Improving India's exam standards

Challenges facing test owners

- Accurately measure knowledge
- Challenges to deliver new assessments
- Improving the candidate test experience
- Worry about test cheaters
- Concerns with test leakage

Report 2016
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## Glossary

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<tr>
<td>CBT</td>
<td>Computer-based testing</td>
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<td>P&amp;P</td>
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Introduction

The story of high stakes testing in India is one of renewal and growth.

This study, commissioned by Pearson VUE in partnership with IMRB International and based upon the experiences of 100 test owners in assessing nearly 500,000 test candidates over a 12 month period, identifies the key challenges in improving professional competency. It reveals some fundamental concerns about the effectiveness of professional exams but also optimism about the future of their testing programmes.

A question of purpose

The purpose of any high-stakes professional exam is to be able to make a decision, typically based on a pass or fail, about whether a test-taker has demonstrated the relevant competency, skills and knowledge to be successful in a given profession or is likely to succeed in a given university path. India has a long, proud history of assessment and in such a large, densely populated country, the need for rigorous assessment processes is paramount.

Equally, there have been widespread concerns reported in the Indian media regarding the quality of some assessments at multiple levels – including professional exams. Moreover, there have been concerns about the effectiveness of a test in fulfilling its primary objective: a legally defensible measure of a specific competence.

But what do test owners themselves – those responsible for developing, updating, and delivering professional tests – really believe? Is there room for improvement and if so, where?

It is important to understand what challenges test owners in India face to meet the 21st century assessment needs of professionals and university applicants. We have sought to identify these key challenges, whether tests are delivered through paper and pencil (P&P) – for a long time the accepted method of many forms of testing – or the relatively new trend towards computer-based testing (CBT) methods.

About the research

Through our research partner IMRB International, we interviewed 100 senior representatives of India’s influential test owners. The research, which was completed in 2015, had participants from professional and private bodies and organisations that develop and administer testing for professional certification, license to practice, entry into employment or university.

The test owners were interviewed from across sectors such as medical, finance, university admissions, IT and other professional sectors.

About the test owners

Test owners in this study account for nearly 500,000 learners/test-takers in a 12 month period. Each test owner is responsible for delivering 11 different exams on average. Where applicable, the average train-to-test ratio for these programmes is 78%, whilst training is mandatory for 77% of testing programmes.

The breakdown of test administration method is almost equal between P&P and computer-based testing, with CBT used slightly more at 51%.

Test question formats

The most common form of testing is multiple-choice (74%) or multiple-choice single responses (60%). Only 15% of CBT users use essay questions in contrast to the P&P users, 62% of which use essay questions. A similar trend can be found in short-answer responses, being 14% amongst CBT users and 58% amongst P&P users. Instead, the vast majority of CBT users are running a form of multiple-choice test. Other forms of testing such as true/false and/or fill in the blanks (26%) are also employed.
The top challenges for test owners/administrators in India

1a. Accurately measuring relevant competencies

One of the key findings uncovered in this study is the challenge that some test owners have in fully understanding whether their assessment is fulfilling its purpose. Over 4 in 10 (42%) are finding it a challenge knowing whether their test is a true measure of relevant professional or other knowledge.

For many of these organisations, assessments are a fundamental part of their purpose. Indeed, the scores gained on many of these tests may enable life-changing career decisions – allowing professionals to practice or study in a professional sector. Overcoming test development challenges so that a given test measures a candidate’s competence is therefore, fundamental.

Of course, this result does not mean that tests are not currently fulfilling their purpose. Yet, it does suggest that the process of ensuring and proving that high stakes tests fulfil their purpose is complex and perhaps not without room for improvement.

There could be a number of reasons for the concern in tests fulfilling their purpose. For example, a similar number (38%) find the restrictions of the exam format a challenge – which may in part have an impact on the ability to fulfil the test purpose.

The success of a test is reliant upon a number of inter-related factors and processes, starting with a clear understanding of test objectives, a robust test design, the appropriate test format, well-crafted test questions, statistical analysis of item and test performance and so on – all of which help contribute to the ability to create a valid, fair and reliable test.

So this critical challenge may well point to the need for better education and support for test owners on test development best practices.

1b. Keeping exams fresh and relevant

Technology, competition, innovation – the pace of change is accelerating how we work. So the methods and tools that we need to measure the competency of professionals may also need to adapt to reflect such changes. Over a third of test owners (38%) are finding it difficult to maintain the relevancy of their assessment. That is, keeping the assessment up to date to reflect current practice, legislation and processes.

This difficulty in maintaining relevancy could be a symptom of a wider problem with almost half of test owners (43%) reporting challenges in developing new assessment content. Since this content – the test questions – is the lifeblood of an exam, it is certainly an issue that needs greater attention.

The need for fresh and relevant content also has to be balanced with the cost of creating and maintaining it, and this can be an obstacle for test owners. However there are potential solutions to all these challenges with the greater use of third party suppliers, not just in test administration but also in the test development process. Certainly, a number of exam administrations are supported by third party suppliers, although interestingly over a fifth (21%) are reporting challenges with their supplier relationship management.

The challenges of developing new content and maintaining relevancy to the evolving professional environment may also be connected to the challenge of knowing whether the test accurately measures relevant competency. This again points to the potential benefits of reviewing current test development practices and standards.

2. Concerns about candidates cheating in high stakes exams

Barely a month passes without a new cheating scandal exposed in the global media. So concerns amongst India’s professional test owners are not surprising. However, the extent of those concerns is somewhat alarming – with almost half (46%) concerned that candidates are cheating in exams. More so, over a third (35%) are concerned with candidate impersonation during an exam. The implications for this can be far reaching in both professional and higher education and indeed may even have implications for the general public if candidates are obtaining professional certifications fraudulently.

Even test leakage – before the exam – is of significant concern (39%), with the implications of this being that many more candidates could have the potential to cheat through leakage. Such exposure is typically associated with P&P tests and the associated test paper distribution process.

Test owners also believe that cheating on exams is a problem that is worsening.
3. A good candidate experience is important, but not easy to deliver

The growing sophistication of technology in all spheres of the customer experience, including learning and assessment technologies, combined with the far greater ability and ease of candidates in sharing both positive and negative experience of learning, via social media for example, has put far greater emphasis on organisations in delivering a better candidate experience.

Expectations of candidates in India – and around the globe – of the speed, ease and quality of the learning and assessment experience have grown. Yet, almost 3 in 10 test owners (29%) are finding it a challenge to improve the overall candidate experience during testing.

Indeed, some of those challenges can be pinpointed to areas such as registration and scheduling (32%) and the speed of feedback of results to candidates (36%). Often, a job offer is dependent upon successful completion of a professional certification whilst a number of programmes can still take several weeks to feedback a pass/fail. Not only does this add anxiety to candidates, it may also have a negative effect on career chances.

The potential causes of such challenges appear to relate to the current administration set-up of some test owners (32%), whilst a smaller number point to the challenge of an increased operational burden (22%), which may also relate to an increasing number of candidates taking relevant exams whilst the operational system is not perhaps keeping pace.

Nearly 3 in 10 test owners are finding it a challenge to improve overall candidate test experience during testing.

Potential solutions
Test practices vs technology

1. The need to adopt international best practices in test development

The biggest challenge for India’s test owners is having complete confidence in making life-changing decisions through their assessments. In order to make those decisions, their exam needs to provide a true measure of competency. Within that, they also need to be able to maintain its relevancy.

To truly build that confidence, test owners may have to consider re-evaluating their current test development and delivery processes – from creating test blueprints which outline the test objectives and test design to the test question format, and writing processes. Some of these processes can be supported by technology, but overcoming this challenge requires test development expertise and potentially wider adoption of international testing standards.

Technology itself does not offer a total solution to the challenges faced by test owners in better ensuring that their tests fulfil their primary purpose, yet it can arguably better facilitate routes in reaching this end goal. For example, technology may have a limited role in helping to ensure that an exam question is the ‘right’ question, but it can certainly open up possibilities - providing there is appropriate processes in place to outline the test objectives and test design - for ensuring a question is asked in the most suitable format. Item writing can be better facilitated through online collaboration tools, and the psychometric expertise to interpret these reports can better measure the performance of exams.

82% of test owners state that testing can be innovative with CBT.

70% of test owners state that CBT offers a variety of question types and administration models.

One of the most appealing models (53%) appears to be computer adaptive testing (CAT), whereby question selection can be based upon candidate performance on the questions previously answered.
2. Making assessment more innovative and varied

India’s test owners recognise the benefits of a computer-based high stakes testing solution, with 82% stating that testing can be innovative with CBT. In particular, the choice of question formats, with 70% stating that CBT offers a variety of question types and administration models. One of the most appealing models (53%) appears to be computer adaptive testing (CAT), whereby question selection can be based upon candidate performance on the questions previously answered.

There is clearly a trend towards greater CBT adoption in India. Of the 47% who currently use P&P, 34% said they are likely to move to CBT in the near future. The vast majority (81%) of all test owners agree that there is no alternative to CBT that is more reliable.

Certainly, a note of caution must be exercised when referring to CBT. Unlike P&P, CBT is available in many forms and offers widely differing advantages – and disadvantages – depending upon the technology employed and supporting infrastructure. For example, an online test delivered over a browser in the workplace and a proctored, computer test delivered in a dedicated test centre are both accepted forms of CBT but offer different levels of convenience, exam integrity and security.

Perhaps in part because of these different technology solutions or confusion surrounding them, CBT is not without its own challenges. Test owners recognise many benefits but they also point to perceived issues, which must be better addressed by the CBT community.

Overall, we see that test owners recognise that there is plenty of room to improve their current assessment practices and that technology has a significant part to play in safeguarding the successful measurement of tomorrow’s professionals and the future of their own organisations.

3. Improving the candidate experience

Whilst test owners are clear that there are aspects of the candidate experience that are proving challenging, they also recognise some of the ways that CBT can improve them.

Most obviously, is the recognition that it offers expanded test centre coverage (85%), along with the understanding that it can enable candidates to take their exam at a more convenient time (64%).

Part of the difficulty in improving the candidate experience may be the labour costs in running current exam programmes. However, 60% of test owners believe that CBT can reduce administration burdens.

4. Enhancing exam security...

CBT is largely recognised for making the delivery of exams more convenient and making exam content – the most precious commodity of any exam – more secure. Almost two thirds (64%) of India’s test owners state that CBT would reduce the opportunity to cheat and enhance test security.

Looking to the future, almost half of test owners (45%) believe that the further advancement of technology will minimise cheating.

Cheating may never fully be eradicated by technology, but it can be minimised. P&P has obvious flaws in terms of ease of administration and test security. Conversely, there are different levels of enhanced security offered through CBT. Whilst more secure than P&P, some prevalent forms of CBT in India such as online tests delivered without a live or remote proctor are currently best suited to lower-stakes exams.
**Shared concerns: relevancy and trust**

Two key concerns have been expressed both in this study and in our previous research of the 100 India Employers - Assessing the Right Talent and Job Readiness for India's Professionals (which asked hiring managers about their recruitment challenges). Those shared concerns are around the relevancy of exams and trust in credentials.

**Trust**

Trust is a big theme across employers and test owners: in the quality of a credential, in how the candidate gained a qualification i.e. fairly and, ultimately, in a candidate’s ability to perform a job role.

In the Employer research, there were significant trust issues highlighted with job applicants at all levels, with 7 in 10 hiring managers concerned about false claims on CVs. There was also notably less trust in credentials gained through P&P. Indeed, 82% said that CBT was more secure and 65% said a certification was more trustworthy when gained through CBT. In parallel, test owners are also concerned with the level of cheating. Similarly, they also (64%) said that CBT minimises cheating.

If CBT is seen as the best solution to minimise against cheating and so improving the perception of a specific credential, then why is it that not all test owners are using it? Is there more influence that employers could assert to help move more test owners to CBT?

**Relevancy**

Somewhat related to trust is relevancy of the credential. As we have already noted, test owners are finding it a challenge to maintain the relevancy of their assessment. For employers, finding senior candidates with the right credentials and ascertaining the ability of entry-level candidates were key reported issues. These challenges perhaps point towards the potential impact of delivering training and assessment which is not completely relevant to the workplace.

One solution to the relevancy conundrum offered by employers could be to create more specialist certifications, more advanced certifications – and more pathways. But whether new or existing, the right processes, tools and people need to be in place to ensure learning and assessment content maintains its relevancy to the sector, job roles and the employer.
Methodology

Objectives: To better understand the challenges faced by test owners and identify need and readiness for better methods of professional testing in India

Methodology: A primary study with a personal interview approach (face to face/telephonic) approach was implemented. Each interview took an average 15 minutes

Samples: A collection of professional groups/boards that award certification through Pen and Paper or CBT: respondents included senior managers, and exam controllers

Time Table: Data collection was conducted from October to March 2015

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Research Execution and Analysis: IMRB International, Chennai, India

About Pearson VUE
Pearson VUE (www.pearsonvue.com) is the global leader in computer-based testing for high-stakes certification and licensure exams in the healthcare, finance, information technology, academic and admissions markets. We offer a full suite of services to develop, manage, deliver and grow test programmes for over 450 clients via the world’s most comprehensive network of highly secure test centres in 180 countries, and through online solutions. Pearson VUE owns Certiport, the global leader in foundational IT certification solutions, and is a business of the world’s leading learning company Pearson (NYSE: PSO; LSE: PSON).