, other people might benefit from this study because we hope that information your child shares can let us know if what we are doing with your children is helping them to be successful in school and out.

WILL I BE PAID FOR PARTICIPATING?

Your child will not be paid for being in this research study.

WHO WILL SEE THE INFORMATION I GIVE?

The information your child provides during this research study will be kept confidential to the extent permitted by law. To help protect your confidentiality, tapes made of the interview will be transcribed by me and will be destroyed after transcription is completed. No others teachers, parents or law enforcement agents will have access to the interviews tapes or transcripts. If the results of this project are published your child's identity will not be made public.

DO I HAVE A CHOICE TO BE IN THE STUDY?

If you decide to allow your child to take part in the study, it should be because s/he really wants to volunteer. S/he will not lose any benefits or rights s/he would normally have if s/he chooses not to volunteer. S/he can stop at any time during the study and still keep the benefits and rights s/he had before volunteering.

Your child will not be treated differently if s/he decides to stop taking part in the study. S/he may skip any questions you would prefer not to answer. If s/he chooses to withdraw from this project before it ends, the researchers may keep information collected about him or her and this information may be included in study reports.

WHAT IF I HAVE QUESTIONS?

If you have any questions about this research project, please contact:
Laurie Kash, ____________________________. Phone: _____________________
Address: ____________________________. _________ / ___________________ –or-

Dr. LeoNora Cohen / ____________________ / _____________________
If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at _____________ or by email at

---

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Participant's Name (printed):
____

____

____

(Signature of Participant) (Date)

APPENDIX B – 7 Informed Consent Document – Teacher Activity Survey

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen, College of Education**
Student Investigator: **Laurel R. Kash**

WHAT IS THE PURPOSE OF THIS STUDY?

You are being invited to take part in a research study designed to see if students who are participating in the ____________________’s new curriculum are learning to improve their behavior in school and out of school. We are hoping to see from these interviews whether or not the curriculum we are using is having an effect on your students. We are hoping to see from your responses during the survey how you liked the using the curriculum, how effective you thought it was and whether you thought it impacted student interest and engagement. This information will be used in the publication of my dissertation and perhaps in any articles that may be published later from these research findings. We are studying this because we hope to learn more about how we can make a positive difference in the behavior of our students inside of school and out.

WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not.

WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to take part in this study because you are a staff member at ____.

WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

During this study, you will be asked to complete a 10 question survey which will take about 5 minutes to complete. You will be asked to complete the survey about twice every month.

WHAT ARE THE RISKS OF THIS STUDY?

The possible risks and/or discomforts associated with the completion of this survey are minimal. Sharing personal information can be difficult sometimes, but I will treat this information with care and privacy.

WHAT ARE THE BENEFITS OF THIS STUDY?

You will not benefit directly from being in this study. However, we hope that, in the future, other people might benefit from this study because we hope that information you share can let us know if what we are doing with our students is helping them to be successful in school and out.

WILL I BE PAID FOR PARTICIPATING?

You will not be paid for being in this research study. The interview can be conducted during regular contracted hours in June, though you will be compensated at a district curriculum rate for any interview time above and beyond the regular school day up to $200 (for all research tasks during the 2008-09 school year).

WHO WILL SEE THE INFORMATION I GIVE?

The information you provide during this research study will be kept confidential to the extent permitted by law. To help protect your confidentiality, tapes made of the interview will be transcribed by me and will be destroyed after transcription is completed. No others teachers, administrators, or parents will have access to the interviews tapes or transcripts. If the results of this project are published, your identity will not be made public.

DO I HAVE A CHOICE TO BE IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer.

You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

You will not be treated differently if you decide to stop taking part in the study. You may skip any questions you would prefer not to answer. If you choose to withdraw from this project before it ends, the researchers may keep information collected about you and this information may be included in study reports.

WHAT IF I HAVE QUESTIONS?

If you have any questions about this research project, please contact:
Laurie Kash, ______________________. Phone: _________________
Address: _________________ –or-
Dr. LeoNora Cohen ______________________ / _____________________
If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at _____________ or by email at ___

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Participant's Name (printed):
____

____

____

(Signature of Participant) (Date)

APPENDIX B – 8 Informed Consent Document – Teacher Interview

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen, College of Education**
Student Investigator: **Laurel R. Kash**

WHAT IS THE PURPOSE OF THIS STUDY?

You are being invited to take part in a research study designed to see if students who are participating in the ____________________'s new curriculum are learning to improve their behavior in school and out of school. We are hoping to see from these interviews whether or not the curriculum we are using is having an effect on our students. We are hoping to see from your responses during this interview how you liked the using the curriculum, how effective you thought it was and whether you thought it impacted student interest and engagement. This information will be used in the publication of my dissertation and perhaps in any articles that may be published later from these research findings. We are studying this because we hope to learn more about how we can make a positive difference in the behavior of our students inside of school and out.

WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not.

WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to take part in this study because you are a staff member at ____.

WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

During this study, you will be asked several questions about how the curriculum worked for you and your students.
If you agree to take part in this study, your involvement will last for between 30 minutes and 1 hour as you answer several questions with me. This interview will take place in June. The interview questions will be administered by Laurie Kash, curriculum director and student researcher for this study and the answers provide will be tape recorded.

WHAT ARE THE RISKS OF THIS STUDY?

The possible risks and/or discomforts associated with the completion of this survey are minimal. Sharing personal information can be difficult sometimes, but I will treat this information with care and privacy.

<u>WHAT ARE THE BENEFITS OF THIS STUDY?</u>

You will not benefit directly from being in this study. However, we hope that, in the future, other people might benefit from this study because we hope that information you share can let us know if what we are doing with our students is helping them to be successful in school and out.

<u>WILL I BE PAID FOR PARTICIPATING?</u>

You will not be paid for being in this research study. The interview can be conducted during regular contracted hours in June, though you will be compensated at a district curriculum rate for any interview time above and beyond the regular school day up to $200 (for all research tasks during the 2008-09 school year).

<u>WHO WILL SEE THE INFORMATION I GIVE?</u>

The information you provide during this research study will be kept confidential to the extent permitted by law. To help protect your confidentiality, tapes made of the interview will be transcribed by me and will be destroyed after transcription is completed. No others teachers, administrators, or parents will have access to the interviews tapes or transcripts. If the results of this project are published, your identity will not be made public.

<u>DO I HAVE A CHOICE TO BE IN THE STUDY?</u>

<u>If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.</u>

You will not be treated differently if you decide to stop taking part in the study. You may skip any questions you would prefer not to answer. If you choose to withdraw from this project before it ends, the researchers may keep information collected about you and this information may be included in study reports.

<u>WHAT IF I HAVE QUESTIONS?</u>

If you have any questions about this research project, please contact:
Laurie Kash, ____________________. Phone: ________________
Address: ________________ –or-
Dr. LeoNora Cohen _____________________ / ____________________

If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at _____________ or by email at ___

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Participant's Name (printed):
____

____
____
(Signature of Participant) (Date)

APPENDIX B – 9 Assent Document – Transcript and Survey

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen – College of Education**
Student Investigator: **Laurel R. Kash – ___________Academy**

I am doing a research study. A research study is a special way to find out about something. I am trying to find out if kids at ___________________________ are benefiting from some new programs we are trying.

This form is about the study, so you can learn about the study and decide if you want to be in the study or not. You can ask any questions. After all of your questions have been answered, you can decide if you want to be in this study or not.

If you decide that you want to be in this study, I will ask to use data we collected last year at ____ and will be collecting this year at ____. I would also like to collect information on your attendance, grades, state test scores, and feelings about our curriculum measured in a short survey.

I want to tell you about some things that might happen to you if you are in this study. Some of the questions were about your participation in the Arts, and some were about the use of drugs and alcohol. I know that you might be afraid to share some of the answers, but your name will not be on the questionnaire. I have a special coding system our school psychologist used so that I will not be able to tell who answered the questions. Since I do not know who answered each questionnaire, I will not tell any individual results to parents, counselors, parole officers, or school officials. Also, to protect your privacy, the questionnaires have been and will be locked in a secure place so that others besides me and the school psychologist who has scored them cannot see results of individual surveys. Your honesty and privacy are both very important to me.

If you decide to be in this study, some good things might happen to the students at ____. When I see how the whole group answers the questions, it will help me to make decisions about what kinds of information and lessons we might need to learn about drug and alcohol use. I may learn important things about the kids at ____ that will help us to bring programs or speakers to our school who may be of benefit to you and the other students. I hope the Pathways program in which you answered the questionnaires also taught you about your own choices and helped you to make good decisions. But there are no direct benefits to you, and I don't know for sure that these things have happened or will happen.

When I am done with the study, I will write a report about what I found out. I won't use your name in the report.

You don't have to be in this study. It's up to you. If you say okay now, but you want to stop later, that's okay too. All you have to do is tell me.
If you want to be in this study, please sign your name.

I, _____________________________________, want to be in this research study.
(Print your name here)

_______________________________________ ________________
(Sign your name here) (Date)

APPENDIX B – 10 - Assent Document – Student Interview

Project Title: **Perceived Risk Curriculum for At-Risk Learners**
Principal Investigator: **LeoNora Cohen – Department of Education**
Student Investigator: **Laurel R. Kash – ____**

I am doing a research study. A research study is a special way to find out about something. I am trying to find out if kids at North Columbia Academy are benefiting from some new programs we are trying.

This form is about the study, so you can learn about the study and decide if you want to be in the study or not. You can ask any questions. After all of your questions have been answered, you can decide if you want to be in this study or not.

If you decide that you want to be in this study, I will ask you to answer some questions with me. The questions will take about 30 minutes to 60 minutes to answer. It will be like a conversation about the curriculum we have been using at ____ this year.

I want to tell you about some things that might happen to you if you are in this study. The interview will be tape recorded. I will write down the words from the interview and then destroy the tape. I will then show you the written transcript of the interview to make sure it reflects what you meant to say. After one year, the transcripts of our interview will be destroyed. Also, to protect your privacy, the interviews will be locked in a secure place so that others besides me cannot them. Your honesty and privacy are both very important to me.

If you decide to be in this study, some good things might happen as a result. I may learn important things about the kids and their learning experiences at ____ that will help us to improve our program. But there are no direct benefits to you, and I don't know for sure that these things have happened or will happen.

When I am done with the study, I will write a report about what I found out. I won't use your name in the report.

You don't have to be in this study. It's up to you. If you say okay now, but you want to stop later, that's okay too. All you have to do is tell me.

If you want to be in this study, please sign your name.

I, ______________________________________, want to be in this research study.
(Print your name here)

____

____
(Sign your name here) (Date)

APPENDIX C: TECHNICAL INFORMATION ON THE WANBERG ASSESSMENT INSTRUMENTS

The Wanberg Instrument was calibrated with WinSteps, a software available to all graduate students at Oregon State University. A Rasch Model was employed to understand item function and person ability estimates. The Rasch Model is a special form of a family of IRT estimations. The Rasch model is a one parameter (1pl) IRT estimation, in the sense that items have varying difficulties yet they are thought to have equal discrimination.

The two following tables provide key information for readers. First, readers will find the scale location of the item along with a corresponding standard error of measurement. Additionally, readers will find information on the goodness-of-fit statistics for the items. Readers can refer to Linnacre's (2009) documentation to interpret the goodness-of-fit statistics for each of the items. Additionally, test reliability statistics are provided. It should be pointed out that all statistics related to this assessment should be interpreted with caution. The sample was small and the standard errors of the measurements are large. Each of the samples had average item errors of approximately half a logit unit. Thus, readers should not use these estimations beyond their intended purposes in this research project; that is, readers should not use these estimates for further item anchoring.

Readers will notice that a discrimination index was estimated with this sample. The discrimination index was not used to estimate person abilities or item locations on the scale, consistent with the 1pl measurement framework. It is thought that discrimination indexes should be as close to 1.0 as possible for the items to fit a Rasch Model. In this case some items did and some did not. Thus, it would be very useful to further conduct a two parameter estimation, where the discrimination of each item would be unconstrained.

Figure C1. Item Characteristic Curve plotted with Empirical Data for Item #1 (Wanberg 1).

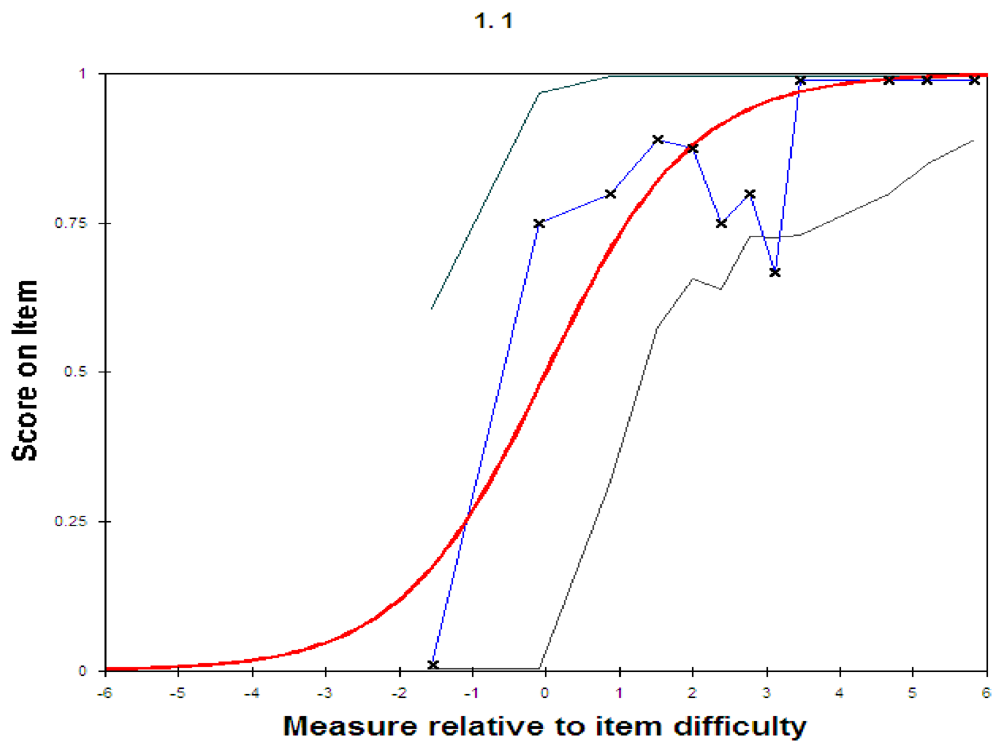


Figure C1 shows the Item Characteristic Curve for Item #1 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Listened to CDs or tapes.), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. There is a small ability area where this item does not function as well as it could. Readers will notice a less than predictable response pattern, as evidenced by the empirical plots, once the ability axis (X) approaches a logit value of 2.5-3.5. Thus, the item is probably functioning in a less than perfect way for that particular ability group of participants, and it was struck from the Pro-Social subset.

Figure C2. Item Characteristic Curve plotted with Empirical Data for Item #2 (Wanberg 18).

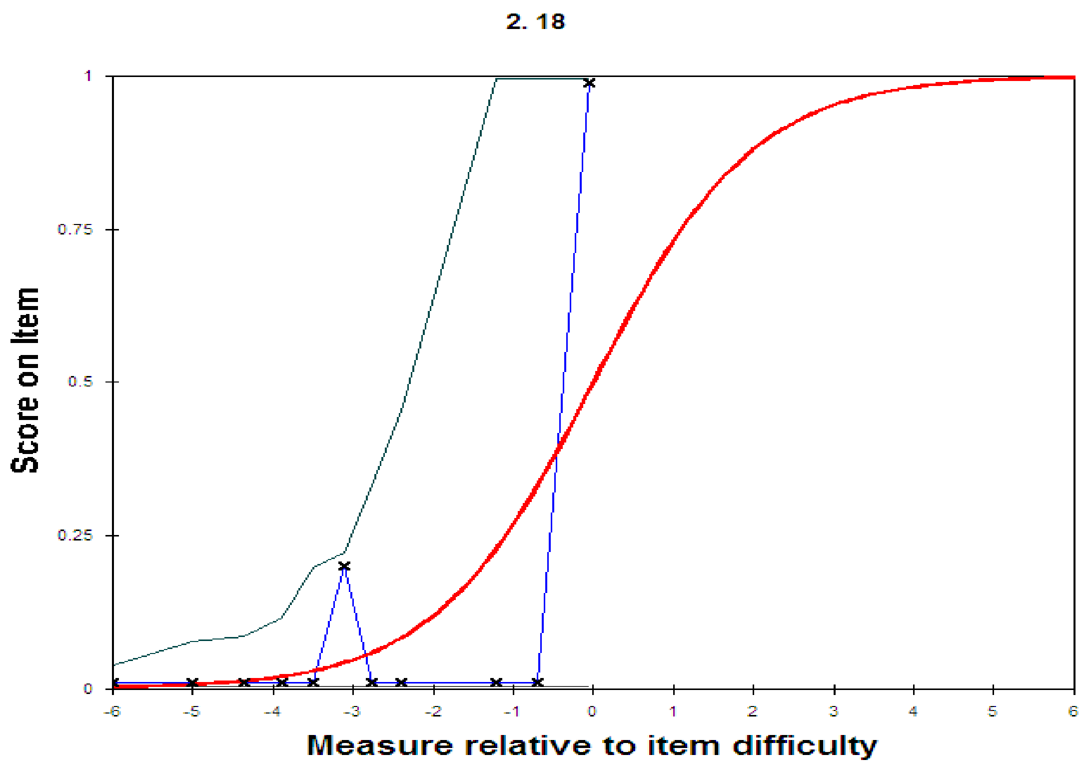


Figure C2 shows the Item Characteristic Curve for Item #3 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Expressed emotions through doing art), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a highly discriminating empirical response pattern. Once a participant reached a score of -.75 logits, the probability of correctly answering this item rose to 100% in the sample.

Figure C3. Item Characteristic Curve plotted with Empirical Data for Item #3 (Wanberg 19).

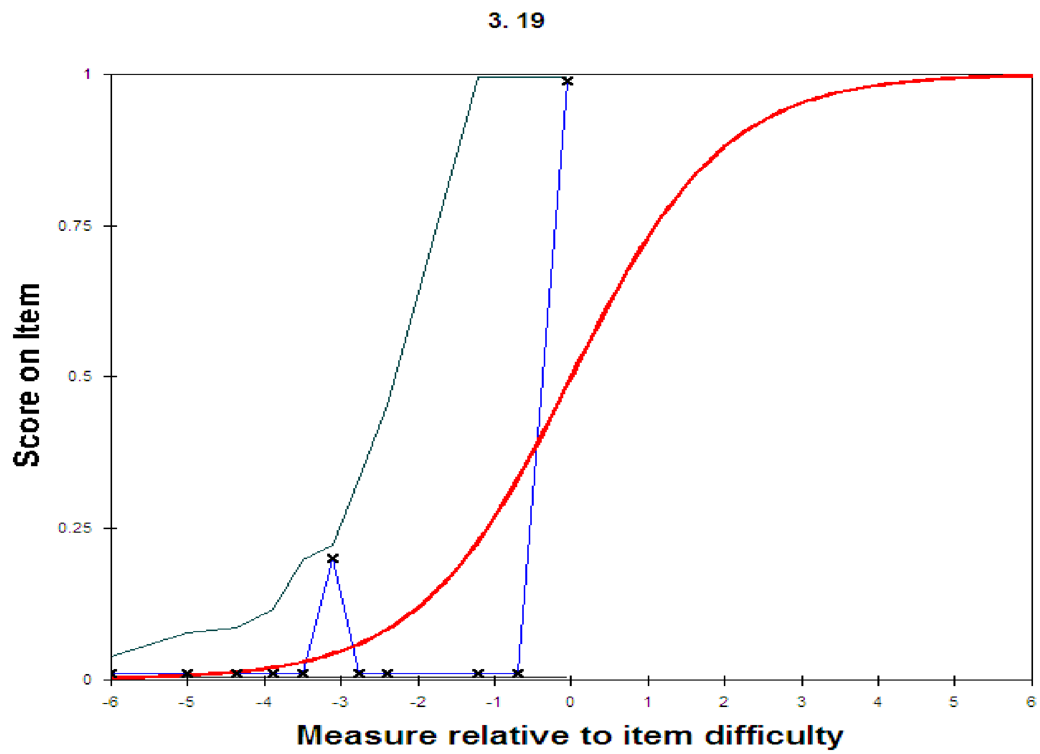


Figure C3 shows the Item Characteristic Curve for Item #3 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (expressed thoughts through crafts or art), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a highly discriminating empirical response pattern. Once a participant reached a score of -.75 logits, the probability of correctly answering this item rose to 100% in the sample.

Figure C4. Item Characteristic Curve plotted with Empirical Data for Item #4 (Wanberg 26).

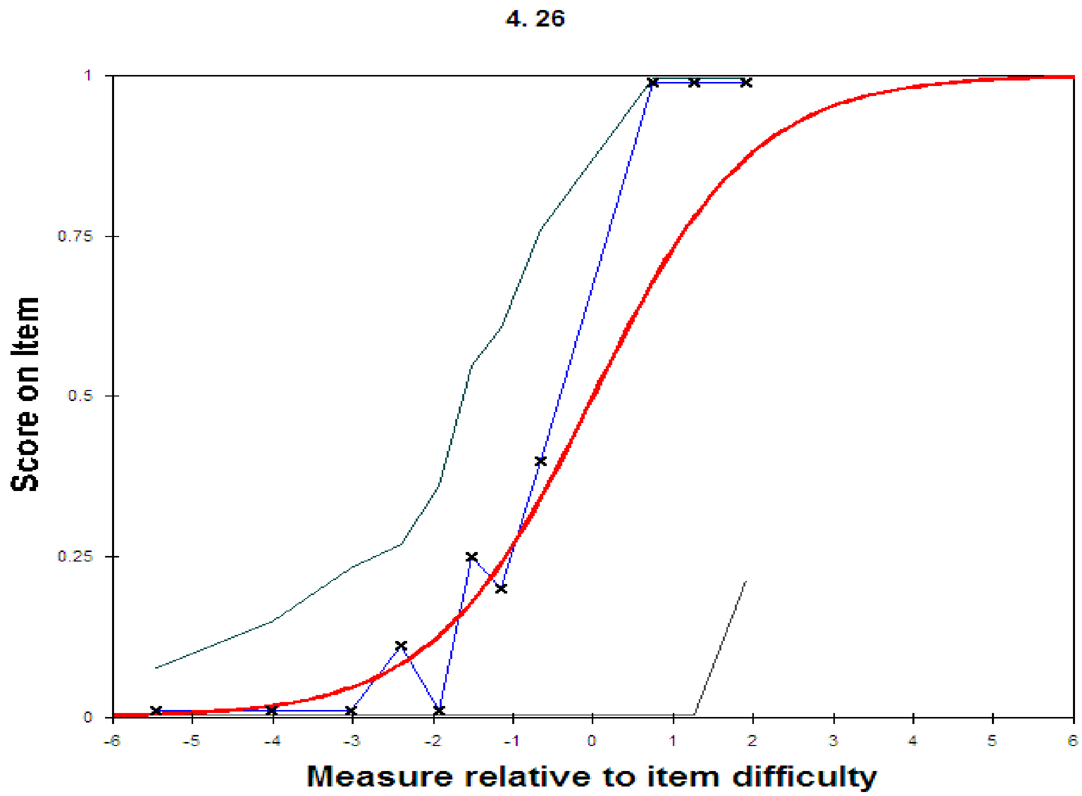


Figure C4 shows the Item Characteristic Curve for Item #4 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Stopped and thought before acting) as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice that this item was productive of measurement and a predictable response pattern. Thus, the item appears to function well.

Figure C5. Item Characteristic Curve plotted with Empirical Data for Item #5 (Wanberg 28).

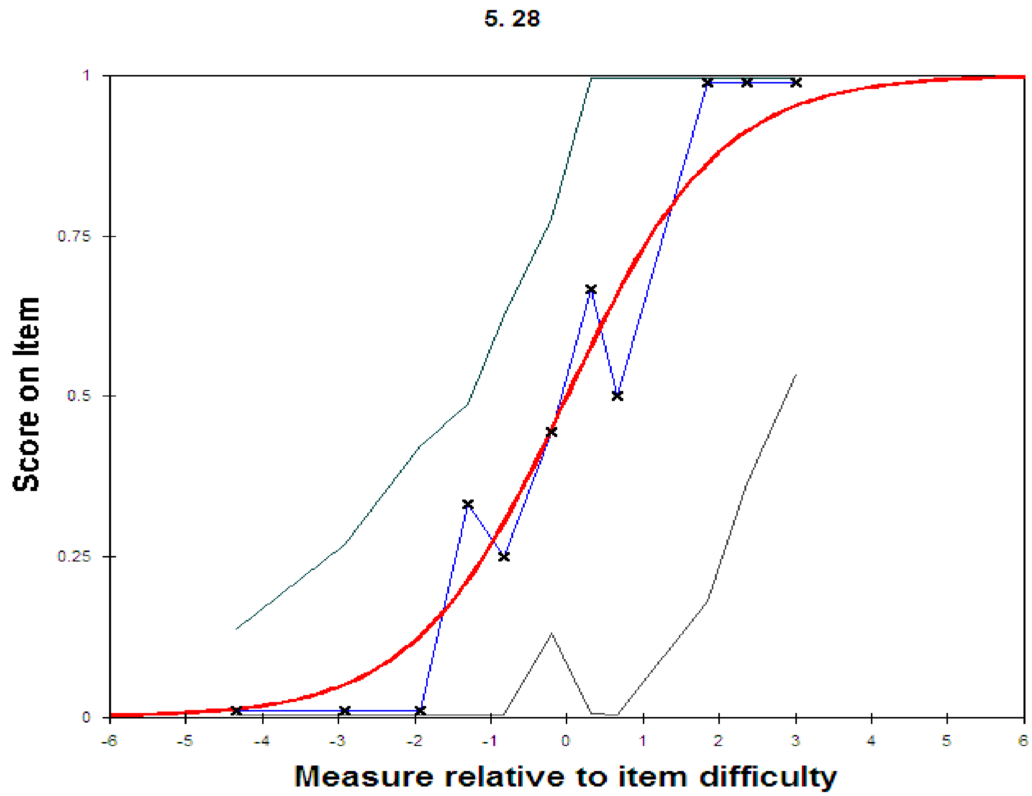


Figure C5 shows the Item Characteristic Curve for Item #5 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Thought about your problems and you have done wrong?), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice that this item was productive of measurement and a predictable response pattern. Thus, the item appears to function well.

Figure C6. Item Characteristic Curve plotted with Empirical Data for Item #6 (Wanberg 30)

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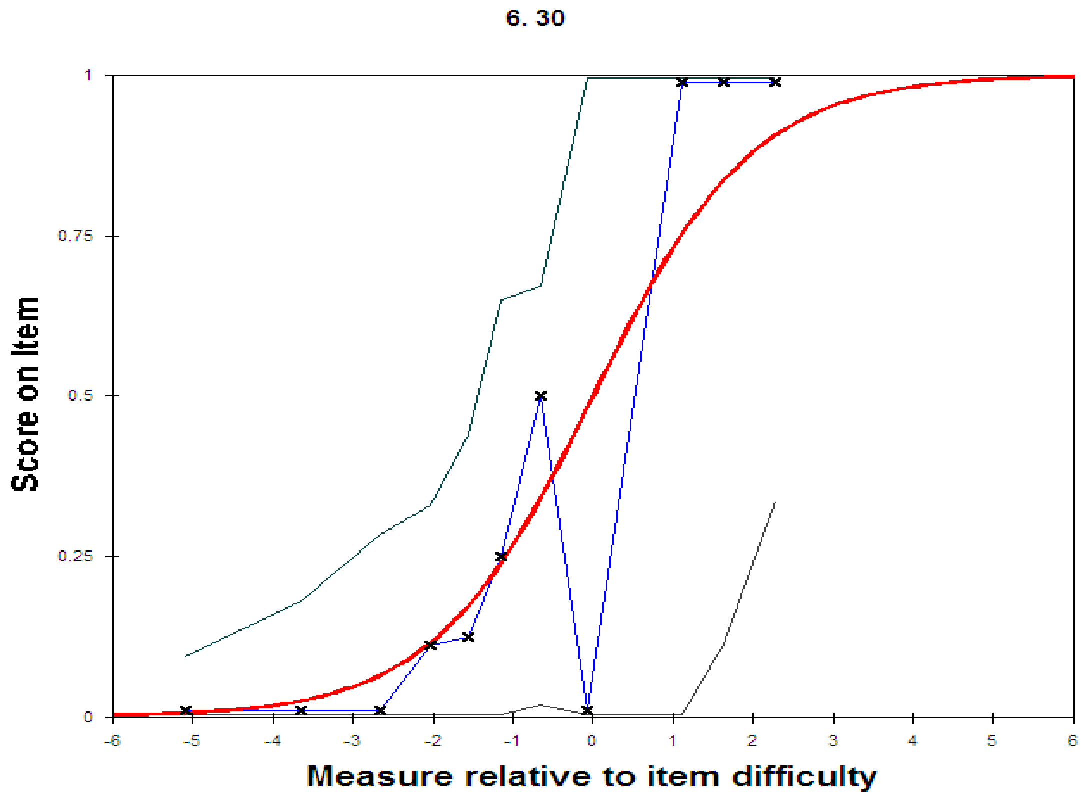


Figure C6 shows the Item Characteristic Curve for Item #6 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Realized what your actions do to others), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Ideally, average students (as noted by the 0 logit value on the X axis) would have a 50% chance of answering the item correctly. Readers will notice that in Figure 4.10, an average student had a 0% chance of choosing the correct answer, thus the item appears to be disordered and is not as productive of measurement for average test-takers as it should be.

Figure C7. Item Characteristic Curve plotted with Empirical Data for Item #7. (Wanberg 31).

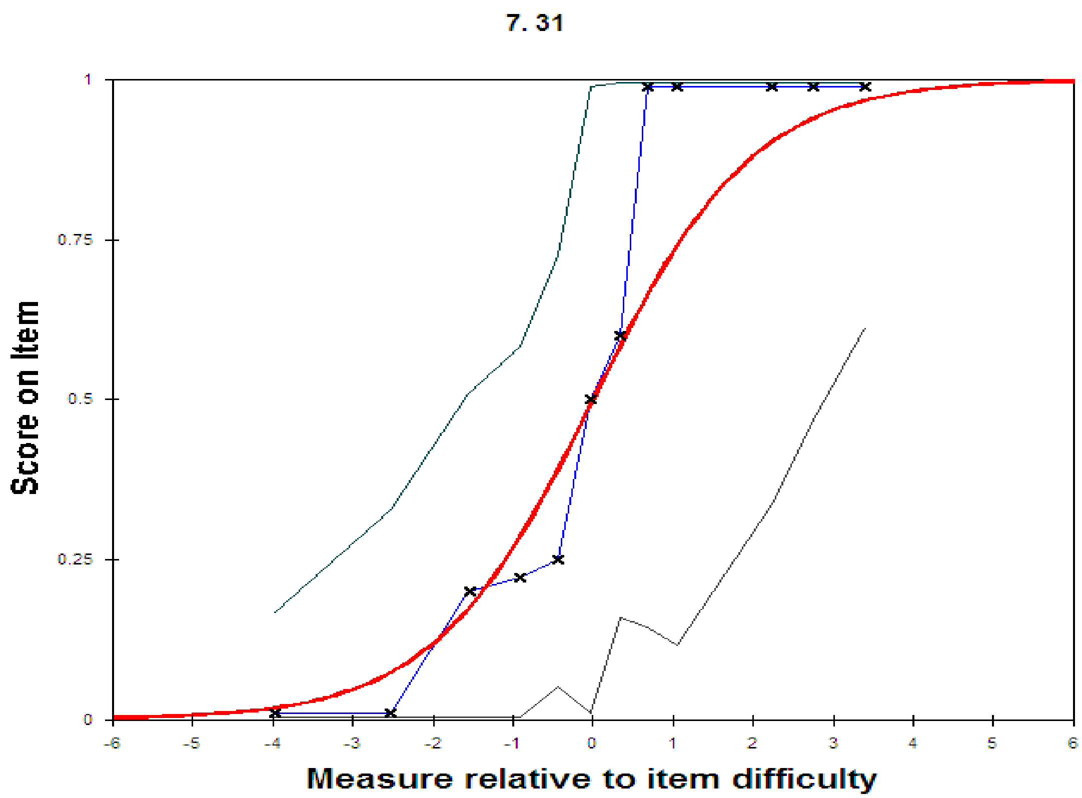


Figure C7 shows the Item Characteristic Curve for Item #7 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Been able to make good decisions on your own), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C8. Item Characteristic Curve plotted with Empirical Data for Item #8 (Wanberg 32).

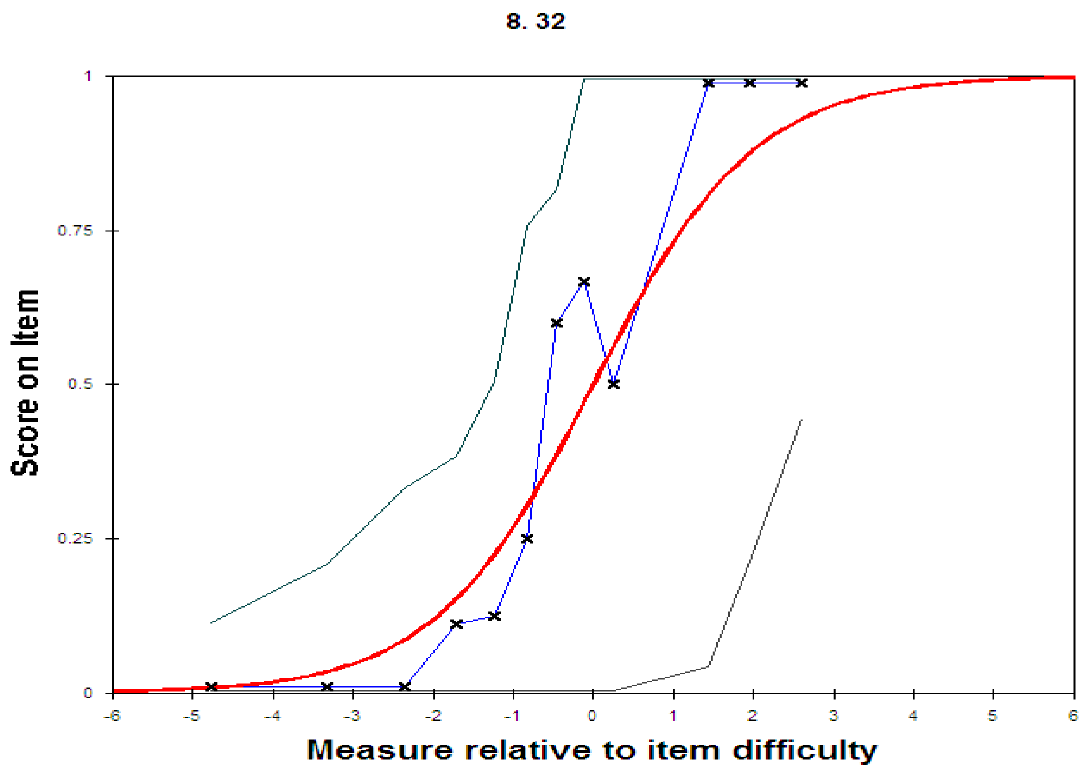


Figure C8 shows the Item Characteristic Curve for Item #8 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Taken time out to think about who you are), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C9. Item Characteristic Curve plotted with Empirical Data for Item #9 (Wanberg 33).

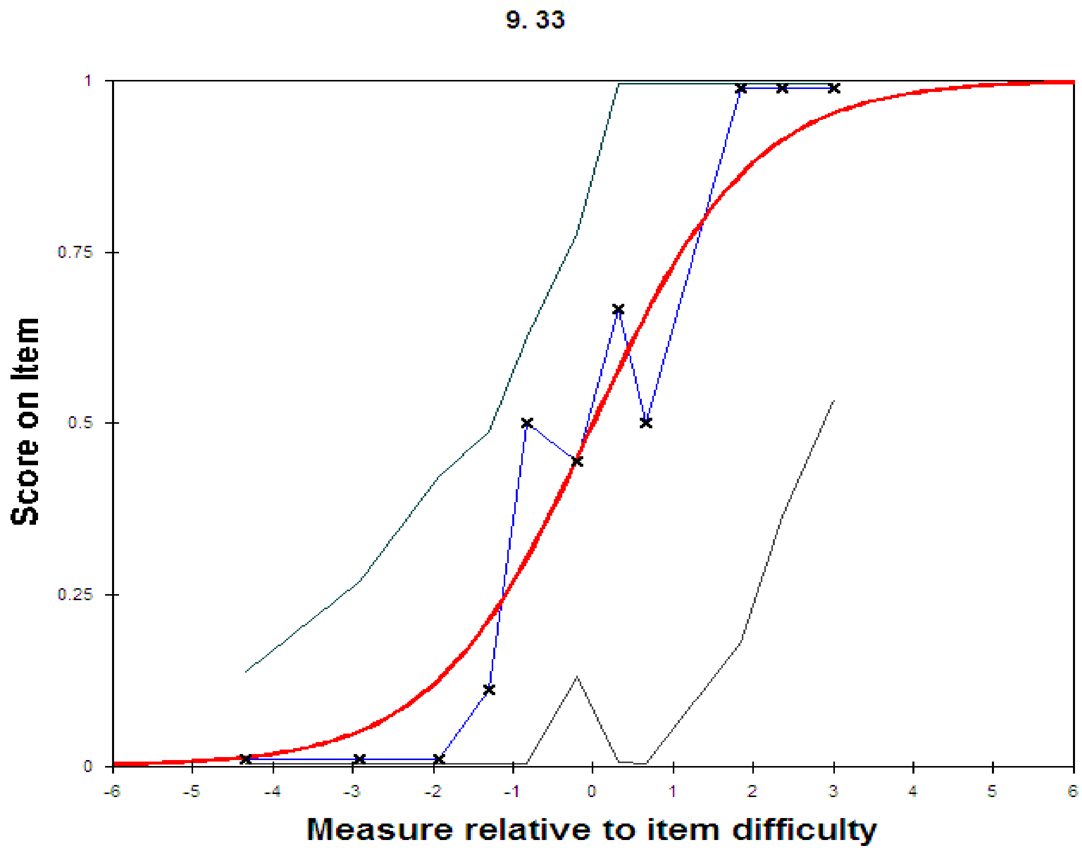


Figure C9 shows the Item Characteristic Curve for Item #9 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Thought about the problems you have had), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C10. Item Characteristic Curve plotted with Empirical Data for Item #10 (Wanberg 34).

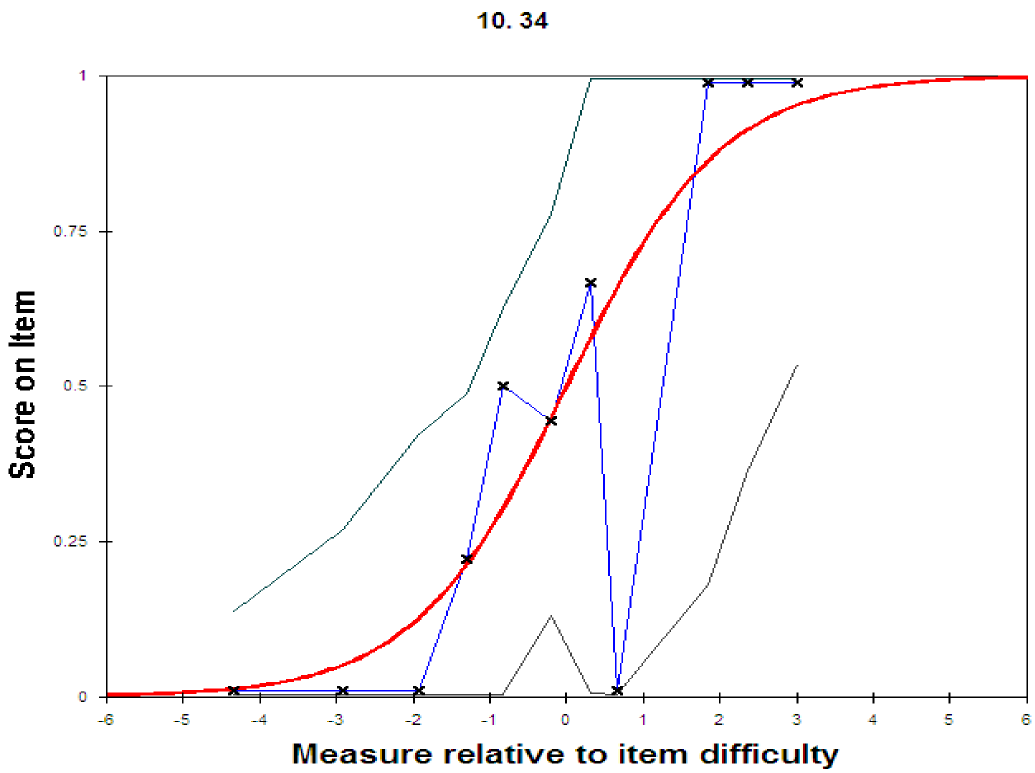


Figure C10 shows the Item Characteristic Curve for Item #10 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Listened to music rather than drink or use drugs) as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. In the empirical data, there was a group of students who had an above average score were unlikely to answer this item correctly. Therefore this item is problematic for the .75 logit (just slightly above average) group of students.

Figure C11. Item Characteristic Curve plotted with Empirical Data for Item #11 (Wanberg 39).

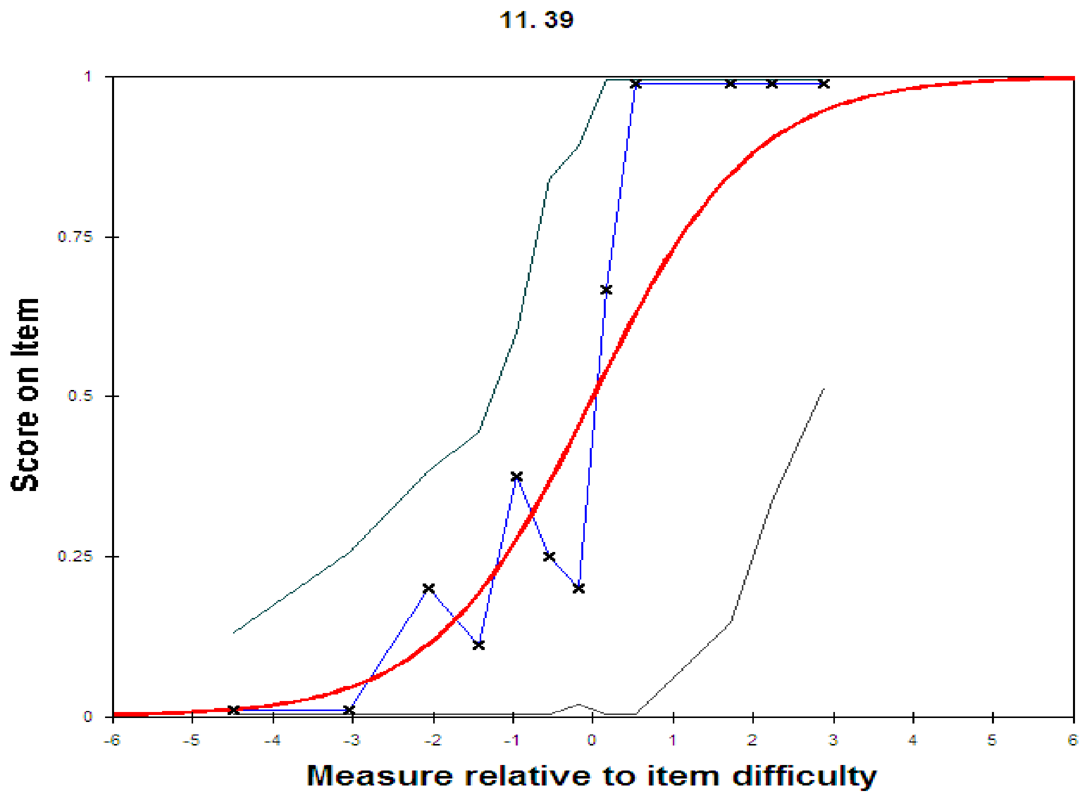


Figure C11 shows the Item Characteristic Curve for Item #11 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Made a decision not to drink or use drugs), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C12. Item Characteristic Curve plotted with Empirical Data for Item #12 (Wanberg 46).

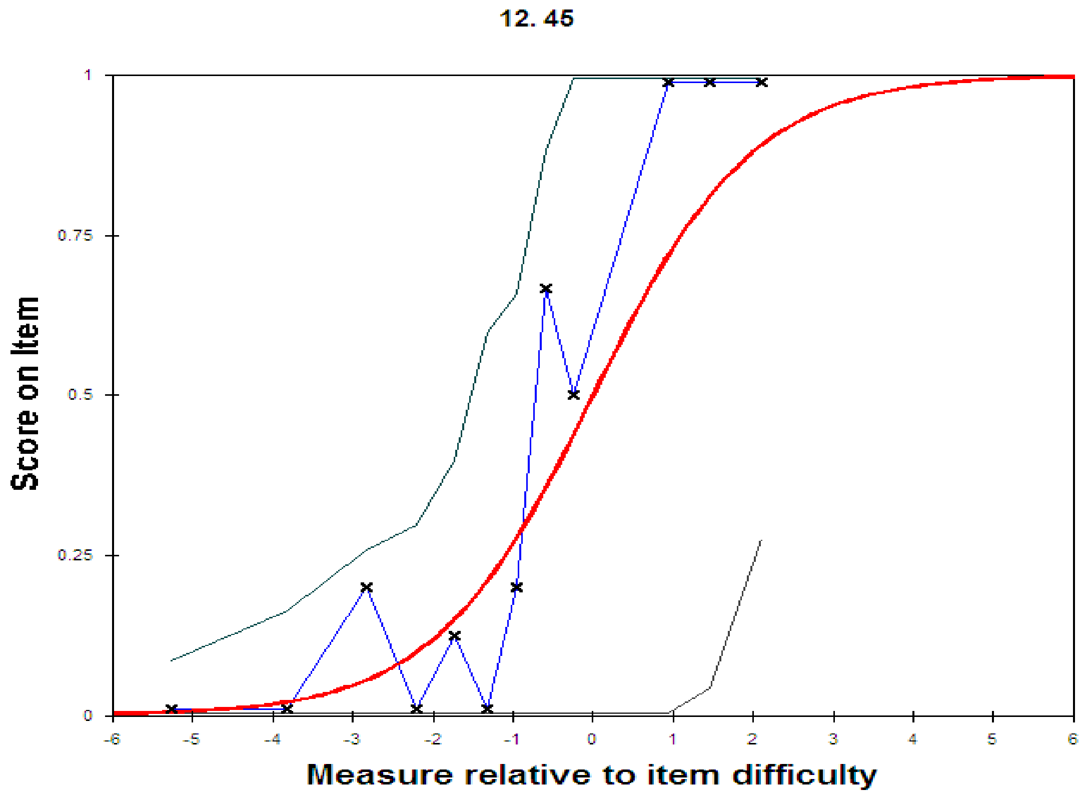


Figure C12 shows the Item Characteristic Curve for Item #12 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Talked with a counselor about problems), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C13. Item Characteristic Curve plotted with Empirical Data for Item #13 (Wanberg 47).

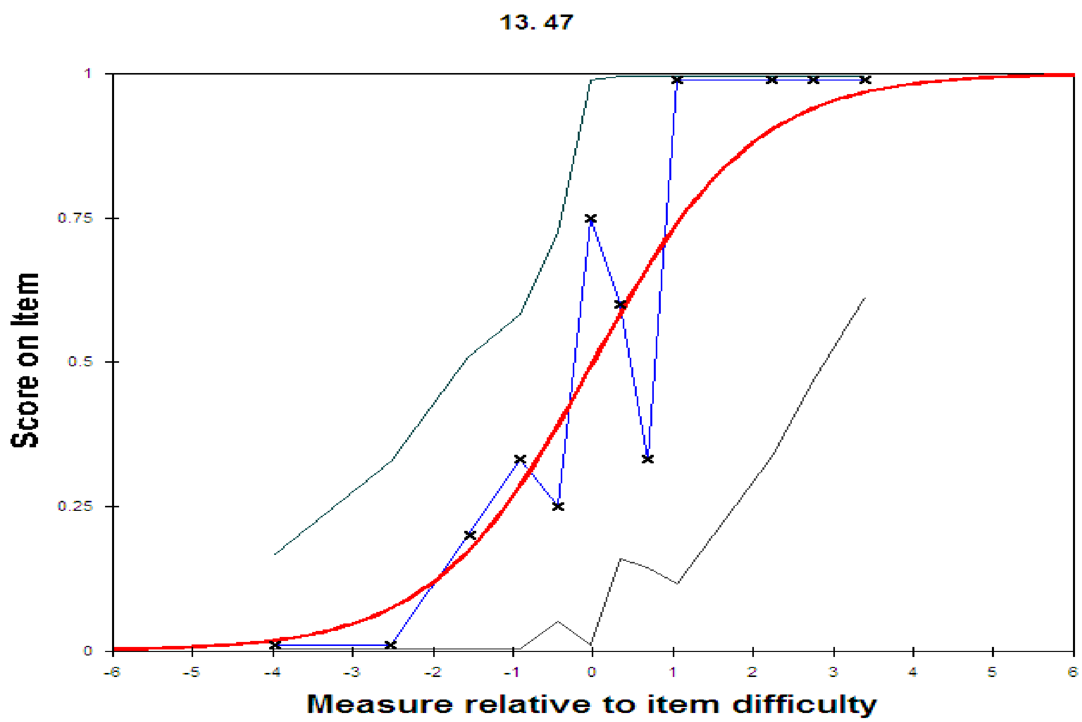


Figure C13 shows the Item Characteristic Curve for Item #13 in our “Pro-Social” sample. This item related to the construct of pro-social behaviors (Do you feel comfortable working in a small group), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice the item is productive of measurement and has a predictable response pattern. Thus, the item is probably functioning well.

Figure C14. Item Characteristic Curve plotted with Empirical Data for Item #14 (Wanberg 82).

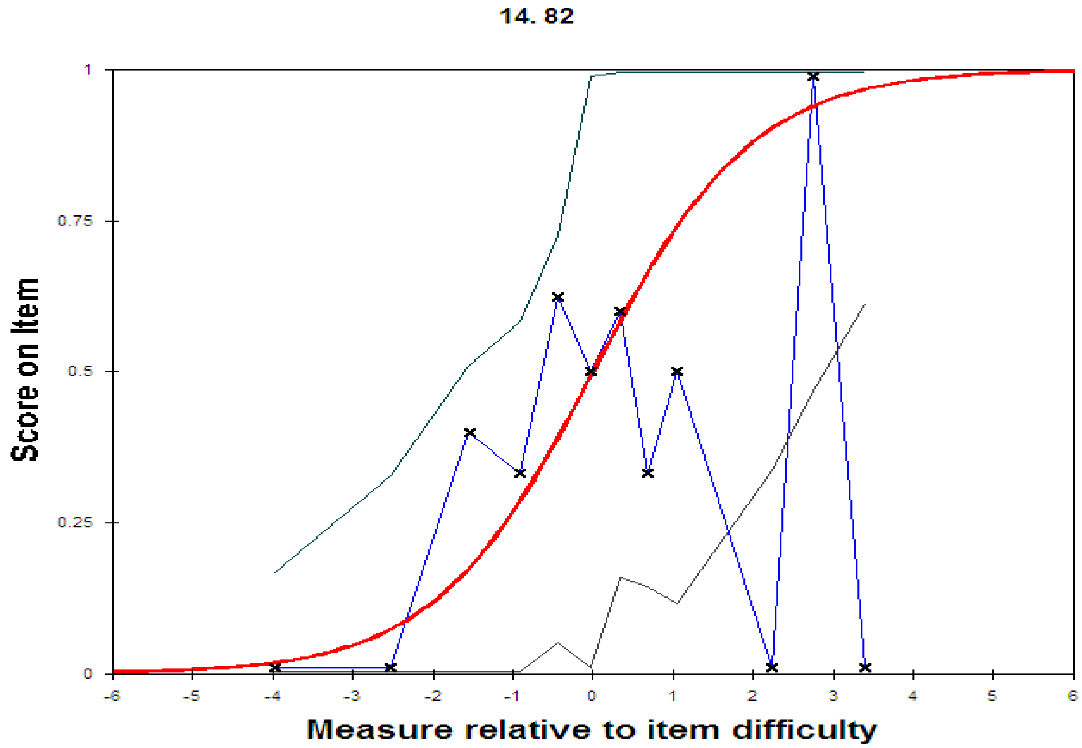


Figure C14 shows the Item Characteristic Curve for Item #14 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (How do you get along <u>today</u> with your teachers) as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a totally erratic response pattern. Thus, the item is probably functioning poorly for that particular ability group of participants. This item was removed from our sub-set for its poor fit.

Figure C15. Item Characteristic Curve plotted with Empirical Data for Item #15 (Wanberg 123).

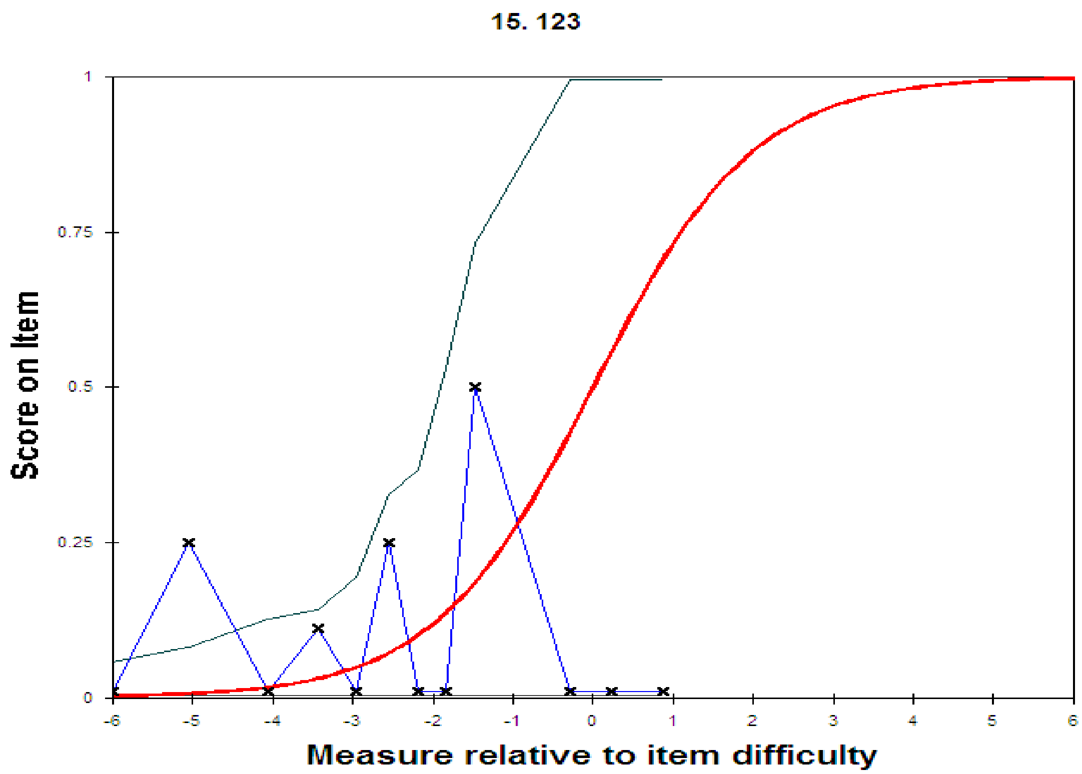


Figure C15 shows the Item Characteristic Curve for Item #15 in our "Pro-Social" sample. This item related to the construct of pro-social behaviors (Do you want to finish high school), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. This item did not behave predictably for any group of participants and was removed from our sub-set for its poor fit.

Figure C16. Item Characteristic Curve plotted with Empirical Data for Item #1 (Wanberg 42).

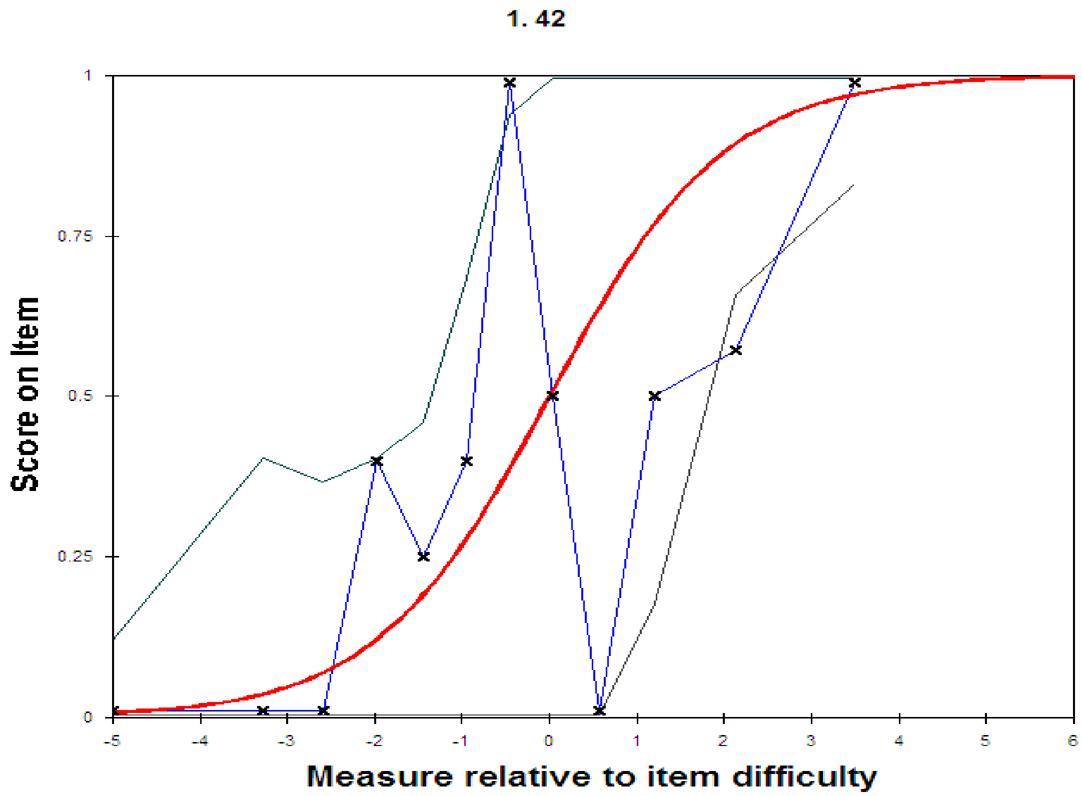


Figure C16 shows the Item Characteristic Curve for Item #1 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Had friends talk you into wrong behavior), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Though average students (as noted as 0 logit on the X axis) had a 50% chance of choosing the correct answer, three groups scored outside the standard error of measures, and the rest of the item is disordered. This item was struck from the "Deviant Risk" subset for its poor fit.

Figure C17. Item Characteristic Curve plotted with Empirical Data for Item #2 (Wanberg 80).

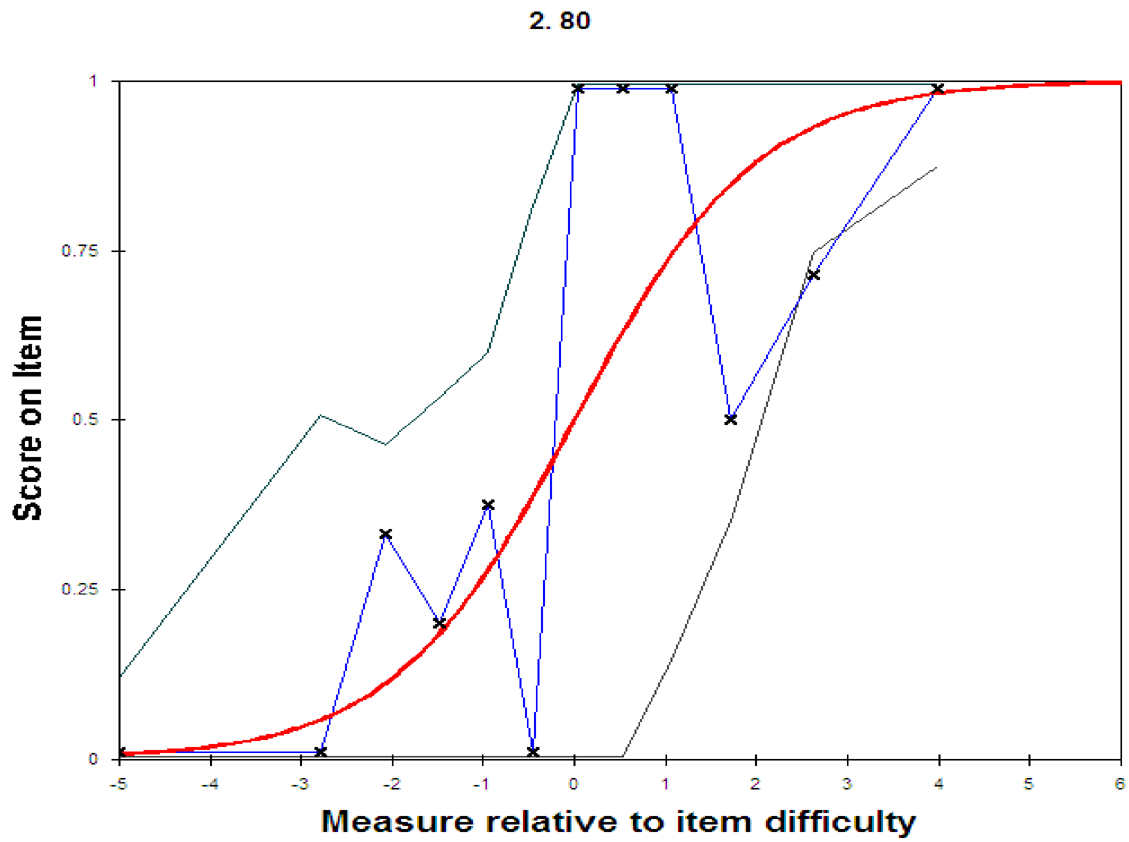


Figure C17 shows the Item Characteristic Curve for Item #2 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Did you follow more what your friends want you to do rather than what your parents want you to do), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Average students (as noted as 0 logit on the X axis) had a 100% chance of choosing the correct answer, one group scored outside the standard error of measures, and the rest of the item is disordered. This item was struck from the "Deviant Risk" subset for its poor fit.

Figure C18. Item Characteristic Curve plotted with Empirical Data for Item #3 (Wanberg 99).

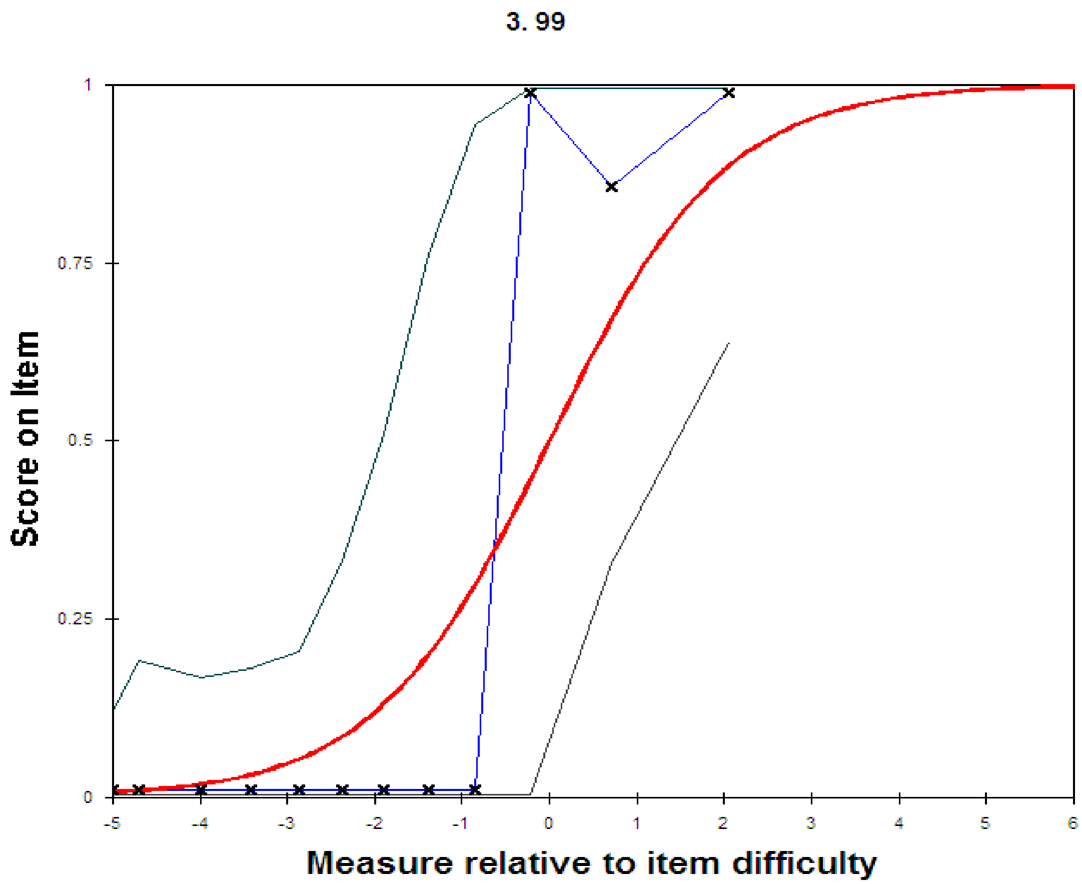


Figure C18 shows the Item Characteristic Curve for Item #3 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Do your friends feel it is OK to use drugs), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a highly discriminating empirical response pattern. Once a participant reached a score of -.85 logits, the probability of correctly answering this item rose to 100% in the sample.

Figure C19. Item Characteristic Curve plotted with Empirical Data for Item #4 (Wanberg 100).

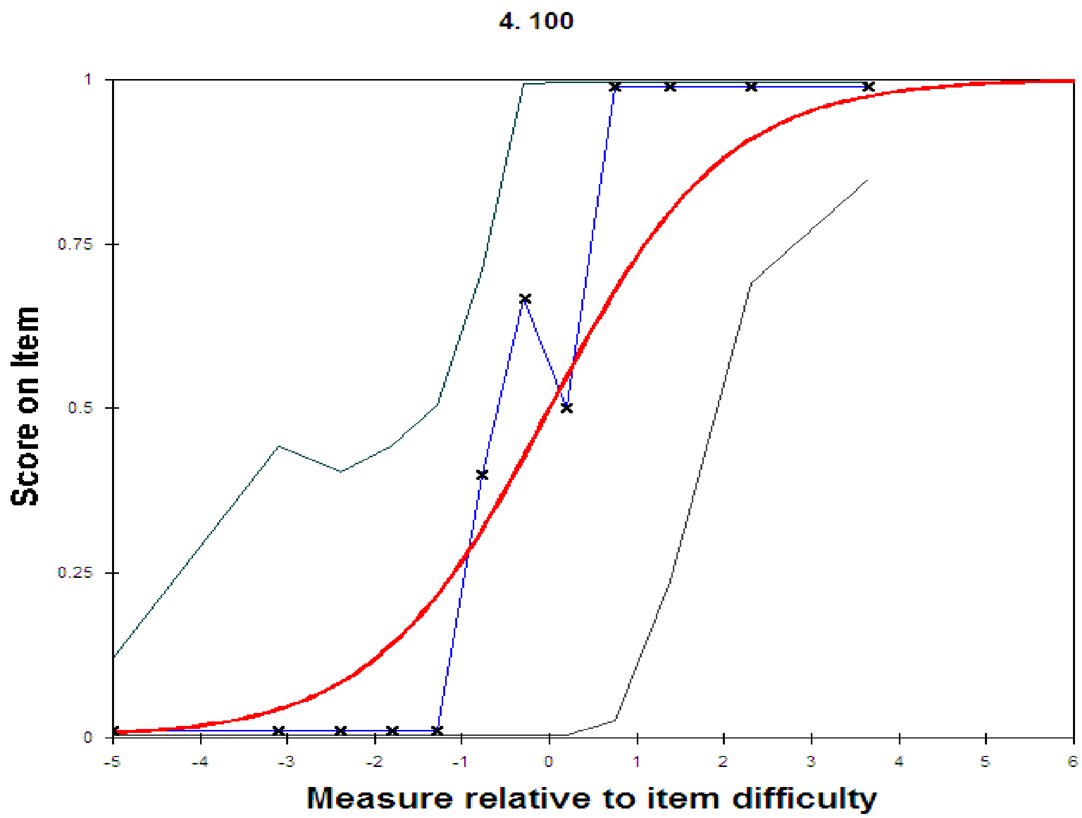


Figure C19 shows the Item Characteristic Curve for Item #4 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (It is all right to use drugs if your parents approve.), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a fairly predictable response pattern. Thus, the item is probably functioning well.

Figure C20. Item Characteristic Curve plotted with Empirical Data for Item #5 (Wanberg 101).

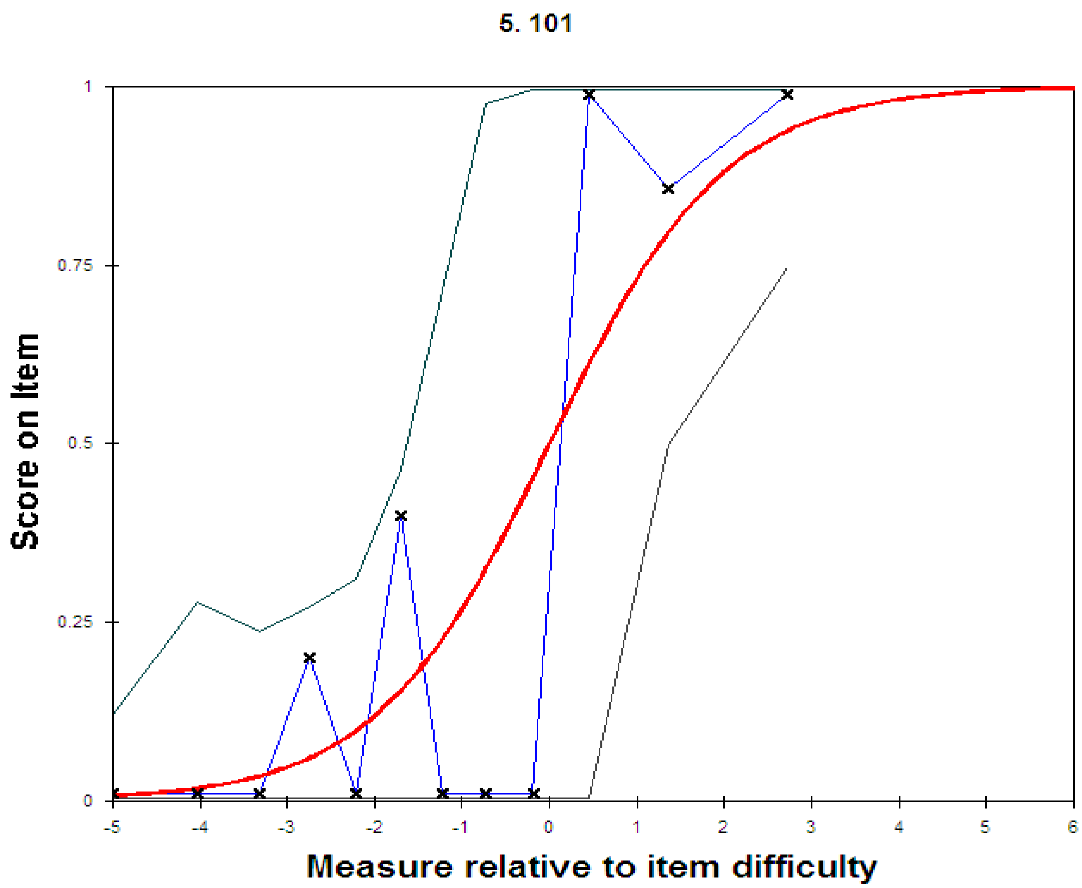


Figure C20 shows the Item Characteristic Curve for Item #5 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (I feel it is all right for me to use alcohol), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Though the average student (noted by 0 logits on the X axis) had a 100% chance of choosing the correct answer on this item, the rest of the items follow a fairly predictable response pattern. Thus, the item is probably functioning marginally well.

Figure C21. Item Characteristic Curve plotted with Empirical Data for Item #6 (Wanberg 102).

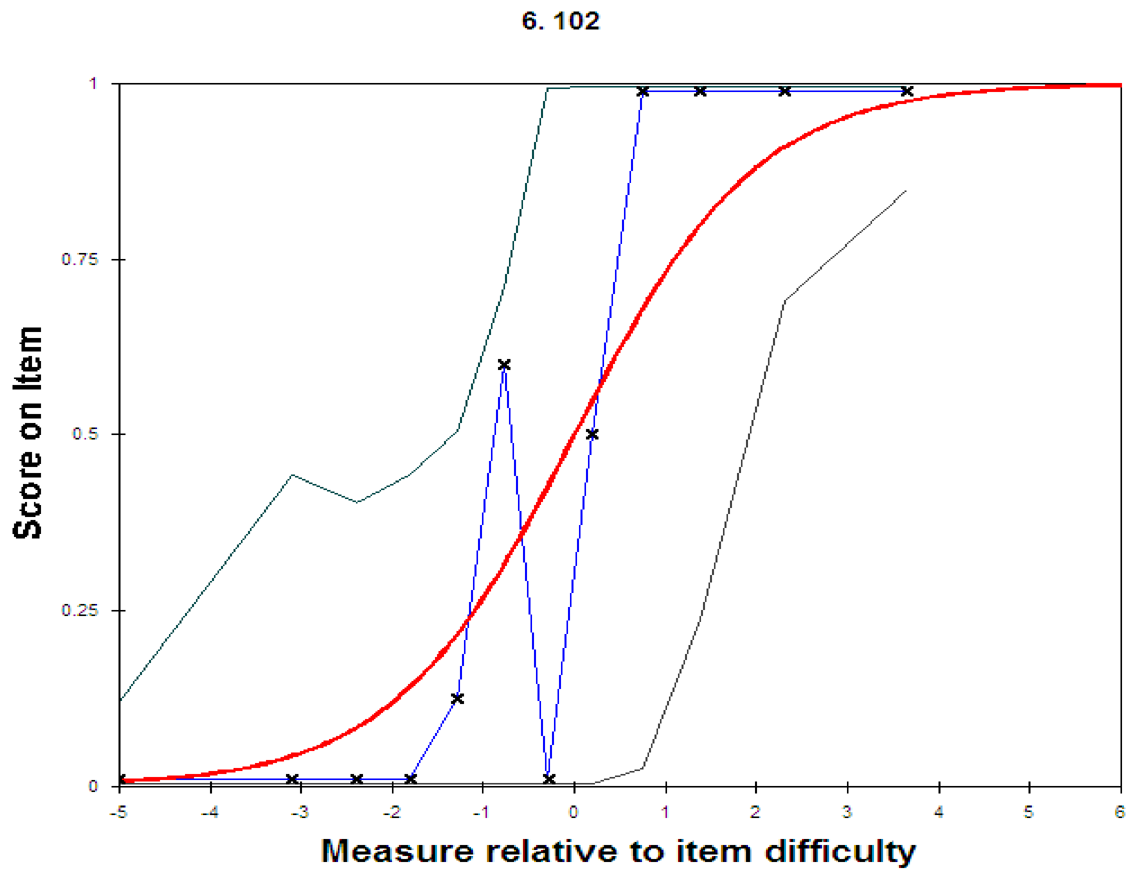


Figure C21 shows the Item Characteristic Curve for Item #6 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (I feel it is all right for me to use drugs other than alcohol), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a discriminating empirical response pattern. Though participants who reached a score of -.25 logits had a 0% chance of choosing the correct answer, students at .2 logits had a 100% chance of choosing the correct answer on this item. This item functions marginally well.

Figure C22. Item Characteristic Curve plotted with Empirical Data for Item #7 (Wanberg 104).

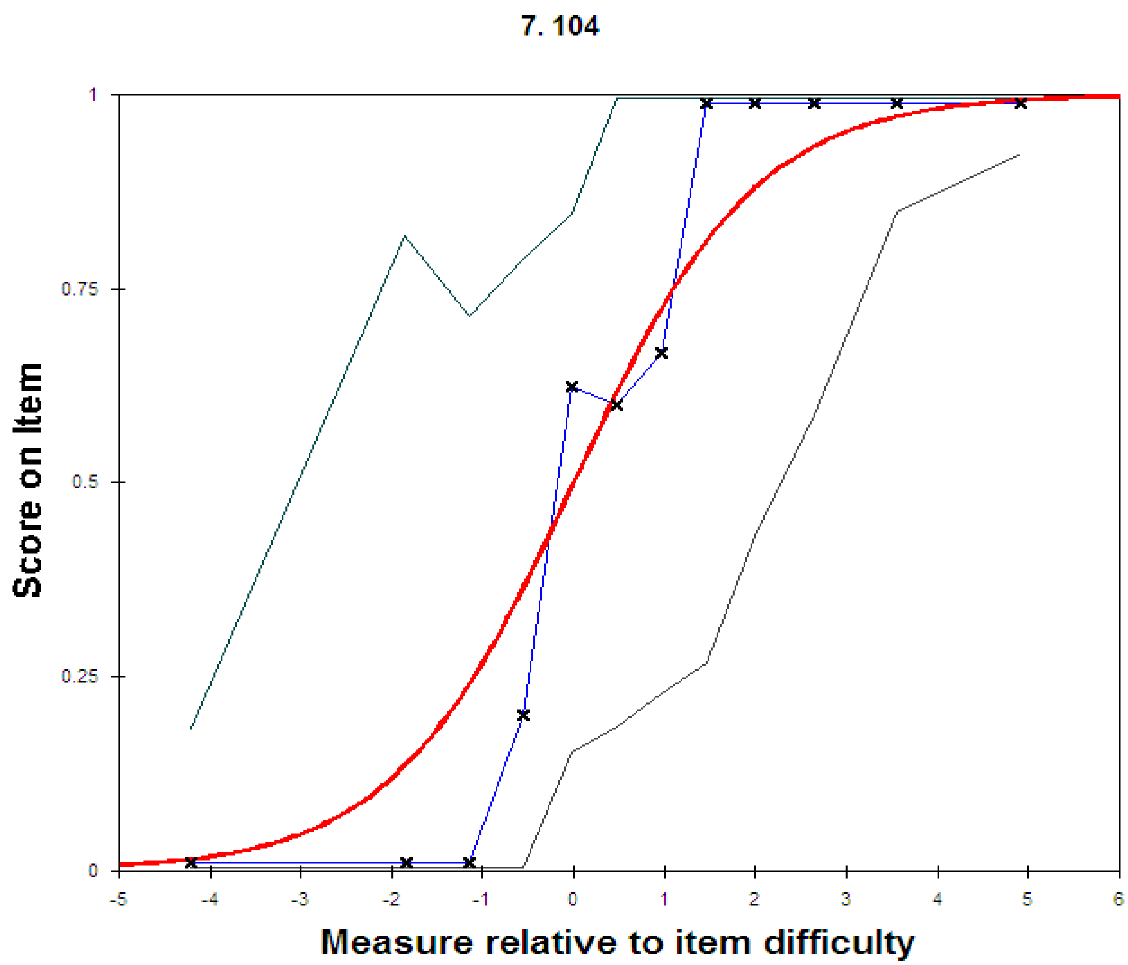


Figure C22 shows the Item Characteristic Curve for Item #7 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Have you stolen something from others), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a fairly predictable response pattern. Thus, the item is probably functioning well.

Figure C23. Item Characteristic Curve plotted with Empirical Data for Item #8 (Wanberg 110).

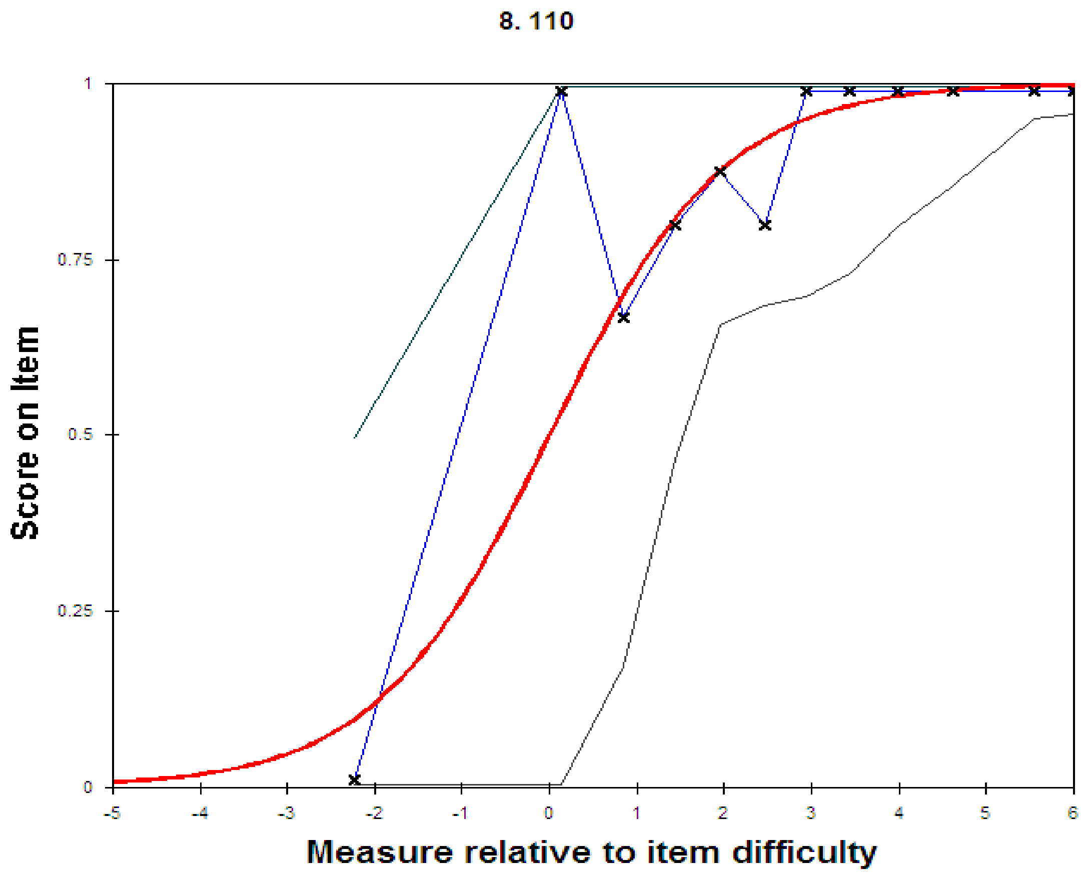


Figure C23 shows the Item Characteristic Curve for Item #8 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (Have you been arrested for breaking the law), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Despite a spike at -.75 logits, readers will notice a fairly predictable response pattern. Thus, the item is probably functioning fairly well.

Figure C24. Item Characteristic Curve plotted with Empirical Data for Item #10 (Wanberg 113).

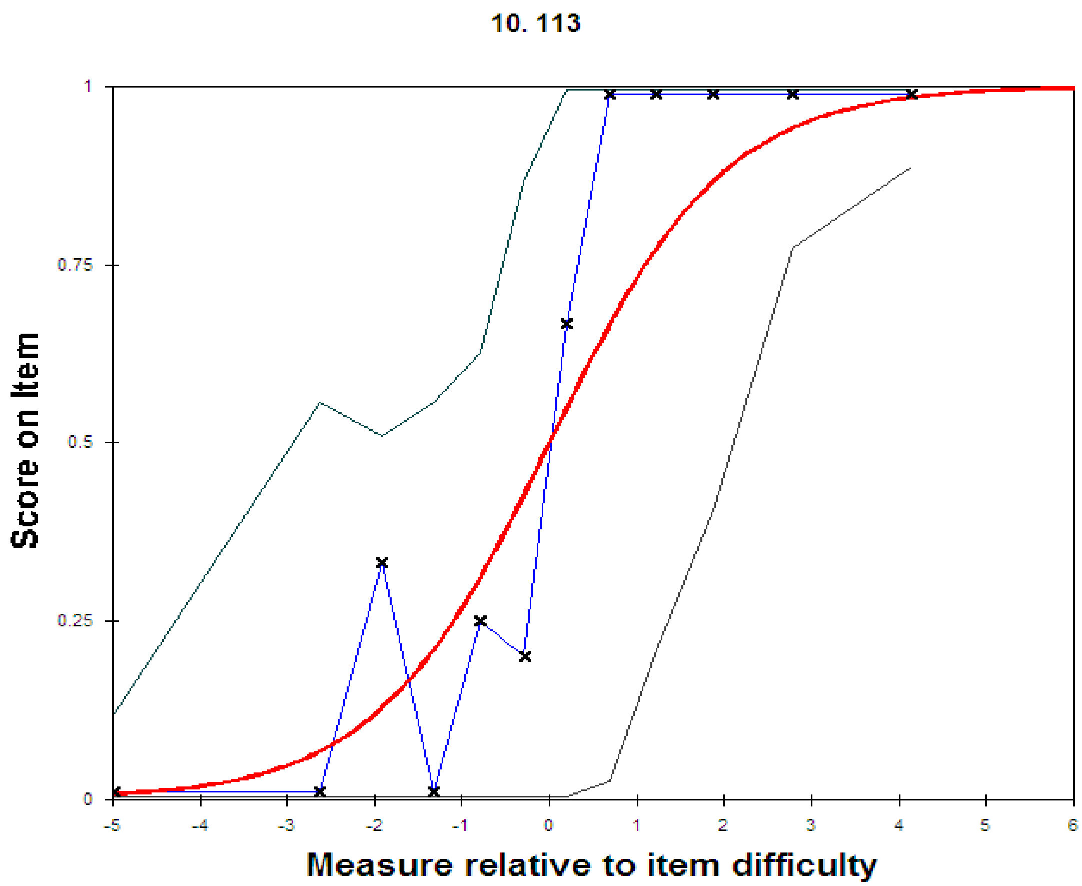


Figure C24 shows the Item Characteristic Curve for Item #20 in our “Deviant Risk Behavior” sample. This item related to the construct of deviant, risky behaviors (How many times did you use marijuana (hashish, pot, weed, grass)?), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Readers will notice a fairly predictable response pattern. Thus, the item is probably functioning well.

Figure C25. Item Characteristic Curve plotted with Empirical Data for Item #11 (Wanberg 115).

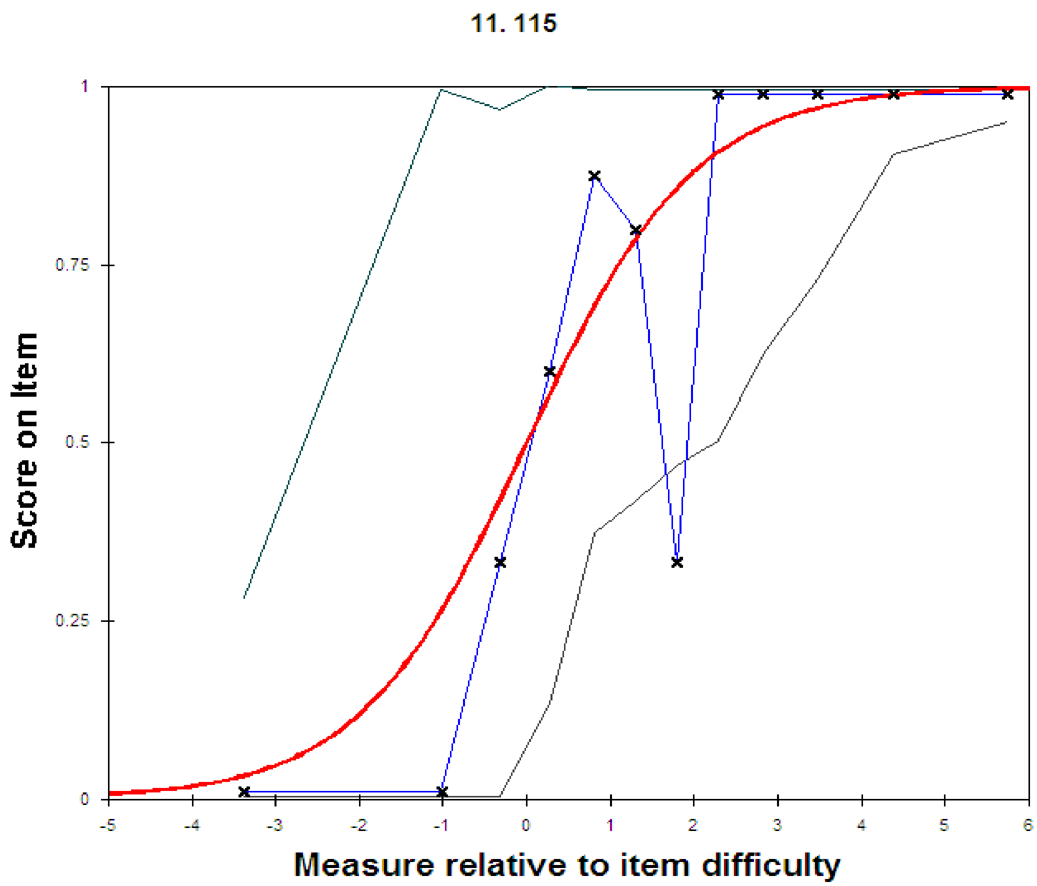


Figure C25 shows the Item Characteristic Curve for Item #11 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (How many times have you used amphetamines (speed, uppers, meth, diet pills, crystal, black beauties, white crosses methamphetamines, etc.)), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering correctly. Though there is a group of students (2.0 logit on the X axis) outside the lower standard margin the item of error, the item functions well for the rest of the participants.

Figure C26. Item Characteristic Curve plotted with Empirical Data for Item #12 (Wanberg 119).

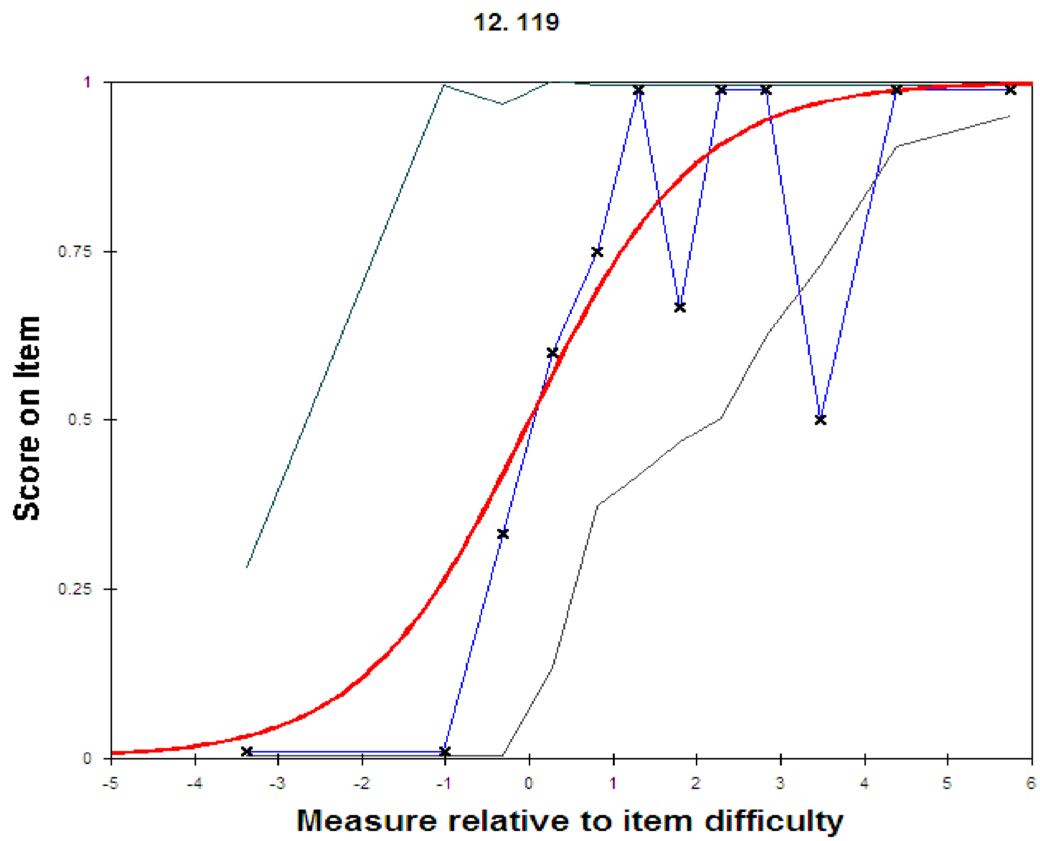


Figure C26 shows the Item Characteristic Curve for Item #11 in our "Deviant Risk Behavior" sample. This item related to the construct of deviant, risky behaviors (How many times have you used inhalants), as defined in chapter three. This item demonstrates that as students increase in their ability level, on the pro-social scale, they have a higher chance of answering the item correctly. Though there is a group of students (Well above average students at 3.5 logit on the X axis) outside the lower standard margin of error, the item functions well for the rest of the participants.

Table 1: Risk Items and Test Statistics for the Final Subset

ITEM	MEASURE	ERROR	IN.MSQ	IN.ZSTD	OUT.MSQ	OUT.ZSTD	OBSMATCH	EXPMATCH	DISCRIM
1	1.01	0.42	1.75	2.72	1.87	2.2	57.9	79.4	0.06
2	0.51	0.4	1.28	1.39	1.71	1.94	78.9	76.3	0.43
3	2.43	0.49	0.51	-2.09	0.27	-1.41	92.1	85.1	1.49
4	0.84	0.41	0.58	-2.18	0.44	-2.12	86.8	78.5	1.58
5	1.77	0.45	0.92	-0.21	1.01	0.18	89.5	83.1	1.05
6	0.84	0.41	0.69	-1.51	0.54	-1.62	86.8	78.5	1.44
7	-0.42	0.39	0.8	-1.36	0.6	-0.91	76.3	72.8	1.48
8	-2.4	0.56	1.09	0.35	0.78	0.23	89.5	89.4	0.95
9	-2.4	0.56	1.37	1.02	4.12	1.86	89.5	89.4	0.44
10	0.35	0.4	0.74	-1.47	0.66	-1.06	86.8	75.5	1.43
11	-1.25	0.43	0.99	0.02	0.81	-0.06	81.6	78.7	1.02
12	-1.25	0.43	1	0.05	1.46	0.81	81.6	78.7	0.88
Average	0.0025	0.4458333	0.9766667						

Item Reliability = .90
Person Reliability = .69
Chronbach Alpha (Classic) Reliability = .86

Raw Variance Explained by Persons = 23.4%
Raw Variance Explained by Items = 23.1%

Table 2: Pro-Social Items and Test Statistics for the Final Subset

ITEM	MEASURE	ERROR	IN.MSQ	IN.ZSTD	OUT.MSQ	OUT.ZSTD	OBSMATCH	EXPMATCH	DISCRIM
1	3.13	1.09	1.35	0.67	1.28	0.65	97.1	97.1	0.79
2	3.13	1.09	1.35	0.67	1.28	0.65	97.1	97.1	0.79
3	0.35	0.49	0.84	-0.44	0.76	-0.43	85.7	84.1	1.16
4	-0.92	0.39	1.06	0.44	0.98	0.01	68.6	71.2	0.89
5	-0.08	0.44	1	0.06	0.88	-0.22	77.1	79.3	1.04
6	-1.35	0.38	0.88	-0.87	0.79	-0.7	74.3	68.4	1.41
7	-0.44	0.41	0.86	-0.65	0.69	-1.03	71.4	75.7	1.28
8	-0.92	0.39	0.99	-0.02	0.87	-0.43	68.6	71.2	1.09
9	-0.92	0.39	1.13	0.83	1.03	0.21	62.9	71.2	0.75
10	-0.76	0.39	1.04	0.31	1.1	0.44	71.4	72.6	0.87
11	0.13	0.46	0.84	-0.52	1.1	0.38	85.7	81.7	1.12
12	-1.35	0.38	1.1	0.77	1.14	0.56	68.6	68.4	0.64
Average	0	0.525	1.0366667						

Item Reliability Estimate = .81
Person Reliability Estimate = .55
Chronbach Alpha (Classic) Reliability = .80

Raw Variance Explained by Persons = 18.3%
Raw Variance Explained by Items = 11.4%

APPENDIX D – Perceived Risk Curriculum Guide Excerpt

Table of Contents

Each of these is hyperlinked to the corresponding page in the teacher's guide.

Table of Contents *continued…*

Each of these is hyperlinked to the corresponding page in the teacher's guide.

North Columbia Academy

Sequential and Integrated Curriculum Guide Using Perceived Risk Curriculum for a Comprehensive Charter School

Draft – Summer 2006

The North Columbia Academy, founded in 2003 for implementation in 2004 by the Rainier and Clatskanie school districts, begins its second year with a new curriculum. The curriculum is standards-based, and offers our students opportunities for a standard diploma. North Columbia Academy's focus is on relevant and engaging curriculum that is thematically connected and includes problem-based learning strategies, contextual learning, brain-based learning, and service learning and school-to-work transition strategies.

The philosophical base for North Columbia Academy is one of Constructivism, the conviction that students bring much learning (experiential, emotional, academic) with them into the learning experience, and it is the responsibility of both teacher and the conviction that students bring much learning (experiential, emotional, academic) with them into the learning experience, and it is the responsibility of both teacher and learner to construct meaning together. No one learns alone.

The District-sponsored and Oregon Department of Education-approved charter for NCA provides for the emotional needs of the students as well as their academic needs. To accomplish this, NCA has on staff a clinical psychologist who utilizes cognitive-behavioral psychological strategies to help students learn to make healthy life-long decisions. We will utilize elements from Pathways to Self Discovery by Dr. Harvey Milkman to demonstrate chains of choices and consequences. Students will also receive support encouragement and goal setting assistance in this context.

Also an important part of this school is work done with Dr. Milkman's Project Self Discovery, an Arts-based program to engage students and give them ways of connecting to each other and to positive self-growth through the Arts. The Arts will be not only a discrete content area assessed by Subject Area Endorsements, but also as a means of conveying and assessing other content areas as well.

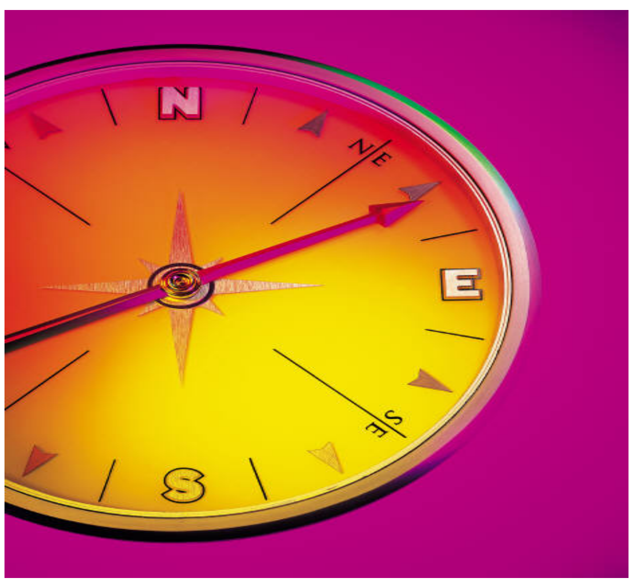
Our goal is to provide students with skills needed to go into the world with confidence and success - able to test themselves in healthy and positive ways and to contribute to their communities and families with commitment and compassion. We think that this investment in our students' educations is well worth the time, energy and innovation required to make North Columbia Academy a success.

** Subject Area Endorsements: SAEs were field tested by Oregon Department of Education in the 2005-2006 school year. NCA was a part of this field test. SAE certificates can expect to be awarded in the 2006-2007 school year after the period of field-testing has completed.*

North Columbia Academy

2006-07 Educational Team

Principal	Ms. V
Curriculum & Arts Director	Ms. W
Psychological Services	Ms. U
Lead Teacher	Mr. Z
Co-Teacher	Ms. T
Program Assistant	Ms. S



Course Configuration

NCA adheres to the graduation requirements of the Rainier and Clatskanie School Districts. 23 credits for standard North Columbia Academy diploma include*:

3 English/Language Arts
2 Math
2 Science
2 Social Science
.5 Government
.5 Economics
2 Fine Art
1 P.E.
1 Health
9 Electives

NCA's "Selectives"
Of the 9 electives, we encourage NCA students to engage in our "selectives." These are strands of electives which are connected by common themes.

Community Service – Students will have the opportunity to share in community service including but not limited to United Way, HOPE, Even Start, Head Start, and Friends of Fox Creek.

Internships/Apprenticeships – Students whose credits are progressing according to their academic plan will have the opportunity to engage in work-study programs which may take them into the community and into the workplace. Some positions may be paid; arrangements must be made with the educational team.

Pathways – Students will be actively engaged in Dr. Milkman's *Pathways to Self Discovery*, a course in cognitive – behavioral psychology that will help them to become reflective about their choices and goals. Commitment to this class can help the student to promote resiliency, encourage drug and alcohol resistance skills, and help to develop emotional intelligence.

Project Self-Discovery Arts Exploration – Students will have the opportunity to participate in a variety of Arts activities including but not limited to movement and dance, theatre performance, music composition, music performance, technical theatre, 2-D and 3-D visual art, storytelling, poetry, improvisation, video production, horticulture, journalism, and Arts appreciation.

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* Please note: Students entering NCA with Freshman credit status (having earned fewer than 7 credits by the fall of 2006) will be held to new Oregon State Department of Education and Rainier School District Guidelines which including 25 total credits for graduation in include an addition course in English and Math. Please see attachment – 2006-07 diploma requirements.

Sample Four-Year NCA Experience

9th Grade

.5 Lifetime Wellness (approximately 2 ½ hours weekly)
.5 Health/Pathways (approximately 2 ½ hours weekly)
1 Integrated English I (approximately 5 hours weekly)
1 Integrated Science I (approximately 5 hours weekly)
1 Integrated Social Science I (approximately 5 hours weekly)
1 Arts Exploration (approximately 5 hours weekly)
1 Math – level to be assessed (approximately 5 hours weekly)
1 Selective course (approximately 5 hours weekly)
Total credit opportunities – 7

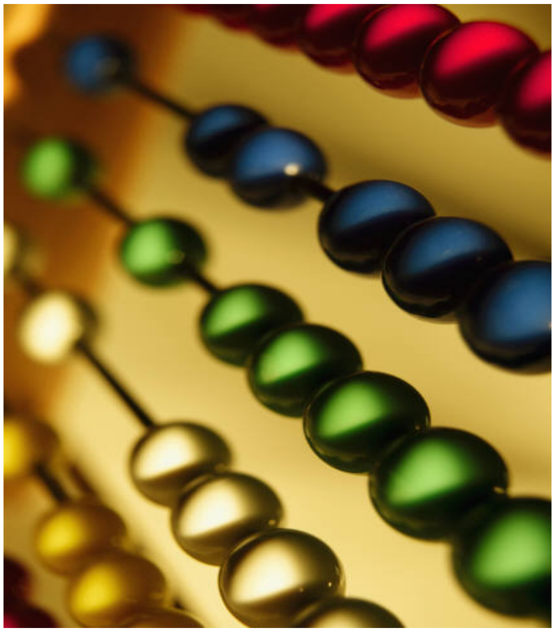
10th Grade

.5 Lifetime Wellness (approximately 2 ½ hours weekly)
.5 Health/Pathways (approximately 2 ½ hours weekly)
1 Integrated English II (approximately 5 hours weekly)
1 Integrated Science II (approximately 5 hours weekly)
1 Integrated Social Science II (approximately 5 hours weekly)
1 T.A.S.T.E. (approximately 5 hours weekly)
1 Math – level to be assessed (approximately 5 hours weekly)
1 Selective course (approximately 5 hours weekly)
Total credit opportunities – 7

11th Grade

.5 Lifetime Wellness (approximately 2 ½ hours weekly)
.5 Health/Pathways (approximately 2 ½ hours weekly)
1 Integrated English III (approximately 5 hours weekly)
1 Integrated Science III (approximately 5 hours weekly)
1 Integrated Social Science III (approximately 5 hours weekly)
1 Math – level to be assessed (approximately 5 hours weekly)
1 Selective course (approximately 5 hours weekly)
.5 Career Exploration (approximately 2 ½ hours weekly)
.5 Internship/Apprenticeship (approximately 2 ½ hours weekly)

Total credit opportunities – 7



12th Grade

.5 Lifetime Wellness (approximately 2 ½ hours weekly)
.5 Health/Pathways (approximately 2 ½ hours weekly)
1 Integrated English IV (approximately 5 hours weekly)
1 Integrated Science IV (approximately 5 hours weekly)
1 Integrated Social Science IV (approximately 5 hours weekly)
(Core classes culminate in a Senior Showcase)
.5 Government/Street Law (approximately 2 ½ hours weekly)
.5 Economics/Personal Finance (approximately 2 ½ hours weekly)
1 Selective course (approximately 5 hours weekly)
1 Internship/Apprenticeship (approximately 2 ½ hours weekly)

Total credit opportunities – 7

North Columbia Academy – Sample Daily Schedule

One of the greatest strengths and joys of a charter school is the flexibility of the daily schedule. Though we have the normal demands of seat time required by the State of Oregon, we can be more innovative with our blocks of time. For example, though English is required 5 hours weekly, this may be best taught through a 2 ½ hour block twice in a week instead of daily for 1 hour. The needs of the students will be the guiding factor in this division of the daily schedule. But here is one example of how this might work:

	Monday	Tuesday	Wednesday
8:20	Pathways	Literacy	Pathways
9 AM	Math	Math	Math
10 AM	Core Integration	Core Integration	Core Integration
11 AM	Core Integration	Core Integration	Core Integration
12 PM	Arts Exploration	Arts Exploration	Arts Exploration
Lunch		Lunch	Lunch
1 PM	Selectives	Selectives	Selectives
2 PM	Content Support Science	Content Support Social Science	Content Support Math
3 PM			

	Thursday	Friday
8:20	Health	Literacy & Logic
9 AM	Math	Health
10 AM	Core Integration	Career Exploration
11 AM	Core Integration	Core Integration
12 PM	Arts Exploration	Lifetime Wellness
	Lunch	Lunch
1 PM		
	Selectives	Lifetime Wellness
2 PM		
	Content Support English	Lifetime Wellness
3 PM		

Summer Study Proposal
North Columbia Academy

The summer school program at NCA is still being approved by the Rainier School Board, but on speculation here is the plan:

Laurie Kash will coordinate courses. Students have three options:

Unpaid mentorship	.5 credit = 90 hours
Labyrinth building	
Independent study courses	.5 credit = 90 hours
Art Exploration	
Core Revisited	
Paid Vocational Experience	.5 credit = 180 hours
Summer Job	

These course requirements are in alignment with Rainier Junior / Senior High School course requirements.

Students must complete the information packets provided in order to register. Students must meet minimum requirements as established in the packet in order to earn credit. Being fired from a position constitutes a failure in the class and may result in forfeiture of any or all summer school tuition.

I have read and understand the above statements –

Student name date contact info

Course for which I would like to enroll –

1.
2.

Curriculum Integration Strategies

Like the petals of a sunflower, the standards, proficiencies, and skills we want our students to achieve join together to create a heart larger than the individual skills themselves. These discrete expectations combine to shape each individual student's complete learning. Likewise, the acquisition of these distinctive skills should not be separate like petals plucked from the flower. The isolation of skills leads to redundancy of tasks and an inability on the part of the learner to contextualize the content and skills learned.

Our feeling is that rich and relevant tasks frequently combine learnings from many disciplines. A single robust project may yield a written proposal, the crafting of a social science survey, a mathematical interpretation of the findings, and a speech about analysis of the data. Intertwining standards are an excellent way for students to truly delve into a topic of interest and critically examine it from many sides. Using a thematic approach to teach provides a conceptual framework for exploring essential questions and enduring understandings (i.e., the big ideas at the heart of the discipline) and promotes student-centered inquiry. The following pages provide examples of such integration.

Core Integration Project - Step 1
Example: Shared Topic – The Making of a Decade

- Students and their instructor choose a decade they all wish to study together. This allows the instructor to more easily locate and obtain resources and allows the students to better collaborate.
- Students can choose the standards in which they are most interested or in which they need most attention. (See Standards Sunflower on page 51.)
- Students can choose to target one or more standards depending upon the time frame of the assignment and their level of commitment to the topic.
- When given the topic, students may wish to brainstorm everything they already know about the subject. An effective format for this is brainstorm is a KWL – with an additional column for authentic questions that remain. The entire class can participate in the completion of the KWLQ, or it can be done in small groups after students attempt it on their own.
- Students can pose additional authentic questions about the topic with help from the instructor. As students collect information, they can share their findings with the group.
- Final products can be showcased at the end of each quarter at the presentation of progress reports.

1940's

Know	Want to Know	What I Learned	Questions Remaining
World War II	When?	Early 40s	What happened after that?
Hitler	His early life	Painter	What made him go bad?
Women work	what jobs?	Rosie the Riveter	What happened to them after the war?
Dances	What kind?	SRO dances	What kinds of dances?
Meatloaf	What did they eat?	rationing	How did rationing work?
Jazz music	Who were the best players?	Big Band	What other forms of jazz?
Germany & Japan	Who else was involved?	Italy	What roles did other countries play?
More births	Impact on schools	called "Boomers"	What happens when they retire soon?

Life was different after	Life after the war	Cold War, unemployment	How did the society adjust?

Core Integration Project - Step 2

Example: Shared Topic – The Making of a Decade

- After students have chosen the class topic, and have begun to pose authentic questions, it is time to choose the standards the teacher would like to help the student target. Here is how some of the questions can become relevant and meaningful topics of research and discovery and how they may allow the student to work toward completion of their CIM.
- Help the student see a trend or pattern in their remaining questions. This may guide them to interesting areas ripe for research. Perhaps have them try a "line of questioning." (See page 49)
- In this example, it seems the student is very interested in what happens after the WWII. Perhaps this would lead to some interesting topics.

1940's – Questions Remaining List

Know	Want to Know	What I Learned	Questions Remaining
World War II			What happened after that?
Women work	What jobs?		What happened to them after the war?
Jazz music	Who were the best players?	Big Band	What other forms of jazz?
More births	Impact on schools	Called "Boomers"	What happens when they retire soon?
Life was different after	Life after the war	Cold War, unemployment	How did the society adjust?

Other questions:
What nutritious recipes can you make out of rationed food?
What forms of dance came out of the 40s that still exist today?
What is the science behind the A Bomb?

Core Integration Project – Step 3
Example: Shared Topic – The Making of a Decade

Lines of Questioning

Core Integration Project – Step 3
Example: Shared Topic – The Making of a Decade

Lines of Questioning

(S.S.) History	When was WWII?
(S.S.) History	What role did women play in the war? What happened to women after the war?
(S.S.) History	If many women had babies, what happened to their jobs?
(S.S.) Economics	If they had so many babies, how did that impact the school system?
(S.S.) Economics	How did that generation impact the economy and the workforce? What will happen to our society when those Baby Boomers all retire from the workforce?
(S.S.) History	What happened to men when they came home?
(S.S.) History	How were the men treated when they returned? Was it like Vietnam?

Physical Education/Arts	What dances in existence today owe their roots to dances from the 1940s?
Physical Education/Arts	Can I do those dances?
Health	What kinds of balanced meals could you make from food that was rationed in WW II?
Health	
Health	Did any groups of people or countries suffer long term health problems from rationing?
(Arts) Music	Did anyone in Japan suffer long term effects from nuclear radiation?
(Arts) Music	What was the contribution of jazz to today's music?
(Arts) Music	Who were the major players in jazz in the 1940s?

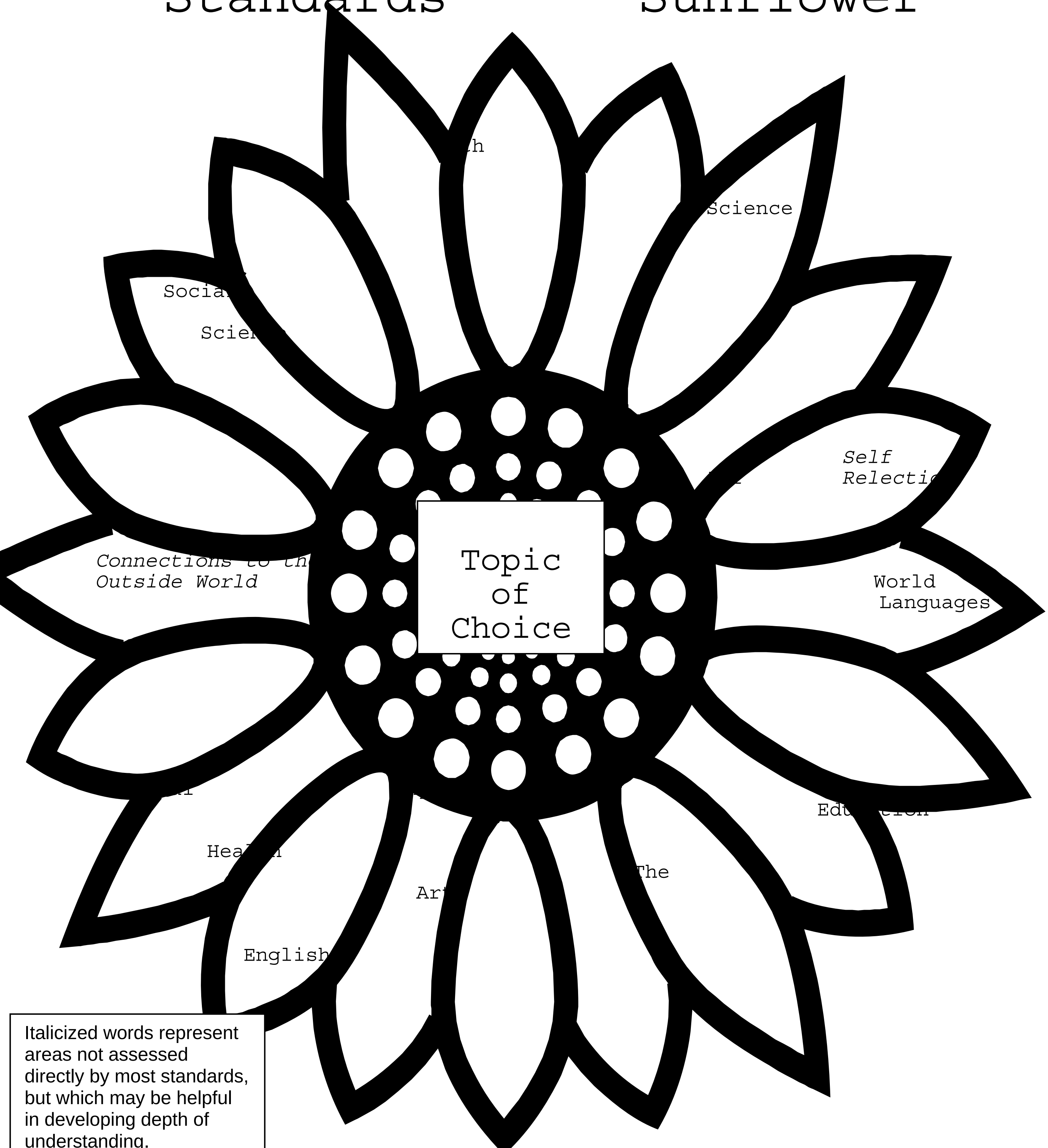
Next Steps

Now that the student has identified what content areas their questions fit into, s/he is ready to choose the method of demonstration and assessment. They will outline their choices in a learning contract. See pages following this unit for examples.

For the dance questions, the student may wish to demonstrate through dancing. This may also address standards in the Visual and Performing Arts. The student may also address some of these issues surrounding dance by creating a video, giving a speech, or by writing a paper. Each of these methods lends itself to yet another standards area (Arts for video, English for speaking and writing).

The methods chosen should really represent the student's interest, and should reflect the areas in which they have most promise or need the most work. This should be negotiated with the teaching team and the student.

Standards Sunflower



Italicized words represent areas not assessed directly by most standards, but which may be helpful in developing depth of understanding.

Core Integration Project Quarters 2 & 4

Example: Solo Topic – Greece

- Students and their instructor choose a topic the student is genuinely passionate about or in which they have intense interest. This should be broad enough to allow for multiple investigations and methods of assessment. This
- Students can choose the standards in which they are most interested or in which they need most attention. (See Standards Sunflower on page 50.)
- Teachers can assist students in selecting standards that are in line with the students' academic goals and the time frame of the project.
- When choosing the topic, students may wish to brainstorm everything they already know about the subject. An effective format for this is brainstorm is a KWL – with an additional column for authentic questions that remain. The entire class can participate in the completion of the KWLQ, or it can be done in small groups after students attempt it on their own.
- Students can pose additional authentic questions about the topic with help from the instructor.

Students from Rainier visit the Greek island of Rhodes. 2003

Greece

Know	Want to Know	What I Learned	Questions Remaining
Near Italy	Other neighbors?	Turkey	Relations with others?
Greek Myth	Who are the heroes?	Hercules	Why did the Greeks tell these stories?
Ouzo	What is the food like?	Lamb	What recipes are there?
My dad is from Greece	Where his family lived	Many islands	Which island is he from?
Greek music	What instruments?	Lute	What is their modern music like?
First Olympics	Where?	Olympia (duh)	What other sports?
My Big Fat	Is it really like that?	Family is important	What are their wedding Greek Wedding traditions?

Solo Project: Next Steps

From here, students can repeat the steps from the previous class exercise:

- Choose standards they wish to target
- Choose methods of assessment (posters, speeches, papers, videos, etc.)
- Set target dates for sharing]
- Craft their learning contract (see below)
- Showcase their research

So what is the major difference in emphasis in instruction between terms 1 & 3 and 2 & 4?

The What

Terms 1 & 3 – Group Topic Project
The emphasis in class sessions during terms 1 & 3 is more about the discussion of the topic, the sharing of research information, the validation of sources. In short, it is about content knowledge. There is, of course, encouragement of skills as students find ways to demonstrate and display this new knowledge.

The How

Terms 2 & 4 – Solo Topic Project
The emphasis in class sessions during terms 2 & 4 is more about the acquisition of skills rather than the simple sharing of content. Students will be conducting research, but rather than entire class discussions about the content, the class sessions are more likely to be about the skills used to convey the findings.

Final Showcase

It is our goal to have the students ready to present their findings in a visual and auditory way at an open house forum to which parents and community members would be invited. This would occur quarterly coinciding with quarterly progress reports/conferences.

Learning Contacts

Student name	
Topic to be studied	
Standards to be addressed (Content area and benchmark)	
Form of submission (project, portfolio, paper etc.)	
Outline of submission (timelines etc.)	
Resources and assistance This section is also the place to clarify complicating issues, such as collaborative work in a small group, and how tasks and grades are to be apportioned.	
Signatures	