

PHYSIOTHERAPY¹ COMPETENCY EXAMINATION

FREQUENTLY ASKED QUESTIONS

This document provides answers to frequently asked questions about the Physiotherapy Competency Examination (PCE). The Canadian Alliance of Physiotherapy Regulators (The Alliance) developed it to meet the needs of candidates and other interested members of the public. There is a glossary of terms at the end of the document.

The policies and procedures for the Physiotherapy Competency Examination (PCE) are outlined in the Candidate Handbook for the year of your exam. Nothing in this document changes the published policies and procedures for the year of your exam.

¹Physiotherapy, physiotherapist, physical therapy, physical therapist, physiothérapeute, physiothérapie, PT and pht are official marks used with permission. In this document, *physical therapy* means the same thing as *physiotherapy*, and *physical therapist* means the same thing as *physiotherapist*.

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What Is the Purpose of the Exam?

The Physiotherapy Competency Examination (PCE) helps provincial and territorial physiotherapy regulators find out if you are ready for independent practice.

What does the exam do?

The Physiotherapy Competency Examination tests whether qualified exam candidates have demonstrated a minimum standard of practice. The PCE ensures that members of the public will be safe when they interact with physiotherapists. It fairly and accurately evaluates the competencies you need to have to practice physiotherapy. Most physiotherapy regulators in Canada include passing the PCE as part of their entry-to-practice process.

The PCE tests the essential competencies of physiotherapy practice – the essential knowledge, skills and abilities. It tests history-taking, physical examination, data interpretation, clinical problem solving, treatment techniques, ethics, safety, interviewing and communication. The exam covers the core clinical practice areas: neuromusculoskeletal, neurological, cardiopulmonary-vascular and multisystem. The PCE is a reliable and valid assessment tool that fairly evaluates candidates on many competencies.

Passing the PCE means that you have demonstrated the minimum standard of knowledge, skills and abilities. Failing the PCE indicates that you have not yet demonstrated the minimum standard of knowledge, skills and abilities.

What does the exam do for physiotherapy regulators?

The provincial and territorial regulators must protect the public. They can do this best by using a consistent and legally defensible standard for all candidates who want to register to practise physiotherapy, no matter where they have completed their physiotherapy program.

Why are there two components?

The Written and Clinical Components provide us with different information about your knowledge, skills and abilities.

The Written Component tests a broad base of physiotherapy knowledge in the practice areas of neuromusculoskeletal, neurological, cardiopulmonary-vascular and multisystem. The Written Component tests your ability to use and integrate clinical knowledge and to solve clinical problems using clinical scenarios. You must achieve a minimum overall score to pass the Written Component.

The Clinical Component tests safe, effective use of the principles and processes of physiotherapy practice. The knowledge, skills and abilities assessed by the Clinical Component include communication skills and professional behaviour.

Who Takes the Exam?

Canadian-educated and internationally educated graduates of physiotherapy programs take the Physiotherapy Competency Examination (PCE), regardless of their experience. Most regulators in Canada include passing the PCE as part of their entry-to-practice process.

If you are an internationally educated graduate of a physiotherapy program, The Alliance must evaluate your credentials before you can take the PCE. The Educational Credentials and Qualifications Assessment will determine whether your education and qualifications are substantially equivalent to those of a Canadian-educated physiotherapist.

Applying for the Exam

When you apply for an exam, you need to fill in the application form completely, and you need to include all the required documents with your application.

Why did you return my application form?

If you do not fill in the application form completely, or if you do not include all the required documents, we will return your application. We send a memo with the returned application so that you can correct the problem. Some of the common problems with applications are:

- Your name on the application does not match the name in our records.
- You have not completed one or more sections of the application.
- You forgot to include your payment.
- You forgot to include the Declaration of Identification (this is new for 2011).
- You forgot to include a second identical photograph with your Declaration of Identification.

I used express/courier service to send my exam application form to you. Why did you return my application to me by regular mail?

When we are responsible for a delay we will use a courier service. We use regular mail for all normal correspondence with you unless you request and pay for courier service.

Why wasn't I assigned to my first choice of exam site?

If your first choice site is full, we automatically assign you to another site. If space becomes available at your first choice site later, we will move you.

Why am I on the wait list for the Clinical Component?

We keep a wait list for the Clinical Component until we can confirm the size of the sites. We can usually assign all the candidates from the wait list to a site approximately three months after the application deadline date.

Exam Results

Why did you place my exam results on hold?

Before we release your exam results, we check your file to make sure everything is up to date. We need to be sure that we have all the required documents, and all payments.

If you are a graduate of an international physiotherapy program and you attempted the exam under the Provisional Eligibility, we review your file to make sure you sent a copy of the successful credential evaluation letter showing you successfully completed your PLAR requirement(s). If you did not send a copy of your successful credentialing letter, we will place your exam results on hold. We will not release your results until you send us a copy of this letter.

If you are a graduate of a Canadian physiotherapy program, we review your file to make sure you sent us a copy of your degree or a copy of your official transcripts. If you did not provide us with either of these documents, we will place your Clinical Component results on hold. We will not release them until you provide us with the required documents.

How Do You Set Passing Scores for the Written Component?

The scoring system used in the Physiotherapy Competency Examination (PCE) is different from a percentage scoring system.

The passing score for the Written Component is a specific point set on a standard score scale. The Board of Examiners sets the passing score for the Written Component. The Written Test Development Group reviews the passing score from time to time and recommends changes when necessary.

See below for more information about Standard Scores.

How Do You Set Passing Scores for the Clinical Component?

You must meet three criteria to pass the Clinical Component:

- You must achieve a the overall passing score (the Total score criterion)
- You must pass a set number of stations (the Number of stations criterion)
- You must demonstrate safe and professional actions and behaviours at the entry-to-practice level (the Critical Incidents criterion)

Total score criterion

The total score criterion determines if you have demonstrated the required standard of knowledge, skills and abilities. The total score does not provide information about specific areas of practice or functions in which you may have gaps. To meet the total score criterion, you must achieve or exceed the passing score set for the exam.

The total score criterion is a “compensatory” score because you can compensate for poor scores in some stations with good scores in others.

Number of stations criterion

The number of stations criterion identifies frequent or systematic gaps in your knowledge, skills and abilities. It eliminates the possibility that you could pass the Clinical Component with significant gaps in some areas of practice. To meet the number of stations criterion, you must achieve a passing score on a set number of stations.

The number of stations criterion is a non-compensatory score, because you cannot make up for failed stations.

Critical incidents criterion

The critical incidents criterion determines whether you have demonstrated safe, professional practice. This criterion provides a way for examiners to identify potentially unsafe or unprofessional actions or behaviours. The Board of Examiners reviews these actions and behaviours and makes a final decision about each one. To meet the critical incidents criterion, you must have no more than 2 *minor* Critical Incidents, and no *major* Critical Incidents.

A *minor* safety or professionalism incident is an action, behaviour, or omission that could harm the client, physically or emotionally.

A *major* safety or professionalism incident is an action, behaviour, or an omission that could cause serious harm or death.

The *Safe Professional Practice Criterion Study*² confirmed that the Critical Incidents criterion adds value to the Clinical Component.

How do you calculate station scores?

For ten-minute stations, we calculate the station score from the number of checklist items done correctly (80% of the station score), the performance ratings (10% of the station score) and the communication ratings (10% of the station score).

For five-minute (couplet) stations, we calculate the station score from the number of checklist items done correctly (40% of the station score), the performance ratings (10% of the station score) and the written station score (50% of the station score).

How do you calculate the total score for all stations?

The total score is the average of the station scores. You must achieve or exceed the passing score set by the Board of Examiners to meet this criterion.

How do you determine the passing score for the total score criterion?

The passing score for the total score criterion is the average of all the stations passing scores plus one standard error of measurement (SEM).

The standard error of measurement (SEM) is a statistical term. It is an estimate of the amount of random error in the measurement process. Adding one SEM to the scores decreases the chance that you will pass the exam when you should not pass. This method is used by other exam programs, including the Medical Council of Canada.

How do you determine the passing scores for each station?

For each of the 16 stations, the examiners give you a global rating on a 6-point scale:

- satisfactory – excellent
- satisfactory – good
- satisfactory – borderline
- unsatisfactory – borderline
- unsatisfactory – poor
- unsatisfactory – unacceptable

² Canadian Alliance of Physiotherapy Regulators. (2002). *Report on the use of the safe professional practice criterion in the Clinical Component of the Physiotherapy Competency Examination*. Toronto: Author.

The passing score for each station is the mean (average) score of all candidates who received a Satisfactory – Borderline or an Unsatisfactory – Borderline overall rating on that station.

How do you confirm passing scores?

The exam consultant prepares a technical report after each exam. The Board of Examiners (BOE) reviews the report and sets the passing scores for the three criteria for the exam according to the BOE Decision Rules. The Board of Examiners repeats this process for each exam. This means that the passing scores are the same for all candidates on one exam, but may be different for candidates on the next exam, depending on the performance of each exam.

What information does the Board of Examiners consider when they confirm the passing scores?

The Board of Examiners uses a variety of quantitative and qualitative information when they are confirming the passing scores. Some of the things they consider are:

- Descriptive statistics for each station and for the overall exam (e.g., the number of candidates, the average score for the station, and the standard deviation of the average score).
- Correlations between each station and the total exam score. These correlations show how much information each station contributes to the overall score.
- Reliability and reproducibility coefficients. These coefficients show whether the exam results would be the same with repeated administrations.
- A comparison of the difficulty estimates (Angoff estimates) for each station with the actual performance for that station. This tells us if the stations were harder or easier than usual.
- A comparison of the average of the difficulty estimates (Angoff estimates) for the entire exam with previous exams. This tells us if the overall exam was harder or easier than usual.
- Trends in the average station scores for repeated stations (i.e., mean scores for stations used on this exam compared to the same stations in previous exams). This tells us whether candidates performed similarly to past exams, and whether there is a problem with a station.
- The performance of Canadian-educated physiotherapists completing the exam for the first time compared to past exams. This tells us if the exam is harder or easier than usual.
- Trends in mean scores for all candidates. This tells us if the exam is harder or easier than usual.
- A comparison of BOE decisions from past exams. This helps to keep the decisions consistent from one exam to the next.
- A comparison of the effect of various passing scores on the passing rate (consequential validity).
- A report on any administrative or statistical issues that affected scoring. This helps us to decide if we should eliminate any stations from scoring because of problems with the administration of the station or the results of the station.

How do you consider critical incidents in scoring?

The Board of Examiners reviews all safety and professionalism actions, behaviours, or omissions identified by examiners and makes a final decision about whether each identified issue is a Critical Incident. The decision considers many factors, including completeness of the examiner’s documentation; the standardized client’s planned portrayal, relevant literature, past decisions on similar critical incidents, and the professional judgment of the Board of Examiners.

Why does the number of stations passed matter when I have achieved the passing score on the total score criterion?

The number of stations criterion identifies frequent or systematic gaps in your knowledge, skills and abilities. It ensures that you demonstrate reasonably consistent knowledge, skills and abilities from station to station by making it impossible to pass the Clinical Component by doing well in some stations and badly in others. The number of stations criterion is therefore a “non-compensatory” score.

Candidates who fail on this criterion often say that they failed the exam “by one station.” In fact, these candidates failed several stations, showing that they have gaps in their knowledge, skills and abilities.

I have heard that sometimes you remove a station from scoring. Why does that happen? How do you make that decision?

After each exam, the Board of Examiners reviews the technical report on the exam. This report gives information on the performance of the stations on the exam and the performance of the exam in general. If there are problems with the statistical performance of a station, or if there were operational or security problems with a station, the BOE may decide to remove the station from scoring.

We rarely remove a station from scoring.

Why Do You Use Standard Scores?

We convert exam scores to a standard score before we report your exam results so that we can compare the scores with other sittings of the exam.

How do you determine the standard score?

We calculate a Z score for each candidate. We then linearly transform the Z score to a scale with a mean of 500 and a standard deviation of 100.

To calculate your score, we convert your percent score to a standard three-digit score so that we can compare candidates' scores from different sittings of the exam. Your standard score is not equal to the number of questions you answered correctly on the Written Component, or to the number of checklist items that you did correctly on the Clinical Component.

I failed the exam. What do I do now?

If you fail an exam you have several options. You can:

- Apply to take the exam again.
- Request rescoring of your exam.
- Request administrative reconsideration.
- Request a file review (Clinical Component only).

You should request everything you want at the same time. If you wait for some of your requests, you may miss the deadline date.

How do I apply to take the exam again?

We include information about repeating the exam in your results package, if you fail the exam. You will need to apply for the exam again. You can get the application form from the website.

I failed the Written Component. Why can't I try again on the next date for the Written Component?

We include information about applying for another exam in your results package. This package includes the date of the next exam that is available to you. You cannot apply for an earlier date, even if there is an earlier date on our calendar.

The time between exam administrations varies. We need to be sure that anyone who failed an exam has the same opportunity to receive results, complete an application and register. We also need to allow enough time to complete our office procedures and send information to the exam site.

Why do I have to pay the fees to take the exam again?

We set exam fees to cover the costs to administer each exam. If you fail an exam, you must send the full exam fee with your application to repeat the exam.

Rescoring

I think my score is wrong. How do I request rescoring of my exam?

We check exam scores carefully before we release results. If you still think your score is wrong, we can rescore your exam.

You can request rescoring on the form that we include in your results package. Please read the form carefully and make sure you send it to us before the deadline date. We cannot do rescoring after the deadline date.

What happens in rescoring?

We rescore exams by hand, following the answer key for the exam.

For the Written Component, we check to make sure that you got credit for all your correct answers. We also check to see if the scanner counted bubbles that you erased. We do not review the answers in your exam booklet. We only rescore the answers on your answer sheet.

For the Clinical Component, we check to make sure that you received credit for all the checklist items that the examiner said you did correctly. We recalculate all your station scores, and we remark your written station answers.

If your exam outcome changes after rescoring (i.e., if your results change to a pass), we will refund your rescoring fee, and we will refund any fees you have paid to take the exam again.

How long does rescoring take?

We complete all the rescoring requests at one time, after the deadline date. We will send your rescoring result about 2-3 weeks after the deadline date for the Written Component and about 3-4 weeks after the deadline date for the Clinical Component.

Administrative Reconsideration

What is administrative reconsideration?

Sometimes something happens that makes it harder for you to do your best. For example, you might be sick before or during the exam, you could have a family emergency, or something could be wrong with the administration of the exam. If these kinds of problems affect your exam, you might want to ask for administrative reconsideration.

You should read the information in your results package carefully, and make sure you send your request for administrative reconsideration before the deadline. We cannot do an administrative reconsideration after the deadline.

What do I have to send for an administrative reconsideration?

You have to send the administrative reconsideration application form, your payment, and a letter outlining the reasons for your request. You may have to include supporting documents. If you are not sure what to send, contact our office.

When should I send my administrative reconsideration?

You must send your request by the deadline date on the application form. If you do not have all your supporting documents, send the request and your payment before the deadline. In your letter you can tell us what documents you are waiting for and when you expect to send them.

What if I was sick?

There are special rules if you were sick on the day of the exam. You must send your request for administrative reconsideration **within 14 days of the exam**. You cannot wait until you get your results.

How long does administrative reconsideration take?

It depends on how complicated your request is. If we have all the information, we can usually send our decision quickly. If we have to wait for documents, or if we need to contact people to investigate your request, it may take longer. We will tell you if we need more information, or if your request will take longer than usual.

File Review

What is a file review?

A file review provides more detail of your performance on the Clinical Component. You cannot get a file review for the Written Component.

How do I request a file review?

You have to send the application form and your payment.

How long does a file review take?

If we receive your request by the deadline date, we will prepare your file review so that you will have it about 2 months before the next exam. If we get your request after the deadline date, we will do our best to send your file review as soon as possible.

We prepare all the file reviews for one exam at the same time, about 4 weeks after the deadline date.

What information will I get in my file review?

There is a sample file review on The Alliance website. You can review the sample to see the kind of information that you will receive. Each file review will be different, depending on the examiners' comments, and on the trends in your performance.

The file review will not give you information about the specific tasks in the stations, or about the specific things that you did wrong.

I passed the exam, but I want to know about my weaknesses. Can I get a file review?

File reviews are only available for candidates who need to take the exam again. The PCE is not designed to provide diagnostic feedback for areas of weakness.

Can I review my exam to see how I did on each question or on each station?

No, you cannot review your Written Component exam booklet or answer sheet, and you cannot review your Clinical Component test sheets. These materials are confidential and we do not allow candidates to review them after the exam.

When you take the Written Component, you put your name, your candidate ID number and your booklet number on your answer sheet. You also put your name and ID number on your exam booklet. We crosscheck this information carefully to make sure that the results we are reporting are your results.

In the Clinical Component, each test sheet has a barcode label with your candidate ID number. We check this information carefully during scoring to make sure that the results we are reporting are your results.

What Are the Psychometric Features of the Exam?

We use the best available evidence in measurement and evaluation research literature to guide each step in the development and maintenance of the Physiotherapy Competency Examination (PCE).

What is validity?

The validity of exam results is the extent to which the scores measure what we want to test. In the assessments used for licensure decisions for health care professionals, we measure the competence of individual practitioners entering practice. In other words, do candidates who successfully complete the PCE have the competence to perform at the desired level of proficiency? Also, do candidates who are not successful fall short of the necessary level of proficiency?

What evidence is there that the results of the PCE are valid?

Validity is built into an exam program. In licensure testing, this is done by thoroughly reviewing the competencies a candidate needs to have to practice safely and competently (the *Analysis of Practice*³). These competencies determine the content domain – the areas of study – from which the exam will be built. Decisions that are made based on the exam scores can be considered valid when an exam has been built by sampling from the specified content domain according to a pre-determined formula (also known as the exam blueprint).

Establishing the validity of exam inferences (the decisions that are made based on exam results) is a process that takes place by accumulating evidence over time. Evidence that supports the validity of the decisions made based on PCE results includes the following:

CONTENT ASPECT OF VALIDITY

- The Cost and Structure Study⁴ (1998)
- *Analysis of Practice 2008*⁵
- The Blueprint for the PCE (2009) (included in the *Analysis of Practice 2008*)
- An extensive local and national consultation process to develop and review exam items and stations
- Processes for translating and verifying translation for all exam items and stations

³ Canadian Alliance of Physiotherapy Regulators. (2008). *Analysis of practice 2008: A report on physiotherapists' practice in Canada*. Toronto: Author.

⁴ Canadian Alliance of Physiotherapy Regulators. (1998). *A study to examine the structure and cost of the Physiotherapy National Examination*. Toronto: Author.

⁵ Canadian Alliance of Physiotherapy Regulators (2008). *Analysis of practice 2008: A report on Physiotherapists' practice in Canada*. Toronto: Author.

- Standardized quality control of exam administration
- Standardized training of exam site coordinators, standardized clients and physiotherapist examiners
- Examiner feedback on station content

CONSTRUCT ASPECT OF VALIDITY

- *Essential Competency Profile for Physiotherapists in Canada*⁶ (2009)
- The Report on the Use of the Safe Professional Practice Criterion in the Clinical Component of the Physiotherapy Competency Examination (2002)
- The Candidate Demographic Study (unpublished)

STRUCTURAL ASPECT OF VALIDITY

- Support by external testing and measurement experts. Specifically, Dr. Dwight Harley of Psychometric Strategies and Research and Dr. Jodi McIlroy of the University of Toronto provide services for the development and administration of the Written Component and the Clinical Component, respectively.
- Standardized quality control of exam scoring and results processing
- Verification of the quality of the multiple-choice questions through statistical analysis
- The development and consistent use of decision rules for the Board of Examiners
- Verification of borderline results
- Standardized exam sheets
- Documentation of all procedures
- Standardized communication of exam information to candidates
- Selection of testing sites according to pre-determined criteria

GENERALIZABILITY ASPECT OF VALIDITY

- See “What is the reliability of the Physiotherapy Competency Examination?” below.

EXTERNAL ASPECT OF VALIDITY

- Inter-rater Reliability Study, 2008

CONSEQUENTIAL ASPECT OF VALIDITY

- The development and consistent use of decision rules for the Board of Examiners

⁶ Canadian Alliance of Physiotherapy Regulators, Canadian Physiotherapy Association, Canadian University Physical Therapy Academic Council. (2004). *Essential competency profile for physiotherapists in Canada*. Toronto: Canadian Physiotherapy Association.

What is the reliability of the Physiotherapy Competency Examination?

Reliability is the extent to which the scores would be reproducible on repeated administrations of the exam. Since we cannot administer the same exam to the same individuals, we use statistical methods to estimate the reliability based on the results of a single exam given to a single group.

The bodies that develop standards for educational and psychological tests (the American Educational Research Association, the American Psychological Association and the National Council on Measurement in Education) do not set numerical thresholds for reliability, even for use in specific types of decision-making. The reason for this is that a “one size fits all” approach to reliability is not consistent with the context-specific nature of psychometrics. Different standards must be used for different kinds of exam results.

When an exam is testing clinical competence in order to determine whether a candidate should be licensed, it is important that a test consistently classifies candidates as passing or failing relative to a standard. The most important reliability for licensing exams is the consistency of classification: would the same candidates be classified as passing and failing the exam on a repeated administration?

For the Written Component, we use the kr -20 measure for reliability of results. The Written Component consistently achieves acceptable kr -20 values.

For the Clinical Component, on both the total score and the number of stations criteria, we have chosen to use the Subkoviak⁷ approach, which requires identification of the passing score (in standard deviation units) and the reliability of the exam results. With this approach, we can define a coefficient of consistency of classification. The Clinical Component of the Physiotherapy Competency Examination (PCE) consistently achieves acceptable values for criterion-referenced consistency of classification at the passing score for both the total score criterion and the number of stations criterion.

Finally, it is more important that an exam is considered reliable when compared to other exam programs than to an arbitrary external standard. In this respect, for the Clinical Component, Norcini⁸ found that the “reproducibility of the [total binary score] is not equivalent to most written exams, but it is comparable to other Objective Structured Clinical Examination/oral examination formats.”

⁷ Subkoviak MJ, A practitioner's guide to computation and interpretation of reliability indices for mastery tests. *JEM* 1988; 25:47-55.

⁸ Norcini, J. (1998). *Review of the Clinical Component of the Physiotherapy National Examination*. Unpublished report.

What quality control checks have you put in place to ensure that Clinical Component examiners are consistent?

Consistent scoring is very important. We have several processes to ensure that our examiners are consistent.

Each exam site uses local physiotherapists as examiners and markers. This ensures that the examiners and markers are familiar with local terminology and conventions.

All examiners (and all written station markers) must attend a pre-exam training session before they can work on an exam. Examiners must attend training again at least every three years, and many examiners attend more often. Examiners and markers all attend an exam day orientation session. Training and orientation cover the process of marking and the rules for consistent marking.

The Chief Examiners meet before the exam to discuss the exam stations. This meeting helps to ensure consistency across the country.

On the day of the exam, examiners receive detailed scoring guides that cover the stations they are marking. The Chief Examiner helps the examiners to understand the marking guide. If there are questions about a station, the Chief Examiner contacts the Director of Examinations. This ensures that questions and answers are communicated to all sites across the country.

The Written Station Markers have a parallel process of meeting before the exam and exam day support for the markers. The marker and the Local Written Station Coordinator review unexpected answers at the site. The examiner has the authority to accept an answer that is not on the answer key if the answer clearly means the same thing as the answer on the answer key.

If an unexpected answer is not clearly the same in meaning as the answer key, but the examiner and the local written station coordinator believe it should be considered, they refer it to a national coordinator who determines whether the answer is acceptable. The national coordinator makes decisions about accepting unexpected answers and communicates these decisions to all sites for marking. This process helps to maintain consistency of marking across the country.

If you do not pass the Clinical Component, we review the scoring of your written station answers before we send your results to you. This final check ensures that you receive proper credit for written station answers.

How Well Do Candidates Usually Do on the Exam?

Candidates perform very well on both components of the exam, and exam results have been quite consistent over time. Canadian-educated candidates tend to do better than those who did not receive their physiotherapy education in Canada.

How and why do graduates of different Canadian physiotherapy programs perform differently on the exam?

The performance of graduates of Canadian physiotherapy programs varies slightly from one exam to another. Overall, the performance of Canadian-educated candidates is very consistent from year to year, and from program to program.

Many factors could explain why the performance of graduates of a particular university program might vary. It would not be fair to publish the pass rates of physiotherapy programs without information about these factors, especially since these changes in performance are very small.

The Alliance provides confidential feedback about exam performance to the Canadian physiotherapy programs. The programs use this feedback in their program evaluations.

Why is the pass rate lower for internationally educated physiotherapists?

The internationally educated physiotherapists are a very diverse group from many different countries. Many factors affect their success on the exam, including language of education and language of clinical practice, years since graduation, and practice patterns in the country of education (whether they are similar to Canada or different).

Familiarity with the exam format may also affect the pass rate. In other words, candidates who have experienced multiple-choice or OSCE exams during their physiotherapy education program may perform better than candidates who have not experienced these types of exams.

Why do the pass rates on the Clinical Component vary from one exam to another?

The passing rate on the Clinical Component varies from year to year. The passing rate for Canadian-educated candidates is fairly consistent, but the passing rate for candidates educated outside Canada varies more. This is because there is more variety in the education and clinical practice of candidates educated outside Canada. In each exam, the group of internationally educated candidates is different.

Clinical Component Pass Rates

Exam administration	Pass rate total candidate pool	Pass rate: Canadian-educated	Pass rate: Internationally educated
1995	92.8% (n=297)	95.5% (n=276)	67.7% (n=21)
1996	80.9% (n=372)	84.4% (n=356)	42.1% (n=16)
1997	89.4% (n=387)	95.2% (n=358)	50.9% (n=29)
1998	88.5% (n=524)	93.7% (n=492)	47.76% (n=32)
1999	91.9% (n=553)	96.0% (n=497)	66.7% (n=56)
2000	89.5% (n=522)	94.1% (n=462)	65.2% (n=60)
2001	79.9% (n=529)	85.4% (n=469)	52.6% (n=60)
2002	85.0% (n=595)	91.8% (n=504)	60.3% (n=91)
2003	88.67% (n=634)	94.2% (n=531)	68.2% (n=93)
2004	87.3% (n=548)	96.8% (n=454)	59.1% (n=94)
2005	84.1% (n=572)	93.3% (n=473)	57.2% (n=99)
2006	88.5% (n=678)	94.9% (n=536)	70.7% (n=142)
2007	85.5% (n=665)	94.9% (n=505)	65.0% (n=160)
2008	85.2% (n=691)	95.3% (n=506)	66.1% (n=185)
2009	85.0% (n=758)	95.7% (n=538)	66.7% (n=220)

Why don't you adjust the pass rate so the same percentage of candidates passes each time?

The leading psychometric standard-setting body, the American Educational Research Association (AERA), specifically recommends that credentialing tests *do not* use a norm-reference approach - that is, adjusting the passing rate to pass a specified percentage of candidates. Standard 14.17 says

The level of performance required for passing a credentialing test should depend on the knowledge and skills necessary for acceptable performance in the occupation or profession and should not be adjusted to regulate the number or proportion of persons passing the test.⁹

⁹ American Educational Research Association, American Psychological Association, National Council on Measurement in Education. (1999). Standards for educational and psychological testing. Washington DC: American Educational Research Association.

I heard that you use a “bell curve” to mark the exam

The Alliance does not use a “bell curve” to mark the exam. Bell curving means assigning scores according to a pre-determined frequency. This approach controls the passing rate and is not recommended by testing experts (see above).

How Do You Set Exam Fees?

The Alliance is a non-profit organization. The money we need to administer the PCE comes from the exam fees you pay. The fees must cover all the expenses related to the exam program. We do not make a profit from the exam and we cannot operate the exam at a loss.

You pay the same fee to take the exam no matter where in the country you take it.

We set exam fees in advance so that you can budget for the expense. If something happens to increase our costs, we do not charge you more.

What is the money used for?

Exam fees cover many different kinds of expenses:

- Direct costs for the exam program. These include exam sites and personnel, exam consultants, and special needs costs.
- Committee costs for development of exam items and stations, and for exam scoring decisions. These include the written and clinical test development groups and the Board of Examiners.
- Research and quality assurance activities. These include research projects like the *Analysis of Practice*, and quality assurance reporting.
- Operating expenses for rent, salaries and office supplies.
- Indirect expenses associated with Alliance activities. These include meeting expenses for the Evaluation Services Committee, the Executive Committee and the Board of Directors. These committees spend some of their time on exam activities.

Not included in these costs is the significant number of volunteer hours contributed by physiotherapists from across the country who spend time on committee activities related to the exam. These include members of the test development groups, members of the Evaluation Service Committee and members of the Board of Examiners. These individuals are not paid for the hours they work on exam activities.

Why do I have to pay extra for additional feedback?

The exam operates on a break-even basis. You must pay the costs of any additional services that you request.

Why do exam fees go up?

We pay careful attention to exam expenses and revenue. We sometimes have to adjust exam fees to cover increasing costs. When this happens, we publish the new fees in advance so that you can budget for these expenses.

Who Does What for the Exam Program?

Many individuals and groups are involved in the exam program. Most of them are volunteers who use their clinical, management and measurement skills to provide advice to The Alliance. Some of the groups are listed below.

WRITTEN TEST DEVELOPMENT GROUP AND WRITTEN ITEM GENERATION TEAMS

Physiotherapists from across Canada who develop and revise questions for the Written Component.

CLINICAL TEST DEVELOPMENT GROUP AND CLINICAL ITEM GENERATION TEAMS

Physiotherapists from across Canada who develop and revise stations for the Clinical Component.

EXAM STEERING GROUP

The Chairs of the Written and Clinical Test Development Groups, who provides advice and guidance on the operation of the exam program.

BOARD OF EXAMINERS

Physiotherapists from across Canada who sets the standard for passing the Physiotherapy Competency Examination. The Board of Examiners includes one or more bilingual physiotherapists. The Board reviews critical incidents and sets passing scores for the exams.

EVALUATION SERVICES COMMITTEE

A group of physiotherapists, measurement experts and credentialing experts who provide oversight for the credentialing and exam programs. The Evaluation Services Committee is responsible for setting and monitoring standards for the credentialing and examination programs and assuring the effective delivery of these services.

Do you decide whether a candidate can be registered or licensed to practice physiotherapy?

The Alliance does not decide who can be licensed to practice physiotherapy because The Alliance is not a regulator. We provide exam results to the physiotherapy regulators. The regulators make decisions about who can and can not register to practice.

The regulator's role is to protect the public. Regulators do this through various processes, including registration requirements. Some regulators in Canada require successful completion of the PCE as a condition of registration. Some regulators will allow you to work under a temporary certificate of registration while you are waiting to complete the PCE. Each regulator has different processes and rules that apply if you fail a component of the exam.

How Do You Develop the Physiotherapy Competency Examination?

We develop the PCE by analyzing current physiotherapy practice, creating the exam blueprint and writing the questions.

Who decides what goes on the exam?

We determine the content of the exam by researching the activities that physiotherapists in Canada perform as part of their practice. The *Analysis of Practice 2008*¹⁰ studied the activities physiotherapists in Canada do, how often they do them and the consequences of doing them incorrectly. We used data from this study to update the exam blueprint.

What is the exam blueprint?

The exam blueprint is a guide to the content of the Written and Clinical components. It shows how much each area of practice and function is worth on the exam. The Written and Clinical Test Development Groups use the blueprint as a guide when they write questions. Each exam matches the blueprint for the proportions from the areas of practice and the functions.

Who writes the questions?

Item generation teams write the exam questions and stations. These teams are located across the country. Members of the teams are physiotherapists who have experience in all areas of physiotherapy practice. Some of the team members are recent graduates of Canadian physiotherapy programs. Written item generation teams write multiple-choice questions for the Written Component, and clinical item generation teams develop stations for the Clinical Component.

Who approves the questions?

The national test development groups approve the questions and stations. The Written Test Development Group (WTDG) approves the multiple-choice questions, and the Clinical Test Development Group (CTDG) approves the clinical stations. The members of both the WTDG and CTDG are physiotherapists from across the country, and have experience in all areas of physiotherapy practice. Some members teach in Canadian physiotherapy programs.

We review exam questions and stations regularly, and we make changes based on statistical feedback and feedback from staff, volunteers and candidates. The review of clinical stations includes a review of the task, the instructions to the standardized client, the checklist and the answer key.

¹⁰ Canadian Alliance of Physiotherapy Regulators. (2008). *Analysis of practice 2008: A report on physiotherapists' practice in Canada*. Toronto: Author.

How Do You Maintain the Quality of the Exam?

We continuously review and maintain the quality of the Physiotherapy Competency Examination (PCE) through the Exam Monitoring and Evaluation Program.

What is the Exam Monitoring and Evaluation Program?

The Exam Monitoring and Evaluation Program is a comprehensive research and quality assurance program for the exam. It oversees the research and quality assurance activities related to the exam, and it makes improvements to the exam based on the results of these activities.

What research do you do related to the exam?

Some examples of recent research projects are

- Inter-rater Reliability Study
- *Analysis of Practice 2008: A Report on Physiotherapists' Practice in Canada*

What quality assurance processes do you use for the exam?

Incident reports, site feedback reports and feedback from examiners, standardized clients and candidates are all part of our regular quality assurance.

To improve exam processes, we provide feedback to everyone involved. We report to the exam sites on organization, catering and staff, to the item development committees on station content and scoring, and to The Alliance staff on materials and procedures.

Who oversees the Exam Monitoring and Evaluation Program?

The Evaluation Services Committee (ESC) provides advice to the Board of Directors of The Alliance about research and quality assurance for the exam. The ESC reviews planned research, research reports and quality monitoring reports, and makes recommendations to the Board of Directors. Members of the ESC include physiotherapists, regulators, exam consultants and external advisors.

How Do You Translate Exam Materials?

We have a multi-staged translation process to ensure that each exam question is accurate in both languages before we print and distribute the exam materials.

Who participates in the translation process?

French-speaking and bilingual physiotherapists and physiotherapy faculty members participate in the translation process. Here is a brief explanation of the main contributors involved and their primary responsibilities:

Name of group	Members	Responsibility
Exam Steering Group	<ul style="list-style-type: none"> • Chair of WTDG • Chair of CTDG • The Alliance Director of Examinations 	Oversee translation requirements for the exam.
External translators	Individual translators or translation services contracted by The Alliance	Prepare and check translations.
Physiotherapists	Bilingual physiotherapists who speak French as their first language	Verify translations and physiotherapy terminology
Alliance staff		Assist with preparing and checking translations.

What are the steps in translating and checking exam questions?

We translate new questions for both the Written and Clinical Components of the PCE in several stages. Here is a brief explanation of the major activities during each stage:

STEP 1: IDENTIFY NEW OR CHANGED QUESTIONS FOR TRANSLATION

- Request translation of new or changed items (WTDG or CTDG).
- Remove the changed items from the active item bank so they won't be used for exams (staff and exam consultant).

STEP 2: TRANSLATE THE ITEMS

- Translate the new or changed items (external translator).

STEP 3: CHECK THE TRANSLATION

- Check each translated question for accuracy and completeness (bilingual physiotherapist).
- Proofread the translations (bilingual physiotherapist).

STEP 4: UPDATE EXAM QUESTION BANK WITH NEW TRANSLATIONS

- Import the translated questions into the exam software (staff and exam consultant). Questions are now ready for upcoming exams.

STEP 5: PREPARE EXAM ADMINISTRATION

- Select exam questions according to the exam blueprint (staff and consultant).
- Approve the English exam (WTDG chair or CTDG chair).
- Confirm that a French translation exists for all questions selected.
- Check the translation of all exam questions (bilingual physiotherapist).
- Review corrections (Alliance staff).
- Approve the translations of all exam questions (bilingual therapist).
- Import corrections into the exam software (staff and consultant).
- Proofread the final draft of exam materials (Alliance staff).

Do you compare exam scores for French and English candidates?

After each exam, we review the French and English exam scores (when the numbers allow this) to confirm the fairness and accuracy of both French and English exams. Here is a brief description of that process:

1. Analyze the scores from the French and English Written and Clinical components of the PCE (completed by exam consultants).
2. Identify any significant differences between the average scores for the French and English exams.
3. Identify any items that have an unexpected response pattern (completed by exam consultants).

Exam items identified in steps two and three receive careful scrutiny.

How do you review the Written Component?

1. Review the exam questions that we identified in steps two and three above and check them for accuracy (bilingual physiotherapist, the Chair of WTDG and Director of Examinations).
2. Meet to discuss identified questions. This may result in
 - deleting the question from the exam score; or
 - accepting other correct responses.

How do you review the Clinical Component?

1. Review exam stations that we identified in steps two and three above and check for accuracy (bilingual physiotherapist, the Chair of CTDG and the Director of Examinations).
2. Adjust scoring for identified stations or parts of stations if necessary to ensure fairness.
3. Review all identified stations and other issues affecting final scores (Board of Examiners).
4. Determine total score, number of stations and other factors required to pass the Clinical Component of the exam (Board of Examiners). The Board of Examiners considers many factors in making these decisions.

What translation reference material do you use?

Our translators use a variety of translation reference materials when they translate and check exam questions. In addition to French translation resources (dictionaries), we also use leading medical translation materials. Here are just a few examples:

- Canadian Alliance of Physiotherapy Regulators. (2006). *Lexicon of Terms/Lexique de termes*. Toronto: Author.
- Lussier, A. and Dionne, S (Eds.). (1990). *Vocabulaire de sémiologie de l'appareil locomoteur Volume I: signes cliniques/Vocabulary of Signs and Symptoms of the Musculoskeletal System Volume I: Clinical Findings*. Ottawa: Canadian Government Publishing Centre.
- Lussier, A., Beuregard, G. and Dionne, S. (Eds.). (1992). *Vocabulaire de sémiologie de l'appareil locomoteur Volume II: signes d'imagerie médicale/Vocabulary of Signs and Symptoms of the Musculoskeletal System Volume II: Medical Imaging Signs*. Ottawa: Canada Communication Group.

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Glossary of Terms

Active Question Bank – The full list of all the active written exam questions or clinical exam stations that are available to use on an exam.

Angoff method – A method of standard-setting based on the expected performance of candidates. A panel of experts estimates the probability that borderline (or minimally competent) candidates will answer each question or station correctly. In this method, the passing score is the sum of the probabilities of each question, expressed as a percentage.

Board of Examiners – A group of physiotherapists from across Canada that is responsible for setting passing scores for the exams.

Checklist Items – The activities, or components or activities that the examiners are watching for during stations on the Clinical Component. The examiners give credit for each checklist item that is done correctly.

Clinical Test Development Group (CTDG) – A group of physiotherapists from across Canada that is responsible for reviewing and approving stations for the Clinical Component.

Communication Ratings – The three standard ratings about communication skills on the ten-minute stations. These ratings are:

- *The candidate was concise and used language that was understandable to the client.*
- *The candidate used nonverbal communication (gestures, body language, and eye contact) effectively.*
- *The candidate demonstrated appropriate listening skills.*

Content domain – The entry-level tasks and activities performed by physiotherapists in Canada, as identified in the Analysis of Practice and listed in the exam blueprint.

Credentialing Evaluation Letter – A letter sent to internationally educated physiotherapists who have completed The Alliance’s credentialing process.

Declaration of Identification – A form that confirms the identity of a candidate. We need a completed Declaration of Identity for all exam candidates. See the Candidate Handbook for more details. Forms are on The Alliance website.

Entry to practice – The point in an individual’s preparation and training at which s/he is ready for licensure for independent practice.

Exam consultants – Testing and measurement experts (psychometricians) hired by The Alliance under contract to provide advice and support for the exam program.

Five-Minute (Couplet) Stations – Stations on the Clinical Component that have two parts, a five-minute clinical encounter followed by a five-minute written station.

Inferences – The conclusions that are made based on exam scores.

KR-20 – A statistical measure of the reliability of an exam.

Multiple-Choice Question (MCQ) – A type of exam question that has a stem (the question) and several answer options. One option is the best answer; the other options are called distractors. The PCE Written Component uses MCQs with four answer options. Many of the questions on the PCE are associated with a vignette (a scenario).

Number of Stations Criterion – The requirement that candidates must pass a defined number of stations to pass the exam. The Board of Examiners sets the number of stations required to pass.

Objective Structured Clinical Examination (OSCE) – A performance exam that uses stations with standardized clients, so that each exam candidate performs that same tasks and activities.

Passing Score – The minimum score required to pass an exam.

Pass Rates – The percentage of candidates who pass an exam.

Performance Ratings – The three standard ratings about performance skills on the Clinical Component stations. These ratings are:

- *The extent to which the candidate treated the client with dignity and respect.*
- *The extent to which the candidate demonstrated an organized approach with the client.*
- *The extent to which the candidate demonstrated appropriate techniques with the client.*

Prior Learning Assessment and Recognition (PLAR) – A program available to credentialing applicants who have a negative credentialing outcome but are missing only a small part of the credentialing requirements. The credentialing process will identify if an applicant's education is not substantially equivalent to the Canadian educated but sufficiently close to be eligible for PLAR. **Prior Learning Assessment** is a method to review if an applicant has other education or experience (formal or informal education) in the area(s) of deficiency. **Recognition** is a method of assigning credits to (recognizing) the applicant's previous education, experience and pre-learning. Remediation is a method of acquiring education in the area(s) of deficiency.

Psychometric – Pertaining to measurement and evaluation. Psychometrics is the study of educational and psychological measurement, including measurement of knowledge, skills and abilities and the construction and validation of measurement instruments (tests).

Question – One multiple-choice item in the Written Component or one station in the Clinical Component of the Physiotherapy Competency Exam.

Standard Error of Measurement (SEM) – A statistical term used to estimate of the amount of random error in the measurement process.

Standard Score – A score on a scale with a defined mean (average) and standard deviation. The Alliance uses a standard score scale with a mean of 500 and a standard deviation of 100.

Station Score – The candidate’s score in one clinical station.

Subkoviak Approach – A method of determining the likelihood that a candidate repeating the exam would achieve the same result (pass or fail). The Subkoviak approach uses the passing score and the reliability of exam result to calculate a consistency coefficient.

Ten-Minute Stations - Stations on the Clinical Component that are ten minute long.

Total Score Criterion – The requirement that candidates achieve a defined score to pass the exam. The total score is calculated by averaging the candidate’s scores across all 16 stations.

Written Station Score – The component of the score for a five-minute station that is calculated for the written part of the station. The Written Station Score is 50% of the total score for that station.

Written Test Development Group (WTDG) - A group of physiotherapists from across Canada that is responsible for reviewing and approving questions for the Written Component.