Profile of Prospective Physics Teachers on Assessment Literacy

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Abstract. A study about assessment literacy of prospective Physics teachers was conducted with the involvement of 45 prospective physics teachers. Data collected by using test consisted of seven competencies. The profile of prospective physics teachers on assessment literacy determined in descriptive statistics, in the form of respondent average values. Research finding shows that prospective physics teachers were weak at all competency areas. The average values of the Choosing assessment methods appropriate for instructional decisions is the highest average values and the average values of the communicating assessment results to students, parents, other lay audiences, and other educators is the lowest average values. In depth study to detect the reason underlined the results was still in progress so far, as another aspect was planned to be administered on the next semester.

1. Introduction
The term assessment literacy is not commonly know among educator [1]. A simple definition of assessment literacy refer to an understanding of the principles of sound assessment [2]. Previous inadequacies in teacher training in educational assessment highlight the need for teachers to be assessment literate [3].

Simply put literate assessment means: 1) have knowledge of the content and nature are studied; 2) has knowledge of learners and learning and a desire to help learners develop, improve and do their best; 3) have the skills to choose and make the task of assessment; 4) have knowledge of the criteria and standard assessment tasks are appropriate; 5) have the skills and expertise in analyzing and evaluating the use of assessment information; 6) has expertise in giving feedback that is appropriate to the targeted [4].

Two reasons why the concept of literacy assessment into the limelight lately. First, the standards-based improvements have been made expectations of students to learn more clear and increasing need to measure to determine whether students have reached the learning expectations. Second, literacy assessments into a support for using other forms of assessment are different [5]. Although both the attention on expectations of more formal learning and using alternative assessment has increased the burden on teachers and principles to understand how student learning adequately evaluated and what is supposed to provide the resulting information. This study aimed to identify profile of prospective Physics teachers on assessment literacy.
2. Research Method
This study used a descriptive survey research which involved a total of forty-five prospective physics teachers. The respondents are prospective physics teachers who have passed the course of evaluation of learning. Assessment literacy of prospective physics teacher was collected by using Assessment Literacy Inventory (ALI). The test was adopted and adaptation from Metler [6]. The test consisted of seven competencies, id est. (1) choosing assessment methods appropriate for instructional decisions; (2) developing assessment methods appropriate for instructional decisions; (3) administering, scoring, and interpreting the results of both externally produced and teacher-produced assessment methods; (4) using assessment results when making decisions about individual students, planning instruction, developing curriculum, and improving schools; (5) developing valid student grading procedures; (6) communicating assessment results to students, parents, other lay audiences, and other educators; and (7) recognizing unethical, illegal, and other inappropriate methods and uses of assessment information. The profile of prospective physics teachers on assessment literacy determined in descriptive statistics, in the form of respondent average values.

3. Result and Discussion
The profile of prospective physics teachers on assessment literacy obtained from their response to ALI. Based on responses to seven competencies of ALI, data showing the profile of prospective physics teachers can be seen in Table 1.

| No | Competencies                                                                 | Items               | N   | Minimum | Maximum | Average | Sd   |
|----|------------------------------------------------------------------------------|---------------------|-----|---------|---------|---------|------|
| 1  | Choosing assessment methods appropriate for instructional decisions          | 1,8,15,22,29        | 45  | 0       | 5       | 2.48    | 1.07 |
| 2  | Developing assessment methods appropriate for instructional decisions        | 2,9,16,23,30        | 45  | 0       | 5       | 1.91    | 1.03 |
| 3  | Administering, scoring, and interpreting the results of both externally produced and teacher-produced assessment methods | 3,10,17,24,31       | 45  | 0       | 5       | 2.37    | 0.97 |
| 4  | Using assessment results when making decisions about individual students, planning instruction, developing curriculum, and improving schools | 4,11,18,25,32       | 45  | 0       | 5       | 1.76    | 0.99 |
| 5  | Developing valid student grading procedures                                  | 5,12,19,26,33       | 45  | 0       | 5       | 1.33    | 1.08 |
| 6  | Communicating assessment results to students, parents, other lay audiences, and other educators | 6,13,20,27,34       | 45  | 0       | 5       | 1.26    | 0.95 |
| 7  | Recognizing unethical, illegal, and other                                   | 7,14,21,28,35       | 45  | 0       | 5       | 1.78    | 0.99 |
Table 1. The Profile of Prospective Physics Teachers on Assessment Literacy

| No | Competencies                                      | N  | Minimum | Maximum | Average | Sd  |
|----|---------------------------------------------------|----|---------|---------|---------|-----|
|    | inappropriate methods and uses of assessment information |    |         |         |         |     |
|    | **AVERAGE**                                      |    | 1.84    | 1.01    |         |     |

Table 1 shows that in general the average achievement of literacy assessment of prospective physics teachers is low (1.84/5.00) is still far from the maximum standard. These results indicate that "Literacy assessment of prospective physics teachers is still weak". Prospective physics teachers show competence most excellent on competence 1 (M = 2.48 / 5:00) and the lowest in the competence 6 (M = 1.26 / 5:00). This result could be explained by the fact that these prospective physics teachers were surveyed after they have taken their assessment course where they were study varied assessment methods and were provided with the experience to choose assessment methods for assess learning target certainly as requirements in their course. The competence 6 should have been developed by the prospective physics teachers since they had lessons in their course on reporting assessment data. The participants are still prospective teachers, so they have had no hands-on experience in applying the lessons they had for this area of competency.

Results of this study are generally in line with the previous finding [7]. It was also found that prospective teachers are weak on competency 6, communicating assessment results to students, parents, other lay audiences, and other educators. Thus a need to continue to develop the competence of student teachers of physics in the seventh literacy competency assessment.

4. Summary

Literacy assessment of prospective physics teacher is still weak in every literacy competency assessment. Of the overall competence, competence chooses the method of assessment is the most excellent competencies possessed by prospective physics teachers. While communicating competency assessment results to students, parents, educators and lay audience are the weakest competence controlled by prospective physics teacher. The achievement of literacy assessment of prospective physics teachers results of this study should be used as input to the education of prospective teachers of physics in developing the literacy assessment in educational programs at the university.

5. References

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