Creating, Evaluating, and Improving Humorous Cartoons Related to Design Principles for Gifted Education Programs

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Abstract

Humor through cartoons is an interesting way to engage students in learning course content. The purpose of this study was to document the process of graduate student-made cartoons that portrayed content about principles of designing gifted education programs. Seventeen graduate students enrolled in an introductory gifted education course identified important content ideas centering on characteristics of gifted students, identification, advocacy, and gifted programming. The students created humorous cartoons related to this content. Each student chose four background scenes from sixteen choices, transforming them into complete cartoons by drawing in extra objects, figures, details, added captions, talking balloons, or other features. Students then anonymously rated the completed cartoons of class members and selected their personal "top ten," giving reasons for their choices. This information was then used to improve the most highly-rated cartoons, which are presented as an appendix here. The most frequently given reasons for positive ratings were as follows: 1) important content was addressed; 2) effective puns and word plays; 3) effective analogies; 4) humor; 5) effective, colorful, appealing visuals; and 6) emotional expressiveness of characters or wording. For the category addressing important content, the graduate students listed these reasons for rating cartoons: non-specific important content, identification issues, components of effective gifted education programs, teamwork, and handling opposition to gifted education programs. The most-favored word plays included *moo-tiple* or "Multiple, the way a cow would moo it", *herd* interpreted as a "group of animals or team of educators," and *Big eyes* (used with Red Riding Hood's wolf) for "large size eyes or being able to recognize gifted students." Some analogies were analyzed. The top sources of humor were incongruity and that students "laughed out loud." Most frequently cited suggestions for improving the cartoons included adding visuals and extra characters, more explanation in the captions, and changing or adding color to the cartoon's background or object. The graduate students reported that they enjoyed making their own cartoons and viewing those of others. It is recommended that instructors consider asking their students to portray course content in cartoon format, as this was found to be very effective in motivating students. Instructors of courses in gifted education may want to use the cartoons generated here in their courses. [7 Tables, 4 Figures, and 28 cartoon figures in an Appendix.]

Introduction

Effects of Humor in Learning

One characteristic of giftedness is the possession of a sense of humor, mainly due to advanced verbal capabilities (Piirto, 2004). Gifted people are capable of humor at a high abstract level, generating such humorous word plays as puns, analogies, puzzles, and riddles. A good sense of humor allows one to cope with frustration and threatening situations. In a college classroom, most forms of humor are welcome, but the humor needs to be perceived as positive (Tarak, McMorris, & Lin, 2004). In their study, Tarak, McMorris, and Lin found that students

considered sarcasm negative, even "brutal" (p. 17). However, humor executed in a positive manner can: make teachers "more likeable, facilitate understanding of course material, lower tension, boost student morale, and increase student attentiveness" (p. 18). Attention is one of the key factors in learning, as students need to pay attention to a concept in order to remember it (Higbee, 1996). When a teacher uses humor, the students pay attention in order to not miss any of the jokes or witticisms. Humor can open students to new ideas and increase their motivation because they are more willing to take risks and view mistakes as opportunities for learning (Girdlefanny, 2004).

In a study on humor in college classes that were lecture-oriented (Garner, 2006), results indicated a positive effect on student enjoyment and better comprehension and retention of the content. If examples are content-specific, students may develop new insights, because of the novel, humorous material. It is important, though, that the humor is perceived as appropriate. In a qualitative study of college students answering two open-ended questions about their teachers' use of humor in the classroom (Wanzer, Frymier, Wojtaszczyk, & Smith, 2006), researchers identified eight major categories of appropriate and inappropriate humor, finding the link to content-specific humor strong, with 47% of the appropriate examples being related to course content. College students found this type of humor made the class more interesting, improved classroom climate, and helped students recall information and relate to the information. In this study, one subcategory of appropriate "related humor" was "using media or external objects to enhance learning" (Wanzer, et al., p. 188). One type of such media was the use of cartoons.

Effects of Humorous Cartoons on Learning

Several other investigators have examined the efficacy of using cartoons to teach course content to students. To teach new vocabulary words, Marzano, Pickering, and Pollock (2001) recommended coupling vocabulary instruction with images, first created by the teacher, and later by the students to demonstrate their understanding of new words and concepts.

In a study examining the teaching of rock and mineral concepts to sixth grade students, Rule and Auge (2005) found significantly higher academic performance among the students who were exposed to the content through scaffolded cartoon activities. Initially, students identified scientific content embedded in given cartoons, followed by critiquing and improving cartoons, and by completing partial cartoons. The lesson set ended by having the students create original humorous cartoons of their own. Throughout the unit, students were intensely engaged and highly motivated by understanding the content through humor.

In teaching the ten levels of the Mohs hardness scale used in mineral identification (Rule, 2003), a rhyming peg mnemonic device was coupled with cartoons to make learning more interesting and memorable, to help students connect the hardness scale with a visual image, and to personalize the cartoons by a student activity in which they added or modified the cartoons to further their understanding and connections. Another study required high school students to make charts of mineral facts, mnemonic cartoon drawings, and corresponding poetry (Harmon & Rule, 2006). In this study, when content misunderstandings were visible in the students' work, the teacher was able to address these errors. The end result was increased enthusiasm about learning content in

this manner and a better understanding of the Mohs hardness scale, evidenced by the majority of the final products.

Rule, Sallis, and Donaldson (2008) conducted a descriptive study to examine preservice teachers' perspectives on using cartoons to teach science content as they were involved in the process of making cartoons. The teacher candidates read science trade books, listed science content ideas and terms, and considered possibilities for multiple meanings, homophones, similar sounding words, and puns. They analyzed some cartoons, completed partially-finished cartoons, and created their own cartoons. The majority felt that they learned science content through these activities. The preservice teachers found the cartoons and humor motivating. They perceived that the creation of humorous cartoons was challenging, but they also found value in using them to teach science content. The preservice teachers suggested that if cartoons were available for teachers to use in their classrooms, they would use them. They explained that the cartoons were good motivators, fun, engaging, innovative, and aided content learning.

In the current study, graduate students enrolled in an education of the gifted course were asked to create cartoons related to the course content of effective programs for the gifted. This study reports their reasons for ranking the cartoons of classmates as particularly effective and showcases the most highly-ranked cartoons.

Method

Participants

Seventeen graduate students enrolled in an introductory course on gifted education created and evaluated the cartoons. This course is the first course in a series of four three-credit graduate courses that lead to an endorsement in gifted education.

Procedure

Graduate students first read a chapter on gifted program planning from the course text (Davis & Rimm, 2004) related to gifted education programs. They identified several important ideas from the information they had read and created humorous cartoons that would teach this content. For this work, the course instructor provided them with sixteen background scenes for the cartoons. Each graduate student was asked to choose four of the scenes and transform them into complete cartoons by drawing in extra objects, figures or details and adding captions, talking balloons, or other features. These additions were either drawn by hand on a print-out of the background scenes or added in the PowerPoint file directly with software drawing tools. Figure 1 and Figure 2 show example background scenes provided to students.

Figure 1. Amusement park scene to complete

Figure 2. Wanted poster scene to complete.

The course instructor translated any hand-drawings into clipart or electronic drawings so that all cartoons were colorful electronic PowerPoint images. These were compiled into a large set of 69 cartoons in a single file (one class member made 5 cartoons, rather than 4). Class members were then asked to view all the cartoons and choose the ten cartoons they believed to be "best" with regard to both 1) creativity and 2) effective illustration of gifted program concepts. They were asked to provide reasons for their choices and suggestions for improvement of the cartoons. These choices, reasons, and suggestions were entered into a spreadsheet. The highest ranked cartoons were chosen for inclusion in this article. The suggestions were used to improve the cartoons. Different clip art was substituted into some cartoon scenes to make all the resulting cartoons different.

Results and Discussion

Best Cartoons

The highest-ranked cartoons are shown in Appendix 1.

Reasons for Choosing Cartoons

The reasons provided by class members for positively evaluating the cartoons were recorded on a spreadsheet. These were then examined and sorted into categories. Table 1 shows the reasons class members gave for choosing the cartoons. Because the graduate students were asked to remark on the content of each cartoon, it is not surprising that the most frequent reason given was importance of content.

Table 1. Reasons given for positive ranking of cartoons.

Reason for Efficacy of Cartoon	Number of Statements
Content addressed was important	67
Puns and word plays were effective	54
Analogies were effective	35
Humor	30
Visuals were colorful, appealing, effective	22
Emotional expressiveness of characters or wording	21
Unique ideas presented	13
Scenario matches viewer-observed reality	13
Elaboration of details and additional images	11
Clever – not specified	9
Captions, wording and positioning of speech bubbles were effective	9
Connections of old and new	2

Table 2 shows the categories of important content that were addressed in the top-ranked cartoons. The table shows that some class members were not specific in indicating what content was important. However, identification issues were listed as leading the topics that were specifically addressed. This

corresponds to a major component of the course – identifying gifted and talented students for inclusion in a gifted education program. Therefore, it is not surprising that many students chose to focus their cartoons on this idea. The concept of program components is another natural choice, considering that was the main idea of the textbook chapter on which cartoons were to focus. Two other areas deserve mention because they address social-emotional components of programming: teamwork with colleagues and responding to opponents of gifted education programs. These areas provide challenges which can be humorously addressed in cartoons.

Table 2. Important content addressed by cartoons.

Content Identified as Important	Number of Statements
Non-specific content is important	17
Identification issues including gender, racial, and socio-economic equity	14
Components of effective gifted education programs	8
Teamwork with staff and school board including staff development	7
Handling opposition to gifted education programs	5
Defining and refining a defensible and valuable program	5
Complexity of gifted education programs and issues and pressures exerted on teachers/administrators	5
Needs assessment of gifted learners	3
Creative teaching in gifted education necessary	3

The second most-frequent reason for cartoon efficacy, as listed in Table 1, was effective use of puns. Puns add to the humor and cleverness of a cartoon, supporting enjoyment. Table 3 shows an analysis of the puns that were noted in the top-ranked cartoons. These puns relied on words with multiple meanings (double entendres), clichés applied to a new setting, homonyms (homophones), and changes to words to make them similar to animal sounds.

Table 3. Puns and word plays identified

Pun Word or Phrase	Multiple Meanings or Pun	No.
Moo-tiple	"Multiple" the way a cow would moo it	6
Herd	Group of animals or team of educators	6
Big eyes	Large size or able to see gifted students	4
Pro-baa-lem	Problem the way a sheep would baa it	3
Ewe	Homonym of you	3
Moove	"Move" said the way a cow would moo it	3
Diamond in the rough	Mining of precious but unpolished gems and identification of underachieving gifted students	3
Smart E. Pants	Child's name and intelligent, outspoken child	3
Take two and call me in the morning	Questionnaires or aspirins	3
Ed	Man's name and abbreviation for education	2
Refined/ defined	Similar rhyming words only 1 letter different	2
Square	Geometric shape or classroom misfit	2
Death	Grim Reaper and end of gifted program	1
Skipping	Hop-running or grade acceleration	1
Tracks	Rollercoaster rails or ability grouping	1
Erupt	Out-flowing of lava or emotional display	1
Flock	Herd of animals or team of educators	1
Evaluation	Medical check-up or program assessment	1
A lava	Volcanic rock or "a lot o'"	1
Good shape	Physically fit or well-designed program	1
Angle	Geometric term or approach to a situation	1
Vows	Marriage agreement or promise or work together	1
Words with long oo sound	Stretched out like wolf howling	1
Annual check-up	Physical evaluation or health of program	1
Mining	finding minerals or identifying gifted students	1
Mother lode	Large mineral deposit or large group of gifted students	1

Effective analogies were also frequently cited as reasons for ranking cartoons high in Table 1. Two of the high ranking cartoons (See Figure 3 and Figure 4) were chosen as good examples of analogy use. Table 4 and Table 5 analyze the analogies used in these cartoons respectively.

Table 4. Mapping of analogies in diamond in the rough cartoon shown in Figure 3.

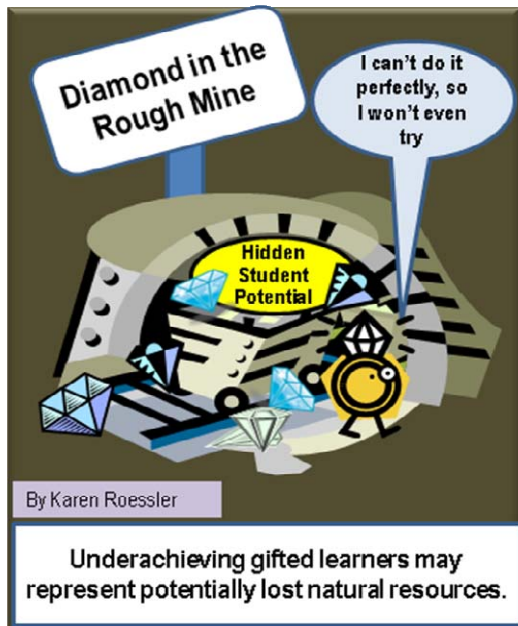| Analog: Diamond Mine	Category of Similarity	Target Idea: Gifted Education Program
Unfound diamonds	Lost natural resource	Unidentified gifted students
Finding minerals	Difficult operations	Identifying underachieving students
Unpolished diamond	Something "in the rough"	Underachieving student

Figure 3. Diamond in the rough cartoon mapped in Table 4.

Table 5. Mapping of analogies in program evaluation cartoon shown in Figure 4.

Analog: Doctor	Category of Similarity	Target Idea: Gifted Education Program Evaluator
Evaluation of Patient	Professional Action	Evaluation of gifted education program
Annual physical	Timing	Annual evaluation
Good health of body	"In great shape"	Effective program
Survival of patient	Outcome	Survival of program

Figure 4. Program evaluation cartoon with analogies mapped in Table 5.

Humor was cited as another frequent reason for choosing cartoons. The sources of humor in the cartoons, according to class members, are listed in Table 6. Class members noted incongruity as resulting in humor most frequently. Sometimes, students merely remarked that the cartoon was so funny they laughed out loud.

Table 6. Sources of Humor

Technique	No.
Incongruity	8
Laughed out loud – no reason given	5
Nonspecific	3
Exaggeration and hyperbole	3
Unexpected response	3
Amusing dialog	2
Ridiculous situation	1
Sarcasm	1
Mentioning visual details in the dialog	1
Child's counting rhyme used	1
Depressing subject made light of	1

Class members gave suggestions for improving the cartoons. The most common idea offered was to add more visual details, followed by adding more explanation in the caption. Suggestions for color changes occurred next in frequency. This corresponds to the fifth idea in Table 1 which lists reasons for choosing cartoons. This is "Visuals were colorful, appealing, effective."

Table 7. Summary of suggestions for improving cartoons.

Suggestion	No.
Add visual details to the cartoon including extra characters.	49
Add more explanation in the caption.	25
Change or add to the color of the cartoon background or objects.	19
Rearrange or resize the components or speech bubbles.	13
Add speech bubble with suggested content.	12
Add components that support the cartoon's theme.	10
Change wording.	9
Label or title parts of the cartoon.	6
Incorporate a suggested pun.	6
Grammar, punctuation, capitalization suggestions.	3
Change or add expressions on faces.	2

Conclusion

The appropriate use of humor has been found to be beneficial in classrooms in K-12 settings and in the college and graduate level settings. The use of humorous cartoons to teach concepts and vocabulary enhances students' motivation and understanding of content. Students' creation of original cartoons improves their creativity, deepens their recall and understanding of content, and serves to integrate the valuable visual realm with the verbal to better meet students' needs and styles.

Students in the current study reported the cartoon-making activity as unique, challenging, and motivating. They enjoyed viewing classmates' cartoons and receiving feedback on their work. Composing the cartoons and rating them allowed ample high-interest practice with the material.

Graduate students who, in turn, take this method into their education of the gifted classrooms might also experience enhanced student/ parent/ teacher engagement, comprehension, retention, and awareness of the unique needs of gifted students. The use of humor through the development of cartoons has only begun to be tapped.
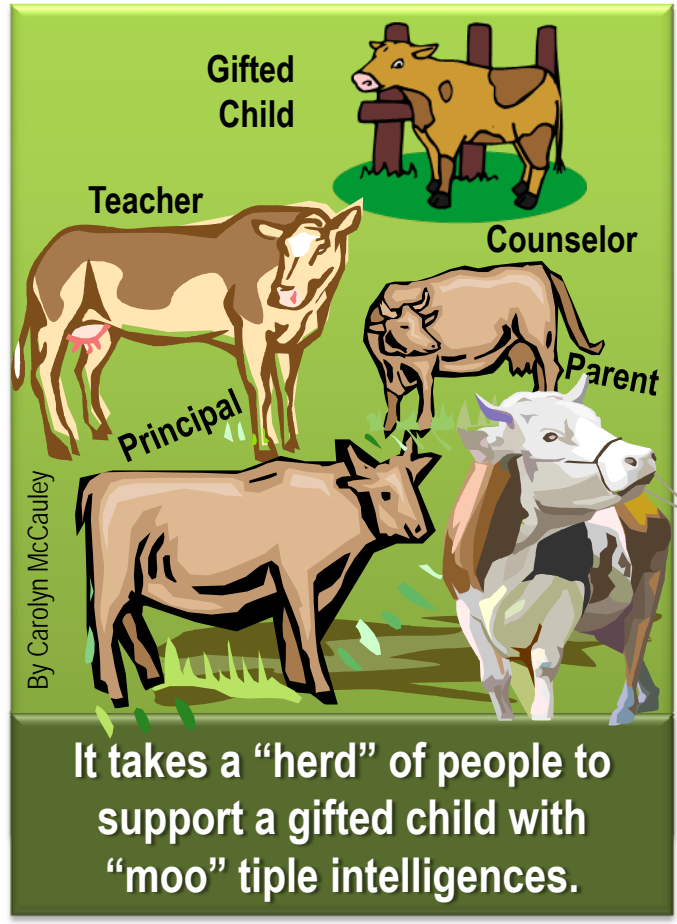
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Rule, A. C., & Schneider, J. S. (2009). Creating, Evaluating, and Improving Humorous Cartoons Related to Design Principles for Gifted Education Programs: A Successful Online Activity in a Graduate Course in Gifted Education. University of Northern Iowa Interdisciplinary Research Symposium. February 13th, Cedar Falls, Iowa.

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Twenty-eight highly-ranked cartoons are presented in Appendix A, which begins on the following page.
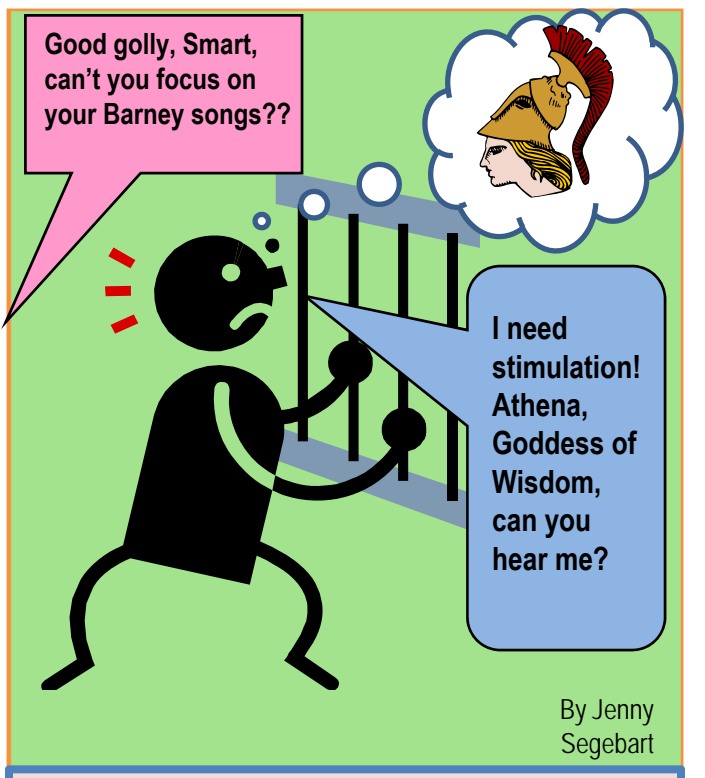
Panel 1 (top left):

Gifted Child

Teacher

Counselor

Parent

Principal

By Carolyn McCauley

It takes a "herd" of people to support a gifted child with "moo" tiple intelligences.

Panel 2 (top right):

By Jenny Segebart

I didn't know our gifted education program could be so refined.

You mean "defined," darling. Everything of quality has a defining rational. My definition is the tiara.

For the magician's next trick, he will combine philosophy and goals, definition and identification, instruction, and evaluation in one neat package.

Panel 3 (bottom left):

Diamond in the Rough Mine

I can't do it perfectly, so I won't even try

Hidden Student Potential

By Karen Roessler

Underachieving gifted learners may represent potentially lost natural resources.

Panel 4 (bottom right):

Good golly, Smart, can't you focus on your Barney songs??

I need stimulation! Athena, Goddess of Wisdom, can you hear me?
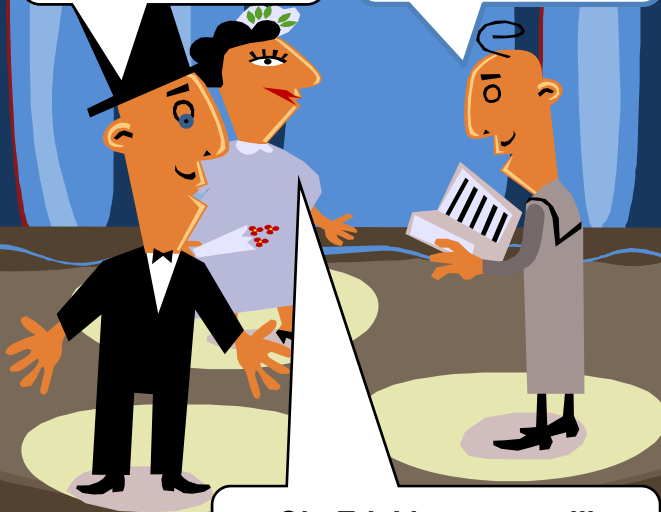
By Jenny Segebart

Smart E. Pants was locked in the classroom so he wouldn't stand out from the other kids. Unfortunately, NOT having an outstanding program made him stand out in an unpleasant way.

School Board Chapel

I, Education, take thee, Awareness

For richer or poorer budgets

Oh, Ed, I know we will work well together!

By Sue Milligan

To foster support for gifted education, school board members should be kept educated and aware.

What kind of gifted program do we need?

Take two questionnaires and call me in the morning!

Student   Parent   Teacher

By Lacinda Gillen

A needs assessment determines the type of program that exists and the type that is desired. Questionnaires from parents, staff, and students can give that data.

What big eyes you have!

The better to identify all gifted learners in my pack, including females, minorities, and those of poverty.

By Rob Dittmer

Gifted programs should include specific provisions for identifying female, underachieving, disabled, culturally different and economically disadvantaged gifted students.

Sit and do bookwork.

Read Chapter 10; take notes.

Do these questions

Give me Freedom to learn my way!

Don't move from assigned seat.

By Tracy Steger

After sitting through long days of seat work, Sarah felt like a prisoner in school. She wanted the freedom to be creative.

Panel 1

1. Choices

Hooray!

2. Enjoyment

I love this!

I can do this after all!

3. Challenges

4. Interests

ADMIT ONE

5. Personal Meaning

By Angela Benham

Ticket to Success: Components of Gifted Programs

Panel 2

Well, we tried to open the mind, but failed to get at the blockage.

H

By Amanda Smith

Sometimes, despite your best efforts, gifted programs will have nay-sayers.

Panel 3

By Carolyn McCauley

WANTED!

Program Plans
Needs Assessments
Interest inventories
Inservice workshops
Identification methods
Product Scoring Rubrics

"Someone get me some chocolate"

Meeting the educational needs of gifted and talented children is complex and overwhelming.

Panel 4

District G/T Program

Your gifted program is in great shape. Don't forget to schedule your next summative evaluation.

By Rob Dittmer

Good evaluation of gifted programs is important for the survival and improvement of programs.

**Oh. One point below the cutoff number. Too bad. You are out.**

Let me in!

By Mandi Skellenger

Being too formal with identification can lead to constraints and exclusion of gifted students.

"…curious, independent, observant…" Oh, so that's what a gifted student looks like! "…perfectionist, and emotionally sensitive…" Well, I think I know a student or two…

School Calendar

Workshop Thurs.

Gifted Student s Identified
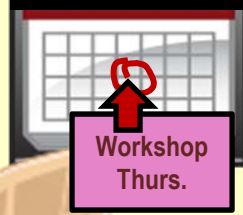
By Lacinda Gillen

Inservice for staff raises awareness of the characteristics and needs of gifted students.

Identified

Identified

By Jenny Segebart

Santa was overwhelmed with many good boys and girls on his list who wanted rocket ships! Thankfully the elves had an identification process that helped Santa locate the children who already had space suits. (A good program gives gifted students chances that average students are not ready to pursue.)

MOOOVE over RAMS! "Ewe" need to make room for the EWES in gifted education, too!
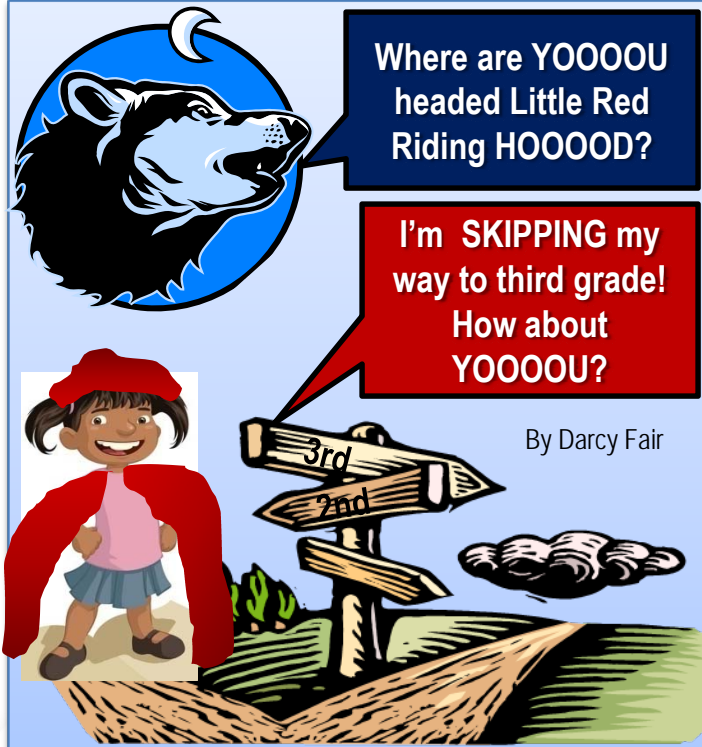
No "Pro BAA lem!

By Darcy Fair

Identification methods must include plans for locating female gifted students, too, "EWE" know. They are particularly underrepresented in math & science.

By Mandi Skellenger

Pree-vyet

Hola

Hei! Ho! Ho! Ho!

Hyvää huomenta

Wah…? Oh, hi

One must consider culture and social economic status when defining gifted students and planning the program.

Where are YOOOOU headed Little Red Riding HOOOOD?

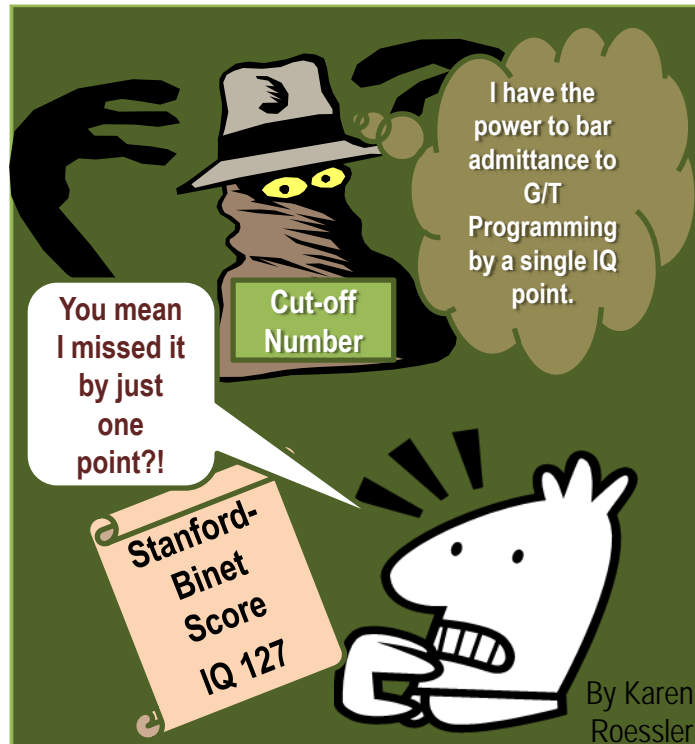I'm SKIPPING my way to third grade! How about YOOOOU?

By Darcy Fair

3rd

2nd

Preliminary staff education is important. As educators, we have to establish where grade skipping is allowed within the district.

Don't Erupt, ORGANIZATION will help you go with the *flow!*

Budget

training

Time

Planning

Meetings

Administration

Space

Teacher

By Danielle Andvik

Part of having a G/T Program is being organized in many areas.

I have the power to bar admittance to G/T Programming by a single IQ point.

Cut-off Number

You mean I missed it by just one point?!

Stanford-Binet Score IQ 127

By Karen Roessler

In estimating enrollment for G/T programming, selection should be flexible, and a cut-off should not exclude students.

By Karen Connelly

Wow, what a great in-service! I'm so excited about gifted education!

Are you kidding? Those kids already have it all! Let's help those students who need us more.

2 × 2
3 × 4

Enlightening regular classroom teachers about gifted education is important and often productive. However, there will always be antagonists.

It's a relief to see that I'm still used but look at all the improvements and the money that went into the new design!

Revised Gifted Program
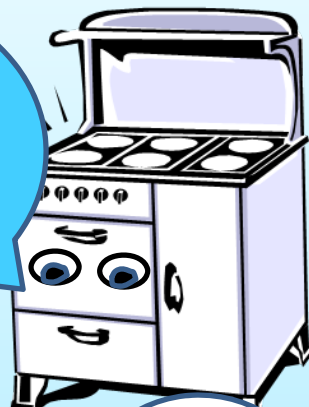
Thanks, Old Program, for all the great ideas you contributed!

By Marcia Plett

Program Evaluation:
Continuation
Budget
Modifications & Improvements

WANTED!

Exceptional gifted program
- clear philosophy & goals
- definition of identification process
- appropriate instruction
- evaluation methods

How do I accomplish that? I don't even have a teacher! It's hard to find one to teach such a range of students!

Principal

By Katie Broeg

There are four traditional components and 16 areas of program planning that should be considered when planning a gifted education program. All of this can be overwhelming, especially if administration doesn't have support from knowledgeable gifted educators.

You'd better watch out for me!

Death
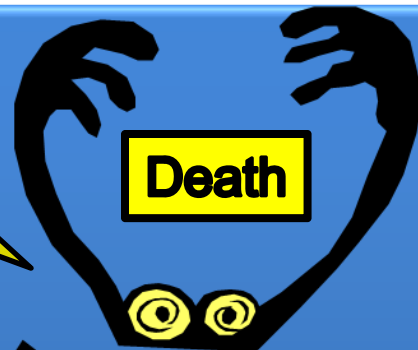
The mind is a terrible thing to waste. Help save G/T programs!

By Andrea Adams

Reasons for the death of gifted programs include "games," lack of training for G/T teachers, resentfulness of students not selected, and separation of G/T students from the rest of the school.

But I want *Spherey* to come – he loves the High Level Learning Ranch!

It's pretty clear this ride's made for *squares*.

Sorry, Rob, you really have to have *the right angle* to get on board.

By Mary Zimmermann

"Equity must include the cheerful knowledge of differences."   - Renzulli

Ahh.. Much Better!

Clean up your program with...

New & Improved!

"Evaluation Bubbles"

By Danielle Andvik

Make sure to evaluate your G/T program. What's working, What's not, What do you need to change, What can you add?

School Day 10

By Angela Benham

I'm digging for deeper ideas- Oh, I hope, I hope!

Mineville

Looking for the Gold!

School Day 100

I hit the jackpot because of my gifted education class!

Providing Richer, Deeper Thinking & Learning Opportunities.

"Mrs. McCauley, my independent study project just hatched."

Egg Project

"What did you expect? Some kind of bird?"

By Carolyn McCauley

Specific instructional plans must be designed to produce sensible, defensible, and valuable educational benefits.