1994

Following the yellow brick road: A journey into the land of OM

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Date: September 30, 1994

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FOLLOWING THE YELLOW BRICK ROAD:
A JOURNEY INTO THE LAND OF OM

by

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Presented in partial fulfillment of the requirements
for the degree of
Master of Arts
University of Montana
1994

Approved by:

Chairman, Board of Examiners

Dean, Graduate School

Date
FOLLOWING THE YELLOW BRICK ROAD:
A JOURNEY INTO THE LAND OF OM

Over one million students ranging in age from kindergarten through college will embark this year on an incredible adventure into the land of creativity. During this odyssey, they will learn to express themselves in a variety of ways, discovering and enhancing their strengths as writers, technologists, actors, singers, visual artists, and scientists. Teams comprised of seven students will journey into the realm of possibilities, where all ideas are accepted and intelligent risk taking is encouraged. This is the land of OM.

What is OM?

Odyssey of the Mind, an international problem-solving competition, has grown from its 1978 New Jersey beginning to include an estimated one million young people. According to the program's founder, Dr. C. Samuel Micklus, Odyssey of the Mind (or OM) now ranks as the world's largest academic competition. All OM problems are designed yearly by Dr. Micklus, at times with the collaboration of his wife, Carole, and son, Samuel W. Micklus. Problems vary in nature from mechanical to structural to performance. Some problems are designated non-linguistic, eliminating the language barrier for non-English speaking and deaf students. Each problem has specific time and cost limitations. Teams select one of five long-term problems to work on for the school year.

The 1994-95 OM long-term problems challenge teams to design, construct and drive a vehicle propelled by two types of power; to design and build a mail system that will sort and transport various mail items; to create and perform an original Vaudeville show whose theme reflects an upbeat or positive aspect of society; to design and build a balsa wood and glue structure which
must undergo a series of twists as it is tested for strength by weights; and to
journey with a time traveler through various time periods in a team-created time
machine in a performance which has a surprise ending. A non-competitive
problem for students nine years of age and under requires that teams incorporate
math concepts into a skit with a party theme.

Team solutions will be presented at various levels of competition to be
judged in three areas: the long-term problem, in which the team presents its pre­
made solution to the selected problem; style, or the enhancement of the long­
term problem; and the spontaneous problem, which is kept secret until the
competition.

The concept of OM sprang from the seeds of the creative exercises Dr.
Micklus devised for his industrial design classes at Rowan College of New Jersey
(formerly Glassboro State College). He developed exercises in which his design
students solved complex problems using only their ingenuity and simple
materials. In an article printed in the September 1988 issue of the Rotarian, Dr.
Micklus described his attempt to motivate students to use their creativity and
intellect and to improve their self images by solving unusual and fun problems.
He began the course with a problem-solving activity that required students to
design and construct a flotation device which could, with a student at the helm,
navigate an irregular course. These college projects were subjectively evaluated
and devices that were unusual or highly creative received the best grades. For
example, one device imitated the movement of a water bug. Although the
contraption failed to navigate the course, it received an "A." The problem was
not solved but the concept was deemed exceptionally creative. In retrospect, this
vehicle's design was the inspiration for OM's most prestigious award, the
Ranatra Fusca Creativity Award. "Success is not a criterion for winning the
award." This award is designed to encourage risk taking when solving problems.
The Ranatra Fusca is felt by many to be the essence of the Odyssey of the Mind Program.

After hearing about Dr. Micklus' unusual assignments, Ted Gourley, Director of Gifted-Children Education, State of New Jersey, asked Micklus to create some problems and suggested a competition. Their collaborative effort resulted in the first "Olympics" of the Mind competition held in 1978 at Glassboro State College in which twenty-eight New Jersey high schools and middle schools met to solve two problems.

Dr. Micklus believed that the creative process was intrinsic to his classes, and, more importantly, that creativity could be taught, a belief he maintains today. In a 1993 interview with the author, Dr. Micklus said:

> Creativity is a skill. You can improve skills with work. If you take IQ tests repeatedly, your scores will improve. When I talk about creativity, I am not just talking about an idea; it usually deals with an aesthetic or some type of development of problem solving. Kids become much better at problem solving with practice. They become much more confident with practice; they're not bewildered when a problem is thrown at them.

Dr. Micklus views problem solving as a very fundamental part of learning which applies directly to life experiences. In the same interview, he summarized his views by stating, "The world is not a one-answer world." Dr. Micklus firmly believes that creativity can be recognized, encouraged, and nurtured and that problem solving is the most natural means of creative expression. OM teaches that solutions to problems can take many forms.

**How Can OM Impact Education?**

If creativity can indeed be taught as Dr. Micklus asserts, OM provides the perfect vehicle for the journey. OM affords an opportunity for student engagement in learning, and integrating theoretical and applied knowledge. The "hands on" nature of OM allows students to test physics theories or to transfer
history research into a new context. Technical and artistic skills are honed in the execution of student designs and performances. OM offers educators and parents a "window" for viewing students as independent learners involved in research, experimentation, redesigning, and testing of theories and ideas without adult or outside interference.

OM can build bridges between the school and the community. As parents become involved in OM, they become more involved in their child's learning. OM offers teachers and administrators an opportunity to view students in a different light. The shy child or the problem child may just turn out to be a shining star. By working collaboratively, the school and parents can provide students with a unique and successful learning experience.

The interdisciplinary characteristics of the long-term OM problems require students to make connections between disciplines. For example, the problem involving vehicle construction requires students to integrate math, science, and physics as well as writing, performance, and visual art. Teams may choose to utilize music, costumes, and dance to enhance their solutions. The possibilities are limited only by the imagination.

OM problems offer an opportunity for students to practice their problem-solving skills. Spontaneous problems presented on the day of competition stimulate fluency, flexibility, and originality. Elaboration is encouraged in the style portion of the competition as students enhance their vehicles, machines, structures and performances. Whether practicing spontaneous problems such as naming creative birds (i.e. Larry Bird, To Kill a Mockingbird) or brainstorming the angle of an arch in their balsa wood structure, students are actively engaged in the creative problem-solving process.

The divergent nature of the problems themselves invite creative and critical thinking and risk-taking in a safe environment. Students are encouraged
to experiment and stretch their creative limits as they strive for the perfect steering mechanism for their vehicle, compose an original song for their melodrama, or attempt various characterizations in their final performance for each problem.

OM can provide a fertile culture for those engaged in education through Howard Gardner's theory of Multiple Intelligences. OM problems offer opportunities for students to discover, explore, and exercise their intelligences. For example, at the 1992 OM World Finals, the Hungarian team performed their solution to "Alice in OMerland" using only a ladder and a paper cutout of a four leaf clover as props. As they performed their version of Alice's journey through OMerland, the students created doors, a frightful imaginary creature, and a ship utilizing only their bodies. Not only did the performance reflect high verbal intelligence in the writing of the script but high bodily-kinesthetic intelligence as well. Music often becomes an integral part of solutions as style components or as solutions themselves. Many teams submit original musical scores with their solutions. The problem, "OM-Believable Music" (1993-94), required teams to build a minimum of three devices that could combine to play a recognizable tune without direct human contact. This was a true test of musical intelligence! One team devised a series of three notched ramps fitted with glasses holding varying water volumes. Marbles rolled down the ramps, striking the glasses at exact intervals, playing the theme to "Star Wars." 1994 may find OM students dancing their interpretation of time travel, composing their Vaudeville skits in verse, painting their mail system in the style of Salvador Dali or performing a song about balance, weight, and torque as weights are being placed on their balsa wood structure.
Students learn to operate on a time schedule, in an organized fashion, and within cost limits. When students begin work on their long-term problems in the fall, their first competition in February or March appears extremely distant on the horizon. However, it does not take long for students to realize that they must allot specific time to various tasks and set deadlines for themselves. Anyone who has taught in a middle school knows the value of this lesson.

OM promotes the social development and cooperation by providing problems which encourage team members to work collaboratively towards a common goal. As teams strive for unusual or unique ideas, a variety of possibilities or alternative solutions from which to choose becomes significant. Multiple perspectives and the importance of personal interpretation become valued. Through the development and execution of ideas, an appreciation and understanding of others may be achieved. Each solution requires a variety of skills, such as script writing, acting, artistry, technical expertise, and building. Each team member brings his or her own unique strengths and weaknesses to the team. Because OM rules stipulate that no team member may be replaced, students must also learn conflict resolution skills.

Students are afforded the opportunity to meet teams from throughout their region, state, and, at World Finals, from various countries who share common goals and interests. Students can appreciate the time and effort evident in solutions offered by others.

OM participation provides an arena in which leaders can emerge. As Dr. Micklus told the author in a 1993 phone interview, "I think that leadership has something to do with creativity." He spoke of gang leaders who were powerful leaders but perhaps could not read. He said that one had only to look at congress for other examples. He continued:
What is the IQ of the U.S. Congress? You don't have to possess a high IQ to get elected to public office. But you do have to have other qualities, charisma, or the ability for leadership. OM helps kids develop leadership skills in that they have to take the lead in the spontaneous portion [of the OM competition] or they have to assume leadership in making decisions about the long-term solution.

A sense of pride and accomplishment promote self-esteem as students realize a problem's solution through to its final stages. Each team must have the confidence to present or perform its solution to the judging team and audience. This self-confidence and the ability to bring a product or solution to fruition are critical life-long skills. OM rules stipulate that all work must be that of the seven team members, encouraging a sense of ownership and pride. Students have the opportunity to maximize their creative potentials and experience success whether designing a vehicle's propulsion source or performing a comedy routine.

Is OM Just for the "Gifted" Student?

Participation in OM is not limited to students designated as "gifted" or "talented." Although OM is frequently promoted through many "gifted and talented" educational programs, Dr. Micklus has fought the misconception that OM is just for those with higher than average intelligence. In a 1986 article in Sky: Delta Airline Inflight Magazine, Dr. Micklus stated, "You'll find creative kids where you are least likely to expect them. Their test scores may be average or below average. Just because a kid can do algebraic equations better than anyone else really doesn't mean that he could build a spring powered car." Scoring high on an IQ test, he believes, is not necessarily an indication of creative ability.

In a 1993, telephone interview with the author, Dr. Micklus further addressed the relationship between creativity and high IQ:
I have never agreed with "gifted" as being associated with high IQs. I don't agree that IQ compromises what I feel is creativity. While teaching college, I used to ask my industrial design students to name the ten greatest people in history. The names that came up most frequently were people like Michaelangelo, Leonardo daVinci, Mozart, the names of playwrights, and great performers. What were their math skills? Could Michaelangelo do math? What was his IQ? What did it matter? What does an IQ test prove about talent or creativity? Who is to say that the street kid who can get into a Mercedes in 15 seconds or dismantle it isn't creative? But the important thing is to turn that creative talent into something positive. Several years ago, I wrote a problem called "Omonauts." The students had to design and build a vehicle, a sort of, electric car. I received many complaints from coaches that felt that the problem was too hard. When I asked them about their teams, I was told that many of the students had been chosen on the basis of high IQ and other test scores. I told them that they were using the wrong students. The kid stealing that car could have put the vehicle together in an afternoon. Math scores do not judge the levels of creativity. Test scores don't make sense when selecting creative people, artists, performers or leaders.

Personal Insights Into OM

My personal odyssey into OM began in 1982 while visiting a friend in Oregon whose child was involved in the "Olympics" of the Mind program. ("Olympics" of the Mind flourished under that moniker until 1984, the year of the Los Angeles Olympics. By law, the use of the name "Olympic" is controlled by the U.S. Olympic Committee. According to an article in the 1988 summer issue of Sports Illustrated, the 1984 U.S. Olympic Committee denied the OM organization permission to use the name "Olympics." The OM Association changed the name of the competition. "Olympics" of the Mind became "Odyssey" of the Mind and the popular acronym, OM, was salvaged.) The enthusiasm and creativity exhibited by my friend's third grade team seemed boundless. I began to assist with spontaneous problem solving; the students' enthusiasm for OM was contagious.

Over the years, I have had the opportunity to coach nearly twenty teams in Montana and Texas. Eight of the teams advanced to World Finals, two teams
taking World Championships, and two World Ranatra Fusca Awards. My OM duties have included league and regional directorships as well as membership on the Texas State OM Board of Directors. As a middle school theatre arts teacher, my OM hours accrued outside of class. Team practices were set by the teams and ranged from weekly in the fall to nightly before competitions in the early spring.

While working toward my Master's Degree, I had the opportunity to study the effects of participation in the Odyssey of the Mind program on five of my students. Criteria for student selection was based on a minimum of four years participation in OM. All students attended McCulloch Middle School and Highland Park High School in the Highland Park Independent School District in Dallas, Texas. The five students represent a total of twenty-three years of OM experience. Dylan Jones and Deborah Long began OM in eighth grade and continued participation until high school graduation. McKay Cunningham and Billy Crain began participation in their seventh grade years. McKay continued until his junior year and Billy until his sophomore year. Chris Campbell participated his freshman through senior years. Chris was the only student designated as "gifted and talented " by the school district. Dylan, Deborah, and Chris graduated in 1992, Billy and McKay in 1993. All five participated on the same team only two years.

When exploring the effects of participation in OM on the five students, one can examine OM competition score sheets, parent and participant written and videotaped responses, and the coaches' direct observations.

OM competition score sheets, or "hard evidence," reveal numerous judges' comments regarding the high level of creativity exhibited by the teams. Score sheet numbers reflect an increase in the ratio of creative to common answers indicating a pattern of increase in problem solving abilities over the years of OM involvement. Long-term score sheets reflect a rise in long-term
scores. The last two years of participation note a high frequency of perfect scores on style and long-term score sheets. Judges' comments concerning teamwork and creativity increase over the five year period as well. Comments include such remarks as: "Extremely creative," "Enthusiastic group," "Super teamwork," "Great camaraderie." The formulation of new ideas or solutions, testing these solutions, and communicating the solutions in the form of both long-term problems and spontaneous problems tested the teams' creativity. An increase in number of Ranatra Fusca Awards for creativity indicate that students may become more adept at creating unique and "OM successful" solutions over time.

When asked to comment on their children's participation in OM and its possible effects, each parent agreed that his child had benefited in some way from participation in the OM program. Some comments follow:

Mrs. Jones on Dylan: OM came along at a time in Dylan's life [eighth grade] when he needed the opportunity to build his self-esteem and confidence. This program gave him the opportunity to step out of the ordinary and become extraordinary. If you are in OM, you are always a winner. You have the opportunity to do your best, to grow, to learn, and to always have a positive outcome, even if you don't win a medal. As each year came and each new problem was addressed, Dylan became more and more confident about the team's ability to find the best solution. He felt good about the entire process because he felt he was making a valuable contribution himself. This program could not have done a better job of reinforcing his self-esteem and confidence. From creative writing to chemistry, he became a risk-taker. The approaches taken in helping students prepare for the spontaneous portion of competition during Dylan's formative years was one in which students were encouraged to link ideas with those of their team mates, to build on a solid foundation of trust, to connect with those around you, to open your mind to the thoughts of others, to work toward a common goal. The process took time, but the outcome was undeniable.

Mr. Jones: OM pushed Dylan and his team to find out that they could do a lot more than they ever thought. They felt good about themselves. If OM teaches anything, it teaches cooperation, appreciation and understanding of others. You cannot be a successful member of an OM team and not learn about cooperation, appreciation and understanding of your own teammates as well as everyone else competing against you. You learn to rely on others because of their abilities. You learn not to rely on others to
carry your portion of the responsibility. You learn to respect the abilities of others and to admire a job well done. You learn how to give a critical analysis without being personally critical. You learn how to take criticism yourself and you learn to grow with that criticism. This process not only enabled Dylan's team to be very successful but it also enabled Dylan to build steadfast friendships with his teammates.

Mrs. Crain on Billy: Billy was painfully shy and sensitive. After starting OM, he began to rely on himself and see how great a person he was. His confidence grew and he became more comfortable in social situations.

Mr. Crain: Billy went on to do Thespians, musicals, senior play, and UIL One Act Plays. I believe it was related to the fun and success he had in OM.

Mrs. Campbell on Chris: His confidence was definitely affected. He felt valued as an individual and team member.

Mr. Campbell: Chris has always been quick on his feet. OM allowed him an opportunity to express this ability. Performing in front of others helped his self-esteem and confidence.

Mrs. Long on Deborah: OM challenged Deborah to come up with ideas and she responded with lots of ideas which she got to try out and then evaluate in OM practice. The team she was on learned terrific skills in supporting each other. She learned a lot of give-and-take. They still keep in touch.

Mr. Long: [OM] gave Deborah an outlet to express herself creatively, a format to develop her creativity, and to enjoy the process. I think that the OM experience has helped Deborah grow up by exposing her to conflicts that develop on teams or in groups and giving her the opportunity to work through those problems.

Mrs. Cunningham on McKay: His participation in OM, especially at such a formative time in his development, has profoundly affected his life. He will forever be a better problem-solver, communicator, thinker, and of course, punster! This group unity taught him much about accountability, teamwork, and encouraging fellow workers. They developed self-esteem together as they worked toward a common goal. McKay has no hesitancy to speak before groups—nor does he feel he has to have hours to prepare. Both [are] OM related. [He also gained] the ability to get a job done within time and requirement restraints.

Mr. Cunningham: McKay looks at life situations, at people, at his own circumstances in ways that offer creative solutions to problems. In the
area of self-esteem and confidence, OM experiences had a profound effect. McKay seemed to discover he could think, be smart, and enjoy quick wit.

The best advocates for the OM program are the students themselves. Students were asked to respond to their OM experiences the spring following their last competition and again one year later. The words of these exceptional young people recall their OM years:

Billy: [OM] has made me a more creative person. Learning to think on your feet, spontaneously, made me more confident. I'm more confident in stating my ideas and opinions. Once you get into OM, there's a drive that kicks in. When you're doing spontaneous, that's the time you really realize you can do some things. I learned that my opinion is important. The team is important. It's the people that make the team. It's not like you can set a machine and put something in and in the end, out comes a world champion team. The real thing is the people involved. It's the individuals you're with and the creativity there.

McKay: I really enjoyed spontaneous [problem solving]. There's a moment when everything just comes together. It's like that moment in acappella singing when the music stops, other voices subside, and you can feel the music moving through you. Everything comes together and at that moment you just love it. I gained self confidence, especially in writing and acting. There's a discipline and commitment you develop in OM. You also learn that to be a leader, you have to be a follower.

Deborah: I feel like I can be ready for anything, be flexible and go with it. OM taught me to view situations from other perspectives. I learned to take pride in my work. I wanted to share what we had done. I wanted to say, "Look what we did in our eight minute skit! Look what our interpretation is!" Working together, encouraging each other, that's what makes a team. Working together. It will make you or break you.

Chris: I think that the confidence I gained in problem solving helps me in college. For example, don't think that I would have signed up for college physics if OM hadn't helped me to see things differently and to take risks. I learned the importance of standing back and viewing the big picture. In OM, we'd research facts, explore perspectives and take it from an angle we thought was original. OM made me think. It made me a more thoughtful person. OM gave me a sense of individuality, a sense of accomplishment. I enjoyed the ensemble acting; the camaraderie and working together. We're like family. OM has to effected other areas of your life, when it is your life. I think that the only thing that it [OM] can do is enhance all other areas of your life.
Dylan: I don't worry about the difficulty of my college classes because OM taught me that there are options. If I'm not succeeding, I try a different angle. I'm no longer afraid. I think that the ability to consider all perspectives that problem solving taught me helps me in learning and understanding people. OM taught me to deal with disappointment and to have a broader outlook. I could come back from that disappointment and say, "Let's do better next time." I wasn't defeated. I learned feel like I have more self-esteem, confidence, and willingness to approach something. OM was the most research I ever did in high school. I wanted a good product. I did my best work in OM because I wanted to. Mutual respect, among team members and their coach is important. I think that it [respect] is something that is really hard to find in middle school and high school. That's the one time in your life that you're probably trying the hardest to get respect.

It was my observation that direct hands-on experience enhanced problem solving abilities and creativity. When creative skills were practiced, creative ideas came more rapidly. The students' abilities to write effective scripts in less time and with greater ease developed over time. Elaboration skills increased and the team began to get more mileage out of ideas. For example, in 1991, the entire script for Scene Two was prompted by ideas gleaned from a brainstorming session about "fish." That same year, the concept of pages in the Stabian Bath turned into the Yellow Pages, which evolved into the team's costume ideas. The Yellow Pages wore bed sheets they dyed yellow and made into togas. Not yet content, the team elaborated further, making skirts for the pages by gluing strips of actual phone book yellow pages to elastic waistbands.

Confidence and self-esteem grew each year. Since no adult assistance is permitted, experimentation became the best test for learning. OM encourages risk taking and the OM performance arena presents no exception. The five students facilitated numerous problem-solving training sessions for North Texas OM coaches. The students welcomed opportunities to perform and to promote the OM program.
Abilities to critique the dramatic elements of their own and the performance of others increased and they were quick to praise others' accomplishments. As performers, the students became acutely aware of "dead spots" in the scripts and performances. Their ability to read an audience and to make adjustments in performances or improvise to accommodate a variety of performance sites increased each year. The level of sophistication in set and prop construction increased as well. Over time, they gained knowledge and insight into the qualities which contributed to making a performance truly excellent by OM standards. Their comments often paralleled those of OM judges.

One of the most significant benefits of OM participation, for both my students and myself, is the fostering of mutual respect and bonding. These relationships provide a firm foundation for all aspects of OM which follow. It becomes a coach's responsibility to promote respect and tolerance of others and divergent thinking. A coach must establish a positive, nurturing environment for student risk taking, experimentation, and the realization of creative potential. A coach must set up a zero tolerance for put-downs and negativity. This can be accomplished through open communication of expectations from the onset of the team's formation. It is imperative that the environment encourage respect for, though not necessarily agreement with, the abilities and ideas of others. If team members feel that their ideas are unacceptable or unimportant to others, the flow of creative expression diminishes.

**How Can Educators Get Involved in OM?**

Teachers, administrators, and parents may take on the roles of judges, fund-raisers, problem captains, or board members for OM Boards of Directors. OM officials facilitate Awareness Sessions each fall throughout the state to familiarize interested people with the OM program. Beginning and Advanced
Coaching Trainings conducted by experienced OMers offer guidance and support. Problem Captain and Judges Trainings are also available. For further information, contact Micky Mayer, Texas OM Director, at (214) 231-6301.

IBM, OM's corporate sponsor, provides each school membership with curriculum materials for classroom use. The curriculum materials contain activities specific to numerous subject areas and may be utilized to enrich existing curricula. The activities relate thematically to current OM problems and are updated each year.

As you travel with your students down the yellow brick road through the land of OM, you just might discover the courage to take risks and believe in yourself, the heart to understand, and appreciate others, and brains to think critically and creatively. The journey begins in your own home school.

Epilogue

The bonds formed through OM still hold firm two years after Dylan, Deborah, Chris, McKay, and Billy last participated in OM. They are all away attending college, having gone in different directions and pursuing a variety of careers. They communicate often and meet whenever time and distance allows. I have no doubt, however, that each will be successful. It is my hope that they will continue to tackle life's problems with the same zeal and confidence that their OM experiences have taught them.

And for me? In addition to the benefits already mentioned, OM has afforded an opportunity to be a part of an exciting process, a process which puts the light in students' eyes. And my life has been much richer for it.
REFERENCES


