



Introduction

Background

- Past research has demonstrated in a variety of contexts that writing about emotional topics can benefit physical health and general well being (Pennebaker, 1997). These benefits have been associated with particular qualities of the essays, such as use of emotion words.
- Most prior research has used a computer program (LIWC; Pennebaker & Francis, 1996) to assess what aspects of written essays might be associated with such benefits. Global qualities of essays, such as overall organization, have been hypothesized to play a role in the effectiveness of writing interventions, but this has not been reliably tested (Graybeal, Sexton & Pennebaker, 2002).
- Scoring rubrics, which use explicitly defined scoring criteria, are commonly used in the field of education to score global aspects of student writing (Moskal, 2000). Such rubrics had never, to our knowledge, been used to score essays in a writing study, but could be a useful tool for assessing global writing qualities.

Rationale

- The current study used a sub-sample of essays from a larger research project on trauma, writing and health (Freyd, Klest & Allard, in press) to develop a global rating rubric for essays about trauma.
- We hypothesized that a reliable rubric could be developed, and that global ratings would be associated with symptom improvements following writing.

Method

Participants

- 25 Women and 15 Men with chronic pain and/or health problems
- 27 White, 6 Native American, 3 Hispanic, 1 Black, 3 no response
- Years of formal education: 8 – 20 (8th grade to PhD) (*Median* = 13, *M* = 13.94, *SD* = 2.63)

Assessments

- **Mental Health Symptoms** assessed with time-bound* version of the *Trauma Symptom Checklist 40*, (TSC40; Briere & Runtz, 1989)
- **Physical Health Symptoms** assessed with time-bound* version of the *Pennebaker Inventory of Limbic Languidness* (PILL; Pennebaker 1982)
 - *time-bound* indicates participants were instructed to report frequency of symptoms experienced during the past month
- **Writing Instructions** asked participants to write about the most traumatic interpersonal event or series of events they had experienced (*adapted from Pennebaker, 1994*)
- **Essay Content** assessed using *Global Ratings of Essays About Trauma* (GREAT; Klest & Freyd, in preparation)

Procedures

- **Data Collection** occurred as part of a larger study of the effects of writing on health (Freyd, Klest & Allard, in press).
 - Participants were assessed for physical and mental health symptoms at baseline
 - Participants wrote on three occasions, 1 week apart, about the most traumatic interpersonal event they had experienced
 - Symptoms were re-assessed 6 months later

- **GREAT Code Development** modeled after rubrics used to assess student writing (IGAP, 1993; Language arts, 1997; Scoring guides, 2000; Official scoring guide, 2002). Scored 3 dimensions of trauma essays: Organization, Topic, and Voice (see definitions in figure 3).

- **Essay Coding:** Each essay was coded by two independent raters using the GREAT code. Raters were trained to criterion reliability levels ($\alpha > .70$).

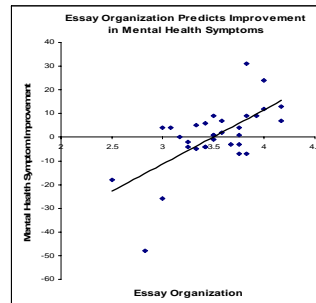


Figure 1. Association between essay organization as assessed by the GREAT code, and mental health symptom improvement six months after writing

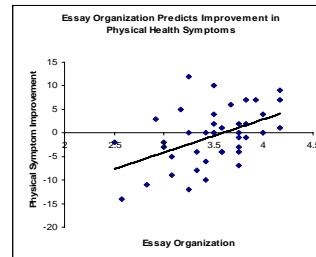


Figure 2. Association between essay organization as assessed by the GREAT code, and physical health symptom improvement six months after writing

GREAT coding dimensions

Organization: Does the essay tell a story with a clear beginning, middle and end? How clearly does the writer transition between ideas?

Topic: How well did the writer follow instructions for what to write about?

Voice: Does the writer speak to the reader, making the essay personal as opposed to generic?

Figure 3. General descriptions of the three global qualities of essays assessed by the Global Rating of Essays About Trauma (GREAT) code.

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Descriptives

Table 1. Descriptive statistics for GREAT coding and symptom measures (N = 40)

	Minimum	Maximum	Mean	Std. Dev.
Organization	2.50	4.17	3.49	.41
Topic	2.92	4.83	3.72	.45
Voice	2.33	5.00	3.61	.61
PILL Change	-14.00	12.00	-0.70	6.15
TSC Change	-65.00	31.00	-1.44	17.34

Analysis

Inter-Rater Reliability: Alpha coefficients for single ratings ranged from .68 to .89, and alphas for averages between two ratings ranged from .81 to .94, indicating high levels of inter-rater reliability.

Global Rating Relation to Symptom Change: Regression analyses were conducted between average essay ratings and symptom changes, controlling for education level and gender. Organization scores were significantly related to both physical and mental health symptom changes such that better organization scores predicted more symptom improvement. Topic and Voice were not significantly related to symptom changes.

Table 2. Associations between GREAT coding and symptom changes (N = 40, **p < .01)

	PILL	TSC
Organization	$R^2 = .25^{**}$	$R^2 = .26^{**}$
Topic	$R^2 = .05$	$R^2 = .05$
Voice	$R^2 = .06$	$R^2 = .05$

Discussion

- Reliable global coding of trauma essays is possible using the GREAT code
- Essay organization appears to predict the health benefits of writing
- Organizing one's thoughts and feelings around a traumatic event may play a key role in the effectiveness of the writing intervention paradigm. This is consistent with a number of theoretical perspectives (see Pennebaker, 1997).
- However, no causal inferences can be made as organization was not experimentally manipulated in this study.
- Future research on writing interventions should further investigate the relationship between essay organization and symptom improvement.
- The GREAT code may prove to be a useful tool in such investigations.

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