

Mind Wandering in Relation to the Academic Performance of the Grade Six Learners of Marawi Central Elementary Pilot School

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ABSTRACT

This study aimed to determine the relation of mind wandering in the academic performance of the Grade six learners of Marawi Central Elementary Pilot School during the school year 2015-2016. This study determined the respondent's extent of mind wandering, their performance to the on the task activity, their reasons why are their mind wandering during on the task as well as the relationship between their extent of mind wandering and their performance on their activity. Using the qualitative and quantitative research design, the researchers employed a survey questionnaire and a follow up interview. It was revealed that the extent of Grade six learners of Marawi Central Elementary Pilot School was few times during the on the task activity.

It was showed also that the performance of the learners was just okay. In addition, the result of the interview showed that majority of them were mind wandering. It can be concluded that mind wandering is an internally generated private experience, its frequency can't be manipulated. After a thorough analysis, it is suggested that the learners should be aware of their mind wandering during any educational performance because this mind wandering has a negative impact in their educational performance especially in reading comprehension. Teachers should use an effective strategy to aid and reduce the occurrence of mind wandering within their classroom not only in reading. Researchers are recommended to conduct a study that could meditate the occurrence of mind wandering for a useful technique in reducing mind wandering.

Keywords: *mind wandering, academic performance, task activity*

INTRODUCTION

We often experience that our mind suddenly drifted into daydreaming, rumination or planning and that is a common experience that we are familiar with but this can refer to us as mind wandering. We experienced mind wandering every day especially during our academic hours and we are not aware that this has a negative impact in our educational performance especially during reading comprehension. Actually, it reached percent in our waking thoughts that can be classified as mind wandering. It occurred automatically in which we fail to pay attention in our current or primary task.

The prevalence of mind wandering may be an unrecognized influence on human behavior and performance in a variety of areas, such as education. For instance, mind wandering while reading impairs comprehension of the text, which may have important implications in education (Smallwood, Fishman, & Schooler, 2007). This can be particularly problematic in academic contexts where success requires sustained

attention to course content, as students must integrate information from external sources (e.g., from a lecture, text book, or class discussion) with ongoing internal representations and reactions that may or may not be related to academic learning (i.e., thoughts, memories, and emotions; Smallwood et al., 2007a). It has been linked to poor outcomes in a wide range of tasks, such as those common in education.

Failing to pay attention to a task, when the goal is to stay focused on the task, is often detrimental to one's cognitive performance. Considering that the process of mind wandering tends to occur automatically, we are typically unaware that we have lapsed into non-goal related thoughts. If we could reduce the frequency of mind wandering, it is feasible that we could enhance both our ability to concentrate and our task performance.

Hence, the researchers as future researchers, decided to conduct this study to determine the relation of mind wandering in the academic performance. The researchers believe that this study could benefits the learners for they will know the relation of mind wandering in their academic performance especially in the reading comprehension.

Theoretical Framework

The Current Concerns Theory as stated by Klinger (2009) as cited by Tsukahara J.S. (2014) that daydreaming and mind wandering occur when there is a discrepancy between a current state and unresolved goal. He indicated that the persistence of current concerns is continuous and automatic. Additionally, one's current concerns may be automatically triggered by salient cues either in the environment or by other internal processes such as memories and will form the content of mind wandering thoughts.

Another theory anchored in this study is Ironic Processing Theory. According to Wegner (1994) Ironic Processing Theory, in certain circumstances a working memory load can in fact be detrimental to our attempts to remain on task. In the context of tasks with a narrative, such as reading, it appears that our experience is held by features of the task which interest us rather than those which are simply difficult to complete. As Grodsky and Giambra (1989) demonstrated that mind-wandering during reading was predicted by interest in text rather than difficulty to follow. Difficult expository texts, while requiring effort, do not lead to absorption and so attention is maintained on the task through our own vigilance.

Conceptual Framework

The conceptual framework of the study encompasses of determining the respondent's extent of mind wandering, their performance, the reasons and the relation of mind wandering in the academic performance of the Grade six learners of Marawi Central Elementary Pilot School.

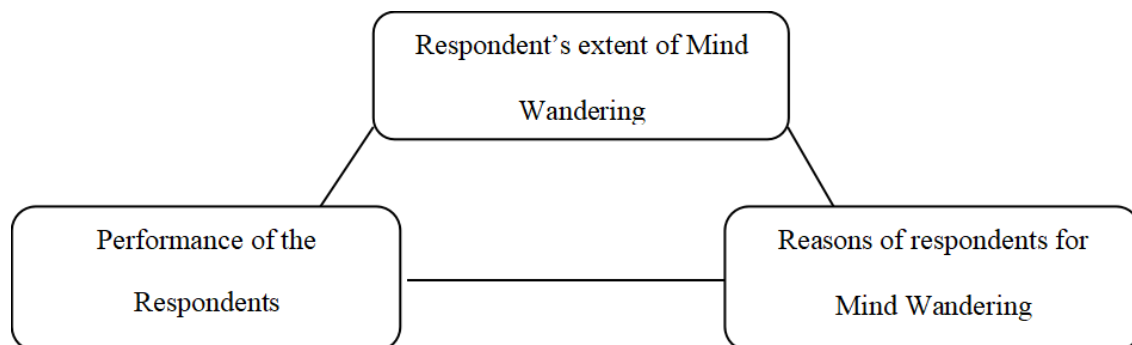


Figure 1. Schematic Diagram of the Conceptual Framework of the Study.

Statement of the Problem

This research study aims to determine the relation of mind wandering in the academic performance of the Grade six learners of the Marawi Central Elementary Pilot School. Specifically, it seeks to answer the following questions:

1. What extent do the respondents do mind wandering during the on-task activity?
2. What is the performance of the respondents on the task activity?
3. Why do the respondents do mind wandering during the task?
4. Is there a relationship between respondents' extent of mind wandering and their performance on their activity?

Literature Review

Mind wandering is a universal phenomenon that has only recently gained popularity in psychology. It is a type of meta-consciousness characterized by unintentional shifts in attention away from a primary task towards internal information (Smallwood, Baracaia, Lowe, & Obonsawin, 2003; Smallwood, Obonsawin, & Heim, 2003). Mind wandering, in practice, is characterized by having attended to something external (e.g. a video) but having no recollection of the information of the external event. Under normal circumstances, external information (e.g., words on a textbook page) would be processed and coupled with one's internal representations and schemas (i.e., psychological concepts of learning and memory). It is unknown as to what triggers the decoupling process of mind wandering and why it is a universal phenomenon that everyone experiences at some point in time.

Mind wandering can be particularly problematic in academic contexts where success requires sustained attention to course content, as students must integrate information from external sources (e.g., from a lecture, text book, or class discussion) with ongoing internal representations and reactions that may or may not be related to academic learning (i.e., thoughts, memories, and emotions; Smallwood et al., 2007a). Indeed, mind wandering has been demonstrated to impair memory for lecture material (Lindquist and McLean 2011; Farleyetal.,2013). Accordingly, providing an education *par excellence* may require training students in strategies to help them reduce mind wandering the service of learning.

Smallwood and Schooler (2016) cited that Schooler, Reichle, Halpern (2004) that one of the most significant aspects of mind wandering is its relevance to everyday experience. Many everyday activities may be vulnerable to the effects of mind wandering. The experience is costly in educational contexts because it can profoundly undermine reading comprehension such as attending to lectures (Szpunar et al. 2013a), and even test taking (Mrazek et al. 2012a).

Related Studies

Tredwell's study (2012) entitled "How Specific Attention to Mind Wandering Affects Reading Comprehension" aims to find out why and how mind wandering affects reading behaviors and reading comprehension, and what strategies, if any, could be used to counteract the negative effects of mind wandering while reading. It was participated by faculty and supervisory staff members from New Jersey City University plus one unemployed businesswoman. The participants were seven women ranging in age from late twenties to early sixties. There were four Caucasian women, two African American women, and one Puerto Rican woman. This study used a paper surveys (Post-Assessment Survey sample), paper readings (reading sample), verbal thought probes (Thought-Probe Log sample), paper mind-wandering logs (Mind-Wandering Log sample), and personal interviews with participants. The results from this study would indicate that not all mind wandering is detrimental. If readers are aware of mentally straying from the text, they have the opportunity to get back on track and comprehend successfully. If, however, readers are unaware of mentally straying from the text, then mind wandering continues and the reader fails to

comprehend meaning. Clarity of mind, no matter where it's going, seems to translate to better reading comprehension.

Feng and D'Mello (2013) entitled *Mind wandering while reading easy and difficult texts* had the primary goal to examine the relation between mind wandering and task difficulty in a high-level cognitive task, namely reading comprehension of standardized texts. The participants of this study were the 80 undergraduate students from a large U.S University. Participants read easy or difficult versions of eight passages and then answered comprehension questions after reading each of the passages. This study used experimental instruction and passage were presented on a computer monitors. They hypothesized that reading comprehension may yield a different relation between mind wandering and task difficulty but consistent with their hypothesis, mind wandering occurred more frequently when participants read difficult rather than easy texts. However, they concluded that mind wandering had a more negative influence on comprehension for the difficult texts.

Smallwood, Fishman and Schooler (2007) have considered the role that mind wandering plays in education. According to them mind wandering represents a state of decoupled attention because, instead of processing information from the external environment, our attention is directed toward our own private thoughts and feelings. In principle, because mind wandering is a state of decoupled attention, it represents a fundamental breakdown in the individual's ability to attend (and therefore integrate) information from the external environment. They consider evidence that mind wandering impairs the encoding of information, leading to failures in building a propositional model of a sentence and, ultimately, impairing the building of a narrative model with sufficient detail to allow generating inferences. Next, because recognizing and correcting for mind wandering is a metacognitive skill, certain client groups, such as those suffering from dysphoria or attention deficit disorder, may be unable to correct for the deficits associated with mind wandering, and so may suffer greater negative consequences during education.

METHODS

Research Design

This study used a qualitative and quantitative research design. It dealt to what extent the respondents' do they mind wander, their performance regarding with the task and their reasons. The study aimed to determine the relation of mind wandering in the academic performance of the Grade six learners.

Research Locale

The study was conducted at Marawi Central Elementary Pilot School. This intuition was selected due to the accessibility to the researchers. Marawi Central Elementary Pilot School is located at Moncado Colony, Marawi City in the island of Mindanao.

Respondents of the Study

The respondents of this study were the 29 pupils of Grade six learners in Marawi Central Elementary Pilot School during the school year 2015-2016.

Research Instrumentation

The instrument used by the researchers was adapted from the study of Hickey (2013). The questionnaire used was concerned with the kinds of thoughts that go through people's heads at particular times, for example while they are doing some task or activity. Each statement has scale 1-5 responses to choose from, each of this has a corresponding descriptive equivalent: 5 = very often, 4 = often, 3 = a few times, 2 = once, 1 = never.

Data Gathering Procedure

The researchers gave a task in which the learners read an article entitled “Benefits of the K to 12 curriculums for Filipino students” after they read the article, we distributed a thinking content questionnaire to the learners and then the participants did a comprehension test regarding with the article and then the researchers proceeded with an interview. Regarding with the comprehension test, there were six of the respondents whom the researchers interviewed, three from those who passed and three from those failed.

RESULTS AND DISCUSSION

Table 1. Extent that the respondents that do Mind Wandering during on task activity

	Weighted Mean	Standard Deviation	Interpretation
1. I thought about how I should work more carefully.	3.0	.926	Few times
2. I thought about how much time I had left.	2.5	.871	Once
3. I thought about how others have done on this task.	3.00	.964	Few times
4. I thought about the difficulty of the problems.	2.8	.966	Few times
5. I thought about my level of ability.	3.00	.886	Few times
6. I thought about the purpose of the experiment.	2.5	1.184	Once
7. I thought about how I would feel if I were told how I performed.	3.1	.884	Few times
8. I thought about how I often I get confused.	3.0	1.210	Few times
9. I thought about member of my family.	3.90	1.205	Often
10. I thought about something that made me feel guilty.	2.7	.897	Few times
11. I thought about personal worries	2.9	1.329	Few times
12. I thought about something that made me feel angry.	3.1	1.067	Few times
13. I thought about something that happened earlier today.	2.6	1.088	Once
14. I thought about something that happened in the past. (last few days, but not today)	2.9	1.217	Few times
15. I thought about something that happened in the distant past.	2.4	1.147	Once
16. I thought about something that might happen in the future.	3.2	1.146	Few times
Over all mean	2.91	1.061	Few times

Scaling: 1.0-2.8 = “Never”
 1.9-2.6 = “Once”
 2.7-3.4 = “Few times”
 3.5-4.2 = “Often”
 4.3-5.0 = “Very often”

Table 1 shows the extent of the respondents in doing the task activity. It shows that the respondents once thought about how much time had left purpose of the experiment and something that happened earlier today and in the distant past. Few times the respondents thought about how should they work more carefully, how others done on this task, how they feel if they were told how they performed, how often they get confused, something that happened in the recent past and might happen in the future, something that made them guilty and angry, personal worries, difficulty of the problems and level of ability. Often times the respondents thought about the members of the family.

It also shows that it has the overall mean of 2.91 with a standard deviation of 1.061. It means that the respondents are few times doing mind wandering. This implies that they engaged at times in mind wandering when thinking of their concerns. Accordingly, Wegner (1994) Ironic Processing Theory, in certain circumstances a working memory load can in fact be detrimental to our attempts to remain on task. In the context of tasks with a narrative, such as reading, it appears that our experience is held by features of the task which interest us rather than those which are simply difficult to complete. As Grodsky and Giambra (1989) demonstrated that mind-wandering during reading was predicted by interest in text rather

than difficulty to follow. Difficult expository texts, while requiring effort, do not lead to absorption and so attention is maintained on the task through our own vigilance.

Most of the researchers suggested that this mind wandering is a future oriented task in which the person may their mind wanders during a task. As this mind wandering constitutes as much 50% of our waking thoughts (Killingsworth and Gilbert 2010). But with the result of our study, it was revealed that the respondent's extent of mind wandering was a few times which means that the respondents were not mind wandering often and not very often during the task.

Since we ought that the result would also like the others researcher's findings that human being is always mind wandering. Looking onto the responses of the respondents, they were less mind wandering during the task that we have given and most of its result is below five, which means that some of the respondents were not mind wandering at all. Mind wandering is an internally generated private experience so each of us cannot manipulate its frequency. As (Smallwood and Schooler 2006) Mind wandering should be less likely to occur when the primary task is demanding and more likely to occur when the task is simple or automatic. This means that perhaps why some of the respondents showed that they were less prone to mind wandering during the task was that for them it was a demanding task.

Table 2. *Performance of the respondents on the task activity*

Variable	Mean	Std. Deviation	Interpretation
Performance of the activity	5.28	2.548	Just okay

Scoring:

- 1-3 try again
- 4-6 just okay
- 7-9 impressive
- 10-12 you made it

Table 2 displays the performance of the Grade VI Learners of the Marawi Central Elementary Pilot School on the activity. It shows that it has a mean value of 5.28 with a standard deviation of 2.548. It implies that the performance of the respondents of the respondents on the activity is just okay. Just okay means that some ideas that the respondents constructed are related, organized and committed 11 to 20 errors. Looking onto the result of the finding in the respondents' performance to the task activity, it means that they have a poor comprehension, mind wandering has an influence to poor reading comprehension (Smallwood et al 2008 and Reichle et al 2010) and poor encoding of material into a long-term memory (Smallwood et al 2003). Even participants are engaged in simple signal detection tasks, mind wandering has been associated with poor performance (Antrobus, 1968; Giambra, 1995; Smallwood, Davies, et al., 2004). In fact, even though individuals are engaged in highly demanding task such as reading or taking an important test, the mind still exhibits its peculiar tendency to wander off.

Table 3. *Relationship between the respondents' extent of mind wandering and their performance on their activity*

Variable	Somer's d value	P value	Interpretation
Respondents' extent of mind wandering performance of the activity	0.177	0.370	Not significant

Table 3 shows the relationship between the respondents' extent of mind wandering and the performance on the activity. Somer's d coefficient is used for examining the relationship of two ordinal variables. If the P value is less than 0.05, it implies that there is relationship between two variables. Otherwise, there is no relationship between the two variables. The result shows that it has Somers'D value of 0.177 with a P value of 0.370 which is greater than 0.05. It implies that there is no relationship between the respondents' extent of mind wandering and the performance on the activity.

Mind wandering related deficits in performance have been observed in many contexts, most notably reading, tests of sustained attention, and tests of aptitude. Mind wandering has been shown to negatively impact reading comprehension and model building, impair the ability to withhold automatized responses, and disrupt performance on tests of working memory and intelligence (Mooneyham and Schooler 2011).

An interview was conducted with six samples of pupils which are consisted of three pupils who were passed and three failed pupils from the comprehension test that we have given. The interviewees were being selected according to their performance on the task activity.

The interviews with pupils were consisted of thirteen questions and they were asked individually. Interviewees' age is 11 to 12 years old.

Based on the responses of the respondents, researchers concluded that mind wandering could become detrimental in learning situation of external information such as reading comprehension is no longer processed because attention has unconsciously shifted off task such as personal matters. In addition to that during our interview we found out that this mind wandering could relieve boredom.

Moreover, mind wandering is not simply a harmless daydreaming but it hinders reading speed, reading fluency and reading comprehension which could have a negative impact in the educational setting of the learners. Such as Dixon & Bortolussi 2013; Feng et al. 2013; Franklin et al. 2011; Jackson & Balota 2012; McVay & Kane 2011; Schooler et al. 2004; Smallwood et al. 2008c, 2013a; Unsworth & McMillan 2013, Farley et al. 2013, Szpunar et al. 2013, found out in their study that mind wandering impairs comprehension during reading and during lectures.

In relation to the academic performance of the respondents in their 1st grading up to 3rd grading, some of them have a 1 failing subject, 2 failing subject and 4 failing subjects. (Bagley et al 2012) In educational setting, if students engage in mind wandering during important points throughout a class, they may not be a.) Encoding information presented to them b.) Be able to cognitively balance the competing demands of class and off-task mind wandering. Both of these scenarios would be to reduce student learning and performance on subsequent assessments of learning. Mind wandering has been associated with poor performance (Antrobus 1968, Giambra 1995 and Smallwood et al 2004).

CONCLUSION

Based on the findings of the study, the researchers came up with the following conclusion. With the result revealed, the researchers concluded that there was no significant relationship between respondents' extent of mind wandering and their performance on their activity. The researchers concluded that those learners were not focused while reading the article that given to them due to the different reasons that bothered in their minds just like that every time they read for instance when reading neither for fun nor for school, they were few times mind wandering because some of the interviewee gets bored on what they read but not often times. They have different answers because according to them they are putting their selves where they were comfortable so that they could focus on what they are reading, some of them it depends if the context they were reading is interesting and entertaining they won't experience mind wandering, they were choosing the reading materials that they won't experience mind wandering so that they could learn something, their reading speed also matters because each of them reads slow, moderate and fast so that in that way they could understand what they were reading and when they notice that they were mind wandering when they read they refocus again in what they were reading.

Mind wandering is an internally generated private experience so its frequency can't be manipulated. Thus, the researchers generally conclude that mind wandering happened on every one while doing some task or activity. Mind wandering is important in education it follows from the fact that some often catch their mind wandering so they come to realize that for some time despite the intent to pay attention to awareness, has been directed to their own thoughts and feelings. Additionally, most of the learners got poor performance during the reading comprehension activity because of not comprehending the written text. By

that, they didn't pass the criteria of the passing score. Mind wandering has been associated with poor performance.

Recommendations

School Administrators. They may implement mindfulness meditation training, where it could reduce the mind wandering since mind wandering is an under recognized influence on educational performance. As others researchers suggest that mindfulness may be the antidote to mind wandering.

Elementary teachers. As facilitators of learning, they may be aware of giving a task especially in reading, they must give a task in which the pupils won't find boredom because that would be the start of their attention lapses on the primary task and their attention will be directed toward their own private thoughts and feelings. Knowing the mind wandering is necessary for developing useful strategies to aid Teachers in reducing the occurrence of mind wandering within their classroom not only in reading. They may design more effective learning environment and consequently improve student performance.

Pupils. It is recommended that they should be aware of their mind wandering during any educational performance because they may not notice that this mind wandering has a negative impact in their educational performance especially in reading. It is recommended for them that they should train their selves to develop their reading comprehension to focus on the primary task.

Future researchers. Specifically, to the future teachers must conduct research that could possibly remedy the occurrence the mind wandering or a meditation that could be a useful technique for reducing mind wandering. It is encouraged that more research should be conducted regarding with this topic.

References

- Baird B., Smallwood J, Mrazek, M. D., Kam, J. W., Franklin, M.S., Schooler, J.W. (2012). Inspired by distraction: mind wandering facilitates creative incubation. *Psychological science*, 23(10)1117-1122. Retrieved from <http://centenary.edu/attachments/psychology/journal/archive/2013septjournalclub.pdf>
- Baird B., Smallwood, J., Schooler, J. W. (2011). Back to the future: autobiographical planning and the functionality of mind-wandering. *Consciousness and Cognition*, 20, 1604-1611. https://labs.psych.ucsb.edu/schooler/jonathan/sites/abs.psych.ucsb.edu.schooler.jonathan/files/pubs/back_to_the_future.pdf
- Christoff, K., Gordon, A. M., Smallwood, J., Smith, R., Schooler, W. (2009). Experience sampling during fMRI reveals default network and executive system contributions to mind wandering. *PNAS*, 106, 8719-8724. <https://pnas.org/content/1-6/21/8719.full.pdf>
- Corballis, Michael C. (2012). The wandering mind: mental time travel, theory of mind, and language. http://analisesocial.ics.ul.pt/documentos/AS_205_d02.pdf
- Darbor, K. E. (2010). Individual differences in creativity: how different processes and mind-wandering influence performance. *Published Thesis, University of Michigan*.
- Franklin, M. S., Smallwood, J., Schooler J. W. (2011). Catching the mind in flight: using behavioral indices to detect mindless reading in real time. *Psychonomic Bulliten Rev*. <https://labs.psych.ucsb.edu/schooler/jonathant/sites/labs.psych.ucsb.edu.schooler.jonathan/files/pubs/mind-in-flight.pdf>
- Forster S, Lavie N. 2014. Distracted by your mind? Individual differences in distractibility predict mind wandering. *J. Exp. Psychol.: Learn. Mem. Cogn*. 40:251-60
- He, J. 2010) Identify mind wandering behind the wheel. *Published Thesis, University of Illinois at Urbana-Champaign*. <https://core.ac.uk/download/pdf/4826874.pdf>
- Hickey, J. (2013). Mind wandering, memory and mood. *Published Thesis, University College London*. http://discovery.ucl.ac.uk/1405811/1/1/Joseph_Hickey_Thesis_DClinPsy_Voll_redacted.
- Hoogland, A. I. (2011). Mindfulness meditation and mind wandering. *Published Thesis, Wake Forest University Graduate School of Arts and Sciences*. https://wakespace.lib.wfu.edu/bitstream/handle/10339/36438/Hoogland_wfu_0248M_10_215.pdf

- Kane, M. J., McVay, J. C. (2012). What mind wandering reveal about executive control abilities and failures. *Current distractions in psychological science*, 21(5)348-354.
- Kane, M. J., Brown, L. H., McVay, J. C., Silvia, P. J., Myin-Germeys, I. and Kwapil, T. R. (2007). For whom the mind wanders, and when. *Psychological Science*, 18(7), 614–622.
- Mooneyham, B. W., Schooler, J. W. (2013). The costs and benefits of mind-wandering: a review. *Canadian Journal of Experimental Psychology*, 67 (1), 11-18.
<http://apa.org/pubs/journals/features/cep-a0031569.pdf>
- Morrison, A. B., Goolsarran, M., Rogers S. L., and Jha, A. P. (2014). Taming a wandering attention: short-form mindfulness training in students' cohorts. *Frontiers in human neuroscience* 7, 879.
http://amishi.com/lab/wpcontent/uploads/Morrison_TamingAWanderingAttention_2014
- Mrazek, M. D., Chin J. M., Schmader T., Hartson, K. A., Smallwood J., Schooler, J. W. (2011). Threatened to distraction: mind wandering as consequence of stereotype threat. *Journal of Experimental Social Psychology*, 47, 1243-1248.
- Mrazek M, D., Smallwood. J., Franklin M. S., Chin J. M., Baird. B, Schooler, J. W. (2012). The role of mind wandering in measurements of general aptitude. *Journal of Experimental Psychology: General*, 141 (4), 788-798 https://researchgate.net/profile/Benjamin_Baird/publication/223981321_The_Role_of_Mind-Wandering_in_Measurements_of_General_Aptitude/links/53dec60b0cf2a76fb668032b.pdf
- Oettingen, G., Schworer, B. (2013). Mind wandering via mental contrasting as a tool for behavior change. *Frontiers in Psychology* 4, 562. http://psych.nyu.edu/oettingen/oettingen_schworer_2013.pdf
- Schooler, J. W, Mrazek, M. D., Franklin, M. S., Baird, B., Mooneyham, B. W., Zedelius, C., et al. (2014) The Middle Way: Finding the balance between mindfulness and mind-wandering. In B.H. Ross (Ed) *The Psychology of Learning and Motivation*, 60, 1-33.
https://labs.psych.ucsb.edu/schooler/jonathan/sites/labs.psych.ucsb.edu.schooler.jonathan/files/pubs/middle_way.pdf
- Schooler, J.W., Smallwood, J., Christoff, K., Handy, T. C., Reichle, E. D., Sayette M. A. (2011). Meta-awareness, perceptual decoupling and the wandering mind. *Trends in cognitive sciences*, 15(7), 319-326
http://christofflab.ca/pdfs/Schooler_TICS.pdf
- Smallwood, J. (2013). Distinguishing how from why the mind wanders: a process-occurrence framework for self-generated mental activity. *Psychological bulletin*, 139 (3), 519-535. <http://doi.org/10.1037/a0030010>
- Smallwood, J., Hanna, J. A. (2013). Not all minds that wander are lost: the importance of a balanced perspective on the mind wandering state. *Frontiers in Psychology* 4.
http://pubman.mpg.de/pubman/item/escidoc:1834531/component/escidoc:2084765/Smallwood_NotAllMind.pdf
- Smallwood, J., Fishman, D. J., Schooler, J. W. (2007). Counting the cost of an absent mind: mind wandering as an unrecognized influence on educational performance. *Psychonomic bulletin and review*, 14 (2), 230-236
<http://link.springer.com/article/10.3758/BF03194057>
- Smallwood, J., Obonsawin, M., Heim D. (2003). Task unrelated thought: the role of distributed processing. *Consciousness and Cognition*, 12, 169–189.
<https://themindwanders.files.wordpress.com/2010/09/task-unrelated-thought-the-role-of-distributed-processing.pdf>
- Smallwood, J., McSpadden M., Schooler, J. W. (2008). When attention matters: the curious incident of the wandering mind. *Memory and Cognition*, 36 (6), 1144-1150
<https://themindwanders.files.wordpress.com/2010/09/when-attention-matters-memory-cognition.pdf>
- Smallwood, J., Schooler, J. W. (2006). The restless mind. *Psychological bulletin* 132(6), 946-958. <https://lifeboat.com/papers/jonathan.w.schooler.the.restless.mind.pdf>
- Thomson, D. R., Besner D., Smilek D. (2013). In pursuit of off-task thought: mind wandering performance trade-offs while reading aloud and color naming. *Frontiers in psychology*, 4, 360.
- Torberger, F. (2014). Mind wandering: a human condition. University of Skovde.
<http://diva-portal.se/smash/get/diva2:771600/FULLTEXT01.pdf>
- Tsukahara J.S. (2014). The role of working memory resources in mind wandering: The difference between working memory capacity and working memory load. Published Thesis, California State University. <http://sholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article%3Farticle%3Detd>
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101, 34–52.

[http://wexler.free.fr/library/files/wegner%2520\(1994\)%2520ironic%2520processes%2520of%2520mental%2520control.pdf](http://wexler.free.fr/library/files/wegner%2520(1994)%2520ironic%2520processes%2520of%2520mental%2520control.pdf)