



Trends In Competencies Built Through Participation in Odyssey of The Mind: A Multi-Year Study

Dr. Kimberly Beckerdite

Virginia Region 6 Odyssey of the Mind, Newport News Public Schools

Dr. Sheri K. Bias, SPHR

Saint Leo University

Justin T. Bias

The College of William and Mary

In 2018, Bias, Bias and Beckerdite (2019) embarked upon research to gain insight and understanding into the competencies built from participation in the Odyssey of the Mind Program. In a survey of judges and coaches conducted from the competition season 2017/2018, these researchers found alignment with the competencies and what employers were seeking from job candidates according to the National Association of Colleges and Employers (NACES, 2019). In a multi-year study, the researchers have deepened the understanding of the perceptions of these competencies through feedback from tournament judges and coaches as well as analysis of the data from NACES over multiple years (NACES, 2018 & 2019).

Based on analysis of the 2018 & 2019 Job Outlook surveys conducted by NACES, critical competencies sought by employers included:

<u>Competency</u>	<u>2018</u>	<u>2019</u>
Problem solving	82.9%	80.9%
Ability to work in a team	82.8%	78.7%
Written communication skills	80.3%	82%
Leadership	72.6%	67.4%
Strong work ethic	68.4%	70.8%

Many of these competencies can be considered soft skills and would be of great benefit to those transitioning from the educational environment to the world of work. These skills are not necessarily taught to students but would more so be developed as a result of their experiences and interactions with leaders, teachers, and other role models such as coaches and judges participating in Odyssey of the Mind. Lippman, Ryberg, Carney, and Moore (2015) define these soft skills as:

... a broad set of skills, competencies, behaviors, attitudes, and personal qualities that enable people to effectively navigate their environment, work well with others, perform well, and achieve their goals. These skills are broadly applicable and complement other skills such as technical, vocational, and academic skills. (p. 11)

While technical knowledge, skills, and abilities, are important in hiring and can be considered those things that an individual can do, potentially more importantly is consideration of the soft skills and competencies that align with what an individual will do or will be able to do. Davidson (2016) described the critical need for these soft skills and that employers are experiencing deficits in the candidates seeking employment. Further Davidson (2016) referenced that the shift in the economy has made these soft skills particularly important as the routine tasks previously completed by workers have now been automated leaving employees to take on broader responsibilities that require these competencies that computers cannot simulate. This was also supported by Glaeser, Laibson, and Sacerdote (2002) regarding the suggestion that individuals with developed soft skills have more success in the workplace. In fact, it was noted that the lack of these soft skills was limiting to companies and their productivity (Davidson, 2016). There seems to be a tipping point happening where the need for soft skills is becoming more important than technical skills possessed by an individual. This is supported by the comment "I can teach somebody how to slice and dice onions.

I can teach somebody how to cook a soup. But it's hard to teach someone normal manners, or what you consider work ethic" (Davidson, 2016, p. 2).

It was previously documented by Bias, Bias, and Beckerdite (2019, 2020) the competencies built within individuals as a result of participation in the 2017-2018 season. The focus of the current research was to determine if patterns existed in the findings from the previous year. The respondents for the purposes of this research were judges and coaches from the 2018-2019 season. It is important to note that this research began in February 2020 which was prior to the impact of the COVID-19 pandemic. However, this pandemic did have an impact on the researchers' ability to collect data from respondents as the schools in Virginia were mandated to close in early March leading to a lack of access to the infrastructure to process the survey by many respondents.

Based on the feedback from respondents in Virginia Region 6, trends were seen regarding perceptions of judges and coaches that confirmed the previously identified areas of importance in soft skills and similar competencies built through program participation. These results, potential implications, and recommendations for future research will be discussed below. As previously noted in the research by Bias, Bias, and Beckerdite (2019), a brief description of the Odyssey of the Mind competition framework will be provided prior to discussing the findings of this research.

Odyssey of the Mind – Framework for Competition

Since 1978, Odyssey of the Mind (OoTM) problems have engaged students in competition and beyond conventional thinking to creatively solve problems. It is an international creative problem-solving program that challenges students in their ways of thinking and learning. OoTM problems facilitate the building of self-confidence, development of life skills, and provides a platform for participants to have fun while learning (Creative Competitions, 2020). The OoTM platform affords opportunities for participants from K-12 and college levels to participate in these creative problem-solving activities.

OoTM Teams

The OoTM teams can have a maximum of 7 participants with typically a minimum of 5 participants in order to be able to fully compete. Coaches for these teams come from not only teachers, but also parent volunteers. Since there can be a vast difference in skills and abilities in students, OoTM differentiates teams by division depending on age and grade in school. The division a team may compete in is determined by the highest grade level of any participant on the team. For the 2018-2019 competition, there were 5 division levels (Creative Competitions, 2020):

- Primary division – Kindergarten through 2nd grade
- Division I – 3rd through 5th grade
- Division II – 6th through 8th grade
- Division III – 9th through 12th grade
- Division IV – Collegiate

Multi-faceted Competition Structure – Long-Term and Spontaneous

OoTM releases five different long-term problems and one primary problem each year, and these problems serve as the foundation for the teams to derive their solutions. The long-term component of the competition falls following problem categories: mechanical/vehicle, technical performance, classics, structure, performance, and primary (Creative Competitions, 2020). While all teams have the same guidelines to solve the problem, each solution is very unique in that there is no one right way to solve the problem.

It is noteworthy to mention that team members must collaborate with each other, and any outside assistance is forbidden. In fact, teams are required to document that they did not receive any outside assistance during the competition where all team members are required to sign attesting to the following statement:

"We understand that it is against the rules for anyone other than the team members to design, build or present the long-term problem solution. We understand that any team member who was ever on our team must remain on our roster and will count as a team member.

We realize that we may get instruction in various areas of design and construction or in performance techniques, but know that these instructions may not be specific to the long-term problem solution. By signing below, we testify that we have followed all of the rules regarding outside assistance. If there are any exceptions, we have listed those.” (Creative Competitions, 2020).

Many teams work together throughout the school year to derive their solution. Some teams begin as early as September, at the beginning of the academic year. Teams work together during a period of approximately 9 months to develop solutions to their chosen long-term problem with consideration of project management variables such as budgets, deadlines, and resource management; all of which must be completed by the team members themselves. The solutions derived by the teams are performed at competitions in front of judges and typically involve set and prop design and construction, a theatrical performance, and any specialty portion of the solution (Bias, Bias, & Beckerdite, 2019).

The other component of the competition, in addition to solving the long-term problem, is called spontaneous. Just as the name implies, these problems are not solved over the long-term, and not even solved over the short-term; these problems are solved instantly using spontaneous creativity (Creative Competitions, 2020). Therefore, while teams can practice spontaneous problem solving, there is no way to know what problem will be experienced during this segment of the competition.

Competition Levels for Virginia participants – Regional, State Finals, and World Finals

Bias, Bias, & Beckerdite (2019) described the levels of competition within the state of Virginia. To briefly recap, the first level of competition in Virginia is the Regional Tournament which is the focus of this multiyear study. Virginia is comprised of eight regions spaced throughout the state. The focus of the comparisons for this study focused on Region 6 in Virginia which is comprised of the following cities/counties: York County, Poquoson, Accomack, Gloucester, Sussex, Southampton, Isle of Wight, Portsmouth, Virginia Beach, Hampton, and Newport News (Virginia Odyssey of the Mind, 2020). The structure of the competition landscape in Region 6 is that teams in Division I and II who successfully place first in their problem advance to the state competition. Division III team who successfully place first or second in their problem advance to state competition. Division IV teams automatically compete at the state level (Bias, Bias & Beckerdite, 2019).

Those teams successful at the regional level then compete at the State Finals level with top teams from across the 8 regions. First and second place teams who are successful in their respective problems by division are then afforded the opportunity to compete at the OoTMWorld Finals Tournament. Participants in World Finals which includes delegations from across the United States and international teams from Mexico, Japan, Germany, China, Canada, Russia, Poland, India, and Switzerland.

World Finals is the cumulative competitive landscape where only those who were successful at previous levels compete. As a point of reference according to Creative Competitions (2020), the following were the number of teams competing at World Finals:

- 2018 – 835 teams
- 2019 – 890 teams
- 2020 – 835 teams – Virtual World Finals due to COVID-19 pandemic

Teams placing in the Top 6 within their division and problem are announced at the end of the competition with awards given to the Top 3 competing teams.

Objective and Framework of Research Study

The purpose of this multiyear study was to investigate patterns and trends in perceptions of judges and coaches on which skills and competencies were built within the framework of the Odyssey of the Mind program. While the original intention of the study was to gather data from the state of Virginia, this was not feasible due to the closure of schools within the state which prevented many teachers from responding. Therefore, data for the study focused on input from Region 6 in Virginia. The following question was used to guide the research efforts:

Research Question

What are the patterns and trends perceived by judges and coaches in the development of competencies and skills by participants in Virginia Region 6 Odyssey of the Mind program?

The following research methodology is used to analyze data analysis and present the findings.

Survey Questionnaire

A follow up survey was crafted based on the research question described above and following the information requested in the previous survey from 2018 (Bias, Bias & Beckerdite, 2019). In order to reduced survey fatigue and gather pertinent insights, the survey was anticipated to take approximately 5 minutes to complete and was divided into two sections. The first section of the survey gathered demographic information such as whether the respondent was a coach or judge for the 2019 competition period. Additionally, the survey participant was asked about the number of years of involvement in the Odyssey of the Mind program. Another demographic question was on the problem that the respondent participated in for the Region 6 competition. For coaches, the survey asked if they had coached the current problem in the past and which division, as well as if they were a teacher and if they coached multiple teams in 2019. An open-ended question asking why the respondent got involved with Odyssey of the Mind as well as a question asking if the individual was planning on continuing in the same role in the 2020 competition finished the demographic section.

In order to accurately compare the perceptions from the multiyear surveys, the second section of the survey was the same as the survey from 2018. This section captured information regarding perceptions of the skills and competencies thought to be built from participation in the program. Survey participants were provided a list of 30 skills and competencies with instruction to select the ten that were perceived to be gained from participation in the Odyssey program. This comprehensive list can be seen in the survey instrument which is provided in Appendix A. Survey participants were asked if they had personally seen the skills selected develop in participants as well as being provided the opportunity through an open-ended question to be able to list any other skills or competencies they deemed important that were not mentioned in the list provided. Additionally, respondents were queried about the perception about differences in skills and competencies by the long-term problem type. In thinking forward to alignment of perceived skills and competencies with what employers, colleges or other post-high-school opportunities, a question was asked regarding the transferability of these skills. The last question on the survey was open-ended asking about other comments or experiences the respondents wanted to share.

Sample

The sample was comprised of coaches and judges from Virginia Region 6 Odyssey of the Mind during the 2018-2019 competition year which equates to purposeful sampling by focusing on this group. The individuals in our sample had participated in the capacity of either a team coach or judge which was noted during the registration for the Region 6 competition. An email was sent from the Virginia Association Director to these coaches and judges requesting voluntary participation. Duplicate emails were eliminated so each unique email address received a survey invitation. It is noteworthy to understand that duplications would have been the result of a coach working with multiple teams which is a common occurrence in the OoTM program. Participation in the survey was voluntary. The survey was distributed to 233 individuals based on these designations and 33 responded to the invitation for a 14% response rate.

Data Collection

As with previous survey efforts, the survey was conducted using Survey Monkey, and respondents answered the questions anonymously. A period of 4 weeks was allowed for respondents to complete the survey with an initial outreach email sent along with a reminder sent approximately two weeks in the timeframe for response. The duration of the timeframe for participation was extended from the original intention due to the impact of the COVID-19 pandemic. A unique email address for Region 6 Odyssey of the Mind was utilized as the sender of the survey along with the signature from the Association Director of Region 6 to provide validity to the research efforts. The results were then compiled and analyzed per the discussion below.

Data Analysis

As previously mentioned, the goal of this research was to gain insights into the patterns and trends for which skills or competencies the survey respondents felt had been built within the framework of Odyssey of the Mind which may be transferrable to other environments through multiyear canvassing.

Data analysis was completed using Survey Monkey compilation of the information as well as manual trends analyses by the researchers. Below are the results from the survey:

1. General Results
 - a. 33 respondents out of 233 surveyed (14%)
 - b. Demographics
 - i. 33% of the respondents were coaches and 66% were judges.
 - ii. There were representative respondents from each problem and each division with the exception of Division IV. No participation in Division IV for this survey. The majority of respondents (27%) coached in Division II.
 - iii. The majority of respondents (48%) had over 10 years of involvement with OoTM. There were no respondents who were in their first year with OoTM activities.

Top skills identified by Odyssey participation (given a comprehensive list, respondents selected their top 10 they felt were most beneficial gained from participation):

1. Teamwork (88%)	6. Leadership (45%)
2. Problem Solving (87%)	7. Compromise (42%)
3. Creativity (79%)	8. Public Speaking (42%)
4. Planning and Organization (70%)	9. Valuing Perspectives of Others (41%)
5. Time Management (60%)	10. Adhering to Constraints or Parameters (41%)

Discussion

The results of this study reveal a pattern in the perceptions of coaches and judges regarding the competencies built from participation in OoTM. While there were some slight differences in the magnitude of the perception for some of the skills, there is much commonality between the responses to the surveys. These insights are aligned with the skills and competencies identified by previous research by Wasik and Barrow (2017) who note:

Regardless of the score rankings of a team on competition day, developing, negotiating, and experiencing effective teamwork and learning to successfully collaborate around a common goal over the course of the OotM program are a few of the potential benefits of participation. Furthermore, the OotM experience provides an educational and experiential platform for students to learn, practice, and develop skills and competencies around adaptability, critical thinking empathy, time and money management, creativity, and perseverance. Given the scope of the program, ease of adoptability into a school,

and relative cost-effectiveness, the OotM program offers a unique and affordable solution where students learn, develop, and create highly transferable skills, experiences, and competencies helping them become more career-ready and better prepared to engage into the global workforce (p. 49).

One critical difference with the research of Wasik and Barrow was that these researchers only utilized their observations of the OoTM program; however, there were no surveys conducted to substantiate their insights. OoTM has been in existence for 40 years, intuitively it stands to reason that there are benefits to participants which then transfer to environments beyond the realm of the program (Bias, Bias & Beckerdite, 2019).

It is noteworthy to mention the differences in these trends as evidenced by analysis of the data from the various years.

<u>Competency</u>	<u>2017-2018</u>	<u>2018-2019</u>
Teamwork	94%	88%
Creativity	82%	79%
Problem Solving	78%	87%
Planning and Organization	64%	70%
Time Management	58%	60%

Public Speaking	53%	42%
Leadership	51%	45%
Compromise	46%	42%
Oral Communication	44%	*
Adhering to Constraints or Parameters	41%	41%
Valuing Perspectives of Others	*	41%

*These competencies were not in the Top 10 skills identified in the survey year.

The verbatim comments provided from the 2018-2019 OoTM judges and coaches also solidify the benefits of participation. As previously described, this survey was conducted anonymously so no identifying information can be provided:

- “OoTM is a great opportunity to bring diverse talents (technical, creativity, acting) together to solve problems and compete as a team.”
- “Outstanding program with true life benefits.”
- “I think it is great for leadership and learning communication.”
- “I watched one team go from arguing every meeting to crying and throwing a party a month after completion just to be together one more time. That is the goal I work for each year.”
- “Seeing the super creative solutions teams create!”
- “This program provides a chance to foster out of the box, creative thinking in students”
- “I first competed in the 2003-2004 school year. To this day, I can point to skills and thinking patterns I developed or honed through my participation in Odyssey of the Mind, and it is the reason I will always return as a judge as long as I am able.”
- “This is a wonderful program and the skills gained carry forward to many other endeavors.”
- “It’s an experience that all students should be exposed to whether or not they are competing.”
- “Great alternative to sports!”

Analysis of the transferability of the skills learned from OoTM participation to college, the workplace, or other post high-school opportunities resoundingly yielded a majority (73%) referencing that these skills were extremely transferrable. This was a recurring theme from the previous year, as well. As previously referenced, NACES (2019) described many of these skills as being in demand for organizations seeking candidates for hire within their entity. Bortz (2018) further solidified that these skills and competencies are sought by employers in referencing the importance of problem-solving, creativity, resiliency, and willingness to learn. Therefore, the top skills and competencies identified by Bortz are the epitome of the OoTM program (Bias, Bias & Beckerdite, 2019).

When survey participants were afforded the opportunity to provide narrative feedback regarding other skills that are built during OoTM program participation, resoundingly, one of the top comments was around handling unexpected situations. Some of the verbatim comments that supported this notion were:

- “Agility in responding to unexpected situation (because sometimes things don’t go as planned during the competition).”
- “Teams can learn from others by watching how well they are performing as a team and handling things that happen that were not planned. Hope this will provide motivation to think differently.”
- “Ability to overcome stressful situations.”

Beyond creativity, the 2018-2019 judges and coaches who responded to this survey noted that interpersonal interactions were gained as a result of participation in OoTM. Competition in OoTM requires significant collaboration with other members on the team. Some of the verbatim comments that supported this notion were:

- “Kindness & Respect. While these may not seem to be a skill to those of us that are older, I believe the younger world does not always get taught this in home world. One of the first SKILLS I saw was the respect our teams show each other and Kindness show when things don’t go well....”
- “Negotiation skills with the other team members.”
- “Friendship.”
- Commitment, since team-members cannot be replaced.”
- “The ability to get along with other people and make new friends.”

As previously mentioned, many respondents to this survey had been involved with OoTM for many years with 21% being involved for 2-4 years, 30% being involved for 5-9 years, and 48% being involved for 10 or more years. This is noteworthy given the longevity of involvement in this voluntary program. When analyzing the reasons why coaches and judges originally got involved, many referenced their children being interested in the program. Additionally, some other reasons for involvement were:

- “I thought it was so cool!”
- “It just seemed like something great for students.”
- “I have a background in Theatre and was asked by our now retired TAG teacher.”
- “To get firsthand experience of the creativity of young people.”
- “The mix of artistic craftsmanship, science, and quick thinking interested me.”
- “I thought it would give students at my school some of the experiences they were lacking.”
- “I was first involved as a student. My teacher approached me as a potential leader for a new team being formed, and I was interested in the blending of ‘hard’ and ‘soft’ skills in a creative competition.”
- “I was wanting experience in a different setting than the traditional classroom. Now I’m hooked!”

Limitations

Similar to the 2017-2018 survey, this survey focused on Virginia Region 6 OoTM coaches and judges. Given the similarities, but uniqueness of the regions in Virginia, it would be challenging to generalize these results to other regions. Bias, Bias & Beckerdite (2020) did conduct a state-wide survey in 2019 which also revealed consistency in the perceptions of these competencies as there do seem to be commonly perceived skills and competencies that are built from participation in OoTM. Unfortunately, it was not possible to complete a state-wide survey as in March 2020, schools were closed by mandate of the Governor which prevented many teachers from being able to participate. Further, there were no student participants in this study to be able to validate their perceptions. Moreover, those with ancillary involvement, such as parent volunteers who were not formally registered in the OoTM competition landscape could have valuable insights regarding skills and competencies built via the program. These other groups would have insights into participation from their perspectives.

Future Research

As of the writing of this article, the Odyssey of the Mind Virtual World Finals is taking place. New infrastructure had to be developed in order to afford teams the opportunity to compete. Interestingly, as previously referenced in the number of teams competing, going virtual with the competition landscape does not seem to have had a significant impact on participation. It was unfortunate that many teams were not able to compete at either the Regional or State Final levels prior to World Finals, but the OoTM competition was equalized in the processes that the teams desiring to compete had to follow. The researchers intend to gain insight into the impact of the COVID-19 pandemic closures on the OoTM competitions within Virginia. Additionally, for those teams who participated in the Virtual World Finals, additional skills may have been gained in the process of teambuilding while social distancing. The researchers intend to pursue insight trends in skills and competencies the students may have learned during this process.

Additionally, the authors are working with judges from the Virtual World Finals to gain insight and understanding on impacts to these judges based on the pandemic. Typically, judges would congregate for several days interacting with teams in a face-to-face environment. Under the OoTM Virtual World Finals, judges do not have the opportunity to interact in such a capacity. Therefore, we seek to understand how the judges managed the judging process along with perceptions of being virtual versus having interpersonal interactions with the teams.

Conclusions

The purpose of this study was to ascertain if there were patterns and trends in the skills and competencies that were built during participation in the Odyssey of the Mind Program. Our conclusions align with those critical skills and competencies that employers and colleges seek from post high-school candidates. Since Odyssey of the Mind is seen as an alternative to participation in other endeavors, such as sports, this research solidifies these perceptions and positions this program as a worthwhile endeavor. The next phase of the research is anticipated to determine impacts from COVID-19 on the Odyssey of the Mind program during the 2019-2020 academic year.

References

- Bias, J. T., Bias, S. K., & Beckerdite, K. (2020) Comparing Competencies Gained Through Odyssey of the Mind Participation with Employer Standards: A Study from Virginia Volunteers. *Academy of Business Research Journal*, Vol. I, 21-36.
- Bias, S., Bias, J., and Beckerdite, K. (2019). Measuring Competencies Built Through Participation in Odyssey of the Mind: A Study of a Region in a Southern State. *Journal of Education*, 1-8. DOI: 10.1177/0022057419877502.
- Davidson, K. (2016). Employers Find “Soft Skills” Like Critical Thinking in Short Supply. *The Wall Street Journal*. Retrieved from: <https://www.wsj.com/articles/employers-find-soft-skills-like-critical-thinking-in-short-supply-1472549400?mod=searchresults&page=1&pos=4>
- Bortz, D. (2018). *These 7 work skills can make you more marketable in 2018*. Retrieved from: <https://www.monster.com/career-advice/article/work-skills-2018-1217>
- Creative Competitions. (2020). *Why Odyssey of The Mind?* Retrieved from www.odysseyofthemind.com/why-odyssey/
- Glaeser, E., Laibson, D., and Sacerdote, B. (2002). “An Economic Approach to Social Capital,” *Economic Journal*, CXII, F437-F458.
- Lippman, L. H., Ryberg, R., Carney, R., & Moore, K. A. (2015). *Workforce connections: Key “soft skills” that foster youth workforce success: Toward a consensus across fields*. Washington, DC: Child Trends. Retrieved from <http://hdl.voced.edu.au/10707/367556>
- National Association of Colleges and Employers. (2019). *Job outlook 2019: The key attributes employers seek on students’ resumes*. Retrieved from <https://www.naceweb.org/about-us/press/2018/the-key-attributes-employers-seek-on-students-resumes/>
- National Association of Colleges and Employers. (2018). *Job outlook 2018: The key attributes employers seek on students’ resumes*. Retrieved from <https://www.naceweb.org/about-us/press/2017/the-key-attributes-employers-seek-on-students-resumes/>
- Virginia Odyssey of the Mind. (2020). Regions Map. Retrieved from: <http://vaodyssey.org/regions-map/>
- Wasik, S, and Barrow, J. (2017). “Odyssey of the Mind: Using a Creative Problem-Solving Competition to Promote Career Readiness in Elementary School,” *Journal of Education*, 197(3), 46-50.

Survey of Coaches and Officials from Odyssey 2018-2019 Season:

Thank you for agreeing to participate in this brief survey. We are gathering data on teams, creativity, innovation, teamwork, and what skills may be transferable to the marketplace for employers. We need your feedback as a former Odyssey of the Mind coach or judge. The goal of this survey is to determine which skills or competencies you feel may be built within the framework of Odyssey of the Mind which could be transferable to other environments, marketplaces, and organizations.

This section of the survey is intended to acquire data about the persons participating in this survey strictly for demographic purposes and uses.

Research Questions:

This section will be used to gather data pertaining to the participants involvement in Odyssey of the Mind. Researching how involvement has been beneficial to the participants in the program from the Coaches and Facilitators perspectives.

1. For 2019, what was your role?
 - a. Coach
 - b. Official

What region of Virginia did you participate or were involved with? (Please select all that apply for the 2019 Odyssey of the Mind competition season):

- a) Region 4 – Augusta, Tazewell, Bedford, Roanoke, Franklin, Henry, Campbell
- b) Region 6 - York County, Poquoson, Accomack, Gloucester, Sussex, South Hampton, Isle of Wight, Portsmouth, Virginia Beach, Hampton, Newport News

- c) Region 9 – Fairfax (North)
- d) Region 10 – Spotsylvania, Louisa, Fluvanna, Goochland, Hanover, Henrico, Richmond, New Kent, King William, King and Queen, Middlesex, Essex, Westmorland
- e) Region 11 – Alexandria, Falls Church, Arlington
- f) Region 12 – Fauquier, Prince William, Fairfax (South)
- g) Region 14 & 16 - Loudon

Do you think any of the following skills are perceived benefits of Odyssey of the Mind participation by its members? Select the 10 you think are most beneficial that are gained from Odyssey participation (please note that these are in alphabetical order only, so please be sure to review entire list):

- a. Ability and Flexibility to Acquire New Skills
- b. Adhering to Constraints or Parameters
- c. Analysis of Given Constraints (written words)
- d. Compromise
- e. Construction and Craftsmanship
- f. Costume Design
- g. Creativity
- h. Engineering
- i. Fiscal Accountability
- j. Inquiry of Clarification
- k. Integration of Technology in Solutions
- l. Leadership
- m. Mathematics
- n. Multitasking
- o. Oral Communication
- p. Planning and Organization
- q. Prioritization
- r. Problem Solving
- s. Project Coordination
- t. Public Speaking
- u. Singing and/or Dancing
- v. Spontaneity
- w. Stage and/or Artistic Design
- x. Stage Performance
- y. Teamwork
- z. Time Management
- aa. Usage and Knowledge of Tools
- bb. Valuing of Different Perspectives
- cc. Writing
- dd. Written Communication

Have you seen any of these skills you selected above develop in any participants you had contact with?

- a. Yes
- b. No

Do you believe that the learned skills you selected above, which you perceive as being beneficial, vary between the long-term problem that the participants are involved in?

- a. Yes
- b. No

Are there any other skills that you perceive as important which are gained from Odyssey of the Mind participation which were not listed above? Explain:

In your opinion, how transferable are these skills that you have selected, from Odyssey of the Mind to college, the workplace, or other post high-school opportunities? (1-5 selection scale)

- a. 1 (Not at all)
- b. 2 (Very little transference)
- c. 3 (Somewhat transferrable)
- d. 4 (Mostly transferrable)
- e. 5 (Extremely transferrable)

Are there any other comments about your Odyssey of the Mind experiences you would like to share? Explain:

Demographic Variables Questions:

How many years have you been involved in Odyssey of the Mind (at the point of the 2019 Odyssey of the Mind competition)?

- a. 1st year
- b. 2-4 years
- c. 5-9 years
- d. 10 or more years

What problem were you involved in during the 2018-2019 Odyssey of the Mind season? (choose all that apply):

- a. Primary
- b. Problem #1
- c. Problem #2
- d. Problem #3
- e. Problem #4
- f. Problem #5
- g. Spontaneous (if you were an official)
- h. Other (any other role that was not directly involved with as problem at competition)

Have you coached or been involved as a judge with this problem(s) before the 2019 problem season?

- a. Yes
- b. No

If you are a coach, then what divisions were you involved with? (choose any and all that apply):

. Primary

- a. Primary
- b. Division I
- c. Division II
- d. Division III
- e. Division IV
- f. NONE (No coaching involvement in 2019)

19. Are you a teacher?

- a. Yes
- b. No

Have you coached multiple teams in 2019 competition season or before?

- a. Yes

b. No

Are you planning on continuing in the same role for this upcoming year (2020 Odyssey of the Mind Competition)?

a. Yes

b. No

Why did you originally get involved in Odyssey of the Mind? Explain: