

Reflective Thinking Assessment Among Doctor of Physical Therapist(DPT) Students at Riphah International University

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ABSTRACT

Background: Reflection is the Latin origins means to turn back or to bend. Reflection in the educational context can be considered as a process in which thoughts are 'turned back' so that they can be interpreted or analyzed. The trigger to this sense-making process is usually an event or situation and the outcome of the process is increased understanding or awareness.

Objectives: The objective of this study is to assess the reflective thinking among doctor of physical therapy students (DPT) at Riphah international university.

Methodology: This observational cross-sectional study was done at Riphah international university Lahore and was compiled at RCRS Lahore. Study was completed in 6 months after approval of synopsis. Non probability, convenience sampling was used. Sample size was calculated to be 120. The response rate was 95%. Questionnaire for reflective thinking was used to find out the level of thinking in DPT students.

Results: There was significant difference within each semester and between first to eight semesters. But differences were not increases or decreases gradually. According to data collected from different students at Riphah international university the value of habitual behavior is 0.00 which is significant, value of understanding value is also 0.00, value of reflection is 0.005 and value of critical reflection is also significant 0.000.

Conclusion: Current study found that reflective thinking can be develop by individuals but guided reflection with a supervisor or mentor is important so that it will gradually increases from 1st to 8th semester.

Keywords: Assessment QRT, reflective thinking, critical reflection, habitual behavior, understanding.

INTRODUCTION

Reflection means to turn back or to bend. In educational context reflection can be considered as a process in which thoughts are 'turned back' so that they can be interpreted or analyzed. It is a sense-making process is usually an event or situation and the outcome of the process is increased understanding or awareness. Reflective thinking is essential for students learning. (1) Reflective Thinking simple means that deep learning. Reflection can develop personal, professional growth and meaningful change. (2) Reflection is an under way task and its value depends upon redo action, reflection and action. During each action, especially if they are same, there are chances to increase the intelligence of perception. There was proof that reflection was linked with a deeper approach to learning that permitted new learning to be discriminatory with previous awareness and task. (3) First standard of a perfect critical thinker, is that he or she has outstanding benchmark to recollect or recall skills. (4) Another quality that differentiates reflective thinker from other is lexicon. If someone lack vocabulary so they would have difficulty reflecting on their feelings and talking about their emotional states with others. (5) These are some possible purposes of reflective thinking assessment

- Diagnosing the level of student. Giving students feedback. Motivating students.
- Informing teachers about the success of their effort.
- Providing help in deciding whether a student should enter an educational program (6)

A variety of trick or technique has been used to improve thinking.

These techniques are:

- writing tasks (keeping journal)
- fact finding questions
- IPR (Interpersonal Process Recall)
- reflecting teams
- action research(7).

Drawing on Mezirow (1991), Kember et al (2000, p.384) describe understanding as thoughtful action, that makes use of previous knowledge, without attempting to evaluate the knowledge, so learning remains within preexistent means, strategy and panorama. (8) Attentive act can be called as an intellectual process. (9) Scientist point out that reflective thinking covers a broad-range of learning within higher education and

covers all of Bloom's (1956) categories of knowledge ,all-inclusive, demand, inspection and combination. The "understanding" construct comprises "an understanding of a concept without reflecting upon its significance in personal or practical situation(10) .Like Dewey 1938 defines reflection 'an active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends(11).Boud et al. 1985 describe reflection as a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciation.(12)In 2004 Moon define it a form of mental processing with a purpose and/or anticipated outcome that is applied to relatively complex or unstructured ideas for which there is no obvious solution'. (13)

Tom Bourner During 2003"Assessing reflective learning", Education + Training. His main purpose to identify the problem in assessing reflective thinking and also how to tackle them. So, the paper explores the nature of reflective learning and advances the idea that the distinction between "surface" and "deep" learning can be generalized to the domain of reflective learning. It concludes with some implications for the development of reflective learning.(14)

In (2003) Vikki Smith studied at "Raising retention and achievement in work-based learning", Education + Training. This article presents a number of projects, that are particularly innovative, as examples of how providers are looking to improve retention and/or achievement.(15)

MATERIALS AND METHODS:

In current study, cross-sectional study design was used. Study population was the doctor of physical therapy students from Riphah international university. Duration of study was completed in four months' time. Sample size was 196 physical therapy students. All the students of DPT from Riphah international university Lahore were included in current study who were willing to participate. All students other than Riphah university and students who participated other than DPT program were excluded from current study. Non-probability convenience sampling technique was used. Riphah international university ethical committee's clearance was obtained before research conduction. Informed consent was taken from study participants. An instrument with four scales, each of which has four contributing items was used. The four scales or

constructs measured are habitual action, understanding, reflection and critical reflection. Each question is computed score 1-5. minimum score means 1 for definitely disagree and maximum means 5 for definitely agree. definitely agree was scored as 5. Q1, Q5, Q9, Q13 comes under the heading of habitual action, Q2, Q6, Q10, Q14 comes under understanding, reflection contain Q3, Q7, Q11, Q15 and critical reflection contain Q4, Q8, Q12, Q16. Hence, the minimum total scores for each four scales could range from 5 (definitely disagree) to maximum total score 20 (definitely agree). The version of the questionnaire completed by the students did not include the scale headings nor separate the items into the scale groupings. Items appeared in the order given by the item numbers. After the collection of data descriptive analysis was done with the help of statistical package for social sciences version 16 (SPSS 16). main findings of the study were described by using compare means (ANOVA).

RESULTS

SPSS 16 was used for data analysis. finding was reported with descriptive statistics and compare means. All data were collected in the form of questionnaire and tabulated values are given.

Table 1: Age

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
18	4	3.9	3.9	3.9
19	8	7.8	7.8	11.7
20	14	13.6	13.6	25.2
21	20	19.4	19.4	44.7
22	22	21.4	21.4	66.0
23	28	27.2	27.2	93.2
24	7	6.8	6.8	100.0
Total	103	100.0	100.0	

Frequency of participants in each group is described in table 1, (3.9%) 4 students in age group 18, in 19 age group 8(7.8%), in 20 age group 14(13.6%), 20 participant was 21 age group (19.4%) , 22 age group 22(21.4%), 23 age group 28(27.2%) and 7(6.8) were in 24 age group.

Table 2: Semester

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1st semester	8	7.8	7.8	7.8
2nd semester	17	16.5	16.5	24.3
3rd semester	22	21.4	21.4	45.6
4th semester	10	9.7	9.7	55.3
5th semester	8	7.8	7.8	63.1
6th semester	8	7.8	7.8	70.9
7th semester	10	9.7	9.7	80.6
8th semester	20	19.4	19.4	100.0
Total	103	100.0	100.0	

Table 3: When I am working on some activities, I can do them without thinking about what I am doing

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
definitely disagree	31	30.1	30.1	30.1
disagree with reservation	25	24.3	24.3	54.4
only to be used if a definite answer is not possible	17	16.5	16.5	70.9
agree only with reservation	21	20.4	20.4	91.3
definitely agree	9	8.7	8.7	100.0
Total	103	100.0	100.0	

Table 2 shows total students were 103 ,8(7.8%) from 1st semester,17(16.5%) from 2nd semester,22(21.4%) from 3rd semester,10(9.7%) from 4th semester,8(7.8%) from 5th semester, 8(7.8%) from 6th semester,10(9.7%) from 7th semester and 20(19.4%) from 8th semester.

Table 3 show out of 103 ,31definitely disagree, 25disagree with reservation, 17only to be used if a definite answer is not possible, 21agree only with reservation and 9 were definitely agree with Q1.

Table 4: This course requires us to understand concepts taught by the lecturer

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
definitely disagree	2	1.9	1.9	1.9
disagree with reservation	9	8.7	8.7	10.7
only to be used if a definite answer is not possible	56	54.4	54.4	65.0
agree only with reservation	10	9.7	9.7	74.8
definitely agree	26	25.2	25.2	100.0
Total	103	100.0	100.0	

Table 4 show out of 103 ,2definitely disagree, 9disagree with reservation, 56only to be used if a definite answer is not possible, 10agree only with reservation and 26 were definitely agree with Q2.

DISCUSSION

Like Dewey 1938 defined reflection ‘an active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends(11). Current study also showed that out of 103 ,31participant definitely disagree with Q1 which is the part of habitual thinking, 25disagree with reservation, 17only to be used if a definite answer is not possible, 21agree only with reservation and 9 were definitely agree with Q1.

Boud et al. 1985 describe reflection as a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciation.(12)

In 2004 Moon defined it a form of mental processing with a purpose and/or anticipated outcome that is applied to relatively complex or unstructured ideas for which there is no obvious solution’. (13). Current study showed result of Q2 out of 103 ,2 was definitely disagreed, 9disagree with reservation, 56only to be used if a definite answer is not possible, 10agree only with reservation and 26 were definitely agree.

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In (2003) Vikki Smith studied at "Raising retention and achievement in work-based learning", Education + Training. This article presents a number of projects, that are particularly innovative, as examples of how providers are looking to improve retention and/or achievement.(15)

David et al. Develop the Questionnaire to Measure the Level of Reflective Thinking in this study with the combination of the literature review and initial testing led to the development of a four-

scale instrument measuring four constructs; habitual action, understanding, reflection and critical reflection. The reliability of the scales was established by acceptable Cronbach alpha values. (16). Confirmatory factor analysis showed a good fit to the proposed four-factor structure. Comparison of mean scores between the eight classes showed predicted significant differences on each of the four scales between undergraduate and postgraduate students.(16, 17). The current study showed comparison within semester and between groups all the value were significant in habitual significant value was 0.000, in understanding significant value was also 0.000, in reflection significant value was 0.005 and critical reflection was also 0.000 which was also significant.

CONCLUSION

Reflection is an essential component of medical education. therefore, assessment of reflective thinking in medical students is essential, QRT was completed by 103 students from first to eight semesters of DPT. The findings discussed above are calculated and then differences were shown after comparing total scores. In this study we found differences in each semester. variability was not gradually decreases nor increases by the calculated value of this study. it shows reflective thinking can be develop by individuals but guided reflection with a supervisor or mentor is important so that it will gradually increases from 1st to 8th semester.

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