

State University of New York College at Buffalo - Buffalo State University

Digital Commons at Buffalo State

Creativity and Change Leadership Graduate
Student Master's Projects

Center for Applied Imagination

5-2006

Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the Torrance Incubation Model

Tara L. Zubrzycki
Buffalo State College

To learn more about the International Center for Studies in Creativity and its educational programs, research, and resources, go to <http://creativity.buffalostate.edu/>.

Recommended Citation

Zubrzycki, Tara L., "Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the Torrance Incubation Model" (2006). *Creativity and Change Leadership Graduate Student Master's Projects*. 75.

<https://digitalcommons.buffalostate.edu/creativeprojects/75>

Follow this and additional works at: <https://digitalcommons.buffalostate.edu/creativeprojects>



Part of the [Social and Behavioral Sciences Commons](#)

Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the
Torrance Incubation Model

By

Tara L. Zubrzycki

An Abstract of a Project
In
Creative Studies

Submitted in Partial Fulfillment
Of the Requirements
For the Degree of

Master of Science

May 2006

Buffalo State College
State University of New York
Department of Creative Studies

ABSTRACT OF PROJECT

Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the Torrance Incubation Model

This project contains information on the Torrance Incubation Model (TIM) and the creativity skills needed in order to use it in developing creativity skills in children who attend plays performed by the Theatre of Youth at the Allendale Theatre in Buffalo, New York. This project also contains a program, “Creative T.O.Y. Adventures”, that allows teachers to use more deliberate creative thinking in their classrooms. The program is designed around attending a play that was adapted from a book students read within their classroom.

Date

Buffalo State College
State University of New York
Department of Creative Studies

*Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the Torrance
Incubation Model*

A Project in
Creative Studies

By

Tara L. Zubrzycki

Submitted in Partial Fulfillment
Of the Requirements
For the Degree of
Master of Science

May 2006

Buffalo State College
State University of New York
Department of Creative Studies

*Increasing Creative Thinking at the Theatre of Youth (TOY) Through Use of the Torrance
Incubation Model*

A Project in
Creative Studies

By

Tara L. Zubrzycki

Submitted in Partial Fulfillment
Of the Requirements
For the Degree of

Master of Science
May 2006

Dates of Approval:

Dr. Mary C. Murdock
Associate Professor of Creative Studies
Project Advisor

Tara L. Zubrzycki
Student

Dedication and Acknowledgements

To my parents for being a source of strength;
To Chris for pushing me that extra step;
To Kim, Andrea, and Marisa for being *true* friends;
To the ICSC for creating an education second to none;
And to Gerard, Mike, Mary, and Meg for their infinite knowledge and inspiration.

“Millions of men have lived to fight, build palaces and boundaries, shape destinies and societies; but the compelling force of all times has been the force of originality and creation profoundly affecting the roots of human spirit.”

- Ansel Adams

Table of Contents

Abstract Title Page.....	i
Abstract of Project.....	ii
Title Page.....	iii
Signatory Page.....	iv
Dedication and Acknowledgements.....	v
Table of Contents.....	vi
Background to the Project.....	8
Purpose.....	8
Description.....	8
Rationale.....	9
Creative Additions.....	9
Pertinent Literature.....	10
Abstracts.....	10
Bibliography.....	11
Process Plan.....	13
Timeline.....	13
Outcomes.....	16
Key Learnings.....	21
Content.....	21
Process.....	22
Conclusion.....	23
References.....	25

Appendixes

A:	Concept Paper.....	26
B:	First Draft of Program.....	31
C:	Second Draft of Program.....	35
D:	Creative T.O.Y. Adventures Program.....	43
E:	TIM Graphics.....	51
F:	Creativity Skills and their meanings.....	54
G:	Press Release announcing the partnership between the Theatre of Youth and the International Center for Studies in Creativity.....	56

Background to the Project

Purpose: The Theatre of Youth (TOY) in Buffalo, NY, would like to use creative thinking more deliberately with the students and teachers that attend their performances. The purpose of this project was to design a format with activities and creative thinking skills for the Theatre to post on their web site. The teachers can then use these tools in their classrooms and in conjunction with the talk back sessions that are already in place at the theatre.

Description: The Theatre of Youth, located at the Allendale Theatre in the heart of Buffalo, NY, performs plays that are adaptations of books most children read in their classrooms throughout the school year. The children visit the Theatre with their classmates and teachers and are involved in pre- and post-production activities. Teachers can download study guides from the TOY web site (<http://www.theatreofyouth.org>) to prepare the children for the performances. At the end of each performance, the children are invited to participate in the Theatre's "Talk Back" session. This session allows the children to meet members of the performing cast and ask questions about the performance on anything from set design to sound effects.

Meg Quinn is the Artistic Director at TOY. She selects plays, cast members, and generally keeps an eye on any happenings at the theatre. Meg has brought creative thinking into the theatre through the plays she chooses, as well as the Talk Back sessions provided after the performances. Meg was interesting in delivering more deliberate creative thinking to the students that attend the performances. This is why I decided to use the Torrance Incubation Model as a foundation to my project. By using the TIM and

teaching the students creative thinking skills, they would be consciously participating in creative thinking.

Rationale for Selection: I feel that talents and creativity should be nurtured, especially in children. I feel so strongly about this because I had the privilege of having my talents and creativity nurtured from a young age. I have been involved in the musical and performing arts for twenty years. I feel it is a gift, and also our duty as adults, to pass along to the next generations. I've noticed that when schools are forced to make budgetary cuts, the first programs to be cut are those involving the musical and performing arts. This project is my way of being able to contribute a piece of these programs back into a local community. The Theatre of Youth and the International Center for Studies in Creativity at Buffalo State College have also just agreed to a five-year partnership to enhance the creative thinking skills of children in the surrounding communities (<http://www.theatreofyouth.org/press.php?recnum=15>). Please see Appendix G for more information about the initiative.

Creative Additions: By using creativity tools and methods to help children understand the books they are reading and the plays they are attending, their creativity and talents are being nurtured. I feel they are gaining an understanding of creativity and problem solving that they will carry with them for years to follow. Personally, this project allowed me to design a way to teach what I know about creativity to others. That in itself was a new creative process that allowed me to gain more knowledge.

Pertinent Literature

The literature contained within this section mostly revolves around the Torrance Incubation Model (Torrance & Safter, 1996), which is the foundation model used in this project. I have also included Roald Dahl's *The Big Friendly Giant* (1982), because this was the play that was running during the course of my project. The other references listed are books and articles that could be useful if looking for more information on teaching creativity in various ways.

Abstracts

Dahl, Roald. (1982). *The big friendly giant*. New York, NY: Puffin Books.

A young girl witnesses the work of a giant. The giant takes her to his home for fear of his life. Through their adventures in dreamland and England, they learn to respect each other and their differences. Sophie and the BFG work together to gain the attention and help of the Queen of England. Sophie, the BFG, and the Queen save the day by capturing the not so friendly giants.

Torrance, E.; Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.

The Incubation Model of Teaching is used to expand the minds and creative processes of children of all ages. Three stages, all containing creativity skills, make up this model for teaching creativity. The model can be used in virtually any educational setting and allows for creativity to be nurtured in any subject.

Keller-Mathers, S.; Murdock, M. C. (2002). Teaching the content of creativity using the Torrance Incubation Model: Eyes wide open to the possibilities of learning. *Celebrate Creativity: The Newsletter for the Creativity Division of the National Association for Gifted Children*, 8 (2), pp. 7-9.

The Torrance Incubation Model is laced with creativity skills. In this article, the skills are delivered using lesson plans to help heighten children's awareness of their own creative thinking. The lesson plans can be adapted to fit any number of school subjects.

Murdock, M. C.; Keller-Mathers, S. (2002). Teaching for creativity: Where there's a will, there's a way. *Celebrate Creativity: The Newsletter for the Creativity Division of the National Association for Gifted Children*, 8 (2), pp. 3-4, 10-12.

This article discusses the Torrance Incubation Model and its uses. The authors go into great detail about what the model is and how to use it effectively in the field of education. There are explanations about each stage of the model and how to weave creativity skills through the model to ensure proper delivery in the classroom.

Bibliography

Beauchamp, R.F. (ed.) (1968). *Creative approaches to reading fiction; Seven complete teaching guides*. Middletown, CT: American Education Publications.

Dahl, R. (1982). *The big friendly giant*. New York, NY: Puffin Books.

Davis, G. (2004). *Creativity is forever* (5th ed.). Dubuque, Iowa: Kendall/Hunt Publishing Company.

Gardner, H. (1993). *Creating minds*. New York, NY: Basic Books.

Gonzalez, D. (2002). *When we peek behind the curtain: Highlighting the essence of creative methodologies*. Evanston, IL: Thinc Communications.

Grossman, S. R.; Wiseman, E. E. (1993). Seven operating principles for enhances creative problem solving training. *The Journal of Creative Behavior*, 27 (1) pp.1-17.

Keller-Mathers, S.; Murdock, M. C. (2002). Teaching the content of creativity using the Torrance Incubation Model: Eyes wide open to the possibilities of learning. *Celebrate Creativity: The Newsletter for the Creativity Division of the National Association for Gifted Children*, 8 (2), pp. 7-9.

Murdock, M. C.; Keller-Mathers, S. (2002). Teaching for creativity: Where there's a will, there's a way. *Celebrate Creativity: The Newsletter for the Creativity Division of the National Association for Gifted Children*, 8 (2), pp. 3-4, 10-12.

Murdock, M. C.; Keller-Mathers, S. (2002). The foundation of the Torrance Incubation Model: Identifying and using a creativity skill set. *Celebrate Creativity: The Newsletter for the Creativity Division of the National Association for Gifted Children*, 8 (2), pp. 5-6, 13.

Nash, W. R.; Torrance, E. (1974). Creative reading and the questioning abilities of young children. *Journal of Creative Behavior*, 8 (1), pp. 15-19.

- Spolin, V. (1985). *Theater games for rehearsal: A director's handbook*. Evanston, IL: Northwestern University Press.
- Torrance, E. (1968). Creative abilities of elementary school children. In William B. Michael (Ed.), *Teaching for creative endeavor* (pp. 3-24). Bloomington: Indiana University Press.
- Torrance, E.; Murdock, M. C.; Fletcher, D. C. (1996). *Creative problem solving through role playing*. Pretoria, South Africa: Benedict Books.
- Torrance, E.; Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.
- Torrance, E.; Safter, H. T. (1999). *Making the creative leap beyond* . Buffalo, NY: Creative Education Foundation Press.
- Torrance, E.; Torrance, J. (1973). *Is creativity teachable?* Bloomington, IN: Phi Delta Kappa Educational Foundation.
- Zubrzycki, T. (2006). *Increasing deliberate creativity in the talk-backs at the Theatre of Youth (TOY)*. Unpublished concept paper. Buffalo, NY: State University of New York at Buffalo.
- Zubrzycki, T. (2006). *Increasing creative thinking at the Theatre of Youth (TOY) through use of the Torrance Incubation Model*. Unpublished masters project. Buffalo, NY: State University of New York at Buffalo.

Process Plan

A process plan is a way for me to keep track of what I have done with my project, what I am currently working on, and what comes next. By using timelines and setting deadlines for myself, I ensure timely completion of my project. However, life happens and is not always included in my process plan. There have been a few bumps along the way, but I feel my goals were met in the end.

Overall, my process consisted of many phone and personal conversations with Meg and other graduate students, writing many drafts while developing the “Creative T.O.Y. Adventures” program (Zubrzycki, 2006), trial and error in finding a delivery that would work, and brainstorming and incubation around all of the materials.

Timeline:

January 23, 2006: CRS 690 (3 hrs.).

January 25, 2006: Discussion with Dr. Murdock about what I will do for my project (30 mins).

January 27, 2006: Brainstorming and incubation on ideas for the project and concept paper. (5 hrs.).

January 29, 2006: Attend “Number the Stars” performance at the Allendale Theatre. Watch the talk back session to get a feel for what it is. Meet with Meg Quinn (Artistic Director) to discuss options for my project. Write draft version of my concept paper (8 hrs).

January 30, 2006: CRS690. Turn in and receive feedback on draft version of my concept paper (3 hrs.).

February 1, 2006: Re-write the concept paper (2 hrs.).

February 3, 2006: Turn in revised draft of concept paper.

February 6, 2006: CRS 690 (3 hrs.).

February 11, 2006: Re-write the concept paper (2 hrs.).

February 13, 2006: Turn in final revision of my concept paper.

February 16, 2006: Attend the first read-through of *The Big Friendly Giant* at the Allendale Theatre (4 hrs.).

February 17, 2006: Brainstorming and incubation about how to include items from concept paper into my project (3 hrs.).

February 22, 2006: Begin to develop a program to take into the classrooms of those that will be attending plays at TOY (3 hrs.).

March 1, 2006: Continue working on program for classrooms (3 hrs.).

March 6, 2006: CRS 690 (3 hrs.).

March 14, 2006: Dinner with Marisa and Brian to discuss the project. Attend a rehearsal at the Allendale Theatre with Brian and Marisa, who were also working on their project. (3.5 hrs.).

March 20, 2006: Attend a dress rehearsal at the Allendale Theatre (2 hrs.).

March 24, 2006: Opening night! Attend the play and watch children's reactions (2.5 hrs.).

April 3, 2006: CRS 690 (3 hrs.). Begin writing draft of project (2 hrs.).

April 13, 2006: Phone conversation with Meg about the program (30 mins.).

Completely re-write the program so that it can be used in the classrooms by the teachers, rather than having someone come in to deliver the program. (5 hrs.).

April 14, 2006: Follow-up phone conversation with Meg about the program (45 mins.). Refine the program based on Meg's feedback (3 hrs.).

April 15, 2006: Continue writing draft of project; refine the program (10 hrs.).

April 16, 2006: Continue writing draft of project; refine the program (8 hrs.).

April 17, 2006: Turn in draft of entire project.

April 24, 2006: Received draft copy back with feedback. Looked over all of the feedback (1 hr.).

April 28, 2006: Meet with Mary to discuss draft, feedback, and additions that need to be made for the final draft. Fix any grammatical errors in the paper and make an outline of what needs to be done (4 hrs.).

April 29, 2006: Continue writing the final draft of the project (3 hrs.).

April 30, 2006: Complete writing the final draft of the project (3 hrs.).

May 1, 2006: CRS 690. Turn in final copy of the project and have it signed (3hrs.).

TOTAL NUMBER OF HOURS = 96.75

Outcomes

This section contains a description of seven total outcomes, some of which are intertwined. The outcomes of this project were beneficial in completing the “Creative T.O.Y. Adventures” program (Zubrzycki, 2006). The outcomes were as follows:

- Examples of three specific creativity skills weaved throughout Dahl’s (1982) *The Big Friendly Giant*;
- First draft – Teaching the Creative Problem Solving Process: An Introduction (see Appendix B);
- Second Draft – Theatre of Youth Creativity Workshop Proposal for “Creative T.O.Y. Adventures”, workshop design, and workshop evaluation (see Appendix C);
- Last Draft – Theatre of Youth Program Proposal for “Creative T.O.Y. Adventures” and program design (see Appendix D);

Below are examples of three of the creativity skills that can be used in the TIM. I plugged the skills in to *The Big Friendly Giant*, by Roald Dahl (1982) because this was the play being performed at the time I started preparing the “Creative T.O.Y. Adventures” program (Zubrzycki, 2006). The following examples include *Visualize It – Richly and Colorfully*, *Enjoy and Use Fantasy*, and *Let Humor Flow – and Use It*.

Visualize It – Richly and Colorfully: The questions the students raise in session 1 of the program show that they are visualizing characters, sounds, and settings they’ve read about in the book. By asking students to draw what they think the giants look like, they

are using visualization. Each student may see the giant differently. Torrance (1999, 126) speaks of visualization:

Certainly the ability to visualize objects, concepts, systems, organizations, processes – the earth, the universe - is essential to successful creative work in writing, musical composition, creative dance, mechanical invention, football and other sports, scientific discovery, and many other areas of creative achievement. It is important that the images visualized be varied, strong, vivid, lively, and intense. I have called this – “richness of imagery.” It is also important that these images be colorful, exciting, unusual, and appealing to the various sense modalities. I have called this – “colorfulness of imagery”.

Enjoy and Use Fantasy: During sessions 1 and 3, we ask that students explore what they would do if they had to adapt the book into a play. Torrance (1999) believes the following to be important: “*Identification with the author.* In creative reading children may be asked to identify with the author and even pretend that they are the author of whatever is being read. Or they may be asked to pretend that they are one of the characters in the story” (143). This relates directly to being able to use fantasy.

Let Humor Flow – And Use It: *The Big Friendly Giant* revolves entirely around humor. “The *incongruity* theory of humor insists that humor arises from disjointed, ill-suited pairings of ideas or situations that diverge from usual customs” (Torrance & Safter, 1999, 188). This is shown through the pairing of Sophie and the BFG. Their customs and ways of life collide into some hilarious interactions. Their language is very humorous, simply because it is different for both of them. When the BFG is explaining to Sophie why she cannot tell anyone about him, he says, “They would be putting me into

the zoo or the bunkumhouse with all those squiggling hippodumplings and crocadowndillies” (Dahl, 1982, 31).

The first draft of this project was a workshop designed around delivering an introduction to creative thinking in the classroom. The workshop taught the basics of creative thinking, including divergent and convergent thinking rules. However, the language was too difficult for children to understand. Also, the workshop did not allow much use of the TIM. This was a problem as the TIM was to be the foundation of the workshop.

The second draft of this project was a result of conversations and feedback from Meg Quinn about the first draft. I was still calling it a workshop, as I expected someone from outside the schools to come in to deliver it. This draft focused more on the TIM and how it would be used to help infuse creativity skills in the classroom. I prepared a proposal for the Theatre to accept the workshop, as well as a design for delivering the workshop. During this draft there was a lot of trial and error. The three sessions to be delivered were lined up with the three stages of the TIM and given names relating to a theatre environment. An evaluation piece was also created to gauge both the children’s and teacher’s response to the workshop.

The last draft was a culmination of the first two drafts, including all feedback from Meg Quinn. The activities and questions were edited to allow for more deliberate thinking on the part of the children. The proposal was redesigned to fit the intentions of the last draft program. The last draft was a program design for teachers to use in their classrooms to prepare their students for the performances they would attend at the Theatre of Youth. The program consists of three sessions that correspond with the three stages of the TIM.

These sessions were: Casting Call - Heightening Anticipation, Dress Rehearsal - Deepening Expectations, and Curtain Call - Keeping it Going (Zubrzycki, 2006). This program could be used alone or in conjunction with other materials the theatre provides. It could also be used as an enhancement for the “Talk Back” sessions at the theatre.

The following is a sample of the “Creative T.O.Y. Adventures” program that resulted from the above outcomes. The three sessions, their names, and their timing of delivery and intentions are explained in the sample sections. The entire program can be found in Appendix D along with the proposal for the program.

Session 1: Casting Call - Heightening Anticipation – One week before students visit the TOY for a performance, they are asked questions pertaining to the book they are currently reading. These questions are meant to engage students in creative thinking while allowing them to see the differences in the way each of their classmates engage in creative thinking. The students are asked how they perceive different sections of the book, such as the way a character looks or sounds. They may be asked to participate in activities such as drawing a character or a setting from the book. The students will learn what ‘adaptation’ means and how the play has to be different from the book in order to have a performance. They may be asked what differences they think they will see or what they would adapt to put this book into a stage performance. They may also be asked about special effects, such as lighting and sound.

Session 2: Dress Rehearsal - Deepening Expectations – One to three days before going to see the performance, students will be asked to keep in mind their previous discussions about the book and the play. They will be allowed to post questions on the web site about the performance. There may also be a special feature in the play that the

web site directs them to watch for, such as a certain sound or a prop that is being used in the performance.

Attending the performance is also a part of the second session. The students will be able to participate in the theatre's "Talk Back" session immediately following the performance. During this time, students can interact with the actors and the questions they've posted on the web site will be answered. They will also have a chance to ask more questions they may have thought of during the performance.

Session 3: Curtain Call - Keeping it Going – This follow-up to the performance allows children to ask any last questions they may have about the book and/r the play. Students will be asked to express their thoughts and feelings about the play and the book through writing, drawing, or discussion. The students will have a chance to say what they would have done differently if they had produced the play. They will also be able to talk about what they liked or didn't like about the book's adaptation into a play.

Meg has talked about putting post-production photographs on the web site so that after a show has closed for the season, children will be able to see all of the backstage happenings from set and costume design to props and characters. The students would be able to see all of the different ways in which lighting and sounds were produced for the play. This knowledge reinforces looking at things differently and being aware that anything is possible. The students would carry that over into other aspects of their lives.

Key Learnings

My personal learning goals for this project included how to effectively teach creative thinking to children of various ages and how to develop a process of teaching creative thinking to children of various ages. Also included in my personal learning goals was how to be a stronger leader and how to work on a strict timeline and complete the necessary things by certain deadlines.

What I learned is that everyone approaches creativity in a different way. Children already use the Torrance Incubation Model naturally without being aware of it. Through the program I created, there will be a more conscious use of the model, along with a much more deliberate creative thinking process. The children will be able to apply this model outside of the classroom as well.

Content: Throughout this project, the foundation was the Torrance Incubation Model. This model is an enhancement to teaching creativity, and I feel it works very well in teaching creativity to children. It allows children to be intrigued and interested in the learning process because they are having fun at the same time. The TIM can be used for any subject in school and can even be used in everyday settings outside of school.

The first stage of the Torrance Incubation Model is “Heightening Anticipation”. “The fundamental purpose of the first stage of the model of instruction that Torrance (1979b) proposed is to heighten anticipation and expectations and to prepare the learners to make clear connections between what they are expected to learn and something meaningful in their lives” (Torrance & Safter, 1990, 7). The first session of my guide is designed around this stage of the model.

The second stage of the model, “Deepening Expectations”, allows for getting further into the content being worked on, such as a book students may be reading in class. This is the stage in which we discover and uncover answers to questions we asked during the first stage. New questions and information may also arise during this stage. “Information is evaluated and re-evaluated. Children do this naturally and spontaneously” (Torrance & Safter, 1990, pp. 9-10). Session 2 corresponds with this stage of the model.

“Keeping it Going” is the third and final stage of the Torrance Incubation Model. During this stage, students can take all of the information they have gained in the first two stages and begin to apply it elsewhere. At this point, students are encouraged to “...go beyond the textbook and to keep learning and thinking processes functioning” (Torrance & Safter, 1990, 11). By asking them questions and giving them assignments to do outside of the classroom, in their everyday environments, the students are able to go beyond what they have just done and apply those skills to other aspects of their lives. Session 3 would be helpful in accomplishing this stage of the model.

Process: During the course of this project, I attended rehearsals and plays at the Theatre of Youth. I was fortunate enough to see *The Big Friendly Giant* from the very first read-through of the script to the actual opening night of the play. It was helpful to see the actors learning their roles and to see how they were going to shape their characters. It was also interesting to see how the set was designed and the materials it would be made from.

The script was the first interaction I had with *The Big Friendly Giant*. I left the read-through wondering how this adaptation varied from the book, so I bought the book and

read it. Every detail seemed so intricate that I was amazed at how this would be done on stage. Even though I was given a glimpse at how the characters would look and act and how the set was going to be designed, I still had a million questions swarming in my head.

As far as a personal process goes for creating this project, I had a hard time. While I researched a lot of material, I had to figure out where it all fit in relation to teaching creative thinking to children. I also had to make sure it fit into what the Theatre of Youth is doing for their attendees. While I am very organized with materials, time management continued to be an issue. Work and other aspects of my life allowed me to get off track at times, but I feel I did a fairly good job of keeping myself in check. I was able to meet all my deadlines and still have a little breathing room.

I did a lot of trial and error in creating the program for use by the students and teachers that attend the Theatre of Youth. It was hard to come up with information that could be used universally between the different age groups, but I feel the Torrance Incubation Model itself helped me in that process. The model is designed to fit any number of subjects, which lends it to being versatile.

The overall process proved to be a learning experience. I know where my strengths and weaknesses lie, and now I know in which ways I can improve upon those things. I also have a much stronger appreciation for teachers and for actors, directors, and set designers. I never imagined their process was as involved as I have been shown recently.

Conclusion: When I had begun this project, I thought I knew a lot about the way the Torrance Incubation Model worked. Through putting together my product piece, I

realized how much I had to learn. I had to look at everything through the eyes of a child so that they would gain the most they could from their experiences at the theatre.

This project has allowed me to reinforce my belief that creativity can be nurtured. The Torrance Incubation Model is a wonderful way to teach creative thinking to anyone, but works especially well with children because they essentially already use the model, though they aren't aware of it.

References

- Dahl, R. (1982). *The big friendly giant*. New York, NY: Puffin Books.
- Torrance, E.; Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.
- Torrance, E.; Safter, H. T. (1999). *Making the creative leap beyond* . Buffalo, NY: Creative Education Foundation Press.
- Zubrzycki, T. (2006). *Increasing deliberate creativity in the talk-backs at the Theatre of Youth (TOY)*. Unpublished concept paper. Buffalo, NY: State University of New York at Buffalo.
- Zubrzycki, T. (2006). *Increasing creative thinking at the Theatre of Youth (TOY) through use of the Torrance Incubation Model*. Unpublished masters project. Buffalo, NY: State University of New York at Buffalo.

Appendix A- Concept Paper

Increasing Deliberate Creativity in the Talk-Backs at the Theatre of Youth (TOY)

Name: Tara Zubrzycki

Date Submitted: February 10, 2006

Project Type: Use a skill/talent to improve the quality of life for others; begin five year initiative with the ICSC.

What Is This Project About?

I will be working with Meg Quinn from the Buffalo Theatre of Youth to further develop their (TOY's) "talk-back" sessions that are conducted after every performance. This session occurs when audience members, mostly school children, are given the chance to ask questions about the performance. Most of the questions are answered by the cast members and sometimes include props that were used in the performances. Creative thinking is already being used during these sessions, but without the children really knowing what they are doing. This project will give me the chance to make creative thinking more deliberate for these students.

The project is also the first student work tying in to a collaborative initiative between the International Center for Studies in Creativity (ICSC) and the Theatre of Youth. The initiative, Articulating Creative Thinking through Theatre (ACTT), begins a five year series of activities to strengthen the deliberate creative thinking of Buffalo youth.

Rationale for Choice:

I have always been involved in the arts (mostly music). I love to play and perform and I feel these are important things for children to learn. I believe it keeps their imagination active and opens their minds for creative thinking. I wanted to work with TOY because I feel that asking questions and learning about the art of performing is essential both socially and academically for children. I also have gotten away from the arts for a while and this is a good way for me to jump back into what I love to do.

What Will be the Tangible Product(s) or Outcomes?

I would like to have a form that can be used during the talk-backs. This will be a form that is online at the TOY website. This form will be a way for the youth to engage in more deliberate creative thinking before, during, and after the plays. This form will be an

enhancement to what is currently done at TOY. By making their thinking more deliberate, we are giving them an easier way of taking that thinking to their schools and to their homes. The youth will have a useful tool for thinking creatively.

What Criteria Will You Use To Measure the Effectiveness of Your Achievement?

I will know that my work is successful when the theatre adopts my vision as their own in presenting their “talk-back” sessions. I will know when to walk away because the children will be used to this new way of doing a “talk-back” and they will have had many successful sessions beforehand. I expect that the children will be asking more questions with a lot of careful thought behind them. I expect that the children will want to learn more.

Who Will be Involved or Influenced; What Will Your Role Be?

The children, teachers, and parents that attend these performances will be involved, as well as the actors and the Artistic Director, Meg Quinn. The teachers and parents will be able to help the children understand what the performances are about. My role will be to develop a new way of running the talk-back sessions so that the youth are aware of their creative thinking skills. I am going to make creative thinking more deliberate for these children.

When Will This Project Take Place?

This project will begin on January 27, 2006 and will be completed the end of April or in early May of 2006. If everything is successful, I hope to continue working with TOY.

Where Will This Project Occur?

This project will occur at the Allendale Theatre in Buffalo, NY. The theatre is an old movie house in the heart of Allentown, near downtown Buffalo, which has been renovated. The Buffalo Theatre of Youth is housed in this building and is currently in the thirty-fourth season.

Why is it Important to Do This?

I have been looking for a way to reconnect with my artistic side. I am a musician and feel that it is a very important part of our culture. Too often it is cut from our children’s lives. I like what TOY stands for and what they are doing to get and keep children involved in the arts. To me, this project is personally stimulating and allows me a chance to pass on not only my artistic talents, but also my creative thinking skills. These are two things that I strongly believe in and feel are essential life skills.

Personal Learning Goals

- How to effectively teach creative thinking to children of various ages
- How to develop a process of teaching creative thinking to children of various ages
- How to be a stronger leader
- How to work on a strict timeline and complete the necessary things by certain deadlines

How Do You Plan to Achieve Your Goals and Outcomes?

I will make others aware of my personal goals through my interaction with TOY. I will also be discussing my project with people outside of TOY. This will help keep me on track. I also plan to utilize the sounding board as a way to obtain idea generation around my goals so I have a few choices for solutions. I am going to use a checklist to make sure I am on task. The timeline I create will also be used in this manner.

Evaluation

I will try to make a form that will let others evaluate me throughout the process of my project. These evaluative feedbacks will come from people I am working with directly related to the project as well as sounding board and other class members. I will also try to do self-evaluations. I may also do an evaluation after the project is complete for personal reference only.

Prepare Project Timeline

Specific dates:

- 1/25/06 – talk to Mary about project.
- 1/29/06 – 3 hours at theatre watching performance and chatting with Meg.
- 1/30/06 – turn in first draft on concept paper and get feedback.
- 2/3/06 – turn in revised draft on concept paper.
- 2/13/06 – turn in final revision of concept paper.

Monthly tasks:

- February
 - Attend more performances
 - Talk to Meg about developments
 - Find reading materials (TIM) on topic
 - Complete abstract, title page, signatory pages, etc.
 - Start keeping pieces of the project electronically

- March
 - Start putting pieces together
 - Attend more performances
 - Attend rehearsals
 - Have a solid outline of a new process for the talk backs
- April
 - Write up
 - Complete any final work
 - Submit project

Identify Pertinent Literature or Resources

I will be using the Torrance Incubation Model as a basis for my work. I will also be having a lot of conversations with Meg, the actors, and the children that attend the performances. I am going to use personal contacts with others who are knowledgeable about TIM and have done similar work in the past (Cyndi Argona, Sue Keller-Mathers, and Mary Murdock). I plan on using the Creative Studies Library to my advantage in finding more information about youth, theatre, and its relation to creative thinking.

Appendix B – First Draft of Program

Teaching the Creative Problem Solving Process: An

Introduction

First visit to the school: two (2) weeks prior to the class seeing the performance of the play.

Activities: Class will participate in an introduction to creativity designed to fit the age group and ability of the classroom.

Sample of an Introduction to Creativity:

- ✚ Please be advised that this exercise serves a dual purpose: it gives insight to what creativity is along with taking participants through a brief CPS session. It can be used by nearly any group of people (i.e. school age, corporate, or otherwise) and is presented here as an activity for a group of 15-25 people.

Step 1: Warm-up

Randomly assign people into smaller groups (divide according to group size, approx 3-4 people in a group). Give each group newspaper and a roll of masking tape. Tell the groups that they have ten minutes to make the tallest structure in the room using the materials they were given.

This exercise enables the group members to work together and solve a problem without knowing each others styles or preferences.

Step 2: Discussion

Bring the group back together and ask a few questions:

1. How were you being creative?
2. How were others in the group being creative?

Step 3: Brainstorming with Post-its©

This is hard to do with the entire group, but may be a reality if done in a classroom situation as it will be presented here.

Explain to group the rules of Divergent Thinking

- ✚ DEFER JUDGEMENT
- ✚ Build off others ideas
- ✚ Strive for quantity
- ✚ Seek wild and unusual ideas

Teach the group how to properly use Post-its©

- ✚ Make sure the sticky part is at the top and facing down
- ✚ Write it, say it, pass it up

Ask the group to reflect on what people had said about creativity. Then ask the group to write one-word definitions of what creativity is and/or the components of creativity on their Post-its©.

Step 4: Hits

Explain to group the rules of Convergent Thinking

- ✚ USE AFFIRMATIVE JUDGEMENT
- ✚ Check objectives
- ✚ Look for novel and unusual ideas
- ✚ Work to improve options

Give each group member 3 sticky dots. Ask them to carefully “spend” their dots by placing them on the definitions/components that they like best.

Step 5: Clustering

Cluster the “hits” into groups of like items.

Step 6: Restatement

Have the large group break into their original smaller groups. Give each group a cluster and ask them to come up with a definition of creativity based on the information they have in the clusters.

Step 7: Explanation

Explain to group that creativity does not have a set definition and that it can be many of the things mentioned on the Post-its©. Also explain to the group that they have just been taken through a brief CPS session.

Second visit to the school: one (1) week prior to the class seeing the performance of the play. Preparing the students for the performance by teaching creativity through use of the Torrance Incubation Model (TIM). Students will be engaged in State I of the TIM.

Heightening Anticipation:

- Visit classrooms at schools that are going to be attending performances at the Theatre of Youth.
- Define “adaptation”. This will explain how the plays are adaptations of books.
- Ask the students what things they expect to be changed in the play and why.
- Ask the students what things they expect to be kept the same in the play and why.
- Ask the students what each of the main characters look like, sound like, etc.

- Ask the students what special effects they think will be used during the play.
- Ask the students what they think the set will look like.
- Ask the students how the set will be made and from what materials.

Visiting the Theatre of Youth for a performance: Students will be prompted to keep the follow things in mind during and immediately following the performance while still at the Allendale Theatre. Students will be engaged in Stage II of the Torrance Incubation Model (TIM).

Deepening Expectations:

- Students will attend the play with their classmates.
- Students will be told about a special feature in the play to be watching for during the play.
- The talk-back sessions will explain how the set/costumes were made, special effects, characters, etc.
- Students will be asked to write down any questions they had that did not get answered.

Third visit to the school: one (1) week following the performance of the play. The students will be engaged in Stage III of the Torrance Incubation Model (TIM).

Keeping it Going:

- Students will write what they found the most interesting about the play and why.
- Students will be asked what they liked least about the play and why.
- Students will be asked what they would have changed about the play and why.
- Students will be asked what they would have changed about the book and why.
- Students will be asked why they think certain things from the book were adapted for the play.
- Students will be asked which version they liked better, the play or the book, and why.

Appendix C – Second Draft of Program

Theatre of Youth

Creativity Workshop Proposal

“Creative T.O.Y. Adventures”

It is my goal to help bring deliberate creative thinking into the classroom through the use of the Torrance Incubation Model. In conjunction with the Buffalo Theatre of Youth, the proposed workshop would be a great opportunity to expose children of all ages to the creative thinking process.

Each school that attends a play at the Allendale Theatre would be treated to a workshop consisting of three sessions. These sessions would take place during the school day and run from one to two hours in length depending on the age group. Children would learn about the creative thinking process through preparation, attendance, and follow-up sessions of the plays performed at the Theatre of Youth. The sessions would correspond with the three stages of the Torrance Incubation Model: Heightening Anticipation, Deepening Expectations, and Keeping it Going.

The workshops would be presented before, during, and after each play that is performed at the theatre. A volunteer from the International Center for Studies in Creativity or from the Theatre of Youth would deliver the workshops at the schools. During the attendance of the plays, the workshop would be delivered in the form of a talk back session, which is already in place at the theatre. The follow-up session would be delivered in the classroom, just as the first sessions were.

I believe that these workshops will be greatly beneficial to all participants and enable teachers to use creativity effectively in their classrooms. It is my hope that the

proposed workshop will be adopted by the theatre and used for all of their upcoming plays. It is also my hope that the workshop will pique students' interest in creativity and allow them to look at everyday occurrences in life through a different perspective.

Theatre of Youth

Creativity Workshop

“Creative T.O.Y. Adventures”

Purpose of the workshop: To bring deliberate creative thinking into the classroom through use of the Torrance Incubation Model (TIM) and in conjunction with plays performed at the Allendale Theatre by the Theatre of Youth (TOY).

The workshop will consist of three sessions:

Session 1- Casting Call (introduction to creativity): Two (2) weeks prior to the students attending the performance of the play.

Session 2- Dress Rehearsal (pre-show discussion): One (1) week prior to the students attending the performance of the play.

Session 3- Curtain Call (post-show review): One (1) week following the students attending the performance of the play.

* Between session 2 and session 3, students will attend a performance of the play with their classmates.

* Each session of the workshop will run from one to two hours in length depending on the age group of the participating students.

Session 1- Casting Call: Students will participate in an introduction to creative thinking designed to fit the age group and ability of the classroom.

Activities: Volunteers would participate in the classroom session by engaging students in creative thinking. These activities may include games, artwork, discussing hobbies and interests, and visual stimulations (dreaming). By using objects in the classroom, a brainstorming session may also be conducted.

Session 2- Dress Rehearsal: Preparing the students for the performance by teaching creativity through Stage I of the Torrance Incubation Model (TIM).

Activities: Each class will be given activities and questions that engage them in the “Heightening Anticipation” stage of the TIM. Such activities and questions may include, but are not limited to:

- What does “adaptation” mean? Define “adaptation” to help clarify how the play is an adaptation of a book.
- What things do they expect to be kept the same in the play and why?
- What things do they expect to be changed in the play and why?
- What do the main characters look like, sound like, etc.?
- What do they think the set will look like?
- How will the set be constructed and what materials may have been used?
- What special effects do they think will be used during the play, if any?

Attending a performance at the Theatre of Youth: Students will be encouraged before leaving the classroom to keep in mind some specific things while in attendance and immediately following the performance at the Allendale Theatre.

Activities: Students will be participating in the “Deepening Expectations” stage of the TIM while thinking about the following items:

- Students will be told about a special feature to look for during the performance.
- The talk back session that follows the performance will explain how the set and costumes were made, special effects, characters, etc.
- Students will have a chance to ask some of the actors questions about their roles and how they prepared to play their character(s).
- Students will be asked to write down any questions they had that did not get answered during the talk back session.

Session 3- Curtain Call: The follow-up session will take place back in the classroom. The same volunteer will be present as in the first two sessions.

Activities: Students will be engaged in the “Keeping it Going” stage of the TIM.

- Students will write what they found the most interesting about the play and why.
- Students will be asked what they liked least about the play and why.
- Students will be asked what they would have changed about the play and why.
- Students will be asked what they would have changed about the book and why.

- Students will be asked why they think certain things from the book were adapted for the play.
- Students will be asked which version they liked better, the play or the book, and why.

* At the end of the last session, the volunteer will leave a short evaluation sheet with the teacher. This evaluation sheet may also be given to the students if they are in a higher age group. Each evaluation will be taken into consideration when preparing for future workshops.

Theatre of Youth

“Creative T.O.Y. Adventures” Evaluation

Please rate each of the following items on a scale of 1 – 5 in terms of effectiveness by circling the response that captures your opinion most accurately. The ratings are as follows: 1= not observed, 2= not effective, 3= slightly effective, 4= effective, and 5= highly effective.

Was the workshop run smoothly?	1	2	3	4	5
Did the instructor engage the students in creative thinking?	1	2	3	4	5
Were the activities energetic and fun for the students?	1	2	3	4	5
Did the material presented relate to the play?	1	2	3	4	5
Did the instructor make comparisons between the book and the play?	1	2	3	4	5
Did the instructor discuss differences between the book and the play?	1	2	3	4	5
Did the instructor ask thought-provoking questions?	1	2	3	4	5
Did the instructor encourage the students to ask questions?	1	2	3	4	5
Was the instructor enthusiastic about the workshop material?	1	2	3	4	5
Were the activities comprehensive to the age group?	1	2	3	4	5
Overall, how effective was the workshop?	1	2	3	4	5

Feedback is appreciated. Please feel free to leave any comments below. Thank you for participating!

Appendix D – Creative T.O.Y. Adventures Program

Theatre of Youth

Program Proposal

“Creative T.O.Y. Adventures”

It is my goal to help bring deliberate creative thinking into the classroom through the use of the Torrance Incubation Model. In conjunction with the Buffalo Theatre of Youth, the proposed program would be a great opportunity to expose children of all ages to the creative thinking process.

Teachers would be able to download this program from the Theatre’s web site for use in the classroom. By using this program as a guide, the teachers are helping the children to learn about the creative thinking process through preparation, attendance, and follow-up sessions of the plays performed at the Theatre of Youth. The sessions would correspond with the three stages of the Torrance Incubation Model: Heightening Anticipation, Deepening Expectations, and Keeping it Going.

The program would be presented in stages before, during, and after each play that is performed at the theatre. There are questions and activities to do before attending a performance. During the attendance of the plays, the program would be delivered in the form of a talk back session, which is already in place at the theatre. The follow-up session would be delivered in the classroom, just as the first session was.

I believe that this program will be greatly beneficial to all participants and enable teachers to use creativity effectively in their classrooms. It is my hope that the proposed program will be adopted by the theatre and used for all of their upcoming plays. It is also

my hope that the program will pique students' interest in creativity and allow them to look at everyday occurrences in life through a different perspective.

Theatre of Youth

“Creative T.O.Y. Adventures”

Welcome to Creative T.O.Y. Adventures! This is a guide for teachers to use in their classrooms before, during, and after performances at the Theatre of Youth. No matter what book you are reading in class, this program can be used over and over again to nurture the creative thinking of your students. Creative T.O.Y. Adventures can be used as a stand-alone program or in conjunction with the TASK guides provided on the Theatre of Youth web site.

The program consists of three sessions:

Session 1- Casting Call (introduction to creativity): One week prior to the students attending the performance of the play.

Session 2- Dress Rehearsal (pre-show discussion): One to three days prior to the students attending the performance of the play.

Session 3- Curtain Call (post-show review): One week following the students attending the performance of the play.

* Between session 2 and session 3, students will attend a performance of the play with their classmates.

Session 1- Casting Call: Students will participate in an introduction to creative thinking designed to fit the age group and ability of the classroom. This session will engage them

in activities that pertain to the book they are reading and the performance they will be attending at the Theatre of Youth.

Activities: The classroom teacher would need about 30 minutes during the day to have students engage in these activities. Students will be given activities and questions that engage them in the “Heightening Anticipation” stage of the TIM. Activities may include games, artwork, discussing hobbies and interests, and visual stimuli (dreaming).

Teachers may want to include brainstorming sessions using objects in the classroom.

- What does “adaptation” mean? Define “adaptation” to help clarify how the play is an adaptation of a book.
- Have the students adapt a familiar rhyme for the stage. For example, how would you adapt Hickory Dickory Dock for a stage performance? The rhyme is active and visualized within the student, but what would it look like if they needed to put it on stage?
- What things do they expect to be kept the same in the play and why?
- What things do they expect to be changed in the play and why?
- What challenges do the stage director, actors, and set designers face?
- What do the main characters look like, sound like, etc.?
- How would you dress the characters? Draw a picture of what the character looks like and the type of costume you would have them wear.
- What do they think the set will look like?
- How will the set be constructed and what materials may have been used? How would you use one material to make it look like another? For example, how would you make Styrofoam look like rocks?

- What special effects do they think will be used during the play, if any?
- Which characters will be the most challenging to play and why?
- Put the students into groups and give them a problem to solve. For example, the actors have a lot of costume changes. How might they be able to make those changes quickly?

Session 2- Dress Rehearsal: Preparing the students for the performance by teaching creativity through Stage I of the Torrance Incubation Model (TIM). This session also includes attending the performance of the play. Students will be encouraged before leaving the classroom to keep in mind some specific things while in attendance and immediately following the performance at the Allendale Theatre.

Activities: Students will be participating in the “Deepening Expectations” stage of the TIM while thinking about the following items:

- Students can go to the theatre’s web site to read about the play they will be attending. At this time, they may be directed to watch for a special feature during the performance.
- While the students are on the web site, have them look at the production photographs. These pictures include rehearsals, set designs and building materials, as well as what the actors look like before they get into costume and what they look like when they are in costume.
- Students will be encouraged to post questions on the web site prior to seeing the performance. These questions will be answered during the “Talk Back” session immediately following the performance, while the students are still at the theatre.

- Students will have a chance to interact with some of the actors and ask questions about their roles and how they prepared to play their character(s).
- When students return to their classrooms after the performance, they will be asked to write down any questions that did not get answered during the talk back session. These questions can then be posted on the web site.

Session 3- Curtain Call: The follow-up session will take place back in the classroom.

The teacher will ask the students to participate in discussion and activities revolving around the book they've read and the performance they've seen.

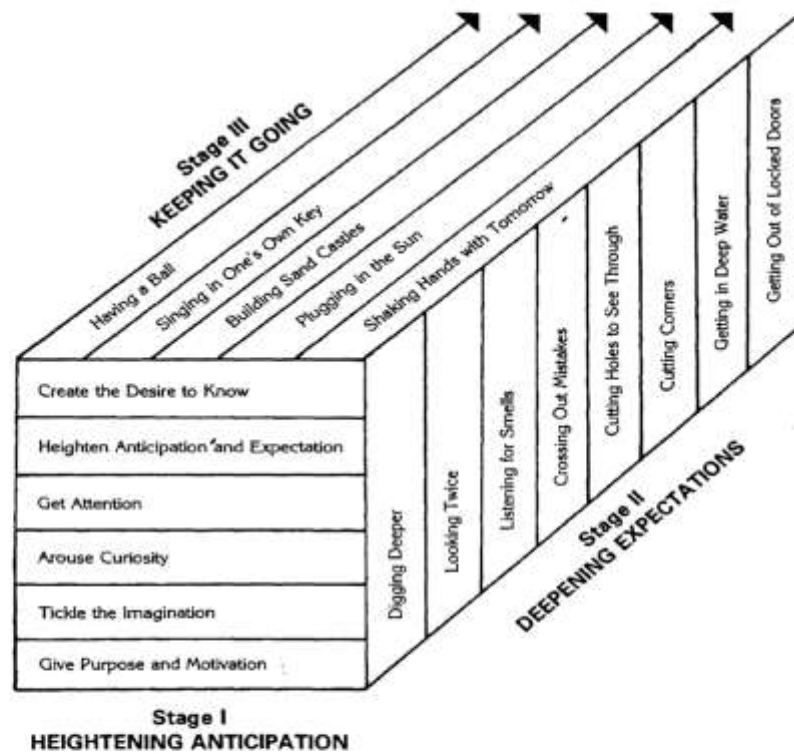
Activities: Students will be engaged in the “Keeping it Going” stage of the TIM. This stage will keep their creative thinking going beyond the book and the play they've just completed. Their creative thinking should expand beyond the classroom at this point.

- What did you learn from this play?
- How does this play relate to you?
- What might you discuss with others who have not read the book or seen the play?
- What creativity skills were used?
- How might you use those skills in your life?
- Will the book and/or the play have an impact on your future? If so, in what ways?

After the play has closed for the season, the students may want to find time to go back to the web site and look at the post-production materials. They will then be able to explore all of the different back stage happenings of the play. The materials they will

find on the web site include photographs of how materials were used, what props and costumes were made from, scale models of the set design, and secrets about sound and lighting effects.

Appendix E – Torrance Incubation Model Graphics



Torrance, E. Paul; Safter, H. Tammy. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.

INSTRUCTIONAL STRATEGIES

Adapted from Torrance, E. P. & Safer, H. T. (1990). *The incubation model of teaching*. Buffalo, NY Bearly Limited.

DEVELOPER SYSTE M

BEFORE: Create the desire to know... Heighten anticipation... Get attention... Arouse curiosity... Tickle the imagination... Give purpose and motivation.

DURING: Dig deeper ... Look twice ... Listen for smells ... Listen/Talk to a cat ... Cross out mistakes ... Cut holes to see through ... Cut corners ... Get in deep water ... Get out of locked doors.

AFTER: Plug in the sun ... Shake hands with tomorrow ... Have a ball ... Sing in your own key ... Build sand castles.

SKILLS

THE PROBLEM	PRODUCE & CONSIDER MANY ALTERNATIVES	KEEP
BE ORIGINAL	BE FLEXIBLE	HIGHLIGHT THE ESSENCE
OPEN		
ELABORATE, BUT NOT EXCESSIVELY	COMBINE AND SYNTHESIZE	
BE AWARE OF EMOTIONS	PUT IDEAS INTO CONTEXT	VISUALIZE
ENJOY AND USE FANTASY	MAKE IT SWING/MAKE IT RING	
LOOK AT IT ANOTHER WAY	VISUALIZE THE INSIDE	BREAK BOUNDARIES
LET HUMOR FLOW	GLIMPSE INFINITY	

Appendix F – Creativity Skills and their meanings

Creativity Skills and their meanings

These are my personal interpretations of the meanings of each of the following creativity skills.

Be Original: use your own ideas and work; use things that are unique or speak to you.

Be Flexible: able to bend around and use the kinks in your work.

Highlight the Essence: make sure you are aware of the most important parts.

Keep Open: have an open mind for what you are doing and to other ideas.

Elaborate, but not excessively: short and simple, but speak to the point.

Combine and Synthesize: put ideas together and see how well they fit; they may work better together than they do as individual ideas.

Be Aware of Emotions: know what you are feeling and how that affects your ideas.

Put Ideas into Context: make sure your ideas fit with what you are working on or working towards.

Visualize it, Richly and Colorfully: seeing the picture in your head in full color and detail.

Enjoy and Use Fantasy: let yourself dream; not every idea has to be set in reality.

Make it Swing, Make it Ring: make the ideas flow and speak to you.

Look at it Another Way: take a second, third, even fourth perspective on your ideas.

Visualize the Inside: look at your product/ideas from the inside out.

Break Boundaries: go outside of the lines of what you know; look for new information.

Let Humor Flow: don't be afraid to laugh or make others laugh.

Glimpse Infinity: see how your ideas have an impact on the future.

**Appendix G – Press Release announcing the
partnership between the Theatre of Youth and the
International Center for Studies in Creativity**

TOY Announces Partnership with ICSC at Buffalo State College

TOY & ICSC Announce Partnership for Creativity

Theatre of Youth and The International Center for Studies in Creativity team-up to boost kids' creative thinking skills

Theatre of Youth (TOY) and the International Center for Studies in Creativity (ICSC) at Buffalo State College have announced a partnership to develop innovative theatre programs focused on expanding children's creative thinking skills. The partnership is in response to the growing worldwide view on the relationships between education, creativity and 21st century workforce skills, said TOY Artistic Director Meg Quinn and ICSC Director Dr. Gerard Puccio.

"This is the first collaboration of its kind between a professional theatre and an academic institution with the credentials of the ICSC," said Quinn, a 1997 graduate of the ICSC's Master Degree program in Creativity.

The 21st century economy increasingly is being viewed as a unified, global "creative economy". For children to be successful adults, there is a need for new and effective ways to learn creative thinking skills early in their education.

"Creativity is enriched human thinking and it can be deliberately stimulated and developed through experiences in the arts, " said Puccio.

Together, TOY and ICSC are positioned to create model programs that can have national impact in the arts and in the field of creativity.

TOY/ICSC – Initiatives

Current TOY programs will be expanded and new theatre programs will be developed to demonstrate what it means to think creatively.

"Over 50,000 children come to our theatre. We have the perfect opportunity to impact their lives in an important new way," said Quinn.

The TOY Web site will provide pre performance "warm up activities" that prepare children to engage creatively with what is happening in the play.

Creative learning and thinking will continue with a new format for the traditional post performance "talk back" between cast members and the audience. Depending on the play and the intended age group, this post-performance conversation will be directly related to how the characters or events in the story depict creative thinking.

The combined effect of pre-performance preparation, the performance and the post-performance talk back will purposely guide children toward understanding how to see themselves as creative persons and to practice creative thinking skills.

Special Project: The Grain Elevator Play

The Buffalo grain elevators clearly and dramatically demonstrate creativity. An original play about the elevators is the first major project to be undertaken by the partnership.

The invention of the elevators involved extraordinary people who were willing to seize opportunities and take risks. They followed their creative instincts with heart and perseverance. The play will show children how those huge concrete buildings on the Buffalo waterfront, in every way, represent creative thinking and creative process. The grain elevators were a truly noble innovation-- an innovation that allowed Buffalo to feed the world.

"We see the story of the grain elevators as marvelous inspiration for the future and a reminder that we here in Buffalo possess the imaginative potential to solve significant problems," said Puccio.

Because the play will feature how the characters use different approaches to resolve complex challenges, it will include a response activity that will allow each audience member to identify his or her own creativity style.

Creative Thinking Skills Are Required in the New Economy

In *The Rise of the Creative Class*, author Richard Florida writes, "Powering the great ongoing changes of our time is the rise of human creativity as the defining feature of economic life." The Partnership for 21st Century Skills, an organization that partners top U.S. corporations with the U.S. Department of Education reports, "As the world grows increasingly complex, success and prosperity will be linked to people's ability to think, act, adapt and communicate creatively." Thomas Friedman writes in the current best seller *The World Is Flat* "The most important attribute you can have is creative imagination."

The TOY/ICSC partnership will help prepare the children of Western New York for the unique demands of 21st century jobs, citizenship and leadership.

About Theatre of Youth

Theatre of Youth is a professional theatre company that produces plays especially for children. There is a full time artistic team and business staff. TOY mounts five plays during the school year. Over 50,000 children from all over the Western New York area attend with their schools and families. TOY is the resident theatre company of The Allendale Theatre, 203 Allen Street, Buffalo, New York. TOY was founded in 1972.

About the International Center for Studies in Creativity

The International Center for Studies in Creativity, founded in 1967, is a unique academic department housed at the Buffalo State campus of the State University of New York. This department offers the world's only Master of Science degree in creativity, as well as a graduate certificate in creativity and change leadership. The department enjoys an international reputation that draws graduate students from around the world. Faculty members are active scholars, publishing books and journal articles in their field, as well as consultants and trainers to organizations throughout the world.