The <u>problem statement</u> should tell a story from beginning to end. The reader should be able to understand **the problem with no prior knowledge** of the subject and without having read any other sections of the dissertation.

# LETTER OF INTENT (QUANTITATIVE SAMPLE)

### **PROBLEM STATEMENT**

Introduce the problem by first providing some general background information.

Attention deficit hyperactivity disorder (ADHD) impacts the lives of roughly 11% of children in the United States (Department of Health and Human Services, 2017), and these students face challenges in the public-school setting (Frankel & Feinberg, 2002; Shaughnessy & Waggoner, 2015). Symptoms of inattention and impulsivity, which are characteristic of ADHD, have the potential to negatively influence the experiences of these children in a school setting (American Psychiatric Association [APA], 2017). However, teachers receive limited training on classroom management techniques to support students with behavioral, emotional, and psychological issues (Johansen, Little, & Atkin-Little, 2011). When examining teachers' knowledge of ADHD classroom management, Alkahtani (2013) found that more than 18% of teachers incorrectly agreed that punishment is the most beneficial treatment to minimize ADHD symptoms, while nearly 75% of teachers surveyed did not know whether punishment was an appropriate or inappropriate intervention. The general problem is that educators are ill-prepared to manage the behaviors of students with ADHD, resulting in disparate treatment for these students (Sullivan, Van Norman & Klingbeil, 2014). The misconceptions about students with ADHD contribute to stereotypes that influence the interaction between teachers and students leading to higher rates of discipline and expulsion among students with ADHD (Iselin, 2010).

Next, support the problem by adding one sentence (or a few) that addresses the impact or adversity of the stated general problem.

After sharing background information, draft the general problem using this formula: The general problem is \_\_\_\_\_ resulting in \_\_\_\_\_ (in the second blank include the negative consequences of the problem). After adding a supporting sentence(s) that addresses the impact of the adversity, state the **specific problem** using this formula: *The specific problem is \_\_\_\_\_resulting in\_\_\_\_\_(in this second blank include the negative consequences of the problem).* 

The specific problem is that teachers often have stereotypical perceptions of students with ADHD, resulting in preconceived

expectations of how students with ADHD will behave and subsequent negative educational outcomes for these students (Youssef,

Hutchinson, & Youssef, 2015). A study involving more than 11,000 learning disabled students revealed that students' behaviors

were influenced by the expectations of their teachers (Shifrer, 2013). Examining the impact of teacher participation in an ADHD

professional development program could provide information to public school administrators about the value of investing in the

PURPOSE STATEMENT

training of teachers to support students with ADHD to improve academic and social outcomes.

In your statement of purpose, clearly (but briefly) articulate the focus, methodology, population, and geographic location of the study. Begin this section with *"The purpose of this [insert type of study] study is to...."*  problem, and conclude with a sentence that summarizes the importance of addressing the problem as a whole.

Include 1-3 sentences that address the

impact or adversity of the specific

The purpose of the proposed quasi-experimental (pre-test, post-test, control group design) quantitative study will be to examine the impact of participation in an ADHD professional development program on teachers' perceptions of students with ADHD. Thirty public school teachers in Ohio will complete The Knowledge of Attention Deficit Disorders Scale (KADDS; Sciutto, Terjesen, & Bender, 2000) before and after participation in an ADHD professional development program. Another group of 30 teachers will complete the KADDS assessment but will not participate in the ADHD professional development program. According to Johansen et al. (2011), at least 40% of teacher professional development training focuses on curriculum, while less than 15% of such training typically focus on behavioral management in the classroom. Examining the impact of teacher participation in an ADHD professional development program on their perceptions of students with ADHD could provide valuable information about the effectiveness of such programs in changing teacher perceptions of students with ADHD. This information could be useful to public school administrators who are considering investing in teacher training to improve support for ADHD students, which could, in turn, improve the academic and social outcomes for these students.

# **IMPORTANCE OF STUDY**

Misconceptions and inaccurate information about ADHD contribute to negative stereotypes associated with this condition and can influence the interactions between teachers and students. For example, an ADHD diagnosis may precede the child to the classroom, evoking negative stereotypes even before the teacher meets the student, and thereby impeding future interactions of teachers with students who have ADHD. As result, behaviors may be mishandled or mismanaged by the teacher, contributing to disparate treatment. Studies have revealed that children with ADHD experience higher rates of discipline, including school suspensions and expulsions, than do children without ADHD (Iselin, 2010). The proposed study may lead to information about how to change teacher perceptions of students with ADHD through professional development, thereby improving the classroom experience for students and teachers.

Although research has suggested that teachers have misconceptions about students with ADHD that influence classroom management, there is a gap in the literature as researchers have yet to investigate strategies to change these misconceptions. Because teacher expectations influence student behaviors and outcomes (Shifrer, 2013), it is important to examine if teacher perceptions of students with ADHD can change by participating in a professional development opportunity. This study represents a unique approach, as no researchers have quantitatively examined the impact of professional development on teacher perceptions of students with ADHD.

Note any existing gap(s) in the current research.

State how your study represents a unique approach to the problem.

### **PROPOSED RESEARCH METHOD**

The proposed quasi-experimental design study which will examine the impact of participation in an ADHD professional development program on teachers' perceptions of students with ADHS. Quantitative studies analyze numerical data (Heitner & Sherman, 2014) and help to determine cause and effect relationships. Quasi-experimental research studies are appropriate when intervention and control groups participate in a pre-test, an intervention for the experimental group, and a post-test without randomization (Leedy & Ormrod, 2010). A quantitative research design is the best choice for this study because the purpose is to analyze statistical data to measure the impact of program participation.

A sample of 60 high school teachers within the Ohio public school systems will be selected using a purposive sampling approach and invited to participate in the ADHD professional development program. Thirty high school teachers will represent the intervention group and complete the ADHD professional development program, while a group of 30 teachers who do not participate in the development program will represent the control group. Teachers from the intervention and control groups will complete The Knowledge of Attention Deficit Disorder Scale (KADDS; Sciutto, Terjesen, & Bender, 2000) as a pre-test prior to the professional development program. Members of the intervention group will then participate in an eight-hour professional development training program on classroom strategies for supporting students with ADHD. After the training program, members of the experimental and control groups will again complete KADDS as the post-test. Pre-test and post-test scores will be analyzed to examine statistical differences between the intervention and control groups' pre-intervention and post-intervention KADDS scores.

Describe how you will collect and analyze the data.

For quantitative studies, include the research question(s) and the null and alternative hypotheses.

## **RESEARCH QUESTIONS**

The purpose of the proposed quasi-experimental (pre-test, post-test, control group design) quantitative study will be to examine the impact of participation in an ADHD professional development program on teachers' perceptions of students with ADHD. The following research questions and hypotheses will guide this study:

**RQ1**: What difference exists in the perceptions of students with ADHD among teachers in the intervention group following their participation in an ADHD professional development program?

H10: There is no significant difference in the perceptions of students with ADHD among teachers in the intervention group following their participation in an ADHD training program.

H1<sub>a</sub>: There is a significant difference in the perceptions of students with ADHD among teachers in the intervention group following their participation in an ADHD training program.

**RQ2:** What difference exists in the perceptions of students with ADHD among teachers in the control group following a period of time equivalent to an ADHD professional development program?

**H20:** There is no significant difference in the perceptions of students with ADHD among teachers in the control group following a period of time equivalent to an ADHD professional development program.

 $H2_a$ : There is a significant difference in the perceptions of students with ADHD among teachers in the control group following a period of time equivalent to an ADHD professional development program.

Note that all research questions are phrased grammatically as questions. **RQ3:** What difference exists in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group before the ADHD professional development program?

H3<sub>0</sub>: There is no significant difference in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group before the ADHD professional development program.

- H3<sub>a</sub>: There is a significant difference in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group before the ADHD professional development program.
- **RQ4:** What difference exists in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group after the ADHD professional development program?

**H4**<sub>0</sub>: There is no significant difference in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group after the ADHD professional development program.

H4<sub>a</sub>: There is a significant difference in perceptions of students with ADHD between teachers in the intervention group and teachers in the control group after the ADHD professional development program.

#### References

- Alkahtani, K. D. F. (2013). Teachers' knowledge and misconceptions of attention deficit/hyperactivity disorder. *Psychology*, 4(12), 963-969.
- American Psychiatric Association. (2017). Attention deficit/hyperactivity disorder. Retrieved from www.dsm5.org/documents/adhd%20fact%20sheet.pdf
- Frankel, F., & Feinberg, D. (2002). Social problems associated with ADHD vs. ODD in children referred for friendship problems. *Child Psychiatry and Human Development, 33*(2), 125-146.
- Heitner, K. L., & Sherman, K. C. (2014). Dissertation field guide. San Diego, CA: Bridgepoint Education.
- Iselin, A. (2010). Research on school suspension. *Center for Child and Family Policy at Duke University*. Retrieved from https://childandfamilypolicy.duke.edu/pdfs/familyimpact/2010/Suspension\_Research\_Brief\_2010-04-27.pdf
- Johansen, A., Little, S. G., & Akin-Little, A. (2011). An examination of New Zealand teachers' attributions and perceptions of behaviour, classroom management, and the level of formal teacher training received in behavior management. *Kairaranga*, *12*(2), 3-12.
- Leedy, P. D. & Ormrod, J. E. (2010). Practical research: Planning and design. Upper Saddle River, NJ: Pearson.
- Shaughnessy, M. F., & Waggoner, C.R. (2015). The educational Implication of ADHD: Teachers and principals thought concerning students with ADHD. *Creative Education*, *6*, 215 -233.

- Shifrer, D. (2013). Stigma of a label: Educational expectations for high school students labeled with learning disabilities. *Journal of Health and Social Behavior*, *54*(4), 462-480.
- Soroa, M., Gorostiaga, A., & Balluerka, N. (2013). Review of tools used for assessing teachers' level of knowledge with regards attention deficit hyperactivity disorder (ADHD). In S. Banerjee (Ed.), *Attention Deficit Hyperactivity Disorder in children and adolescents* (pp. 151 177). http://dx.doi.org/10.5772/50252
- Sullivan, A. L., Van Norman, E. R., & Klingbeil, D. A. (2014). Exclusionary discipline of students with disabilities: Student and school characteristics predicting suspension. *Remedial & Special Education*, *35*(4), 199-210. doi:10.1177/0741932513519825

Department of Health and Human Services. (2017). Attention-deficit / hyperactivity disorder (ADHD). Retrieved

from https://www.cdc.gov/ncbddd/adhd/data.html

Youssef, M. K., Hutchinson, G., & Youssef, F. F. (2015). Knowledge of and attitudes toward ADHD among teachers: Insights from a Caribbean nation. *SAGE Open*, *5*, 1-8. doi: 10.1177/2158244014566761