

Jawaban e-mail dari Carl J. Wenning

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Hi Candra,

I'll answer your questions to the best of my ability. Some of your questions appear to be about one of my articles; others appear to be about the Journal of Physics Teacher Education Online that I publish:

1. why do you take a literature study in this journal?

Literature review is a critical part of writing journal articles; indeed, it is critical to any type of research. The purpose of research and writing is to expand on what is known and to avoid duplicating needless work or making needless mistakes. It is difficult to expand the frontiers of scientific knowledge is one always starts from the beginning each time. We must take advantage of what is already known.

2. actually, what kind of research do you use in your journal?

JPTE explains that on its web page. See <http://www.phy.ilstu.edu/jpteo/jpteo5.html>

Quite a wide range of *pedagogical* and *philosophical* subject matter is acceptable for publication. The main criterion for inclusion is that an article be in some way directly and broadly connected to the preparation of high school and/or middle school physics teacher candidates. *Journal of Physics Teacher Education Online* is not a forum for publishing general Physics Education Research (PER). Nonetheless, a PER-based article will be considered if it uses primarily teacher candidates as subjects in the study. **NOT** suitable for publication in *JPTEO* are articles that deal narrowly with physics subject matter. Such articles are more suitable for publications in journals like [AAPT's The Physics Teacher](#), *Physics Education*, or the *American Journal of Physics*.

Journal of Physics Teacher Education Online is a practice-oriented journal, roughly analogous to *The Physics Teacher* but aimed at physics teacher education. *JPTEO* will include articles

about professional development for in-service teachers, broad-based science teacher preparation, and will include physical science education. Articles relating to physical science teacher education as well as physics teacher education (grades 6-12) would be most apropos.

Any of the subject areas below would constitute material suitable for publication in *JPEO*.

- Editorials
- Letters to the Editor
- Teaching Philosophies
- Instructional Models
- Program Overviews
- Course Overviews
- Model Lesson Plans (e.g., Inquiry, Modeling Method, PBL, Peer Instruction, etc.)
- Continuing Professional Development
- Clinical Experiences
- Assessment Rubrics
- Program Development Approaches (e.g., Report of Action Research)
- Announcements
- Features (What makes this program work?, etc.)
- Online Resources (e.g., NAS, AAAS, NRC, and DOE books; AAPT resources)
- Program Accreditation
- Promote partnerships of various sorts (e.g., HS/University, University/University, etc.)
- Grant information
- Surveys and findings
- Reviews of pertinent articles and books
- Updates from special PTE-related programs (e.g., PhysTEC, Modeling Method, etc.)
- News pertaining to PTE majors (e.g., meetings, scholarships, competitions, awards, etc.)

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3. is there any another journal that connected with this journal? if there any, what does the title?

No, JPTEO is not connected in any official way with any other journal.

4. can I get the password for the example of NOSLit questions?

Sure, it is: ISUPTE

5. to whom does the research in this journal for?

JPTEO explains this on its web page. See <http://www.phy.ilstu.edu/jpteo/jpteo7.html>

The primary audience of *Journal of Physics Teacher Education Online* are teacher educators -- those individuals working at universities or high schools who are actively engaged in the education of teacher candidates, and even the teacher candidates themselves. It is also for university faculty or commercial concerns who might be involved in the on-going professional development of in-service high school physics teachers. Even though these educators are intended to be the primary audience, anyone with an interest in the subject matter of this publication are most welcome to subscribe, reflect on the contents of Journal, and provide additional insights.

The readership of JPTEO might include any or all of the following:

- Coordinators of PTE and physical science teacher education programs
- High School teachers providing clinical or student teaching experiences.
- University faculty teaching within PTE programs
- Teacher candidates within PTE programs
- PhysTEC members

- High school and middle school physics teachers
- NSTA program reviewers
- Departmental chairpersons
- Physics Education Research faculty
- AAPT membership generally
- Pre-service physics teachers.
- Teacher educators in other sciences.
- Teacher candidates in other sciences.
- Employers of teachers.

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6. how does the procedure of NOSLit test?

Procedures for administering the NOSLit can be found within the following article: [Assessing nature-of-science literacy as one component of scientific literacy](#). Journal of Physics Teacher Education Online, 3(4), Summer 2006, pp. 3-14. See http://www.phy.ilstu.edu/pte/publications/assessing_NOS.pdf

Glad to be of help. Feel free to write me again if you have any more questions.

Carl

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Hi Candra,

Here are the answers to your questions as I understand them. I assume that you are asking about my article "Assessing nature of science literacy as one of component of scientific literacy" that appeared in JPTEO.

- what kind of the problem that was examined in this journal ARTICLE?

The problem is described at the beginning of the article. In short, we say that the goal of science education is to achieve a certain degree of scientific literacy. Understanding the nature of science is one part of the definition of scientific literacy. Unfortunately, scientific literacy is only vaguely defined. I have defined it for the purpose of creating an assessment instrument. We need some sort of instrument to assess progress toward the goal of achieving scientific literacy. I have created two such instruments, NOSLiT and another called ScInqLiT that measures the progress toward achieving the goal of being able to conduct scientific inquiry as part of the definition of scientific literacy.

- what does the solution from this problem?

That is not addressed in this article, nor am I certain that anyone can agree on the solution. Please see my ScInqLiT article as well – Assessing Scientific Inquiry as a Dimension of Scientific Literacy. In the USA the solution as side to be the focus of the current scientific reform movement is to use inquiry-oriented instruction. That is partly true, but as my NOSLiT article mentions, it is only part of the process.

- what kind of research method/design that was used to?

None as far as the article was concerned. My approach in the article was entirely philosophical. I, of course, did conduct a literature review as part of my study. I used standard (commonly accepted) procedures to develop a standardized test. The procedure is described in some detail in the article itself.

- What kind of analysis technique that you were used?

Again, I used standard procedures for the development of test questions, including looking at difficulty and discriminability.

- what does the shape of the instrument?

I do understand what you mean by this question, but I think what you might want to know is what the instrument looks like. It is a 35-question multiple choice test. You can download and see the test itself. The password is ISUPTE

- is there any journal that connected with this one? in JPTEO?

JPTEO is not affiliated with any other journal.

I hope that these responses help.

Carl

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Hi Candra,

I just leaving town for a trip to another part of the USA, but I'll give you some short responses to your questions:

1. What does the purpose of NOSLiT ?

It is said that the goal of science education is to achieve scientific literacy. One of the components of scientific literacy is understanding the nature of science. NOSLiT is therefore a tool for measuring progress in this area of scientific literacy.

2. Why do you take 354 high school science student and 36 high school physics teacher as a sample for your research about NOSLiT ?

The number was rather arbitrary. One needs a large enough number, however, to conduct the statistics. An $N = 354$ was and $N = 36$ turned out to be convenience samples in the end. I am hoping that others would apply the test and share results.

3. What does the result from NOSLiT ? What is mean ?

As explained in my response to question 1

4. What does the result and resume from your research in your journal "Assessing nature of science literacy as one of component of scientific literacy" ?

I'm not sure what you mean by this question. Can you rephrase it?

5. For exercise NOSLit, which version that I can download ? 1.1 or 1.2?

Only the latest version is available online at <http://www.phy.ilstu.edu/jpteo/noslit.pdf>

The password is ISUPTE