

## Using the FotoFeedback Method to Increase Reflective Learning in the Millennial Generation

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### Abstract

This current generation of students, known as the Millennial Generation, has a propensity toward multi-tasking and a history of structured and tightly filled days. Reflection may not be viewed as productive and as conducive to learning as other “tasks” and thus may be neglected. However, by employing a methodology (photography) that joins up with their multi-media oriented learning style and voracious appetite for the visual, perhaps they will view the reflective process differently. The FotoFeedback Method is a highly flexible data-gathering tool, which combines photography with narrative discourse related to a topic or experience. This process empowers students to not only experience a moment in time, but to structure their preservation of this moment through the photograph. Then they can reflect upon the meaning of the topic/experience while viewing the visual, which can lead to deeper learning.

**Keywords:** Photography, FotoFeedback Method, Reflective Learning, Millennial Generation.

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Millennials are the new generation whose learning and communication style significantly involves multi-media (Nicholas, 2008). They come to college with a foundation for multitasking, not for questioning their experiences (Johnson, 2009). To promote deeper understanding of the world, educators need to facilitate critical reflection among students (Johnson, 2009). Although reflection is not a new concept, the reflective learning process is a fairly recent tool for adult learning and many case studies show that it is effective (Tebow, 2008). “Reflective learning is the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective” (Boyd & Fales, 1983, p. 99). To improve the reflection skills of this generation, we must provide a method that will engage them in the reflective process. Since their world is visually rich and technologically driven, incorporating a technological tool (camera) that empowers them to capture visuals, which aid them in reflection is a proactive approach to increasing reflective learning.

The FotoFeedback Method is an emerging data collection methodology, which involves participatory photography combined with narrative discourse (Vogelsang, Tornabene &

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Versnik Nowak, 2010). Photovoice, Photo Elicitation Interview (PEI), Participant Authored Audiovisual Stories (PAAS), and hermeneutic photography have been used before in the health field as well as other disciplines for many years (Hagedorn, 1994; Wang & Burris, 1997; Ramella & Olmos, 2005; Epstein, Stevens, McKeever, & Baruchel, 2006; Wang, Yi, Tao, & Carovano, 1998; Wang, 1999; Hagedorn, 1996; Banks, 2001). However, FotoFeedback as a methodology is new and born out of the need for something different than the methods previously mentioned. FotoFeedback gives more flexibility to researchers and educators than the methods historically used by others linking photography with some form of feedback about the photographs. It is a qualitative tool that can be used to get information that mere words cannot adequately express. The content of the photos and feedback can range from deep philosophical discussions of meaning to the more routine tasks of program evaluation. Photos in various media are part of our culture; FotoFeedback is a method of harnessing the power of a photo combined with the personal narrative of the photographer.

The FotoFeedback Method can be used to increase reflective learning in students as it serves as a way for them to collect data about a topic or experience through the lens of a camera. It strengthens the reflective process as they now have a visual from which to internally evaluate that data and from which to create and clarify the meaning of such data through written narrative discourse. This can lead to a changed perspective and deeper learning for Millennials since they relate to the world visually. Table 1 outlines several characteristics of Millennials and how the photographic and reflective components of FotoFeedback can promote reflective learning in that generation.

### **Incorporating FotoFeedback in Classroom Activities for Millennial Students**

The options for incorporating FotoFeedback into new and existing course curricula are endless. The following are the critical features of FotoFeedback, which need to be taken into account when planning and implementing a FotoFeedback project:

1. FotoFeedback training should include instruction in basic photography and ethics of photography before a FotoFeedback project begins.
2. FotoFeedback can be used for a wide range of topics or project questions, which can be student or instructor driven.
3. Photographs are taken by the students/participants.
4. Narratives can include meaning, knowledge, story, evaluation, and many other content related to the focus or research question.
5. Photos and narratives can be in print or electronic formats.
6. Participants may or may not share their narratives about their photographs with each other.

To incorporate the FotoFeedback Method into the classroom as a tool to increase reflective learning, students will need training in the basics of photography, the ethics of photography, and the FotoFeedback Method. Faculty will need to indicate the format in

**Table 1. How photography can empower reflective learning in the millennial generation.**

<b>Needs/characteristics of millennial generation</b>	<b>Role of photography in achieving those needs</b>	<b>Role of reflective learning in meeting the needs of Millennials.</b>
Millennials are knowledge makers (Miller, 2009).	Photography promotes a relationship with the world that creates knowledge (Sontag, 1977).	While photography is powerful in itself, reflection about the photographs is needed to promote integration of experiences into existing knowledge that results in deep learning (Barthes & Howard, 1980; Boyd & Fales, 1983).
Millennials are used to structured and tightly scheduled days, which can result in disconnection to spontaneity and play (Howe & Strauss, 2003).	Camera's are literally at student's fingertips as part of their cell phones. Photography could increase spontaneity, as the camera is readily available when the desire to preserve a moment arrives.	The ability to preserve a fleeting moment with the press of a button is a natural extension of this generation's "button-pushing" lifestyle. But because it empowers them to immortalize that moment, it also empowers them to reflect upon a minute that may have been consumed by the voracious appetite of a day where every hour is overflowing.
Millennials expect instant responses and need trial-and-error learning (Humboldt State University, n.d.).	Digital photography is an exemplary method in providing instant feedback and empowering self-correction.	What is captured in an instant, can be reflected upon for a lifetime. With the reflection component of FotoFeedback, students are engaged in the experience in new ways that promote self-reflective trial-and-error learning.
Millennials need rules & structured guidelines (Humboldt State University, n.d.).	By providing students with a topic or questions to answer, they have the tools to gather selective information with the camera (Collier & Collier, 1986).	Because the innate need for rules and guidelines has been met, perhaps it will open dialogue for a deep and reflective conversation with the self and others.
Millennials value parental involvement (Howe & Strauss, 2003).	Photography can be done together as a family.	May aid in the reflective learning process and act as a catalyst for deeper discussion with parents, since they value parental opinion.
Millennials feel special & important (Howe & Strauss, 2003).	A photograph is highly unique in that it renders a small slice of the world as seen through the individual's eyes. It may also illic-	Reflecting on a topic or experience that is born from their uniqueness may increase their desire for reflective practices and the learning that results. Praise over their rendition

	it praise.	of said topic and experience may have a synergistic effect upon this reflection and learning.
Millennials are motivated, goal-oriented, and confident in themselves (Howe & Strauss, 2003).	Millennials may intrinsically possess the motivation to use technology (camera) to achieve a goal-oriented task (take a photo) and are confident in themselves to do so or learn the technique to do so.	Perhaps such motivation momentum can carry them through to the process of internally examining and exploring the topic/experience that they photographed, propelling them to the writing of narration where they can further create clarity and meaning for themselves.
They are group oriented rather than being individualists (Howe & Strauss, 2003).	Photography can be a group-oriented endeavor, which can involve entire classes of students, small groups, or large groups.	Viewing other's photos may give them more insight into the topic/experience, leading to deeper reflection.
Millennials are civic-minded, politically engaged, and progressive (Leyden, Teixeira, & Greenberg, 2007)	Photography can be used to convey emotionally-charged political and human rights issues that are often difficult to discuss or understand (Global Health Council, 2006; World Health Organization Global Health Workforce Alliance, 2008).	Reflecting on topics of interest to students can empower them to clarify their resolve and through such clarity, take massive action toward bettering the situation.
Millennials are committed to environmental protection (LA Times, 2009).	Photography can be used to further environmental and cultural conservation (International League of Conservation Photographers, 2011).	Photo-based learning activities that focus on environmental values of Millennials may invite deeper reflection resulting in greater reverence for the conservation of the natural environment.

which students will submit their photos and narratives and have a plan for synthesizing and making sense of themes that arise.

### ***Basic Photography Training***

Basic photography training consists of an overview of composition, exposure and impact. Photographic composition is “the pleasing arrangement of subject matter elements within the picture area.” (Photoinf.com, n.d.). Composition includes the rule of thirds, dividing and straightening the horizon, rendering a clear focal point, being aware of the background, viewing the scene from multiple angles, experimenting with leading lines, fram-

ing the subject, and depth of field use (Grimm & Grimm, 2004). Exposure is defined as the amount and act of light falling on photosensitive material, or simply put, how much light hits the digital media and for how long (Peterson, 2004).

Photographic impact results from a combination of composition and exposure, which unite to evoke a strong emotional response to the photograph. To achieve greater impact, MacKie (2003) offers the following suggestions: try a different composition, get in close, change point of view, return to the same spot at multiple times of year and in various weather conditions, and shoot in diverse lighting conditions. Another suggestion is to intentionally bend compositional/exposure “rules” to maximize the rendering of an image that creatively illustrates a topic or experience. Information about basic photography skills can be augmented from a plethora of books as well as online sources.

### ***Ethics of Photography***

Ethics includes legal constructs such as autonomy, non-maleficence, beneficence, fidelity and justice (Photoshare.org, n.d.). Autonomy refers to informed consent or the person’s right to refuse to be photographed. Non-maleficence refers to doing no harm to the person through the use of the photograph. While beneficence means to do good, in this context it means promoting a good cause without harming the subject(s) of the photograph. Fidelity is being truthful to a fair representation of the situation, location, or context in which the picture was taken. Justice refers to the respect that one is showing to the subjects of the photograph. Aspects of culture and power must also figure into the photographer’s responsibilities.

Some of these legal constructs can be addressed simply by using photo releases any time a subject in a photo is recognizable (Figure 1). If the person cannot be recognized, a photo release is not needed, but truth, fairness, etc. is still required. If the person(s) are recognizable, a photo release is needed especially in vulnerable populations such as children, providers or clients in clinical situations, or persons identified as belonging to special behavioral groups (e.g., criminals, drug users/abusers, victims, etc.). Another category that does not require photo release forms are people in public places such a crowds at public events or public figures in public places such as political figures or celebrities. It is recommended that educators seek additional information on journalistic photography websites, such as National Press Photographers Association (2011), and within your school or organization to sufficiently cover ethics with your students.

## **Creating and Implementing a FotoFeedback Project**

FotoFeedback can be used for a wide range of topics or project questions, which can be student or instructor driven. To date, FotoFeedback has been used to obtain student perspectives on the relationship that they see between health and the arts during a study abroad trip to Italy (Figure 2), student perceptions of a national conference (including strengths, weaknesses/problems, and suggestions for improvement) (Vogelsang, Tornabene, & Versnik Nowak, 2011), student insights on environmental health topics within an

<Name of School>  
<Department>  
<Street Address, City, STATE Zip Code>  
<Phone Number>

**<Title of FotoFeedback Project>**

**Editorial Photography Subject Consent and Release Form**

By signing this form, I hereby grant to <Name of School> the right to create via photography or other means, and the right to reproduce, display, and disseminate worldwide and in perpetuity, in any traditional or electronic media format, such photographs or other image of my likeness as shown in the photographs described below. Furthermore, I grant <Name of School> and other organizations allowed by <Name of School> the unconditional rights to use these images, in whole or in part, for non-profit educational or research purposes, or other non-commercial use without requiring <Name of School> to notify me, seek my permission, or owe any form of compensation. I understand that these images will be used in an appropriate and respectful manner. I confirm that these images were taken with my knowledge and consent.

**Photo Subject 1**

(Name of Person in Photo)  Child Under 18

(optional) Yes, <Name of School> has permission to use my name in corresponding captions or text that appear with my image.

(Signature)  Parent/Guardian     Literate Witness    \_\_\_\_\_ (Date)

**Photo Subject 2**

(Name of Person in Photo)  Child Under 18

(optional) Yes, <Name of School> has permission to use my name in corresponding captions or text that appear with my image.

(Signature)  Parent/Guardian     Literate Witness    \_\_\_\_\_ (Date)

**Photo Subject 3**

(Name of Person in Photo)  Child Under 18

(optional) Yes, <Name of School> has permission to use my name in corresponding captions or text that appear with my image.

(Signature)  Parent/Guardian     Literate Witness    \_\_\_\_\_ (Date)

Photographer's Name:  
Notes:

Used with permission and modified from Bloomberg School of Public Health (<http://www.photoshare.org/phototips/developethics.php>).

**Figure 1. Sample editorial photography subject consent and release form.**

environmental health course (Figure 3), and students participation in an outdoor stress management activity for a health/wellness course.

Student's narrative:

*"I decided to take a trip to the basement where years and years of junk has piled up collecting dust. I found some pretty cool hidden treasures that could be used in many different ways. I realized that I did not have to go to a thrift store to find my junk because it was right in front of me. I wanted to take some of this stuff and junk it, but when I came up from the basement, my grandpa was not too happy. What I saw as an opportunity to reuse old cool junk, he saw as me taking away some of his "treasures," even though he hadn't touched some of them for years!"*



### Sculpture

- In Italy, fountains were sculpted and erected to celebrate clean water and health. Today, these structures still stand and are a beauty to marvel at. These stood out to me because they truly are unique in every way. Each facial expression portrays a different emotion and a different story that illustrates the importance of healthy and clean water for a community.

**Figure 2. Example of a student's photo and narrative, submitted via PowerPoint, for a FotoFeedback project involving making connections between art and health during a study abroad program in Italy.**

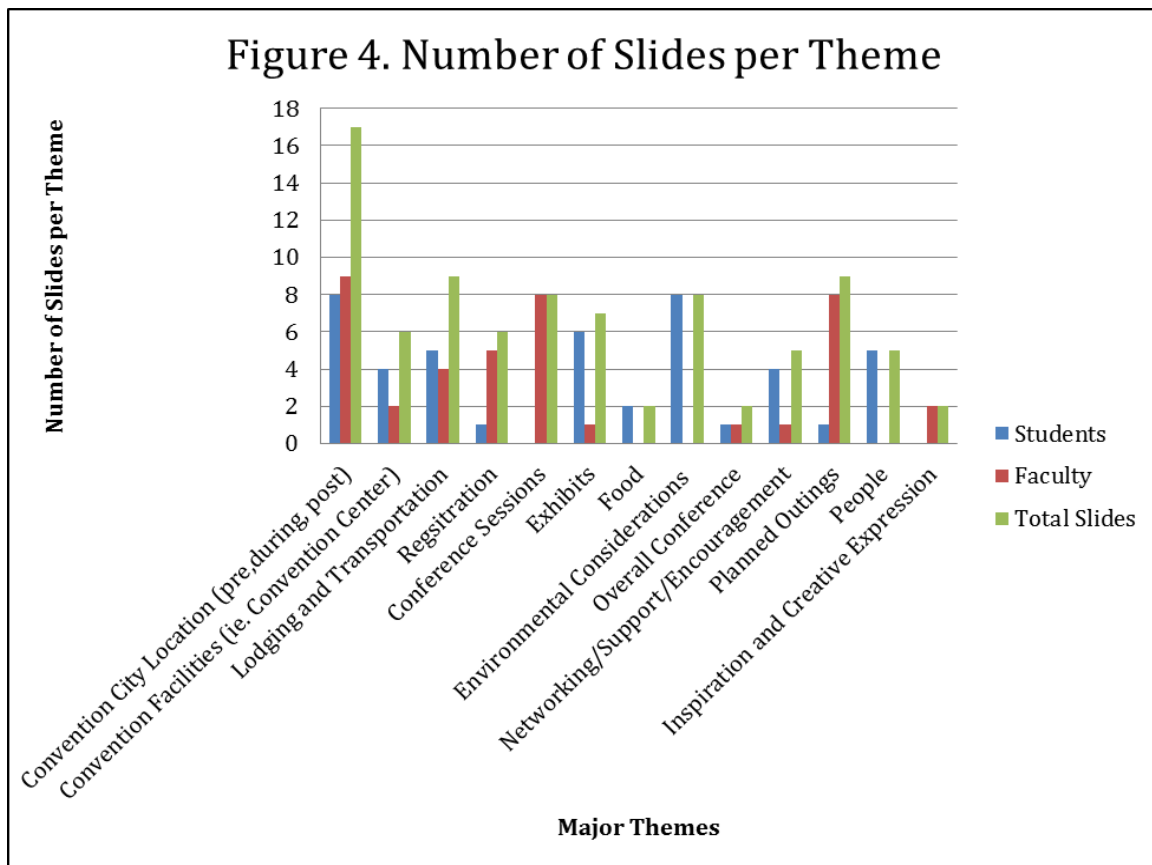


**Figure 3. Example of a student's photos and narrative, submitted via a blog, for a FotoFeedback project in an environmental health course.**

*So, with a little convincing and an extra big smile, I will try to persuade my grandpa into letting me use some of these hidden treasures.”*

Once a topic and/or questions are provided to the students, they are asked to photograph their experience or perspective and include a narrative of some sort that reflects upon what the subjects in photos mean to them. Narratives can include meaning, knowledge, story, evaluation, and many other content related to the focus or question being addressed. Students may or may not share their photos and narratives with each other. Photos and narratives can be submitted to the instructor in whatever print or electronic format is preferable to the students and/or instructor. Options include PowerPoint, blog, Microsoft Word, private Facebook page, etc.

After the instructor collects all the photos and narratives, he/she can review them for themes that arise. Figure 4 provides an example of themes that arose when using the FotoFeedback Method to assess perceived strengths and weakness of a national convention.



**Figure 4. Example of themes arising from FotoFeedback project involving attending a national convention (Vogelsang, Tornabene, & Versnik Nowak, 2011).**



Students reflected upon various aspects of the conference, which provided the instructors insight regarding students' experiences at the convention.

Information derived from the FotoFeedback Method can be used as a gauge for the depth and breadth of learning that students are experiencing and any gaps in the knowledge that the instructor needs to address. As the instructor, reflecting on these findings involves setting oneself inside the students' visual worlds. It allows for reflection on the instructor's teaching, appropriateness of learning methods, and a deeper understanding of students' current abilities and limitations. The instructor can use the information gained through this reflective process to improve course methods, course delivery, and learning experiences for students.

## Conclusion

The FotoFeedback Method is an emerging data-collection tool that was created from various other methodologies (Photovoice, Photo Elicitation Interview (PEI), Participant Authored Audiovisual Stories (PAAS), and hermeneutic photography), which have all been used before in the health field as well as other disciplines for many years. The FotoFeedback Method affords flexibility that can help the Millennial generation increase their reflective learning capacities as it embraces their multi-media learning style. Furthermore, certain characteristics that are innate to the nature of photography are also innate to Millennials, making this methodology a natural fit for this generation. The tremendous flexibility of the FotoFeedback Method empowers instructors to seek feedback on various topics or experiences from their student's viewpoints while simultaneously empowering the students toward deeper learning.

## References

- Banks, M. (2001). *Visual method in social research*. Thousand Oaks: Sage.
- Barthes, R., & Howard, R. (1980) *Camera lucida: Reflections on photography*. NY: Hill & Wang.
- Boyd, E. M., & Fales, A. W. (1983). Reflective learning: Key to learning from experience. *Journal of Humanistic Psychology*, 23(2), 99-117.  
doi: 10.1177/0022167883232011
- Collier, Jr., J., & Collier, M. (1986). *Visual Anthropology Photography as a Research Method*. Mexico, University of New Mexico Press.
- Epstein, I., Stevens, B., McKeever, P., & Baruchel, S. (2006). Photo elicitation interview (PEI): Using photos to elicit children's perspectives. *International Journal of Qualitative Methods*, 5(3), 1-9.
- Global Health Council. (2006). Global Health Council's photography contest. Retrieved from [http://globalhealth.org/conference/view\\_top.php3?id=642](http://globalhealth.org/conference/view_top.php3?id=642)
- Grimm, T., & Grimm, M. (2004). *The basic book of photography: The classic guide 2004 edition*. NY: Plume.
- Hagedorn, M. (1994). Hermeneutic photography: an innovative esthetic technique for generating data in nursing research. *Advanced Nursing Science*, 17(1), 44-50.

- Hagedorn, MI. (1996). Photography: an aesthetic technique for nursing inquiry. *Issues in Mental Health Nursing*, 17(6), 517-527.
- Howe, N., & Strauss, W. (2003). *Millennials go to college*. Life Course Associates. Retrieved from <http://students.rice.edu/images/students/AADV/OWeek2008AADVResources/Characteristics%20of%20the%20Millennial%20Generation.pdf>
- Humboldt State University: Center for Excellence in Teaching and Learning. (n.d.). Meeting the needs of the millennial generation students. Retrieved from [http://www.humboldt.edu/celt/topics/meeting\\_the\\_needs\\_of\\_millennial\\_generation\\_students/](http://www.humboldt.edu/celt/topics/meeting_the_needs_of_millennial_generation_students/)
- International League of Conservation Photographers. (2011). Mission statement. Retrieved from <http://www.ilcp.com/>
- Johnson, J. (2009). Defining reflection in student affairs: A new culture of approach. *The Vermont Connection*, 30, 87-97. Retrieved from <http://www.uvm.edu/~vtconn/v30/Johnson.pdf>
- LA Times. (May 10, 2009). SOS for the GOP: The Republican Party ignores young 'millennials' at its peril. Retrieved from <http://articles.latimes.com/2009/may/10/opinion/oe-winograd-hais10>
- Leyden, P., Teixeira, R., & Greenberg, E. (June 20, 2007). The progressive politics of the millennial generation. Retrieved from *New Politics Institute*: [http://newpolitics.net/node/360?full\\_report=1](http://newpolitics.net/node/360?full_report=1)
- MacKie, T. (2003). *Photos with Impact*. UK: A David and Charles Book.
- Miller, H. (2009). Engaging students: Using space as a tool to connect with millennials. Retrieved from [http://www.hermanmiller.com/hm/content/research\\_summaries/pdfs/wp\\_Engaging\\_Students.pdf](http://www.hermanmiller.com/hm/content/research_summaries/pdfs/wp_Engaging_Students.pdf)
- National Press Photographers Association. (2011). NPPA code of ethics. Retrieved from [http://www.nppa.org/professional\\_development/business\\_practices/ethics.html](http://www.nppa.org/professional_development/business_practices/ethics.html)
- Nicholas, A. (2008). Preferred learning methods of the millennial generation. *The International Journal of Learning*, 15(6), 27-34.
- Peterson, B. (2004). *Understanding Exposure: How to Shoot Great Photographs with a Film or Digital Camera* (Updated Edition). NY: Amphoto Books.
- Photoinf.com (n.d.). Basic photographic techniques. Retrieved from [http://photoinf.com/General/NAVY/Photographic\\_composition\\_Balance.htm](http://photoinf.com/General/NAVY/Photographic_composition_Balance.htm)
- Photoshare.org by Knowledge for Health Project (K4Health). Five general ethical principles in developing policies for best practices in development photography. Baltimore, Maryland. Retrieved from <http://www.photoshare.org/phototips/developethics.php>
- Ramella, M., & Olmos, G. (2005). Participant authored audiovisual stories (PAAS): Giving the camera away or giving the camera a way? *Papers in Social Research Methods: Qualitative Series*, 10, 1-24.
- Sontag, S. (1977). *On photography*. Picador: NY.
- Tebow, M. (2008). Reflective learning in adult education. In. Retrieved October 29, 2011, from the *All things adult education wikibook*: [http://adulthoodeducation.wikibook.us/index.php?title=Reflective\\_Learning\\_in\\_Adult\\_Education](http://adulthoodeducation.wikibook.us/index.php?title=Reflective_Learning_in_Adult_Education)

- Vogelsang, L., Tornabene, L., & Versnik Nowak, A. L. (2011). FotoFeedback: Using digital photography and reflective commentary to evaluate the 2009 AAHPERD National Convention (unpublished manuscript).
- Vogelsang, L., Versnik Nowak A. L., & Tornabene L. (2010). FotoFeedback as an assessment methodology. Proceedings from *American Alliance for Health, Physical Education, Recreation and Dance National Convention and Exposition*. Indianapolis, IN: AAHPERD.
- Wang, C.C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8(2),185.
- Wang, C., & Burris, M. A. (1997). Photovoice: concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369-387.
- Wang, C. C., Yi, W. K., Tao, Z.W., & Carovano, K. (1998). Photovoice as a participatory health promotion strategy. *Health Promotion International*, 13(1), 75.
- World Health Organization Global Health Workforce Alliance. (2008). Winners photo contest "Daily Life of a Health Worker." Retrieved from [http://www.who.int/workforcealliance/media/photos/forum2008\\_contest/en/](http://www.who.int/workforcealliance/media/photos/forum2008_contest/en/)