

## Student perceptions of the progress test in two settings and the implications for test deployment

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**Abstract** *Background* The Progress Test (PT) was developed to assess student learning within integrated curricula. Whilst it is effective in promoting and rewarding deep approaches to learning in some settings, we hypothesised that implementation of the curriculum (design and assessment) may impact on students' preparation for the PT and their learning. *Aim* To compare students' perceptions of and preparations for the PT at two medical schools. *Method* Focus groups were used to generate items for a questionnaire. This was piloted, refined, and then delivered at both schools. Exploratory factor analysis identified the main factors underpinning response patterns. ANOVA was used to compare differences in response by school, year group and gender. *Results* Response rates were 640 (57%) and 414 (47%) at Schools A and B, respectively. Three major factors were identified: the PT's ability to (1) assess academic learning (2) support clinical learning; (3) the

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PT's impact on exam preparation. Significant differences were found between settings. In the school with early clinical contact, more frequent PTs and no end of unit tests, students were more likely to appreciate the PT as a support for learning, perceive it as fair and valid, and use a deeper approach to learning—but they also spent longer preparing for the test. *Conclusion* Different approaches to the delivery of the PT can impact significantly on student study patterns. The learning environment has an important impact on student perceptions of assessment and approach to learning. Careful decisions about PT deployment must be taken to ensure its optimal impact.

**Keywords** Progress test · Assessment · Problem based learning · Medical education · Learning environment

## Introduction

Over the past 30 years there has been a strong move in medical education to encourage self directed, enquiry based learning to enable students to develop the high quality learning strategies required for continuing professional development and revalidation. Along with this, medical programmes have become more integrated with a focus throughout on programme outcomes. Assessment programmes need to support this approach, for example in deterring the last minute superficial learning which some conventional examinations can foster (Biggs 1996). With this in mind, independently, Maastricht Medical School in the Netherlands and the School of Medicine of the University of Missouri—Kansas City both developed longitudinal, comprehensive examinations of knowledge (Arnold and Willoughby 1990; Van der Vleuten et al. 1996). These exams have become known as progress testing (PT) and are specifically developed to avoid the types of exam preparation which students adopted in response to end of unit tests (Berkel 1990; Muijtjens et al. 2008). The PT consists of multiple choice or true false questions covering all areas of the undergraduate medical curriculum and is sat simultaneously by students in all years (Arnold and Willoughby 1990). Progress is monitored and scores improve while students advance through the curriculum (Albano et al. 1996; Muijtjens et al. 1998; Verhoeven et al. 2002).

When students experience more freedom in their learning, they are more likely to adopt a deep approach to learning, where the intention is to understand the material covered and the motivation is intrinsic through interest in the topic (Entwistle et al. 2002). It is important that curricula and assessments encourage the development of more self directed approaches to learning by students because this is associated with desirable educational processes and outcomes. Studies have shown that progress testing is effective in promoting and rewarding deep approaches to learning (Berkel et al. 1994; Mattick and Knight 2007). Students who have these deeper enquiry based strategies on entry to medical school outperform their peers, and perform increasingly better with each successive test (Mattick et al. 2004). Those with a surface approach aim to reproduce information, often without real understanding and the motivation is fear of failure. This is often associated with lower scores in written examinations despite long hours of study (Reid et al. 2007). If assessment is not appropriately delivered desirable approaches to learning may be traded in for approaches that students perceive as better aligned to the tasks demanded of them (Blake et al. 1996).

Several UK medical schools use progress testing but the contexts in which it is used varies widely (Freeman et al. 2010). At McMaster in Canada where they use the PT three times a year they have shown that 73% of their students felt the exam had no effect on

**Table 1** Differences in curriculum structure and progress test delivery

School A	School B
Traditional school introducing new PBL curriculum in 1994	New medical school (open since 2002) with an integrated curriculum
300+ students years 1 and 2 with circa 100 extra students joining in year 3	150+ students/year
All students on central campus years 1 and 2 then 4 clinical bases	Students across multiple campuses throughout the course (two in years 1 and 2, increasing to at least five by year 5).
Weekly PBL years 1–4	PBL years 1 and 2 only
2 Progress tests per year: summative from end year 2. Additional semester knowledge tests in years 1 and 2	4 Progress tests per year: summative except for first test of first year. One additional knowledge paper in year 1
PT consists of 125 questions with 2½ h to complete it	PT consists of 125 questions with 3 h to complete it
Questions are not negatively marked	Questions are negatively marked
No option to answer “don’t know”	Option to answer “don’t know”
No feedback apart from score	Feedback on PT performance by subject area

tutorial group function and 75% of students did not study for the exam (Blake et al. 1996). However, little is known about the way in which differences in curricula and in test delivery affect students' perceptions of, and approach to, the PT. On the evidence to date, we hypothesise that the design of the curriculum may impact significantly on students' preparation for the PT and their learning and the delivery of assessment.

This study explores the impact of contrasting curricula and PT deployment at two UK medical schools. Both used regular progress testing throughout the medical course but the schools differed significantly in their delivery of the assessments. Table 1 summarises these differences.

School A is a large, long established medical school in North England which has used progress testing since 1994. School B in South West England is a smaller new medical school that has used progress testing since it opened in 2002. Progress testing is carried out throughout the course two or four times per year at schools A and B, respectively. Clinical contact in years 1 and 2 is greater at School B. A more distinct pre-clinical phase at School A is associated with additional, summative knowledge tests in years 1 and 2. Students at both schools were advised not to study specifically for the exam. At School A the student handbook stated that preparation time should not exceed 6 h. At the time of our study students at School A were just receiving a score for the test and the related banding (unsatisfactory, low pass, satisfactory, honours, distinction). Students at School B had access to an electronic log, which, in addition to the score and banding, provided feedback on the key aspect of each question and whether the student had answered correctly or not. Neither school provided access to previous test papers, or allowed students to access the paper after the test. At School B students were encouraged through individual feedback on their performance to direct their learning in areas where it may be beneficial for subsequent tests. The PT became summative from the final test of year 2 onwards at School A and was summative at School B following the first test of first year. At both schools when the PT became summative it was essential for progression through the course and graduation.

The aim was to examine whether these differences affected the students' perceptions of and preparation for the PT in these two contrasting settings.

## Methods

### Study design

As there was no pre-existing, validated tool to meet our research aims, a questionnaire was developed. The content was informed by two focus groups held at School A; (1) eleven year 2 students and (2) eight year 4 students. The focus group discussions were recorded and transcribed.

The focus groups were used as a basis to identify themes for the inventory. Themes were identified from the focus group data by a consensus process. Then authors at both schools (LW, CH, KM, VW) worked in conjunction to develop the questionnaire based on these themes using multiple rounds of feedback and alterations to ensure it was relevant to both schools. The questionnaire covered demographic information, time spent on revision and a series of statements about the PT, centred on preparation methods and perceptions of the exam. Students were asked to respond to each statement using a 5 point Likert scale (strongly agree, agree, neutral, disagree or strongly disagree) scoring 1 through to 5 for each response, respectively. A provisional questionnaire was piloted to two PBL groups, one consisting of 12 second year students and the other of 14 third year students, at School A. The main feedback from the pilot was that students felt the questionnaire was slightly too long. In response to this two of the authors (LW, VW) removed 4 questions which were felt to be similar.

The new questionnaire, as shown in the "Appendix", was distributed to students at both schools in May 2008. An information sheet was provided with each questionnaire outlining the purpose and intended use of the research. All responses were anonymous. At School B it was delivered at the end of a PT exam and was completed by students across all years. At School A this proved logistically impossible. The questionnaire was delivered to students in years 1, 2 and 4 when gathered for central teaching. Questionnaires were electronically scanned and the data compiled into a spreadsheet. The negatively phrased questions—4, 11, 13, 17 and 18—were reverse coded.

### Analysis

The exploratory factor analysis was based upon Principal Components to identify factors using Kaiser normalisation (eigen-values > 1) and varimax rotation to assign items to factors.

Multi factor ANOVA was used to look at effects of the medical school attended, year of study at medical school and gender on students' responses. The data collected from years 3 and 5 at School B were excluded from the ANOVA as there was no comparable data from School A.

The research ethics committees at both universities approved the study.

**Table 2** Sample sizes over the years sampled at the two schools

	Year [no respondents (total no students, % response)]					Total for school
	1	2	3	4	5	
School A	322 (353, 91.2%)	183 (317, 57.7%)		135 (455, 29.7%)		640 (1,125, 56.9%)
School B	93 (212, 43.9%)	76 (200, 38.0%)	75 (156, 48.1%)	88 (158, 55.7%)	82 (147, 55.8%)	414 (873, 47.4%)
Total for year	415 (565, 73.5%)	259 (517, 50.1%)		223 (613, 36.4%)		

## Results

### Response rate

A total of 897 (School A 640 and School B 257) students; completed the questionnaire with varying response rates across the years (Table 2).

### Exploratory factor analysis

We used factor analysis to see if there was any underlying factor structure across all students and both medical schools. Factor analysis grouped the questions into three factors. We excluded 6 questions from a total of 40 that had loadings of  $<0.4$  on any factor. However, there were two questions (11 and 15) that loaded below this threshold which we retained as they showed important differences in the ANOVA and hence we did not wish to lose them from the analysis.

The factors derived were (1) Student views about the PT's ability to test what they had learnt in their academic studies (Table 3), (2) Student views about how the PT supports clinical learning (Table 4), (3) Views on preparing for the PT and their approach to revision (Table 5). Internal consistency (Cronbach's Alpha) was 0.86, 0.82 and 0.74, respectively for factors 1, 2 and 3. Scores  $>0.70$  indicate a high level of reliability (Norman and Streiner 2008). The three-factor model explained 35% of the total variance in the 40 items in the questionnaire. Factor 1 (16 items) explained 16% of the variance, Factor 2 (11 items) explained 10% of the variance, and Factor 3 (7 items) explained a further 9% of the total variance.

### Comparisons between schools, year groups and genders

We were particularly interested in the way in which responses differed between medical schools and stage of study therefore, for the majority of our results we concentrate on individual items, although the differences are discussed in the groups identified by the exploratory factor analysis, rather than in the order presented on the questionnaire. The questionnaire asked the gender of participants, however, no significant differences in response to questions were found relating to gender, therefore, no further comment has been made on this in the results.

**Table 3** Factor 1: student views about the PTs ability to test what they had learnt in their academic studies, showing questions, factor loadings, mean response, SD and ANOVA analysis of responses

Question no.	Loading on factor	Mean <sup>a</sup>	SD	ANOVA		
				University <sup>b</sup>	Year <sup>c</sup>	University × Year <sup>d</sup>
Q36	0.706	2.555	1.144	<0.001	<0.001	
Q5	0.619	2.686	1.282		<0.001	0.006
Q10	0.611	2.214	1.144	0.006	0.015	
Q37	0.607	2.690	1.346	<0.001	<0.001	<0.001
Q6	0.563	2.457	1.243	<0.001		
Q16	0.561	3.008	1.231		0.097	
Q35	0.550	2.413	1.022			0.069
Q32	0.542	2.260	1.042	<0.001		
Q7	0.502	2.775	1.193			
Q33	0.484	2.344	1.098			
Q2	0.477	3.086	1.077	<0.001		0.037
Q18	-0.466	3.116	1.043	<0.001		
Q3	0.447	3.581	1.114	<0.001		
Q21	0.432	2.999	1.191	0.022	0.004	<0.001
Q17	-0.427	3.340	1.168	<0.001		0.083
Q11	-0.402	4.100	1.042	0.001	<0.001	0.003

<sup>a</sup> In the questionnaire the likert scale used gives a score of 1 for strongly agree through to 5 for strongly disagree, we note this scoring may be opposite to what readers are accustomed to and remind them of this when considering the mean values

<sup>b</sup> Significant differences between mean scores across universities

<sup>c</sup> Significant differences between mean scores across year of study

<sup>d</sup> Interaction between University and Year, a significant difference here means that the response pattern across years is different between the two universities

**Table 4** Factor 2: student views about how the PT supports clinical learning, showing questions, factor loadings, mean response, SD and ANOVA analysis of responses

Question no.	Loading on factor	Mean	SD	ANOVA		
				University	Year	University × Year
Q40	-0.728	2.550	1.052	<0.001	<0.001	
Q34	-0.690	2.798	0.923	0.023	<0.001	
Q12	-0.660	2.618	1.053	<0.001	<0.001	
Q31	-0.616	2.823	1.119	0.001	<0.001	
Q27	-0.578	2.216	1.002	<0.001	0.001	
Q30	-0.572	2.896	1.054	0.008	0.026	
Q1	-0.514	2.751	1.096	<0.001		0.1
Q28	-0.495	2.796	1.246	<0.001	<0.001	0.008
Q39	-0.465	3.262	1.028	<0.001	0.014	
Q8	-0.409	3.152	1.090	0.021	<0.001	0.028
Q24	-0.389	2.337	1.016	<0.001		0.052

**Table 5** Factor 3: views on preparing for the PT and their approach to revision, showing questions, factor loadings, mean response, SD and ANOVA analysis of responses

Question no.	Loading on factor	Mean	SD	ANOVA		
				University	Year	University × Year
Q13	0.822	2.922	1.206	<0.001		<0.001
Q14	-0.760	3.118	1.277	<0.001	0.019	<0.001
Q22	-0.647	3.236	1.137	<0.001		<0.001
Q9	-0.587	3.262	1.371	<0.001	<0.001	0.013
Q4	0.580	2.996	1.305	<0.001	0.032	<0.001
Q15	-0.426	2.908	1.215	<0.001		
Q20	-0.305	2.928	1.138	<0.001		

#### Factor 1: student views about the PT's ability to assess academic learning

Students at both schools felt that luck and guessing played a greater role in their success in the PT than knowledge (Q36, 37). This applied particularly to students in the earlier years. This view was significantly greater at School A (Q36, 37). Students at School B valued the PT more highly (Q3). Students at School A, where there was relatively little clinical contact in the early years and where additional knowledge tests are used in years 1 and 2, were significantly more inclined to agree that the PT was too clinically based to be applicable to junior medical students (Q6). They felt that the other semester tests in years 1 and 2 were better tests of their knowledge (Q32). The students at this school felt the PT was significantly less likely to reflect their hard work throughout the year (Q18). At School A they would be encouraged to work harder if the exam tested material they had already covered (Q10), and they were significantly more likely to agree the PT was a waste of time (Q3) and unfair (Q2). In contrast School B students, who sit the PT 4 times a year, in comparison to 2 times at School A, felt more positively that the PT reflected the time devoted to study in the clinical environment (Q18) and motivated them to work hard all year (Q17). Students at both schools felt they were getting insufficient feedback (Q11), although the trend was significantly less marked at School B. The earlier year groups at both schools found the PT more disheartening than more senior students (Q5).

#### Factor 2: student views about the PT's ability to support clinical learning

At both Medical Schools, students in year 4 felt more positively that the PT was effectively examining what they were learning day to day than those in the earlier years (Q8). Year 4 students felt that the PT helped them prepare to become a doctor (Q12), apply their knowledge to clinical situations (Q40), and assessed what they were learning in hospital (Q34) significantly more than junior medical students. Students at School B, who have early clinical contact, felt that patient contact was useful preparation for the PT (Q28), as was spending time in hospital in year 4 (Q27). Across all years students at School B, where feedback is given on PT performance by subject area, were significantly more likely to agree that the PT helped them improve their knowledge (Q30) and monitor how it was improving (Q31).

**Table 6** Time spent on preparation for the PT

	Year 1		Year 2		Year 4	
	School A	School B	School A	School B	School A	School B
0–6	281 (87.5%)	12 (13.0%)	144 (80.0%)	4 (5.3%)	39 (29.5%)	21 (25.0%)
6–12	18 (5.6%)	19 (20.7%)	13 (7.2%)	9 (12.0%)	40 (30.3%)	18 (21.4%)
12–48	11 (3.4%)	39 (42.4%)	15 (8.3%)	21 (28.0%)	32 (24.2%)	17 (20.2%)
Over 48	11 (3.4%)	22 (23.9%)	8 (4.4%)	41 (54.7%)	21 (15.9%)	28 (33.3%)

### Factor 3: the impact of the PT on exam preparation

Students at School B, for whom there is no additional block tests and, after the first test of first year, the PT is summative throughout, generally felt preparation was more important than at School A (Q13, Q14). They were also more likely to feel that 6 h was not sufficient preparation time (Q22). Students at School A were significantly more likely to state that most of their preparation is done at the last minute (Q15). In School B students felt the PT had much more bearing on decisions about course progression (Q9).

### Time spent on preparation for the PT

Table 6 shows time spent on preparation for the PT. This varied both by school and year. Considering the students in years 1 and 2, 151 (90.4%) of School B students spent over 6 h revising compared to 58 (12.0%) at School A. By year 4 at School A, where students are advised specifically to spend no more than 6 h on preparation, they have increased their preparation time; 70.5% spending more than 6 h.

### Discussion

We evaluated students' perspectives of the PT and its impact on student learning. The findings confirm that the learning environment and the specific detail of the way the PT is deployed has a significant effect on learning processes.

The PT seemed most suited to curricula featuring early clinical contact. The student responses highlighted the importance of feedback from the PT, which is a challenge in settings where the test items cannot be released and this is an area for further research (Coombes et al. 2010; Muijtjens et al. 2010). The impact of the PT was distorted in settings where there are other forms of summative assessment of medical knowledge (Entwistle et al. 2002; Newble and Jaeger 1983). The differences we observed between the two settings in this study are largely in line with previous research that shows students, particularly those at School B in our study, believe the PT rewards those who work consistently and supports the self-orientated, student centred learning philosophy of PBL (Berkel 1990; Mattick and Knight 2007). Our study also confirms findings that students feel the PT helps them improve their knowledge and identify their strengths and weaknesses, despite initially finding the exam frustrating (Blake et al. 1996). What this study adds is the ability to provide recommendations for how others deploy the PT to best promote high quality learning through the comparison of two different settings. The philosophy of the PT to



promote deep approaches to learning must be instilled and supported by both staff and the mode of delivery. Thus frequent testing four times a year rather than two, significant early clinical contact and a culture of sitting the test without significant revision had a more positive impact on the students' perception of the value of the test. This is essential if the PT is to be effective in deflecting students from a culture of last minute revision and encourage continual deep self directed learning.

A benefit of this study is the development of an inventory which schools that use progress testing can utilise both to compare outcomes across settings and to evaluate their own success in achieving their intended aims, particularly around changes to curriculum or assessment structure. The conclusions are based upon the responses of over 1,000 students from the two schools. However, because of the non-random sampling of the students it is not possible to claim that the responding students are truly representative, as there may be some bias in those students who chose to respond. It is also unfortunate that we were unable to sample from years 3 and 5 at School A. The variance accounted for by using 3 factors was 35%, if we had used 4 factors this would have increased only to 36%.

There are further limitations of this study. A small number of schools, only two, was involved. There were also of course many variables out with our control which may have had unknown influence on our results, for example the addition of circa 100 students to School A in year 3. Nevertheless, the large sample size and consistency of results across schools and years suggests that the conclusions are valid.

Assessment drives learning but not necessarily in the intended way unless assessment programmes are carefully designed and implemented. Previous studies have shown that educator's beliefs about the nature of a curriculum intervention are sometimes at odds with those of students (Entwistle et al. 2002; Muijtjens et al. 2010). The contrasting ways in which the PT was delivered as seen in this study illustrates how contextual influences can develop and impact on student learning and preparation for assessments.

Appendix: a copy of the questionnaire as delivered to students

**UNIVERSITY OF MANCHESTER**  
**STUDENT EVALUATION FORM 2007-8**

Can you please fill in this questionnaire regarding PBL and the progress test.

The questionnaire is split into 2 sections:

Section 1: will ask for information about you and your place of study.  
Section 2: is split up into different sub-sections, and will ask you for your opinions on a 5 point scale.

To assist the electronic marking of this form, can you please fill the questionnaire in using a PENCIL or a BLUE PEN ONLY.

Could you please mark each box with a straight horizontal line from left to right (NO TICKS), as demonstrated here:

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**Section 1: You and your place of study**

1) What year of the MBChB course are you in (exclude intercalation years)?  1  2  3  4  5

2) What is your place of study?  Manchester Medical School  Peninsula Medical School

If you selected Manchester as your place of study, where did you do your pre-clinical years?  
 Manchester  St Andrews

3) What is your age?  17  18  19  20  21  22  23  24  25  >25

4) What is your sex?  Male  Female

5) Which one of the following groups do you feel most adequately describes your ethnic origin?

White	<input type="checkbox"/>
Bangladeshi	<input type="checkbox"/>
Indian	<input type="checkbox"/>
Pakistani	<input type="checkbox"/>
Asian (other)	<input type="checkbox"/>
Black (Caribbean)	<input type="checkbox"/>
Black (African)	<input type="checkbox"/>
Black (other)	<input type="checkbox"/>
Chinese	<input type="checkbox"/>
Other	<input type="checkbox"/>

6) How long do you spend preparing for each Progress Test?  
0 hours   
0-2 hours   
3-6 hours   
6-8 hours   
9-12 hours   
12-24 hours   
24-48 hours   
48-72 hours   
>72 hours

Please do not mark outside of the main border of this form.

**Section 2:**  
For all of the questions in this section on pages 2, 3 and 4, please answer using the following 5 point likert scale:  
Scoring: 5 = Strongly Disagree, 4 = Disagree, 3 = Neutral, 2 = Agree, 1 = Strongly Agree

**The Progress Test**

	5	4	3	2	1
1) The Progress Test is a useful form of examination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) The Progress Test is not a fair test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) The Progress Test is a waste of time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Not knowing what will come up in the Progress Test makes me feel anxious.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) It is disheartening to sit an exam which I know so few of the answers to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) The Progress Test questions are too clinically based to be applicable to students in years one and two.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) I get too tired by the end of the Progress Test to perform well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) The Progress Test is a good way to examine what we learn day to day on the course.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) The Progress Test has little bearing on whether I go on to pass or fail the year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) I would be encouraged to work harder for an exam that just tested areas we had already covered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) We get enough feedback from the Progress Test to let us know how we are getting on in medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) The Progress Test is good preparation for becoming a doctor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Preparation for the Progress Test**

	5	4	3	2	1
13) I think preparing for the Progress Test is important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14) There is no point preparing for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15) Most of my preparation for the Progress Test is done at the last minute.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) The Progress Test doesn't reward those who have worked hard throughout the year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17) The Progress Test motivates me to work hard all year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18) I do well in the Progress Test because I work hard throughout the year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please do not mark outside of the main border of this form.

Scoring: 5 = Strongly Disagree, 4 = Disagree, 3 = Neutral, 2 = Agree, 1 = Strongly Agree

**Preparation for the Progress Test (cont)**

	5	4	3	2	1
19) Last minute preparation helps me improve my grade on the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20) I do not have time to prepare for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21) I think we should be given time in the timetable to prepare for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22) 6 hours is sufficient preparation for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23) I prepare for the Progress Test alone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24) Preparing for other assessments helps me prepare for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25) In preparation for the Progress Test it is better to try and prepare a couple of topics in depth than to try and learn everything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26) I find it useful to prepare in pairs or groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27) I think spending time in hospital is a good way to prepare for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28) Patient contact in the first two years is helpful preparation for the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**The Progress Test as an Assessment of Knowledge**

	5	4	3	2	1
29) The Progress Test is more about pattern recognition than knowledge and understanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30) The Progress Test helps me improve my knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31) I am able to monitor how my knowledge is improving through the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32) Other assessments help me improve my knowledge more than the Progress Test does.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33) Students with poor knowledge can still pass the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34) The Progress Test is a good way to assess what we learn in hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35) The Progress Test does not allow me to show the knowledge I have.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36) My performance in the Progress Test reflects luck more than knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please do not mark outside of the main border of this form.

Scoring: 5 = Strongly Disagree, 4 = Disagree, 3 = Neutral, 2 = Agree, 1 = Strongly Agree

**The Progress Test as an Assessment of Knowledge (cont)**

	5	4	3	2	1
37) I guess the answers to most of the questions in the Progress Test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38) I think it is more honest to state "I don't know" than it is to guess the answer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39) I think the Progress Test is a good way of assessing a PBL based curriculum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40) The Progress Test helps me apply my knowledge to clinical situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Sources of Material used in Progress Test Preparation**

	5	4	3	2	1
41) As sources to prepare for the Progress Test I use:					
• Textbooks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Notes made for PBL cases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Example MCQs in a published book	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Past MCQs obtained from other students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Medical journals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42) Textbooks are not the best source for preparation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43) My preparation for the Progress Test would be improved if I made better notes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44) Doing example MCQs is the most effective way to prepare.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please do not mark outside of the main border of this form.

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