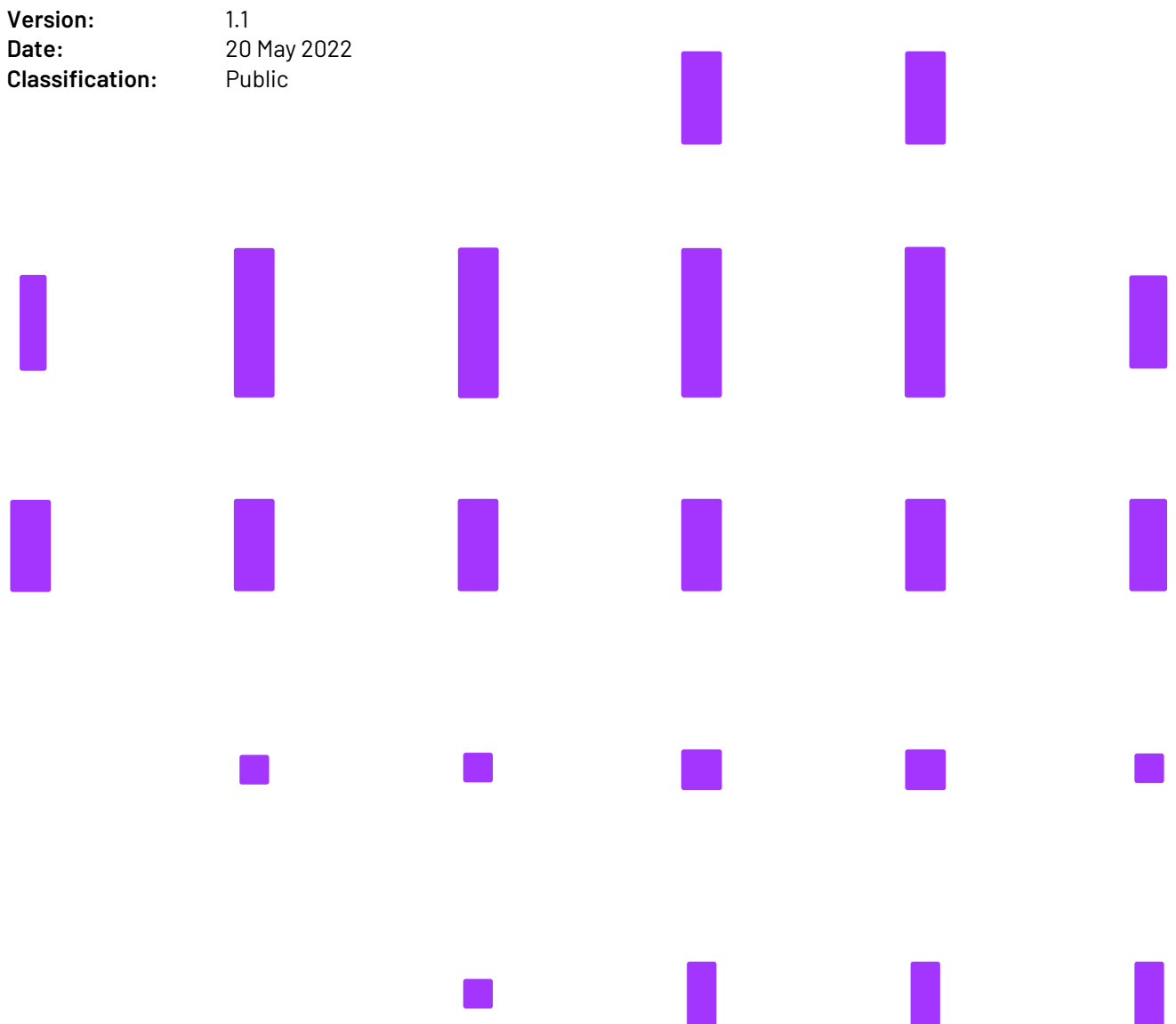# TALOGY

AC-EXS

Technical Design Overview

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1.1   Revision history

Version	Date	Comments
1.1	May 20, 2022	Document creation.
Last reviewed	XX	XX

1.2   Approval section

Name	Position	Signature	Date
Natasha Jones	Senior Client Services Executive	XX	Month XX, 202X

1.3 Contents

Introduction

Overview of the AC-EXS Range

The AC-EXS range is the world's widest choice of ready-to-use assessment and development centre exercises. The AC-EXS range:

- Contains over 260 ready-to-use work simulation exercises

- Reflects typical working scenarios: working alone, one-to-one and in groups

- Covers five levels of role: non-management, graduate, first-line management, middle management, and executive and senior management

- Are set in relevant industry sectors and realistic business functions

- Assesses 35 commonly recognised behavioural competencies that can be mapped to each specific job role

- Is internationally recognised and has been used in 19 countries

AC-EXS Exercise Types

There are seven different types of exercise available in the AC-EXS range:

- **Inbox exercises:** Require participants to work through the contents of an inbox containing emails and attachments, covering a range of different work issues

- **Analysis exercises:** Require the participant to analyse and interpret a dossier of information from a mix of sources and then compile a report, give a presentation, or both

- **Scheduling exercises**: Require the participant to schedule limited resources, preparing a plan indicating how they will be deployed

- **Interview simulations (roleplays):** Participants are required to meet with another member of staff (internal) or someone outside the organisation (external) to achieve a pre-defined goal

- **Fact find exercises:** Participants are given limited information and asked to find out more from another party, so that they can make a confident decision

- **Oral presentation exercises:** The participant is asked to prepare for and make a formal presentation that is consistent with the demands of the target role

- **Group discussions:** Require participants to work together to make decisions about work- related situations or scenarios (either with an assigned role or non-assigned role)

The AC-EXS Exercise Design Process

All AC-EXS exercises go through a thorough design process consisting of eight stages, shown below. Our process is based on the principles of effective assessment centre exercise design described by Thornton & Mueller-Hanson (2004) and Ballantyne & Povah (2004).

All AC-EXS exercises are designed by **Talogy** business psychologists with specific training and practical experience in the effective design and application of simulation exercises in Assessment and development centres.

Research business setting and job context

Create exercise specification

Review exercise specification to verify suitability

Develop full exercise materials

Review of exercise materials

Conduct exercise pilot trial

Final quality check and sign-off

Monitor and review exercise in live use

Research Business Setting and Job Context

AC-EXS exercises are set in fictitious organisations, in defined industry settings and within specific business functions. At this initial stage, the exercise author conducts research into the industry sector, business function and role that the exercise will be based in. The purpose of this stage is to collect information about:

- The structure and culture of organisations within the industry sector

- The requirements and challenges of the business function

- Important tasks, situations and problems relating to the intended job role.

The research conducted typically involves a variety of methods, including:

Job analysis: Formal job analysis information for specific relevant functions and industry sectors. This would specifically include outputs from critical incident interviews, repertory grid interviews, focus groups and job analysis questionnaires. This job analysis provides information about the important competencies for successful performance in specific functions / roles and the types of tasks and situations they typically face. For the purpose of AC-EXS design, there is a need to balance this organisation-specific information with the need to more generally reflect the industry sector, so this information is typically considered in the context of wider sector knowledge (see below).

Sector knowledge: Authors' existing knowledge and experience of industries and business functions, based on their consulting work in different organisations. Business psychologists at **Talogy** have worked across a range of industry sectors and have conducted detailed job analysis for a variety of organisations and roles.

External Subject Matter Expert (SME) interviews: Interviews with external SMEs working in the industry and / or job function. The typical focus in these interviews is to gather examples of specific tasks, situations, problems and data related to the role and business function, and to understand other relevant aspects of the industry and market in which the organisation operates.

Desk research: Supplementary research using websites and other literature about relevant organisations within the industry, and the important activities and situations related to the specific business function. This can also provide specific data or information that can be incorporated within the exercise.

> **Important Note:** While AC-EXS exercises are set in a specific industry sector and business function, the majority of these exercises can also be considered for generic use, so they could be used in other sectors or functions if desired. The level of technical content included in these exercises designated for generic use means that they do not require any specific technical role knowledge. While the setting is important for the credibility and face validity of the exercise, it is the tasks and behavioural criteria (competencies) measured that are **most important** as they will be elicited regardless of the context of the exercise.
>
> In some cases, for example when there are both internal and external applicants involved in an assessment process, an organisation may prefer to use an exercise which is set outside of the industry to avoid disadvantaging external candidates. Thornton & Mueller-Hanson (2004) note that *"Because participants often come from diverse backgrounds and may not have experience of the target job itself, it is often advantageous to place the simulation in a neutral setting. A neutral setting is one that is different from the target job and a setting with which all participants can identify"*.
>
> Achieving 'behavioural fidelity', in terms of the job-relevance of the competencies and behaviours measured, can be sufficient in many assessment situations, depending on the specific circumstances and considerations (Pritchard & Riley, 2011).

Create exercise specification

Using the information collected at the research stage, the exercise author develops an initial exercise specification for initial review. The exercise specification incorporates the following information:

The type of simulation exercise: group discussion, interview simulation (roleplay), oral presentation, fact-find, inbox, analysis exercise or scheduling exercise.

The exercise context: what the organisation will be and the situation presented in the exercise.

Participant(s) role and task: What role the participant(s) will be given in the exercise and the tasks they will need to complete.

Summary of key information provided to participant: An outline of the specific information and data that will be provided to the participant.

Timing: The planned timing for the exercise and any specific elements within it, eg preparation time, completing the exercise, etc.

Competencies: The list of the competencies will be measured in the exercise and how they will be elicited. Defining at this early stage how competencies will be elicited at a high level is critical based on trait activation theory (Lievens et al, 2009). The exercise must be designed in a way that will provide cues to the participant to demonstrate relevant behaviours for the targeted competencies. Participants can display behaviours aligned with the exercise process ('How') and

Review Exercise Specification to Verify Suitability

The exercise specification is then reviewed by a senior **Talogy** business psychologist with extensive experience in simulation exercise design to ensure that the exercise setting is suitable, the tasks and information are realistic and relevant, and that the selected competencies can be adequately elicited in the exercise. An external SME may also be involved at this stage as well, to give their perspective on the realism and appropriateness of the exercise specification. The exercise author then makes any adjustment to the exercise specification based on this feedback.

Develop Full Exercise Materials

Once the exercise specification is agreed, the author then constructs all of the necessary materials for the exercise. The participant content is developed first, followed by the supporting documentation. In designing the information for participants, particular focus is placed on ensuring that:

- It is clear to the participant what they are required to do in the exercise

- The exercise provides the necessary opportunity and cues in practice to measure the competencies it is intended to

- The difficulty of the exercise is appropriate for the level of the role, providing sufficient challenge without being overly difficult

- The language used in the exercise should be easily understood by all and does not include any technical terms

- The nature of the

The full materials developed for an exercise will consist of the following documents:

- **Information for participant:** This document explains the nature of the exercise task for the participant, the time allowed and the expected outputs, and then provides all of the content they must use to complete the exercise. The

- **Participant report form:** This optional, structured form can be completed by the participant at the end of the exercise. It gives the Participant an opportunity to describe what they wanted to achieve in the exercise, how they think they performed and whether on reflection they would have approached anything differently. This form, although not formally assessed, gives the assessor the opportunity to understand the exercise from the participant's perspective.

- **Administration Instructions:** These instructions outline the materials required for the exercise, how the exercise should be administered and any standardised information to be read to the Participants outlining the purpose of the exercise and timing.

- **Instructions for roleplayer (if required):** These are required only for the Interview Simulation and Fact Find exercises and describe the role which should be played in interacting with the Participant.

- **Roleplayer report form (if required):** This gives the roleplayer a chance to describe their experience in the exercise. Responses to questions such as whether or not the participant put them at ease, how they responded to concerns, the outcome of the meeting, can be useful to assessors and help confirm the observations made.

- **Guide for assessor:** This document forms the basis for how the assessor marks the exercise. It includes guidance around the type of output to be expected from the exercise, which competencies can be assessed and examples of positive and negative behaviour in relation to each competency.

- **Assessor report form:** This form is used by the assessor to rate the participant's performance and provide supporting written evidence for each competency.

Review of Exercise Documentation

Once the full exercise materials have been created, all of the documentation is reviewed thoroughly by one or more senior **Talogy** business psychologists, to verify the exercise meets the intended requirements. External SMEs may also be involved at this review stage to provide their perspective. The reviewer feedback is discussed with the exercise author who makes any amendments necessary.

Conduct Exercise Pilot Trial

At this stage, a pilot trial of the exercise is conducted. The purpose of the pilot trial is to evaluate how the exercise works in practice and on each aspect of the exercise materials. The pilot trial involves a full administration and assessment of the exercise under controlled conditions. The trial participants are volunteers at a relevant level to the exercise, and the assessors and roleplayers used are highly experienced.

Immediately after the trial, feedback is collected from the participant(s). Over many years, **Talogy** has developed a set of standard evaluation questions for the purposes of evaluating the pilot. These are used to check that:

- The instructions were clear about what they had to do in the exercise

- They understood the information provided in the exercise

- There was no information or wording that they felt was ambiguous or confusing

- They had a reasonable level of time to complete the activities required in the exercise

- They felt the exercise content was sufficiently challenging for the level it is aimed at

In addition, feedback is also collected from the assessor to determine whether sufficient evidence was available to assess the competencies intended and that the positive and negative behaviours provided in the guide for assessors are adequate to support the marking process.

If the exercise involved a roleplayer, feedback is also sought from them to confirm that the Information for roleplayer provided sufficient guidance for their interaction with the Participant.

Based on the feedback from the participant, assessor and roleplayer (if relevant), the exercise author will make any amendments or additions considered necessary. If the changes made are considered significant, another round of trialling will typically be conducted to verify that the changes have successfully addressed the points identified.

Final Quality Check and Sign-Off

As a final step before releasing the exercise, any changes made from the trial will be reviewed and signed-off by a senior **Talogy** business psychologist. Once completed, the exercise is made available for purchase by client organisations.

Monitor and Review Exercise in Live Use

Once the exercise is in live use, feedback is collected from clients to confirm the exercise is working effectively within their organisation. At periodic intervals, exercises are also reviewed to ensure that the exercise content remains contemporary. This is particularly relevant where exercises involve technology, which develops rapidly, or refer to government regulations or policies which can change over time and become outdated. Any changes deemed necessary to ensure the exercise remains up to date will be made following these periodic reviews.

Validity

Content Validity

Simulation exercises and assessment centres are typically very strong in content validity, if the right exercises are chosen for the target role. Demonstrating the content validity of simulation exercises should be adequate to validate them for selection and promotion purposes (Thornton & Mueller-Hanson, 2004).

AC-EXS exercises present participants with realistic information related to the industry sector and function, require them to complete job-relevant tasks and measure common competencies required for successful job performance. They should therefore have good content representativeness *if organisations select them appropriately for relevant job roles*.

We recommend that the selection of AC-EXS exercises and competencies to be measured should always be based on a thorough job analysis of the target role, in line with best practice guidelines (Assessment Centre Standards Working Group, 2015; International Taskforce on Assessment Center Guidelines, 2014). When selecting the exercise, users should consider the content representativeness of the exercise in terms of:

- The organisational setting (recognising that at times a different setting to the target role may be preferred, as discussed in section 2)

- The content of the exercise, in terms of the tasks and problems that the participant must deal with

- The competencies measured in the exercise, in terms of their importance for successful performance in the job

We regularly support organisations who wish to adapt and customise AC-EXS exercises to provide a closer fit to a specific target role, so that content validity is maximised.

Criterion-Related Validity

Obtaining psychometric statistics of the criterion-related validity of simulation exercises is typically challenging. In most applied settings, simulations are not run with sufficiently large samples to conduct extensive analyses of reliability and validity (Thornton & Mueller-Hanson, 2004). For AC- EXS exercises, there are also many variations in how they are used which makes it problematic to generalise criterion-related validity findings:

- The competencies the exercise is used to measure (some organisations use a selection of the **Talogy** criteria, while other organisations map the behaviours measured to their own competencies).

- How the exercise is administered, in terms of whether organisations follow the standard recommended timings or adjust the timings to suit their specific requirements.

- The quality and experience of the assessors used to observe and evaluate participant performance on the exercise.

- The level of the participant, as exercises are sometimes used to measure potential for a future role and are therefore set at a higher level than the participant. At other times, exercises will be used to identify the capability or development needs of a participant at their current level.

That said, our exercise design process outlined in the previous section is rigorous and follows best practice guidance (Thornton & Mueller-Hanson, 2004). As an organisation, Talogy have over 25 years' experience in simulation exercise design. There is also considerable evidence in the research literature that has been collected over several decades which demonstrates that Assessment Centres using behavioural simulation exercises are valid predictors of performance (Meriac et al, 2008; Hermelin et al, 2007; Arthur et al, 2003; Gaugler et al, 1987). This indicates that when selected and used appropriately by organisations, simulation exercises will provide valuable information on how well someone is likely to perform in the job.

Where sufficient samples are available, we recommend that organisations conduct a local statistical evaluation to demonstrate the efficacy and fairness of the simulation exercises used within their assessment centre. Talogy can provide advice and support with statistical analysis for organisations who wish to conduct a local validation study.

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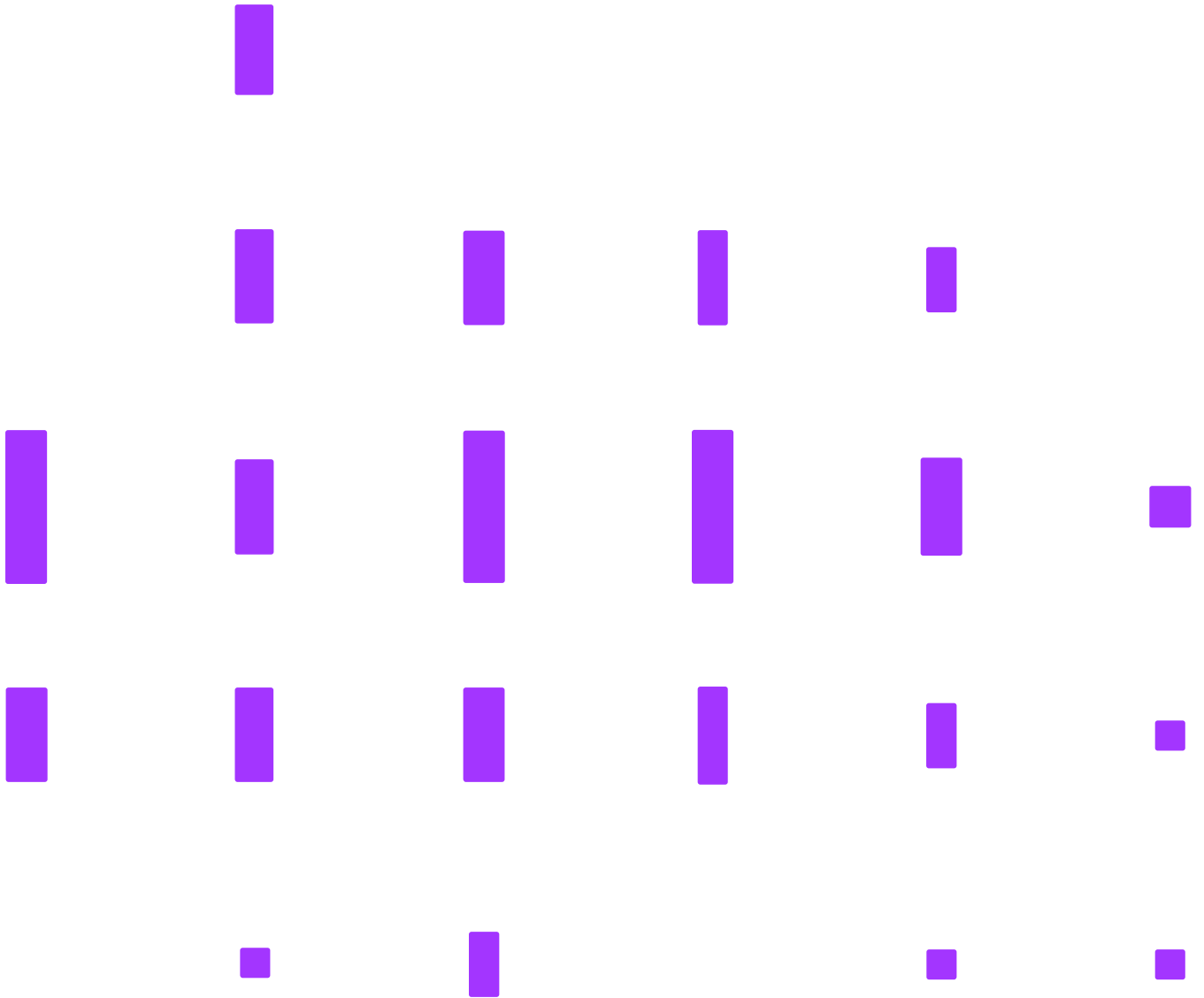International Taskforce on Assessment Center Guidelines (2014). Guidelines and ethical considerations for assessment center operations. Journal of Management, 41, 4, 1244-1273.

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