

Purpose/Background Information

Flow represents a concept to denote absorbing experiences, when one is totally involved in the task at hand, and when the task challenges the user but does not overwhelm (Jackson, et al. 2010). The concepts of Flow are influenced by the fundamentals of positive psychology (Csikszentmihalyi, 2008). The influence of positive psychology is noted increasingly in the disability and rehabilitation literature (Dunn & Brody 2008; Holland, 2007). The concept of Flow has been applied to a wide range of settings, including work/employment (Bauman & Scheffer, 2010; Csikszentmihalyi & Csikszentmihalyi 1988), website building and online experience (Sicilia & Ruiz, 2007), and elite athletic training (Jackson, et al., 2010).

Participation and Aphasia

A clinical philosophy known as the Life Participation Approach to Aphasia (LPAA), (Chapey, et al., 2001) calls for “a broadening and refocusing of clinical practice and research on the consequences of aphasia” (pg 235). As a result of the LPAA project group (Chapey et al., 2001) and the philosophy espoused, there is a growing emphasis on the SLP’s role in not just addressing the language aspect of aphasia recovery, but also in addressing the life effects of aphasia – that is, the impact of aphasia on an individual’s participation in meaningful life activities. This comprehensive, holistic approach to aphasia meshes well with the concepts of the World Health Organization’s (WHO) International Classification of Functioning (ICF) (Howe, 2008; Simmons-Mackie, 2007).

Critical in the findings of Dalemans et al. (2010) is the concept that the degree of engagement is more important than the quantity or number of activities in which one is engaged. However, measuring quality of engagement is a difficult task. Engagement, like Flow, is subjective, difficult to quantify, and highly variable. Measuring the quality of engagement among individuals with aphasia is made more difficult by the language impairment that is the essence of the diagnosis.

Flow and Aphasia

The concept of Flow and Aphasia is rarely discussed in the speech-language pathology literature. Aphasiologist Dr. Jon Lyon, is one who has discussed using Flow concepts with people with aphasia (Lyon, et al., 1997, Lyon, 1998).

Although linguistic factors may complicate the use of the Flow concept with individuals with aphasia, Csikszentmihalyi has written that “the original account of the flow state has proven robust – with the experience reported in similar terms across the lines of class, gender, and age as well as across cultures and activities” (Csikszentmihalyi & Nakamura, 2005). Lyon (2000) writes that “Flow, no matter how diminished one’s skills, is not out of reach” (p. 157). Therefore it would appear reasonable to extrapolate that individuals with aphasia can indeed experience Flow and that the Flow state is a valuable, meaningful state of being.

Subject Recruitment

The current study involved eight participants with aphasia who participated in an Aphasia Camp.

Inclusion criteria for this study include individuals with mild to moderate aphasia as measured by a score of four or more on the ASHA NOMS Expressive and Receptive Language. Etiology of aphasia was secondary to a cerebrovascular event. Traumatic and cancerous/benign tumor etiologies were excluded.

Research Procedures

Methods of Data Collection

Short Flow State Scale (S-FSS) flow data were collected for each participant after individual camp activities.

Instrumentation

The nine-item Short Flow State Scale (S-FSS) (Jackson et al., 2010) has been modified by this researcher to be presented in an aphasia-friendly format and allow for completion using compensatory techniques (Appendix A) A single sentence formed with simple syntax has been added for each item on the scales to further clarify the Flow concept while still maintaining the integrity of the survey. These additional single sentences were developed by the researchers and reviewed by an expert aphasiologist familiar with the Flow concept.

Methodology

Design

This is a cross-sectional descriptive study of Flow experienced by people with aphasia within a supported environment at a rural aphasia camp. Participants completed the S-FSS (Jackson, et al., 2010) with communication support as necessary following completion of each task activity. Due to logistical challenges not all data points were able to be gathered.

Results:

A total of eight participants completed the S-FSS on a total of 38 camp activities. Descriptive statistics for mean S-FSS score by question are presented in Table 1. Results displayed in Table 2 indicate the frequency with which camp activities were rated by participants.

Mean Flow State Score for each participant is displayed in Figure 1 while overall combined mean S-FSS score for all campers is displayed in Table 3.

In order to gain a greater perspective of individual Flow perceptions and Flow ratings, each Participant's responses are displayed based on S-FSS question and activity being rated. An example of Participant 6 (Figure 3) and Participant 8 (Figure 4) responses are displayed. Jackson (2010), in the Flow State Scale Manual, presents very preliminary data regarding S-FSS scores in a variety of activity. She is very clear that the data she presents are "in no way random or representative, and thus should be regarded as descriptive" (Jackson, 2010). Her S-FSS data (gathered from participants without identified language disorders) are presented in Table 4:

For comparative purposes, data from this study is presented in Table 5::

Discussion:

The concept of Flow has been studied primarily in psychology literature and athletic training literature. However, the value of Flow as both a conceptual framework to approach engagement in management of PWA, as well as the utilization of Flow concepts from a methodological standpoint, appears to bear merit.

Results of this current study indicate that individuals with aphasia show preliminary abilities to discern among Flow characteristics as evidenced by variability within responses on the S-FSS. There is both within-participant variation as well as between-participant variation. Within-participant variation is evidenced in the degree of differences in response based on question and activity. Additionally, between-participant variation was observed, ranging from 4.0 to 4.98.

Although data presented by Jackson is clearly identified as non-randomized data for descriptive purposes only, it is noted that participants in this current study demonstrated a higher mean S-FSS score. This difference may be reflective in part of the Camp environment. Further Flow discussion and analysis may be beneficial in the planning and implementation phases of the aphasia camp, as well as in discussion of Environmental Factors and their potential contribution to the Flow experience.

Conclusion: This descriptive study is a first step in a closer analysis of the utility of the concept of Flow in the population of individuals with aphasia. There is a call from academia and aphasiologists to focus not just on the resumption of activity, but rather to focus on the resumption of activity that is productive and engaging to the individual, and with an increased emphasis on the quality of the participation. Oftentimes quantifying and qualifying such engagement is difficult. The concept of Flow may be beneficial and critical in moving towards an emphasis and measurement of engagement and quality of engagement in aphasia rehabilitation. An awareness of Flow and the Flow experience may additionally assist as a means to better understand the impact of Environmental Factors within the lives of PWA. A greater understanding of how individuals with aphasia perceive concepts of Flow may assist in maximizing quality life participation.

Table 1 – Mean responses from all participants for each S-FSS Question

	N	Minimum	Maximum	Mean	Std. Deviation
Q1 Competent to meet demands	38	1.00	5.00	4.30	1.06
Q2 Spontaneous	38	2.00	5.00	4.39	.92
Q3 Strong sense to do	38	3.00	5.00	4.63	.67
Q4 Good idea how well	38	1.00	5.00	4.42	.92
Q5 Focused	38	3.00	5.00	4.71	.61
Q6 Total Control	38	1.00	5.00	4.08	1.05
Q7 Not worried others	38	4.00	5.00	4.79	.41
Q8 Time passed differently	38	2.00	5.00	4.55	.76
Q9 Rewarding	38	2.00	5.00	4.76	.63

Table 2 – Response frequency by camp activity

Activity	Frequency	Percent
Aphasia Information	5	10.4%
Geocaching	1	2.1
Golf	2	4.2
Minute to win It	7	14.6
Photography	2	4.2
Prayer	3	6.3
Tech	3	6.3
Wii	2	4.2
Woodworking	1	2.1
Yoga	2	4.2
Archery	3	6.3
Biking	2	4.2
Boating	4	8.3
Crafts	5	10.4
Canoeing	2	4.2
Field games	2	4.2
Fishing Clinic	2	4.2
Total	48	100

Table 3 – Mean Short-Flow State Scale based on all participants

	N	Min	Max	Mean	SD
Aphasia Camp Activity	38	1	5	4.52	.78#

Table 4 – Flow State Scale data - Jackson, 2010

	N	Min	Max	Mean	SD
Sport Activity	359	1.22	5	3.68	.55
Exercise Activity	246	1.56	5	3.88	.56
Yoga	185	2.56	4.89	3.85	.45

Data from Jackson, 2010 – Note notation above that data are in no way random nor representative and thus should be regarded as descriptive.

Table 5 – Mean Short-Flow State Scale based on all participants

	N	Min	Max	Mean	SD
Aphasia Camp Activity	38	1	5	4.52	.78

**Figure 1 - Mean Overall Flow State Score
Score Between All Participants**

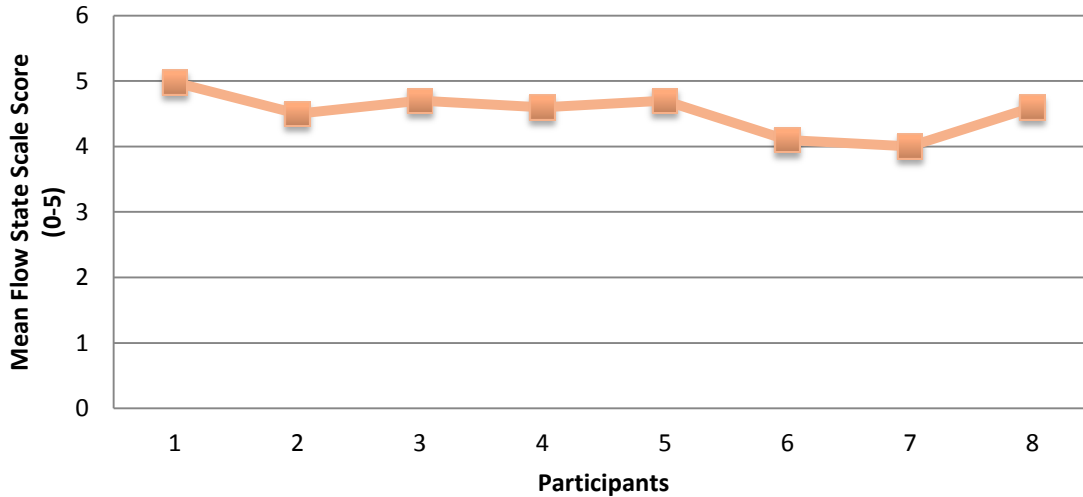


Figure 3

**Short-Flow State Scale Responses for each Camp
Activity - Participant 6**

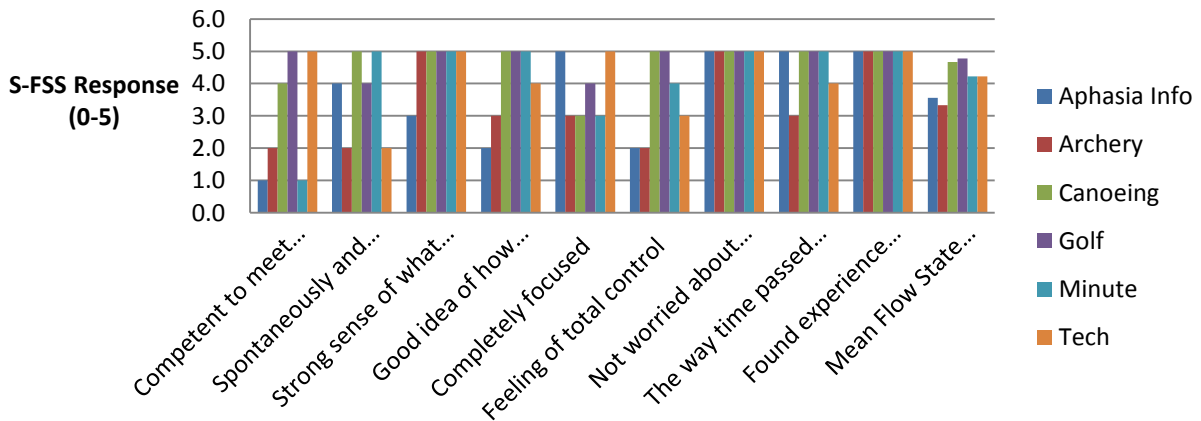
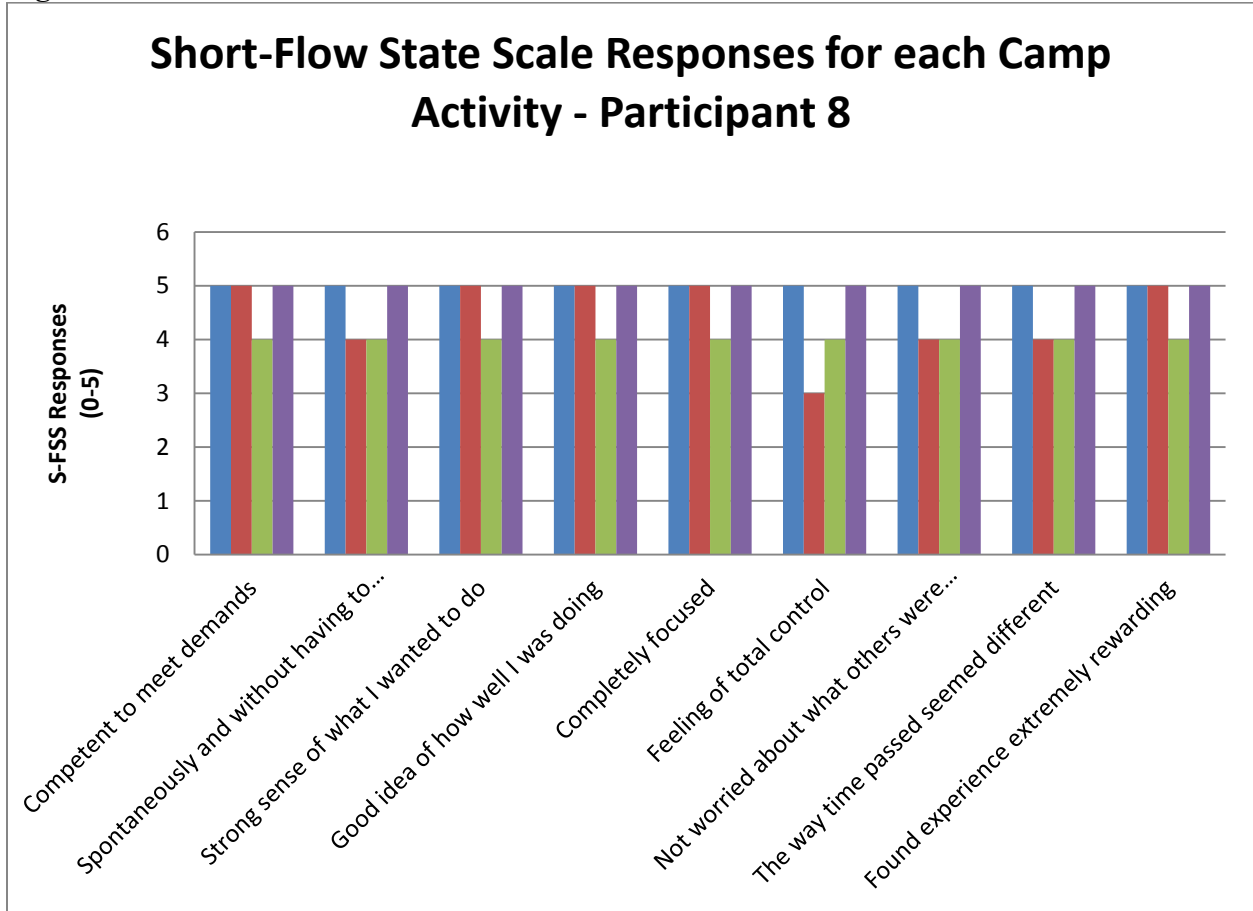


Figure 4



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Appendix A: Questionnaire – Short Flow State Scale (S-FSS) (Jackson, et al., 2010)

In order to maximize comprehension, each of the original questions on the S-FSS will be provided along with a single sentence of further clarification.

	Original S-FSS Statement	Clarification Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	I felt I was competent enough to meet the demands of the situation.	I felt able.	1	2	3	4	5
2	I did things spontaneously and without having to think.	I just did it	1	2	3	4	5

3	I had a strong sense of what I wanted to do.	I knew what I wanted.	1	2	3	4	5
4	I had a good idea about how well I was doing while I was involved in the task/activity.	I knew how I was doing	1	2	3	4	5
5	I was completely focused on the task at hand.	I was focused.	1	2	3	4	5
6	I had a feeling of total control over what I was doing.	I was in total control.	1	2	3	4	5
7	I was not worried about what others may have been thinking of me.	I didn't care what others thought.	1	2	3	4	5
8	The way time passed seemed to be different from normal.	Time passed differently.	1	2	3	4	5
9	I found the experience extremely rewarding.	It was rewarding	1	2	3	4	5