

Testing International

Volume 42, December 2019

Editor: Nicky Hayes



International Test Commission

PRESIDENT

Kurt Geisinger

Buros Center for Testing / University of Nebraska, USA

PRESIDENT-ELECT

Aletta Odendaal

Stellenbosch University, South Africa

SECRETARY-GENERAL

Paula Elosua, Universidad del Pais Vasco, San Sebastian, Spain

TREASURER

April Zenisky, University of Massachusetts Amherst, USA

COUNCIL MEMBERS

Elected Members

Anna Brown, University of Kent, United Kingdom

Neal Schmitt, Michigan State University, USA

Stephen G. Sireci, University of Massachusetts Amherst, USA

Solange Wechsler, Pontificia Universidad Catolica de Campinas, Sao Paulo, Brazil

Co-Opted Members

Dragos Iliescu, SNSPA Bucharest, Romania

Kadriye Ercikan, Educational Testing Service, USA

Peter Macqueen, Compass Consulting, Australia

Wayne Camra ACT Inc.

Observers

Samuel Greiff, Université du Luxembourg, Luxembourg

Gonggy Yan, Beijing Normal University

REPRESENTATIVES

IUPsyS Representative Ann Watts, IUPsyS

IAAP Representative Jacques Gregoire, Université Catholique de Louvain, Belgium

EDITORS

International Journal of Testing

Stephen Stark, University of South Florida, USA

Testing International

Nicky Hayes, United Kingdom

**Testing International
is a publication of the
International Test Commission**

Contents

ITC President's Message	2
Editor's Message	3
Conference News	5
Publication and Communications Committee	7
International Journal of Testing update	8
Membership, Involvement & Marketing Committee	9
Research & Guidelines Committee	12
Around the World: the SIP	13
Book Review: schooling across the globe	16
Compêndio de Avaliação Psicológica	17
ITC book series: new book preview	18
Philippe Sonnleitner: Gamification - 3 Lessons learned	22
Keesha Taylor: Diminishing academic cheating	26

The 12th Conference of the International Test Commission

Diversity and equity in a globalized digital world:
Opportunities and challenges for assessment

Save the date

Call for Papers and Symposia
15 July 2019

Deadline for Workshop Submissions
31 October 2019

Deadline for Paper and Poster Submissions
15 December 2019

Deadline for Symposia Submissions
15 December 2019

Registration starts
1 February 2020

uni.lu
UNIVERSITÉ DU LUXEMBOURG

Faculty of Language and Literature, Humanities, Arts and Education

For news updates, visit www.itc-conference.com.
For questions, contact us at itc@uni.lu

ITC President's Message



Kurt Geisinger
President,
International Test
Commission

Kurt Geisinger
Buros Centre for Testing /
University of Nebraska

As those of us in the northern hemisphere face the cold weather season, I for one am looking forward to the summer, and am in particular looking forward to a summer highlight: the International Test Commission biannual conference in Luxembourg. It is hard not to wax poetic or hyperbolic about the impact of the conference. I have attended the ITC conferences since 1999 when there were two conferences organized by the International Test Commission: one was a semi-recognized conference on test adaptation at Georgetown University in Washington, DC and the other was the official ITC conference at the University of Graz in Graz, Austria. Both were outstanding conferences—academic mountaintops (which is easier to imagine in Austria than in the geological and political swampland of Washington, DC). And the ITC conferences have only become better and better.

When you receive this message, you may still have time to submit a symposium, paper, or poster. I hope you do. The more different voices the better. Testing in all its venues (clinical, educational, and industrial-organizational as examples) is a wonderful profession and we should all be proud both to enjoy it and to share what we have learned with others. To me, that is the single greatest aspect of the conference.

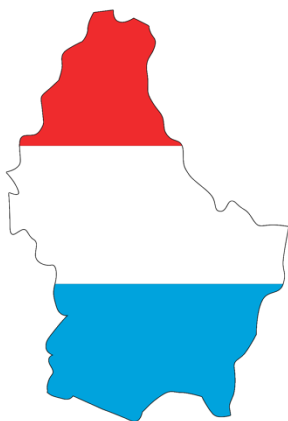
Sharing internationally has become easier with the Internet. But face-to-face sharing continues to be best! I have seen the listing of invited speakers and it is an impressive list. Hearing from David Bartram or Barbara Byrne alone is worth the price of admission and I hope Ron Hambleton will be there; meeting him and catching his enthusiasm is equally valuable.

As a student/intern some 44 years ago, I was working with a distinguished psychometrician. He told me that when he was my age (at that time) he thought he had invented a new and great statistical procedure. He said he had spent a year working on it and thought he had a new and better way to analyze data. But when he started using it, he realized he had re-invented principal component analysis. At the time, this individual was in charge of psychometric research at one of the major testing companies in the world. Needless to say, we can all learn from others and learning from others from other countries is the most fun way to do so. It can save us from wasting our time, but, more importantly, can help us learn new approaches and new techniques that may be more commonly used in the United States. One comes to realize too that we are indeed all brothers and sisters around the world; international conferences catalyze such relationships and we can learn what life is like for many others.

In the past few months, a colleague of mine, Janet Carlson, who also happens to be my wife, and I wrote a chapter on the history of psychological testing in North America for an ITC book that is being published on the history of testing around the world. I quickly came to the understanding that American testing would have been considerably behind where it is today if not for work in Great Britain, France, and Germany. Galton, Binet, and Wundt, respectively, are gametes who brought about modern psychological testing and we are all indebted to them and hundreds

of others! Sharing was critical around the beginning of the 20th century and it is just as important today. We can all be part of the continued development of testing. When I was an undergraduate student in psychology, I had a rare opportunity. George Miller, a former American Psychological Association President and a distinguished experimental psychologist (who was famous for the “Magic Number 7 + or - 2”), came to my campus to provide a series of lectures. I attended them and was even charged to walk him from a couple of buildings to the next building where he had meetings. I remember some of those discussions almost 50 years later. At one point, he told me that psychology as a social science had really had only two truly major contributions to knowledge. The two were: learning and testing. I might modernize his two terms slightly to behavior change (learning) and assessment (testing); neither of these word changes are major ones. I believe that testing continues to be one of the truly central foci in psychology, and our work has spread into business, education, and medicine to name a few areas.

So please come to Luxembourg. This summer all roads lead to Luxembourg. I look forward to seeing you, but even more, I look forward to hearing what you have to say!



Call for Nominations

Thomas Oakland Award for Distinguished Contributions to Testing and Assessment

The Thomas Oakland Award for Distinguished contributions to Testing and Assessment recognizes an individual who has made noteworthy contributions to research or practice in educational or psychological assessment and who has had a positive impact at either an international level, or within their home country that represents a model for others to follow. Examples include (but are not limited to):

- innovative assessment formats that lead to more valid assessment
- contributions to statistics or research design in test validation
- improved procedures for adapting tests across languages
- improved methods for evaluating assessments used across multiple languages or cultures, or
- contributions to improved testing policies and practices.

Nominators must be Full, Affiliate, or Individual members of the ITC. All nominators must submit: (a) a nomination letter describing the nominee's contributions; (b) two letters of support from two different countries, (c) a current copy of the nominee's CV, highlighting the scholarly accomplishments relevant to the nomination.

Nominations should be sent to Stephen G. Sireci, Chair, Thomas Oakland Award Committee at sireci@acad.umass.edu.

Deadline for receipt of nominations: February 1, 2020.

The recipient of the award receives free conference registration, and **\$1,000** in travel expenses to attend the conference. The award is given every second year, at the respective ITC Conference.

From the Editor



Nicky Hayes

Editor "Testing International"

Welcome to the latest issue of Testing International. As our Chairman says, we're all getting excited about our visit to Luxembourg in July! All the details are on the website, so don't forget to book in!

This issue sees an interesting set of committee reports, letting us all know what has been happening behind the scenes since our last issue. In addition to these, we have an article about the new testing section of the SIP: the Sociedad Interamericana de Psicología, bringing together testing professionals from across the Americas. I'm delighted to report that we have three book reviews this issue - do please let us know your opinion of any books on testing that you've come across!

Finally, Philippe Sonnleitner continues our discussion of gamified testing with a useful appraisal of effects and outcomes of gamification; and Keesha Taylor discusses the importance of diminishing academic cheating. Happy Reading!

Nicky Hayes
Editor

CALL FOR PAPERS

Frontier Research in Educational Measurement (FREMO) will be hosted on September 9-10, 2020 at the University of Oslo, Norway.

The submission system is open with submission deadline February 2. The conference website is at <http://www.uio.no/fremo>.

For more information, please contact Bjorn Anderson at bjorn.andersson@cemo.uio.no.

Call for Articles and Announcements: *Testing International (TI)*

**Deadline for the June 2020 issue:
May 15, 2020**

TI is the newsletter of the International Test Commission, and disseminates information about national / international assessment projects and initiatives, new test developments, recently published books / articles, upcoming conferences and workshops, and topical issues in the field of testing and assessment to the international community.

Please contact Dr. Nicky Hayes with your ideas, proposals, announcements, and brief papers

newsletter@intestcom.org

Conference News

The 12th Conference of the International Test Commission: Luxembourg 2020

**Belval Campus, University of Luxembourg,
Luxembourg 14-17 July 2020**

By Lindie van der Westhuizen (Secretary of the Local Organising Committee), Dr Philipp Sonnleitner (Chair of the Scientific Committee) & Prof Samuel Greiff (Chair of the Local Organising Committee).

Imagine that you are gazing at the most glorious view from the Chemin de la Corniche (once called “the most beautiful balcony of Europe”) while sipping on a glass of bubbling crémant or ice cold Bofferding... Or upon staring at the iconic blast furnace of Belval, you are transported back to industrial times when red rock rose Luxembourg to richness...

With approximately six months to go until the 2020 ITC conference, we are excited to give you a sneak preview of the programme highlights. In the last newsletter, we announced our impressive line-up of [keynote speakers](#) (follow the link for a quick refresher). Now, we are delighted to announce the first four workshop presenters. Dr Anna Brown will present a workshop titled *Solving the problems of ipsative data: The common framework for proper scaling of comparative judgements* for researchers and practitioners interested in the design, analysis, implementation and use of comparative measures. In light of the recent replication crises, Dr. Katherine S. Corker provides an overview of tools and technology needed to facilitate reproducible research in her workshop *Best Practices for Reproducible Science*. Dr Saad M. Khan will present a state-of-the-art workshop on *Applications of Artificial Intelligence in Assessment*, covering the fundamentals of AI as well as more advanced topics including deep learning with applications in educational testing. In *New developments of SEM in R*, Prof. Yves Rosseel will provide an overview of recent theoretical and computational developments in

Structural Equation Modelling (SEM) and demonstrate how open-source R packages (e.g. lavaan) can be applied in practice. Additional workshops will be announced at the beginning of 2020. Keep an eye out on our website for this announcement!

The ITC community is forever growing and the 2020 conference presents attendees with ample opportunity to see old friends and to make new ones. For the first time, we introduce a new professional speed networking session in which participants will have the opportunity to engage with 4 to 5 fellow attendees to forge new professional relationships and to explore possible collaborations. This event aims to strengthen ties among the ITC community and to encourage networking during the conference. In addition, we are launching the first speed mentoring session. Speed mentoring aims to provide young researchers/practitioners with the opportunity to engage (in a short space of time) with more established researchers/practitioners in their field to obtain career or technical advice. In return, established researchers/practitioners have the opportunity to impart knowledge and expertise that can inspire and educate individuals in their early career. Along with our Early Bird registration, registration for both these events opens 1 February 2020.

For those interested in discovering the beauty of Luxembourg, there are many exciting attractions to visit: Schengen, the birthplace of the idea of a unified Europe; the headquarters of many European Union institutions; the Bock Casemates, a huge network of underground galleries and UNESCO World Heritage Site; the medieval Vianden Castle, the Mullerthal-region (Luxembourg’s little Switzerland), and the beautiful Moselle wine country. We encourage you to use the conference as an opportunity to explore and experience the magic of the *Grande Region*. For more information and updates on the conference, you can visit the conference website at <https://www.itc-conference.com>.

**We look forward to seeing you
in Luxembourg in July 2020!**

The 12th Conference of the International Test Commission

**Registration opens
1 February 2020**

**Diversity and equity in a globalized digital world:
Opportunities and challenges for assessment**

**Deadline for Paper, Poster and Symposia Submissions
as well as Call for Reviewers**

15 December 2019

Notification to Authors

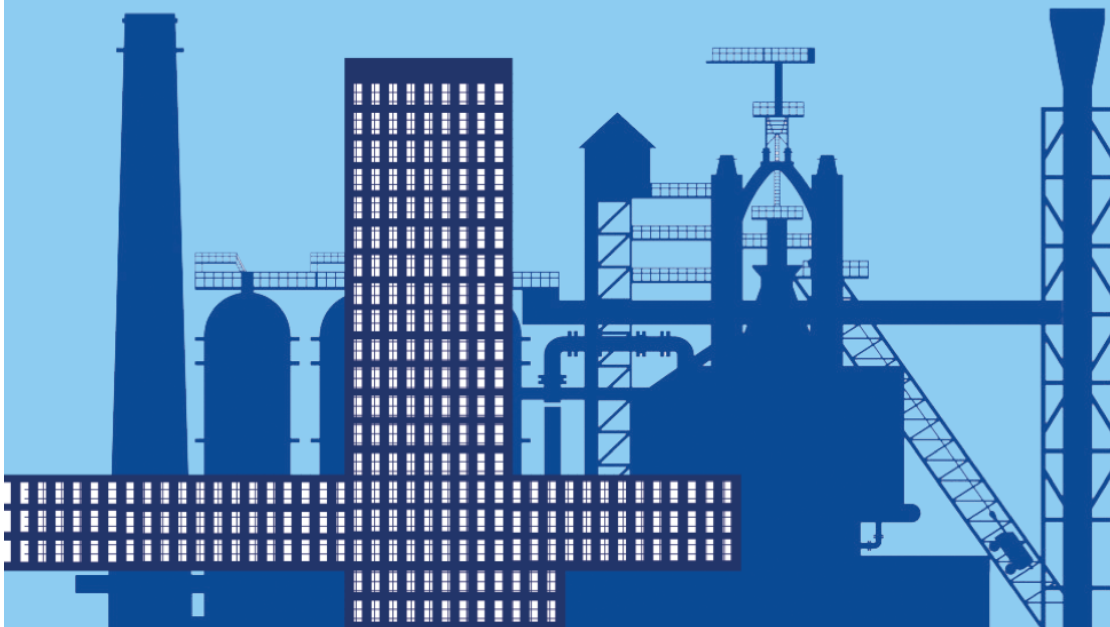
28 February 2020

Early Bird Registration

1 February 2020 – 30 April 2020

Late Registration

1 May 2020 – 30 June 2020



uni.lu
UNIVERSITÉ DU
LUXEMBOURG



Faculty of Language
and Literature, Humanities,
Arts and Education

For news updates,
visit www.itc-conference.com.

For questions, contact us at
itc@uni.lu

ITC Committee Reports

Publication and Communications Committee Report

Neal Schmitt, Chair



The report on the International Journal of Testing by Steve Stark is contained elsewhere in this newsletter. The journal continues to publish excellent research on a variety of testing issues related to the global use of tests. Nicky Hayes continues to do an excellent job in preparing this newsletter.

We have continued to work on expanding the volumes in our book series. This past year, the volume by Schmidt, Houang, Cogan, and Solorio titled “Schooling across the Globe” has been published. Previous publications include “Adapting tests in linguistic and cultural contexts” by Dragos Iliescu, “Next generation technology-enhanced assessment” by John Scott, Dave Bartram and Douglas Reynold, and “Higher education admission practices: An international perspective” edited by Maria Elena Oliveri and Cathy Wendler. We also expect two additional volumes will be published this next year: “Assessing measurement invariance for applied researchers” by Craig Wells and a volume edited by Sumaya Laher on the history of testing. The ITC and the authors are beginning to receive some royalties; our books will likely never be huge sellers, but we can use your help both in buying these volumes and advertising their availability to colleagues.

We hope to receive several new volume proposals in the near future including a volume on the use of Big Data in an international context

by Tay and Woo, cognitive ability testing in various parts of the world by Scherbaum, Goldstein, and Yusko, a text on measurement by Stark and Wiernik, a volume on personality assessment by Anu Realo, and a treatment of the use of differential item functioning in various cultural contexts by Odendaal and colleagues.

We continue to seek volumes on other topics; if you have a topic you would like to explore with me, please let me know and I will provide feedback and help with the proposal process.

We are definitely pleased with the published volumes and those in various stages of preparation.



International Journal of Testing

News and Updates

Stephen Stark
IJT Editor in Chief
University of South Florida



The *International Journal of Testing (IJT)* is dedicated to the advancement of theory, research, and practice in the areas of testing and assessment in psychology, education, counseling, organizational behavior, human resource management, and related disciplines. IJT publishes original articles addressing theoretical issues, methodological approaches, and empirical research, as well as integrative and interdisciplinary reviews of testing-related topics and reports of current testing practices. IJT is published quarterly with each issue containing 4-5 articles.

This summer we were delighted to welcome several new members to our board of consulting editors, and we wholeheartedly thank the current and outgoing board members for their contributions of articles and thoughtful reviews of manuscripts throughout the year! We were also happy to see the publication of our special issue, *Challenges and Opportunities in the Design of Next Generation Assessments of 21st Century Skills*, guest edited by Drs. Robert Mislevy and Maria Elena Oliveri.

In response to growing enthusiasm and application of “analytics” (e.g., machine learning, artificial intelligence) to the wealth of data collected in simulations, serious games, wearable sensors, social media and chatroom posts, and virtual team communications, we are happy to announce a call for proposals (see announcement) for a

new special issue on the “*Use of Technology for Assessment in Organizational, Psychological, or Educational Research and Applications.*” Please help us spread the word!

Finally, we continue to look for new reviewers and streamline our manuscript review process. Please contact me if you are willing to review for IJT, or if you would like to nominate someone (including yourself) for our Board of Consulting Editors. To be selected for the editorial board, a nominee must have an accomplished record of publication and expertise in measurement/ testing methodology and practice. To expand the journal’s outreach and international impacts, we encourage nominations of individuals from under-represented groups, cultures, and regions beyond North America.



If you have a paper you would like to be considered for publication in IJT, or if you are interested in reviewing papers for publication, please contact the editor, Stephen Stark, by email: (sestark@usf.edu).

Membership, Involvement and Marketing (MIM) Committee

Peter Macqueen, Chair



As we move into a big year for our friends and colleagues in Luxembourg, it is appropriate to consider what each of us can do to assist in making this a great ITC Conference, and a successful year for those engaged in testing and assessment globally.

- Has my organisation paid the ITC membership fee for 2019, or even prior?
- How can I assist in getting the message out regarding ITC and our key activities and offerings?
- What testing related events are happening in various regions of the world? Can I participate or contribute?
- Have I informed ITC of a future event so it can be publicised or promoted?
- Potential sponsors for ITC 2020: How about approaching your organisation!

1. Membership and Fee Payment:

Thank you very much to our members (Full, Affiliate, Individual) who have paid their 2019 dues, and perhaps prior dues. Several of you have responded to our call for such, but more needs to be done. As noted in the June issue of TI, a successful conference needs a solid financial base... quite a few months beforehand!

Also, be on the lookout for the 2020 fee invoices! I would like to thank Ananda, in particular, as well as Committee Members and Council Members for their assistance.

2. Social Media:

It is pleasing indeed that TI is read closely by our members. The June edition included our call for a volunteer social media person to assist the ITC in our drive to engage with members, and potential members.

A quick response was received from an early career psychologist from Malaysia, and we are keen to take this further. We are working through how this will interface with several ITC committees, to make sure that the potential benefits are realised without some of the issues that can arise from poorly regulated channels.

We already have a LinkedIn account:

<https://www.linkedin.com/in/itc-international-test-commission-263313101/> Currently we have 257 connections. We plan to update the site and make more regular use of LinkedIn in the future.

And for those who are into Twitter: please note the following for Luxembourg:

<https://twitter.com/ITC2020LUX>



3. Upcoming Testing Events:

We like to foster or support relevant professional events around the globe, so it would be great for the ITC to be more aware of them, so that they can be listed (if not promoted) on the ITC website, or in this newsletter, Testing International.

Your key contact address for informing us is:

secretary@intestcom.org

Please send your suggestions to Ananda van Tonder (Office Manager) or Paula Elosua (Secretary-General), who can then direct your email for action.

Upcoming Events

Here are some of the events of which we are aware:

AFRICA:

The African Journal of Psychological Assessment (AJOPA) has now launched. This online journal is edited by Associate Professor Sumaya Laher. <https://ajopa.org> and published via African Online Scientific Information Systems (Pty) Ltd (AOSIS). Articles are initially online, then printed in an end-of-year publication.

(Professor Sumaya is also Editor of a forthcoming publication on the global history of Testing, which will represent another title in the ITC Series under Editor-in-Chief, Neal Schmitt.)

The 2020 Conference of Assessment Centre Study Group of South Africa (ACSG) will be held on 9-13 March 2020 at Sandton, **SOUTH AFRICA**. Website: <https://acsg.co.za/conference-information>

The 42nd Language Testing Research Colloquium (ILTA) will be held on 9 - 13 June 2020 at Hammamet **TUNISIA**. Website: <https://www.iltaonline.com/page/LTRC2020>

The International Association for Educational Assessment (IAEA) will be held on 12-16 October 2020 at Accra **GHANA**. Website: <https://www.iaea.info/>

ASIA:

The 23rd Japan Language Testing Association (JLTA) Conference will probably be held in September 2020. Details to be announced. **JAPAN**
www.jlta2016.sakura.ne.jp

The 6th Annual India-ATP (I-ATP) Conference will be held in 2020. Details to be announced (See the main ATP website to be updated. the 2019 conference was in November, New Delhi, **INDIA**)
<https://www.testpublishers.org/india-atp>

The Pacific Rim Objective Measurement Society (PROMS) Annual symposium and workshops will be held in 2020. Details to be announced. (The 2019 symposium was held in Indonesia August 2019 and previous venues included China, Malaysia and Japan).
<https://www.promsociety.org/>

EUROPE:

The 12th ITC Conference will be held on 14th-17th July 2020 in **LUXEMBOURG**
Theme: Diversity and Equity in a Globalised Digital World
<https://www.itc-conference.com/>
<https://twitter.com/ITC2020LUX>

The 32nd International Congress of Psychology will be held on 19 - 24 July 2020 in Prague **CZECHIA (CZECH REPUBLIC)**
Theme: Ψ in the 21st Century: Open Minds, Societies & World
<https://www.icp2020.com/>

The European Association of Test Publishers (E-ATP) Conference will be held on 30 September – 2 October 2020 in London, **UK**.
<https://www.testpublishers.org/european-atp-conference>

Frontier Research in Educational Measurement (FREMO) will be hosted Sep 9-10, 2020 at the University of Oslo, **NORWAY**.
(submission deadline February 2, 2020).
<http://www.uio.no/fremo>

MIDDLE EAST:

The **MEA-ATP 2020** Conference will be held on 28 - 30 January 2020 at Muscat, **OMAN**. Theme: Transforming Learning to Unlock Potential.

<https://www.mea-atp.com/>

NORTH AMERICA:

The **Association of Test Publishers (ATP)** Conference will be held on 29 March - 1 April 2020 at San Diego, CA **USA**.

<http://www.innovationsintesting.org/>

The **National Council on Measurement in Education (NCME)** Annual Meeting will be held on 16 - 20 April 2020 at San Francisco, CA **USA**

Theme: Making Measurement Matter

<https://www.ncme.org/home>

The **35th Society for Industrial and Organizational Psychology (SIOP)** Conference will be held on 22 - 25 April 2020 at Austin, TX **USA**

<https://www.siop.org/Annual-Conference>

The **62nd International Military Testing Association (IMTA)** Conference will probably be hosted in the **USA** (most likely in October). Details to be announced soon.

<http://www.imta.info/Conference/FirstAnnouncement.aspx>

OCEANIA:

There are no specific Testing events scheduled although broader conferences will offer sessions related to testing and assessment.

The **Australian Psychological Society (APS)**: Conference will be held on 16-18 October 2020 Brisbane **AUSTRALIA**

<https://www.psychology.org.au/>

SOUTH AMERICA:

The **10th Congress of The Brazilian Institute of Psychological Evaluation (IBAP)** will be held in 2021 in **BRAZIL**. Details to be announced.

www.ibapnet.org.br/ (Portuguese)

The **Regional Congress of the Interamerican Society of Psychology** will be held in **CHILE** in 2020.

<https://sipsych.org/congress/> (Spanish, English and Portuguese versions)

The **38th Congress of the Interamerican Society of Psychology (SIP)** will be held on 12 - 16 July 2021 in **PARAGUAY**. Further details to be announced.

<https://sipsych.org/congress/> (Spanish, English and Portuguese versions)

Peter Macqueen

p.macqueen@compassconsulting.com.au

Brisbane, Australia





Research and Guidelines Committee

Anna Brown, Chair

In the last newsletter, we reported on the completion of the “**ITC Guidelines for the Large-Scale Assessment of Linguistically and Culturally Diverse Populations**” and its release on our website.

These guidelines extend our existing portfolio to testing contexts across languages and cultures, with the particular focus on large-scale assessments in education. Following our commitment to disseminating all ITC works via scientific publications, we also published these guidelines in the *International Journal of Testing*. They appeared in an online version on 16 July 2019, and since then have been included in the printed journal, volume 19. We hope that you will make use of these important and comprehensive guidelines.

We are now focusing on perhaps one of the most ambitious projects that the International Test Commission has ever undertaken. As was announced in the last report, the ITC has partnered with the Association of Test Publishers (ATP) to create new **ITC-ATP Guidelines for Technology-Based Assessments**. This collaborative project will draw upon both the ITC Guidelines for Computer-Based and Internet Delivered Testing (2005) and the ATP Guidelines for Computer Based Testing (2002), to produce up-to-date guidance on how to best ensure fair and valid assessment in a rapidly changing digital environment. The Steering Committee chaired by

John Weiner (ATP) and Stephen Sireci (ITC), and comprising members from both organisations, has made significant progress to date.

Specifically, they have developed a draft table of content, which provides a scope of the future guideline. The scope includes the discussion of important psychometric concepts such as validity and fairness in relation to the digital testing contexts; procedural issues such as planning, design and delivery; technical quality issues including validation; security issues; privacy and confidentiality; accessibility; and of course global and cross-cultural considerations.

To deliver this ambitious remit, the steering group has drawn an “organizational” chart to indicate how different groups of stakeholders will be involved in the process. The stakeholder groups and their roles have been identified as follows:

- Legal Reviewer (to ensure that any relevant legal requirements and considerations are followed);
- Advisory groups (to review and provide input on draft documents within each area of practice and geographic region);
- Content Authors (to author components of the Guidelines in areas of their demonstrated expertise);
- Ad hoc reviewers (to provide editorial recommendations on drafted content);
- Public Commentary (to review and comment on the draft Guidelines).

The project team will be soliciting input and expertise from many stakeholders internationally over the coming months and years. We hope many of you will get involved by participating in the stakeholder groups and provide your input or feedback at various stages of the project.

Finally, I am pleased to report that the ITC portfolio of best-practice guidelines is growing

not just in number but in popularity. We use Google Scholar as an easy, reliable, and transparent way to track citations of all works authored by “International Test Commission”. The total citation count as of today is 1436. The top three cited works are the *Guidelines for Translating and Adapting Tests* with 788 citations, followed by the *Guidelines for Test Use* (274), and the *Guidelines on Computer-based and Internet-delivered Testing* (250).

Please make use of the ITC guidelines in your work, and disseminate these important standards by suggesting their use to colleagues and collaborators. And of course do not forget to cite appropriately by using references to the journal (*International Journal of Testing*) versions where they exist.

Many thanks for your ongoing support, and I wish you all a productive and prosperous new year.

Anna Brown (20 November 2019)

a.a.brown@kent.ac.uk



Around the World

At the gates of 70 years building psychology in the Americas

Sandra Elizabeth Luna *Past SIP President, 2019-2021, Francisco Marroquín University, Guatemala*

Paula Elosua *ITC Outreach and Capacity Building, General Secretary, University of the Basque Country, Spain*

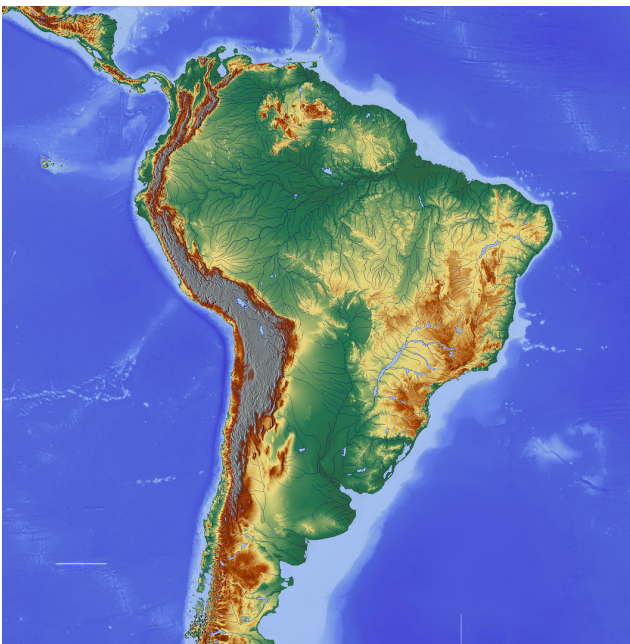
The social reality of Latin America is diverse, but despite regional and country differences there are common problems such as poverty or social inequality, which affect a large part of the continent. In this complex environment the purpose of the Inter-American Society of Psychology is to reinforce and support Psychology in our regions.

We are all aware that this goal can only be accomplished through cooperation and collaboration among individual scientists, research groups and organizations. The Inter-American Psychological Society, or SIP (Sociedad Interamericana de Psicología) was established as an autonomous, non-profit, scientific, professional and international organization that integrates psychologists from North America, Central America, the Caribbean, South America, and beyond. It promotes cooperation in teaching, research and the professional practice of Psychology.

The SIP was founded in Mexico City in 1951 by a group of scientists and professionals from America to strengthen academic, scientific and professional ties between psychologists in the Americas (Alarcón, 2002, 2004^a, Angelini, 1964 and Ardila, 1986). The founders of the SIP were Werner Wolff, Guillermo Dávila, Oswaldo Robles, Manuel Falcón, Rogelio Díaz-Guerrero, Eduardo Krapf, Urra and Ferenc Oliver Brachfeld

(Klappenbah & León, 2012), and the objectives and purposes based on their work and supported by the SIP are:

- *To provide a forum for communication among psychologists with similar interests in North, Central and South America and the Caribbean, and to promote the development of psychology in the Western Hemisphere.*
- *To contribute to international understanding through an expanded comprehension of cultural differences, and communication across national borders.*
- *To foster scientific and professional collaboration between people working in psychological areas and related fields, and to promote an understanding and appreciation of the cultures, similarities and differences in the Americas.*
- *To assist in the development of the psychology as a science and to promote its professionalization in every country of the Americas (Consoli and Morgan, 2012).*



In the later part of the twentieth century and in this twenty-first century, this organization has made significant advances in promoting and carrying out important scientific and

professional developments in the countries of the region. After more than 70 years of uninterrupted activity, it is still in force today; moreover, it is the oldest psychological society in Latin America, and for a long time it was the only organization that brought together professionals from across the Americas (Gallegos, Ardila, Caycho-Rodríguez and Burgos, 2018).

The institutional structure of the SIP is constituted by three presidencies, three vice presidencies and three executive secretaries, associated with North America, Central America and South America, as well as a general secretary, treasurer, and the Editor of the Interamerican Journal of Psychology. The SIP organizes forums for scientific and professional discussion and debate through its congresses, with topics aimed at responding to the current context of the countries or the entire region (Agelini, 2012).

The working groups are important tools of the SIP in order to achieve the fulfillment of its objectives through the constitution and promotion of task forces in different areas of Psychology. These working groups reflect the spirit of interconnection that the SIP promotes from its beginning, through the construction of networks integrated by psychologists interested in specific topics of psychology. The working groups are made up of active members of the society, and their main aim is in producing and sharing specialized knowledge, and creating research lines.

The most recent working group formed within the SIP, the assessment and psychometric group, is an example of international collaboration both on a personal and institutional level (Elosua, 2017). The group was created around a common interest in the improvement of assessment and professional practices. It has been built on the conviction of the importance of a psychological

evaluation based on the highest level of scientific rigor and ethical considerations.

The institutional collaboration between the International Test Commission and the Inter-American Psychological Society has supported the work of a group of researchers and professionals from several countries after years of meetings, and has promoted several courses and symposiums on psychological assessment - for example, Bolivia in 2012; Brazil in 2013; Lima in 2015; Mexico, 2017 and Cuba in 2019.

The formally constituted SIP Assessment and Psychometric Working Group held its first official meeting during the 37th Inter-American Congress of Psychology in La Havana (2019). Establishing a specific work group in the field of assessment and psychometrics makes the importance of the assessment and measurement in scientific and research work visible, which is key in the professionalization of psychology. The participation of several countries in the working group has generated high expectations for successful work on this topic, which is both basic and crucial for the development of psychology in the Americas.

Referencias

Alarcón, R. (1997). La investigación psicológica en América Latina. En *Conferencias /Conferences* (pp.5-35). Sao Paulo, Brasil: Sociedad Interamericana de Psicología.

Alarcón, R. (2002). Estudios sobre psicología latinoamericana. Lima, Perú: Editorial Universitaria

Angelini, Arrigo Leonardo (2012). O papel da Sociedade Interamericana de Psicologia no desenvolvimento da psicologia na América Latina. ISSN: 0034-9690. <https://www.redalyc.org/articulo.oa?id=284/284248580022/a>

Angelini, A. L. (1964). Perspectives and problems in cross-cultural research. *Proceedings of IX Congress of Interamerican Society of Psychology* (pp. 51-60). Miami Beach, USA: Sociedad Interamericana de Psicología.

Ardilla, R. (1986). La psicología en América Latina. Pasado, presente y futuro. Ciudad de México, México: Siglo XXI.

Colotla, V. A. & Urra, M. (2006). Semblanzas biográficas de los fundadores de la Sociedad Interamericana de Psicología. *Revista Interamericana de Psicología*, 40, 377-384.

Consoli, A. J., Morgan Consoli, M. L., Klappenbach, H., Sheltzer, J., & Romero Morales, A. (2015). Psychology in Latin America: Legacies and contributions - Part 3. *International Psychology Bulletin*, 19(2), 34-40.

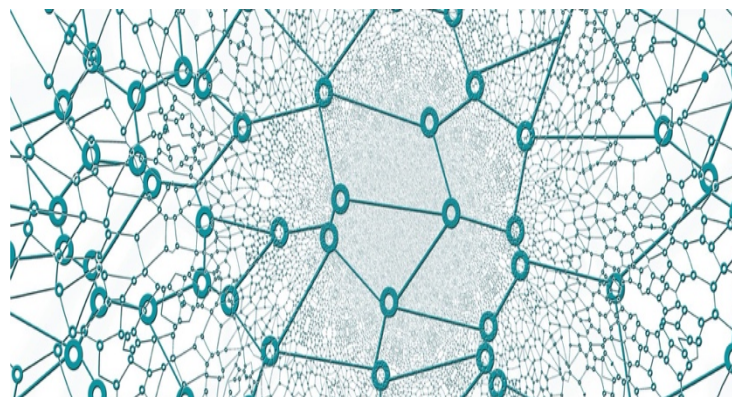
Consoli, A. J., Morgan Consoli, M. L., & Klappenbach, H. (2013). Psychology in Latin America: Legacies and contributions - Part 2. *International Psychology Bulletin*, 17(2), 36-41.

Consoli, A. J. & Morgan Consoli, M. L. (2012). Psychology in Latin America: Legacies and contributions - Part 1. *International Psychology Bulletin*, 16 (3), 71-74.

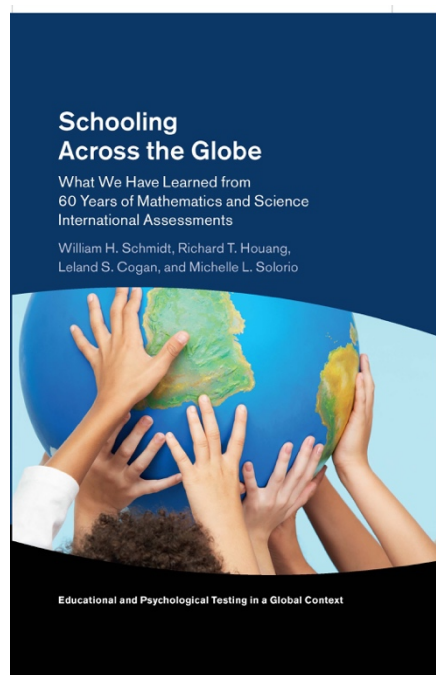
Elosua, P. (2017). Avances, proyectos y retos internacionales ligados al uso de tests en Psicología. *Revista Estudos de Psicologia (Campinas)* 34(2), 201-210.

Gallegos, M., Salas, G., Ardila, R., Caycho-Rodriguez, T., & Burgos, C. (2018). Sociedad Interamericana de Psicología: historia y proyección estratégica. *Revista Mexicana de Psicología*, 35(1), 72-87.

Klappenbach, H., & León, R. (2012). Historia de la psicología iberoamericana en autobiografías [History of Iberoamerican psychology in autobiographies]. Lima, Peru: Universitaria.



Book Reviews



Schooling Across the Globe: What We Have Learned from 60 Years of Mathematics and Science International Assessments

William H. Schmidt, Richard T. Houang, Leland S. Cogan, and Michelle L. Solorio

Cambridge University Press
ISBN: 9781107170902
Online ISBN: 9781316758830

In *Schooling Across the Globe: What We Have Learned from 60 Years of Mathematics and Science International Assessments*, Schmidt, Houang, Cogan, and Solorio provide a comprehensive historical and systematic review of the seventeen most widely used elementary and secondary international mathematics and science studies, comparing their sampling frames, curricular focus, analytic value, and

policy limitations. Written by those who were there, they describe the debates, concerns, and criticisms encountered.

This is not a rose-colored view of these studies—the bumps and limitations are all there. Yet here we find clear assessments of the value of these studies, how they have improved over time, and how they relate to one another. Meticulous tables and figures bring a fresh up-to-date analysis, that will be an encyclopedia windfall for scholars searching for details on the seventeen collections. The book is organized into three major sections: Part One highlights the modern international comparative assessments ending with the arrival of TIMSS and PISA. Paying homage to the “founders”—giants such as Benjamin Bloom, Arthur Foshay, Torsten Husén, and Robert Thorndike and others who weren’t even sure international comparative studies were possible—the first part speaks volumes to how these studies were organized and what drove the original conceptions to the 1990s and the major advances in test construction.

Part Two is the in-depth examination of the international assessments: who participates, items and scales, and home and background survey items including the conceptual development and incorporation of measurements of the opportunity to learn (OTL) concept. OTL is critical for understanding quality measures of inequality especially in schools, for the curriculum and teacher quality are the true markers of how resources are distributed among the haves and the have nots learning environments.

Part Three is a deeper discussion of the value and importance of building surveys that perfect stronger and high-quality items that measure what students can do and if they are given the opportunity to do so, in order to assess what they are actually learning.

International assessments have played a strategic role in education reform in many of the countries that have participated in them. This book makes a significant contribution towards

understanding these comparative studies and their development, not only in terms of their assessment but in what they can tell us about learning in schools and the equity issues associated with schooling around the globe.

Jennifer Cady
Michigan State University



Compêndio de Avaliação Psicológica (Brazilian Handbook for Psychological Assessment)

Organisadores: M.N.Baptista, M.Muniz, C.T.Reppold, C.H.S. de Silva Nunes, L. de Francisco Carvalho, R. Primi, A. P. P. Noronha, A. G. Seabra, S. M. Wechsler, C. S. Hutz, L. Pasquali

Editora Vozes / Instituto Brasileiro de Avaliação Psicológica
ISBN: 9788532660770

This year, a group of researchers, guided by Baptista et al., published a new handbook of testing and psychological assessment applied specifically to the Brazilian context. This initiative was sponsored by the Brazilian Institute of Psychological Assessment (*IBAP – Instituto Brasileiro de Avaliação Psicológica*), and edited by all former and the current presidents of the IBAP.

Although many handbooks of testing have already been published in different countries, none of them were designed, from scratch, to help Brazilians students and psychologists with their training. Brazil has some contextual peculiarities, which makes the new book more suitable for this population. The first particularity is the language. Most of our population cannot read texts in English, and even among college students, English is not understandable by everyone. A handbook in Portuguese might help beginning students to get in contact with updated content. Second, the cultural diversity yields more complexity in testing, and the new Brazilian handbook tries to cover it as well. Third, many tests and instruments described in the US or European books are not available in Brazil; while other tests have only been published in Brazil. Thereby, some chapters address the Brazilian tests specifically.

The book's content is divided into six parts. The first part is about basic technical topics in assessment, such as Classical Test Theory and Item Response Theory, and including test adaptation and computerized testing (speaking of which, I coauthored the chapter about IRT). The second section addresses the historical background of the assessment. Besides the historical aspects, this section also addresses ethical and political discussions about testing. In this context, authors also debate the importance of the legal resolutions for testing. The third part focuses on assessment in specific contexts, for instance, assessment for working in remote

environments, sports, driving, careers, violence etc., and also mandatory assessments demanded by a law court. The fourth and fifth sections address classical topics in psychological assessment: cognitive and personality assessment respectively. Part four gathers together chapters about cognitive assessment, highlighting constructs such as intelligence, creativity, reading and writing skills, memory, emotional intelligence, and mindfulness. In section five, authors describe contents like socio-emotional skills, the big five model, Rorschach testing, and character and personality disorders. The sixth part address assessment in the context of pathologies. Chapters in this last section introduce topics such as schizophrenia, suicide, stress, anxiety, depression, addiction, trauma, eating disorders, and neurodevelopment.

In total, the book contains 60 chapters and 729 pages. The authors of the chapters are experts in their fields, who have been publishing important research papers and have made significant contributions to improve testing in Brazil. Consequentially, the chapters present high-quality arguments especially for Brazilian professionals, as well as for students. We hope that this book helps both psychologists and students to make contact with an introductory and updated literature.

Professor Felipe Valentini
Graduate School of Psychological Assessment
Universidade São Francisco
valentini.felipe@gmail.com



ITC Educational and Psychological Testing in a Global Context: Book Series

A Summary of the forthcoming: *Higher Education Admissions Practices: An International Perspective*

In 2013 the International Test Commission proposed a book series to be published by Cambridge University Press on issues in international testing and assessment. The goal of the series would be to advance relevant theory, practice, and research in psychology, education, organizational behavior, and other related disciplines, and increase understanding of cultural issues, appreciation of diversity and equity challenges, and improvements in testing and assessment at a global level. *Higher Education Admissions Practices: An International Perspective* is the fourth book in this series.

Understanding the role of higher education admissions is one important step towards preparing for future global challenges. *Higher Education Admissions Practices: An International Perspective* provides a path for addressing challenges related to access, diversity, equity, and other issues facing college admissions. The book illuminates current higher education admissions practices by examining common cross-country obstacles and highlighting country-specific practices; describing current decision-making models used in college admissions; providing an overview to the tools and assessments used to inform admissions decisions; and exploring new perspectives that might result in increased access to higher education for diverse populations. The book uses a multidisciplinary approach to define needed changes in admissions brought about by shifts in the demographics of student populations and changes in higher education itself.

Higher Education Admissions Practices: An International Perspective gathers together

contributions of 44 authors representing a dozen countries, including award-winning researchers, scholars, measurement specialists, and practitioners. As such, the book:

- serves as a resource on global education issues for scholars, students, and researchers to drive future study and research;
- provides a rich source of examples and practices from which higher education administration staff and policy makers can learn and apply to address the goals of increased access, diversity, predictive validity, and capacity building; and
- illustrates challenges faced across the globe so that test developers and testing organizations can improve the tools used in higher education decision making.

Chapters are grouped into four parts. Part I focuses on global challenges and commonly used admissions models. Chapters in Part I discuss goals, concerns, and challenges related to broadening higher education access for diverse populations; improving student preparation to meet labor market demands; and preparing students to complete increasingly more advanced courses, all from an international perspective.

It begins with an overview by Michel and Pollard of the higher education admissions process, providing readers with the appropriate context to understand the complexities higher education institutions face. Next, differences in college aspirations across countries, based on PISA data, are explored by von Davier and Tam.

The remaining chapters in Part I describe common models or approaches used as part of the admissions decision-making process. These models reflect various philosophical and practical needs, but all aim to optimize college

admissions for individuals, higher education institutions, and society.

Wikström and Wikström provide an in-depth look at merit-based admissions models that use academic achievement and test scores as admissions-relevant criteria. They provide examples from the Swedish admissions system and discuss challenges, consequences, and costs/benefits of the meritocracy approach. Williams and Wendler then describe open-access models used in the United States that are designed to provide access to disadvantaged or underprivileged students. They note the historical and philosophical underpinnings of such models and explore their benefits, drawbacks, and challenges.



Niessen and Meijer next define models which use measures of personality, motivation, study skills and habits, and other behavioral traits believed to provide incremental validity above more traditional criteria common to the United States and Europe. The authors also point to the challenges of such measures that pose a threat to their use by higher education institutions.

Finally, McKeown, Vedan, Traplin, Sanford, and Bourne discuss admissions models used by some Canadian institutions that emphasize cross-cultural and global competencies. In particular, they describe how such competencies influence the creation of admissions policies and practices that help

Admissions practices are not developed or used in isolation; rather, they reflect societal values and historical contexts within a given country. Chapters in Part II detail higher education practices in seven different countries and unique obstacles faced by each of them. Across this sampling of countries, a number of common themes are presented, such as issues related to access to college, diversity and fairness, and the use of particular criteria and requirements as part of the admissions process.



Next Papanastasiou and Michaelides explain the role of public perceptions of fairness as part of college admissions in Cyprus. They describe the methods used in test development

Part III provides an overview and critical discussion of the types of tests and assessments that may be used to inform admissions decisions. Chapters in Part III discuss the value that such assessments give to the decision-making process as well as their technical limitations, psychometric weaknesses, and philosophical challenges. Reshetar and Pitts first discuss the use of general and subject-based assessments in college admissions. They classify such

assessments into two types (exit tests and entrance exams) and describe general characteristics of the tests used in a number of countries. Eckes and Althaus then discuss the use of language proficiency assessments in making admissions decisions.

The authors emphasize that simply meeting the minimum level of language requirements is not a sufficient condition for predicting academic success, and they stress the need for increasing the language assessment proficiency of the staff who use such tests as part of admissions processes. In the final chapter in Part III, Kuncel, Tran, and Zhang describe tools that measure traits such as leadership, moral character, empathy, social consciousness, and civic responsibility that may be useful in admissions decisions. The authors review existing research and offer recommendations for using such assessments in practice.

The last part of the book moves beyond current conceptions of higher education admissions. The chapters in Part IV propose alternatives to the existing admissions process and propose new frameworks for conceptualizing the role of higher education. First Burrus, Way, Bobek, Stoeffler, and O'Connor discuss the relationship between academic and workforce skills and identify factors that research has shown help individuals succeed in both higher education and the workforce. These factors are classified into a framework grouped along four independent but highly related domains: core academic skills; cross-cutting capabilities; behavioral skills; and education and career navigation.

Next Zwick discusses the use of a mathematical approach that maintains academic standards while helping support institutional access and diversity goals. This approach, called “constrained optimization,” allows both academic requirements and other student-level factors to be considered during the admissions

process. In the final chapter in Part IV, Oliveri, Mislevy, and Elliot, detail potential developments likely to impact higher education in the future, such as changes in the population served by higher education, in student demographics, and in the skill sets needed to produce successful students. Reflecting these changes, the authors present two frameworks that guide how assessments might be developed and the types of assessments that could be used in order to better serve the future needs of higher education.

In summary, *Higher Education Admissions Practices: An International Perspective* provides a path for resolving challenges related to access, diversity, equity, and other issues facing higher education admissions. It is the hope of the editors that readers come away with an understanding of the issues, philosophies, and historical circumstances facing higher education institutions across the globe and the process and criteria used to make decisions about who goes to college and who does not. In this way readers will be better equipped to contemplate and react to existing challenges and future opportunities. The book will be available in early 2020.

María Elena Oliveri & Cathy Wendler
Editors



Food for Thought

Gamification of psychological tests: three lessons learned

Philipp Sonnleitner

In an ideal world, test takers would love to engage with psychological and educational tests as much as their creators do. Being highly motivated, having fun and enjoying the task at hand would support people in bringing out their maximum cognitive performance which is - validity concepts of typical performance aside - what test developers really want to grasp in most of the cases.

A quick look in any psychologist's test closet, however, gives the impression that assessment should be as fun-free and laborious as possible. Some of the most iconic task types of psychological tests, for example Raven's famous matrices (see Fig. 1), appear intimidating at first and boring at best, exerting a certain fascination on puzzle enthusiasts or nerds, only. This state of affairs is not surprising though: the majority of cognitive tasks originated in experimental settings, which usually aim at minimizing emotional reactions of participants. Precise measurement instruments traditionally are not supposed to be fun (there is no entertaining clinical thermometer either) - quite the opposite is true: they should convey a certain seriousness of the assessment situation. In addition, since those cumbersome tasks served reasonably well in measuring and predicting people's abilities and characteristics - should we even bother with their appearance? According to recent debates on gamification research, we should.

In a nutshell, gamification means either disguising existing and validated assessment instruments as games (by introducing certain elements, such as appealing graphics and sounds, a narrative, and

most importantly feedback) or using (computer-based) games themselves as valuable sources for psychological indicators. The (implicit) promise of introducing game mechanics to psychological assessment is that test takers actually have fun during the process, thereby forgetting about the fact that they are tested. Intrinsically motivated through play, they may be more likely to retrieve their highest potential or show their "true" characteristics when they are completing different tasks.

Ten years ago, being inspired by the then new hype on gamification, our lab was among the first to integrate game elements into a psychometrically validated test of complex problem-solving for the educational context: the Genetics Lab. Probably due to being at the height of the time by including game-like features and our open-access approach for test publishing, the Genetics Lab was featured in *Psychology Today*. It was downloaded more than a thousand times, was present on all continents except Antarctica, and in countries ranging from Austria to Zimbabwe. Originally published in English, German, and French, it was later translated into Italian, and Mandarin and was used in numerous studies.

Recent review articles on the topic, however, show that some of the bold claims related to gamification are only partially supported (Dichev & Dicheva, 2017, Lumsden, Edwards, Lawrence, Coyle, & Munafò, 2016). Game mechanics indeed seem to make the assessment process more enjoyable and they tend to increase test motivation. But their impact on task performance seems not so straightforward with few available, systematic studies finding mixed effects. Consequently, despite well-earned merits, some authors (e.g. Dichev & Dicheva, 2017) already see gamification on the descending branch of Gartner's technology hype cycle, and suggest developing expectations that are more realistic by sticking to a systematic research program on single game mechanics and their impact. From our own experience with the gamification of a cognitive test, we would like to share some insights that should be noticed and may help with this greatly needed, rigorous research scheme on gamification.

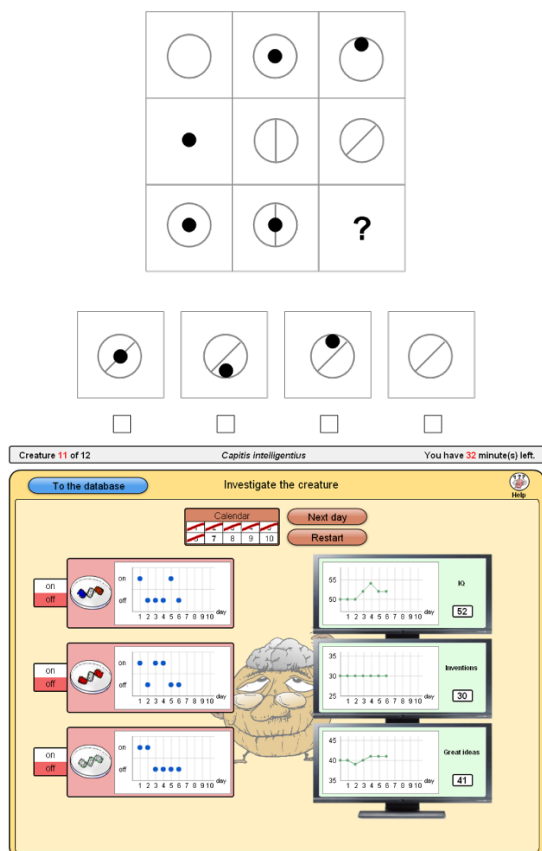


Figure 1: A typical matrices task (above) compared to a gamified computer-based item (below)

Lesson 1: Prepare for extended development cycles and join forces with experts.

In 2009, complex problem-solving (CPS) scenarios - although psychometrically valid - were, not surprisingly, complex in their very nature and still clumsy. They were complicated-looking computer programs that were used to assess university students' exploration and planning behavior. With the importance of CPS as 21st century skill on the horizon, it became clear however, that this assessment framework had to be adapted to the educational world by making it accessible for everyday teenagers of all ability ranges. Moreover, the often observed lack of students' test motivation in low-stakes educational assessment, especially within certain age and ability ranges, made us consider implementing game elements in order to elevate students' commitment. This shift, however, required drawing on concepts of multimedia learning to design the introduction and numerous, small-scale usability studies to

make sure that students understood their tasks and that game-like mechanics didn't interfere with the assessment itself. In short, making a computer-based assessment look like a game meant greatly extending traditional test development cycles in terms of both time and resources. Finally, the Genetics Lab incorporated a storyline of a young researcher starting out in a scientific lab, which was supposed to be engaging for students. A comic-like design of the whole user interface (e.g., buttons and creatures) supported this narrative. After each task, students got feedback on their performance (1 to 5 stars). It paid off: 50% of the students indicated that they enjoyed working on the task and they even would love to repeat the 35 minute long test with new scenarios to explore.

Frankly, in 2019, with half of US households owning a dedicated game console (Nielsen, 2018), and almost everybody carrying a gaming device in the form of a smartphone in their pocket, these measures won't do it. Today's test takers immediately spot whether the coins they earn when solving a task are a simple motivational carrot or an integral part of a game. Thus, when studying effects of gamification, assessment researchers should team up with game designers and developers right from the start to get valid results. Additional resources should be secured for Usability testing or User experience (UX) design, making sure that test takers interact smoothly with the interface and extraneous cognitive load is low. Consequently, research on gamification, if taken seriously, will cost money and time, and requires the willingness to work in an interdisciplinary team.

Lesson 2: Gamers are different, boys are too.

When gamifying tests or using distinct games to assess abilities, you need to keep track of the gaming history of your sample. Before working on the Genetics Lab, we asked a representative sample of $n = 563$ students whether they were playing computer games and if they did, they were asked to specify which ones. Whereas gamers did not differ in reasoning ability from their peers, they showed lower grade point averages ($d = 0.25$, $p < 0.01$) boldly confirming common stereotypes. However, they shone on the

Genetics Lab's performance scores, with a much more detailed knowledge on the problems they had to explore ($d = -0.27, p < 0.01$) and a substantially higher ability to solve these problems ($d = -0.45, p < 0.01$).

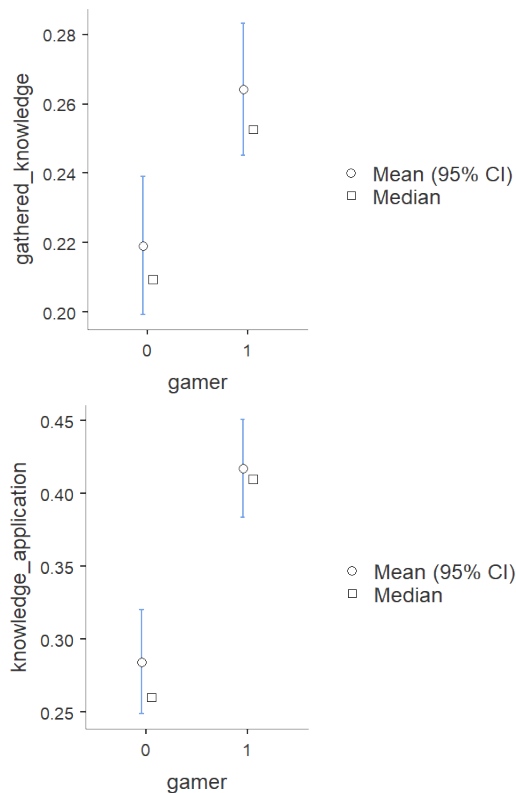


Figure 2: Difference between gamers (n = 338) and non-gamers (n = 225) on performance scores of the Genetics Lab

Crucially, this difference was not due to higher effort put into the test ($d = -0.05, p < 0.54$). Digging further into the data revealed that this significant difference was caused solely by gaming boys, who again, did not differ in reasoning ability, but apparently had much better complex problem-solving skills. Compared to gaming girls who preferred social simulation games (e.g. the Sims), boys listed action games (Jump & Run, Ego-shooter) or real-time strategy games as their favorite genres for killing time.

These results clearly do not warrant causal inferences, but they do give important hints on where to look or what to consider when further introducing game-mechanics to tests, or especially

when using games to assess certain abilities. Do certain game elements trigger specific gamer populations because they are more common or known in certain gaming genres? Is the advantage of gamers in gamified cognitive tests due to the mode of testing (e.g. training effect) or really due to an underlying ability? Considering Multitrait-multimethod designs during psychometric evaluations of a gamified test would help solving this validity puzzle. Above all, measurement invariance with special regard to gender should be assured.

Lesson 3: Good ol' non-gamified Matrices aren't too bad

After having students work on the Genetics Lab, as well as on an old-fashioned paper-pencil Matrices reasoning test, we asked them which one they liked better. In fact, plain, abstract Matrices were preferred by all students except by gaming boys - specifically, those individuals who were outperforming the others on the Genetics Lab.

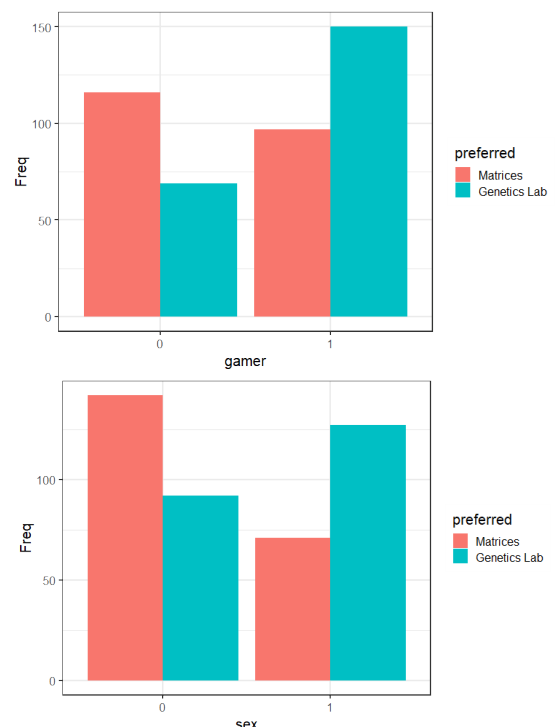
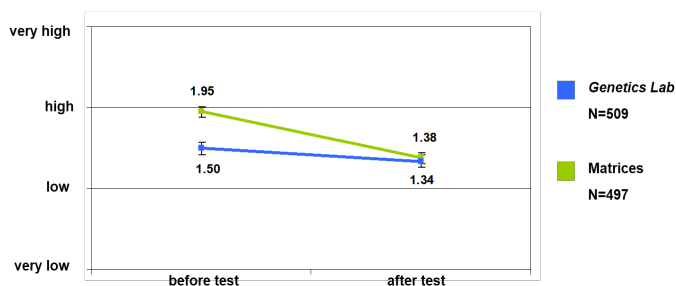


Figure 3: Preferred test of non-gamers (0, n = 225) and gamers (n = 338) and of girls (0, n = 234) and boys (n = 198)

However, equal effort was put in both forms of assessment with gamers showing generally a

slightly higher value. We further asked students immediately after the instructions of each test about their expectation for test motivation and anxiety. Remarkably, students expected to have more fun and to experience less anxiety when working on the Matrices than when working on the Genetics Lab. This changed, however: when we asked students immediately after finishing the test, all differences vanished. Thus, it was the Matrices test instruction and not the gamified computer-based scenario that calmed fearful students and tricked them into thinking, psychological testing is fun.

Testmotivation – expectation/ experience of success and fun



Testanxiety – expectation/ experience of failure and anxiety

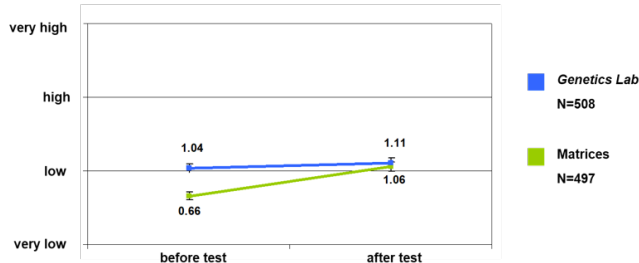


Figure 4: Comparison between Genetics Lab and Matrices concerning test motivation and test anxiety immediately before and after taking each test

Conclusion:

Gamifying psychological tests and using games for assessment undeniably has a lot of potential and attracts not only test developers but especially game-affine test takers. The hype on gamification probably also originates in the gaming biography and fond youth memories of today's test developers. The transition to more complex computer-based assessments additionally invites mimicking game mechanics. This fascination should not blind us to the fact, however, that

developing well-gamified cognitive tests is a lot of work, inherits the danger of differentially affecting test takers, and that we should keep our expectations in check concerning its effects on increasing test motivation and allay fears. It is time for a well-funded, systematic research program to systematically explore gamification's potential and debunk some myths related to it.

References:

Armstrong, M. B., Ferrell, J. Z., Collmus, A. B., & Landers, R. N. (2016). Correcting misconceptions about gamification of assessment: More than SJTs and badges. *Industrial and Organizational Psychology*, 9(3), 671-677.

Dichev, C., & Dicheva, D. (2017). Gamifying education: what is known, what is believed and what remains uncertain: a critical review. *International journal of educational technology in higher education*, 14(1), 9.

Nielsen (2018, February 1). The Truth is Out There: Knowing the Real Addressable Universe Is Crucial to TV Buys. Retrieved from <https://www.nielsen.com>

Dr. Philipp Sonnleitner
Research Scientist

Luxembourg Centre for Educational Testing
(www.lucet.uni.lu)
University of Luxembourg

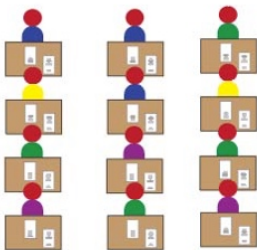
Red Yellow Orange Green
Purple Green Blue Yellow
Blue Orange Purple Red
Yellow Blue Red Orange
Purple Green Yellow Blue
Green Red Orange Purple
Orange Yellow Green Red
Purple Green Blue Yellow
Blue Red Purple Orange

Diminishing Academic Cheating in Our Testing Labs

Dr. Keesha B. Taylor, Test Proctor
Bunker Hill Community College

The issue of students attempting to cheat on their exams is nothing new. College students have been caught cheating on their exams for more than a century (Balbuena & Lamela, 2015). Oftentimes, test takers who are planning to cheat will create inventive ways or strategies before testing to accomplish their aim. They all have one goal in particular, and it is: "Let's cheat and maybe we will get a better score." However, our role is to prevent them from reaching this goal. Our role as test proctors and administrators is to prevent their inventive ways or strategies of attempting to cheat on their exams from happening in our testing labs. The question that might be raised is: How or what we can do to hinder such incidents from taking place in our testing rooms?

One of the critical roles of a test proctor is to prevent cheating. While it is impossible to eliminate students' cheating completely, it is essential for test proctors to be vigilant and report anything they find suspicious (e.g., a test taker repeatedly looking around the testing lab instead of focusing on the exam) in testing rooms. If test proctors are actively observing and walking around the room, then test takers will acknowledge and feel their sense of presence in the testing lab. Cheating begins when test takers notice test proctors are either distracted or not paying attention to them. This gives test takers the opportunity to be motivated and to cheat on their exams. It is the test proctor's duty to remain alert at all times to reduce the number of test takers attempting to cheat on their exams.



The good news is that we are currently living in an ever-changing world of advancing technology, which has made our job as test proctors and administrators easier when trying to identify students cheating. For instance, test administrators can now install security camera systems in their testing labs to observe test takers from their computer stations. From there, test administrators/proctors can monitor students' behaviors and exams closely during the test administration. The use of security camera systems in testing labs has proven to be beneficial especially for me as a test proctor/administrator working at three different community colleges for the past three years. The security camera system can protect test proctors from students in disagreement with them if they are caught cheating on their exams. The security camera is visual evidence that speaks for itself when students are guilty of academic dishonesty and misconduct. In addition, it is imperative to let test takers know that the testing labs are closely monitored with security cameras before they begin testing. Sharing this piece of information with them could help reduce the number of test takers attempting to cheat on their tests.

I strongly recommend that test administrators acquire and install security camera systems in their testing rooms to reduce academic dishonesty. I have caught numbers of test takers cheating on their exams when I was closely monitoring the security camera from my test proctor computer station. As test proctors and administrators, we expect test takers to be responsible for the academic integrity of their work. It is unfortunate that this is not always the case. Diminishing academic cheating in our testing labs is possible if test proctors remain alert and vigilant at all times during the test administration and security cameras are installed in our testing labs.

Reference:

Balbuena, S. E., & Lamela, R. A. (2015). Prevalence, motives, and views of academic dishonesty in higher education. *Asia Pacific Journal of Multidisciplinary Research*. 3(2), 69-75.