The Ideal Test Center

Published July 1st, 2022

Message from William Thelen, Chair of the Ideal Test Center

This document is the brainchild of former NCTA President Jarret Dyer. One of the more frequent questions Jarret was asked was what is an “Ideal Test Center?” Therefore, Jarret created a committee to generate a document to help NCTA members create an “Ideal Test Center.”

I put “Ideal Test Center” in quotes because the ideal center is really based on the individual needs of each test center. Matters such as available space, funding, varieties of testing, and other issues will have a major impact on the design of your test center.

The goal of our committee was to give the NCTA membership a document that they can use as a starting point for discussions with everyone planning a new test center or upgrading a current one.

We decided to use two different sections, Facilities and Technology, to allow you to quickly find an answer to particular questions.

We hope you find this document beneficial and welcome all comments to improve The Ideal Test Center handbook.

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Acknowledgements

The NCTA wishes to acknowledge the following individuals who contributed to the creation of this guide:

Committee Chair

William Thelen
Central Washington University

Committee Members (in alphabetical order by last name)

Michael Behrens
Parkland

Angela Cooke
Michigan Technological University

Llesmin Gonzalez
Texas State Technical College

Melinda Ingiaimo
University of North Carolina Wilmington

April Johnson
Blue Ridge Community and Technical College

Matthew Lankford
On-Target Training Courses

Guillermo Laya
Montgomery College Rockville

Sherry Machacek
College of DuPage

Cara Sams
Northwest Arkansas Community College

Celeste Smith
University of Kansas

Introduction

This handbook is intended for the anyone in the testing business who has been asked to “design” a new test center. It will help identify key components of test center design and provide a starting point for everyone involved in the design.

What is the “Ideal Test Center”?

The answer to that question depends on a variety of factors such as the type of testing being performed, types of testing that you are hoping to perform, size of the available space and even the shape of the available space.

The Ideal Test Center is one that meets your current and future needs.

This handbook was created by NCTA members, and we are always open to suggestions on how we can improve this document.

Facility

Of all the things to consider for your Ideal Test Center, the facility itself is the most important. The construction of a whole new space or the adaptation of a previous space is the foundation of your new test center. A carefully thought out and properly designed test center is essential to future success.

The NCTA has resources that can help in the design of a new test center. They should be provided to all parties participating in the design of your new test center so they can understand the unique requirements involved.

Those resources are:

- NCTA Standards and Guidelines
- ATP-NCTA Proctoring Best Practices
    - Available free to NCTA members

NCTA Test Center Certification standards are based upon the resources listed above and can be another good reference for the design of a test center.

A testing center on campus is a unique space, in that the privacy of the candidates during an exam is not a primary consideration. Proctors will frequently walk through the testing room to visually check on candidates while they are testing to ensure that no one is cheating.

However, privacy of personal information is always a primary consideration and requirement of all test centers.

For the purpose of this handbook, it is assumed that the testing center is part of a college or university. This handbook outlines considerations in the planning and design of a new or renovated test center, though members are encouraged to review specific guidelines provided by test vendors and sponsors.

Purpose

What will be the purpose or goals of your new testing center?

For example, if students will be coming to your test center for all of their university exams, then you will need a much larger space. University test centers that do this testing could test hundreds of students a day.

Your test center would have to be designed to not only seat that many students, but to also have an efficient method of checking all those students in for their exams.

Your test center may handle various types of testing at the same time. In this case, multiple rooms may be the best option.

- Will you be conducting placement testing?

- Will you administer college entrance exams such as the ACT or SAT?
- Will you administer exams for the whole university?
- Will you administer makeup exams?
- Will you administer exams for accommodated students?
- Will your testing center be open to the community for certification testing?

Planning

It is recommended that you gather affected parties that would possibly be interested in the purpose and design of the new test center.

Involve everyone!

Interested parties might include:

- Test Center Staff
    - Staff know what works and does not work. They are critical for planning
- Faculty
- Disability Services
- Advisors
- Admissions
- University administrators
- Facilities
- Architects or other space design personnel
- Test Vendors
    - Many of them will require that they approve the new space prior to allowing you to administer their exams.
    - Including them in your discussions early will ensure the transition to the new space goes as smoothly as possible.

Communications are key

- Meet often and regularly
    - Designate a meeting convener and a note taker
        - Track action items from each meeting and share with all participants
- Establish clear protocols for communicating to all parties
- Have a guiding document with agreed upon goals and objectives
    - Be flexible and continue to evolve
- Don’t rush implementation
    - Take time to think carefully about what you want
    - This may be the last opportunity for a new testing space
        - Make the best of it!

Visit other test centers

- Especially those that have recently updated their center
    - Ask what they like about the center
    - Ask what they don't like or would change about their center
- Ask for floor plans and photos, if possible
- Ask the NCTA list serve for ideas

Flexibility

The importance of this cannot be overstated

- Space at a college or university is always at a premium
- Therefore, the ability to easily adjust to changing needs is critical
- As technology changes, your test center will be required to change with it.
    - Consider what you would do if tests use Virtual Reality
        - Or a Star Trek Holodeck…
- Also plan for extra stations for new staff
    - You can't expand if you don't have space to put additional staff

Traffic flow

Pay attention to how candidates will navigate your testing center

There are many steps that a candidate must go through in order to take their exam and to check out afterward.

There are many places where bottlenecks may occur. A properly considered design will minimize those bottlenecks. A review of ATP-NCTA Proctoring Best Practices may provide some insights.

- Arrival at the test center and initial check in
- Seating in a lobby area to fill out paperwork
- Proceed to locker/storage area to store belongings that are not allowed in the testing room
- May have to be seated in the lobby area again to wait for final check in
- Proceed to Administration computer to complete check in for exam
- Escorted by a proctor to the proper seat in the testing room
- Upon completion of the exam, the candidate may need to proceed to the Administration computer to be checked out
- Candidate will then go to the locker/storage area to recover belongings

Space Considerations

The final design of any new space must take many things into consideration such as the desired purpose of the space, but also allow for easy renovation when the purpose changes.

Testing rooms

There should be some careful deliberation about the number of testing rooms that the new space should have

- Multiple rooms allow the flexibility of administering different exams at the same time.
    - Some could be setup to meet vendor requirements.
        - Others to meet requirements for paper/pencil testing or accessibility
    - If the rooms are next to each other, that would allow for observation windows to be installed that would allow staff to proctor from their workstations
- Some test vendors prefer to have a room just for their exams.
    - ETS/Prometric is the best example
- Plan for observation windows
    - They are a primary method of proctoring candidates and should be considered essential in the design of the test center
    - Windows should be double paned for noise reduction
    - Line of sight is very important
        - Ideally, they should be positioned so that staff may easily observe candidates from their work area
        - Be careful to avoid obstructions such as support columns, walls, privacy panels, etc.
            - Privacy panels can obstruct the view of proctors, but they can also prevent cheating and minimize distractions to the candidates.
                - If you choose to use privacy panels, consider using additional cameras and walkthroughs to monitor candidates.
    - The windows may be mirrored in order to prevent candidates from knowing when they are being observed.
- Consider if you want a proctor stationed inside the testing room(s)
    - How will that proctor space be designed?
        - Determine the duties for that proctor
        - Determine if the space needs to be made soundproof
- Lighting
    - Creating a correctly lit environment to ensure testing candidates are comfortable.
        - Placement
            - Windows or a bright light source are major contributors to eye strain
            - Whatever the light source, it’s important to make sure the screen does not directly face a window or bright light.
        - Intensity and contrast
            - Lighting that is too dim causes squinting and eye strain

                - Lights that are too bright wash out screens making them difficult to read
            - Color Temperature
                - A cooler color closer to daylight may provide better overall lighting for tasks involving detail work.
                - Modern LED lighting with adjustable color temperature can be a big help for both intensity and color temperature.
- Have a plan for heating and air conditioning
    - Each testing room should have its own control
        - Comfort for testers is extremely important
    - Staff and lobby areas should also have their own controls
- Flooring is an important consideration
    - Should be carpeted to minimize noise
    - Consider using raised flooring
        - Raised flooring allows power and data to be run to any point in the testing room
        - This maximizes the flexibility of the room for future needs
    - Raised flooring should be considered for the entire testing center
        - Would allow for easy addition of additional workspaces if staffing increases
- Drop ceilings
    - Ceiling tiles can be used to muffle noise.
    - Can add flexibility for any future technology upgrades
    - Power and data connections can be added from the ceiling if needed.
- Power
    - Testing rooms are essentially computer labs
        - Considerations should be made for both current and future needs
        - Flexibility must be planned in – have more electrical connections available than currently needed in case of any future expansions.
- Data connections
    - Again, testing rooms are essentially computer labs
        - Considerations should be made for both current and future needs
        - The highest quality cable and connections should be installed
        - Flexibility must be planned in – have more data connections available than currently needed in case of any future expansion.
- Testing booths
    - Some candidates require a private room in order to take their exam due to needed accommodations such as a reader or a scribe
    - The booths should be large enough to allow two people to be seated comfortably and be wheelchair accessible.
    - Because there will be talking within the booths if a reader/scribe is present:
        - Location is important

                - Located outside of the main testing room
                - Far side of the testing room
                - You want to minimize distractions to other testers
        - A minimum of two testing booths is recommended for flexibility, but additional booths should be considered if possible.
        - Decide on your policy for testing booths.
            - They can be in high demand
                - Once candidates are aware of their existence, many will be asked to be placed in a booth instead of the testing room.
                - Consult with Disability Services to coordinate a policy
                - Note: there may be funding available through Disability Services and the state to help with construction.
- Noise minimization
    - Options include
        - Carpets
        - Noise absorbing panels
        - Soundproofing in walls
        - White noise machines
- Location
    - Can be located close to student services to help students quickly navigate between them. Recommended services such as:
        - Disability Services
        - Registrars
        - Advisors
    - Away from high traffic areas to minimize noise
    - Easy access to the testing center
        - Especially for candidates who may not be familiar with your campus
        - Parking should be close by and readily available
    - Parking
        - Sufficient convenient parking must be available to accommodate the maximum number of candidates in the center at any one time.
        - Must be available within reasonable walking distance of the center
        - Designated handicapped parking spaces
- Testing workstations
    - Computer based testing is on the increase, but there is still a need for desks that can handle paper-based exams
        - Should be big enough to handle a computer monitor, keyboard, mouse, and supplemental testing materials
        - Test vendors have requirements for the size of the workstations
            - Review all vendors and use the largest size required
    - Paper based workstations should be big enough to allow space for the exam and supplemental materials such as notes, calculator, and books

    - There are dual purpose desks available that allow for the monitor, keyboard and mouse to be “hidden away” for a paper-based test and brought out again as needed.
        - A little more expensive, but allow a lot of flexibility
    - Partitions between stations
        - Prevent candidates from looking at other screens
        - Can block proctor views of workstations
        - Consider type of partition to use
            - There are glazed partitions that allow the proctor at least a partial view of the workstations
    - Workstation spacing
        - Have a plan for how far apart monitors should be
        - Testing vendors have requirements that you should review
    - Chairs
        - Comfortable enough for multi-hour exams
        - Adjustable – especially for height
            - Some accommodations require a fully adjustable seat
        - Armrests are optional
        - Must be easy to clean
- Office and workspace
    - Many states have requirements for the minimum size of office space and staff workstations
    - Plan for future increases in staff size
    - Plan workspaces with staff members in mind
        - Plan on drawers and or lockers where staff can store personal belongings.
- Locker/storage area
    - A locker/storage area is required to allow the candidates to lock up their belongings
    - If possible, lockers should be large enough to accommodate a coat and possibly a small bag
        - Consider also having shelving units where large bags, backpacks may be placed
        - Consider having an area for hanging up coats
    - Options for lockers
        - Key lockers allow the tester to keep the key
            - Pros: Simple and least expensive
            - Cons: Testers can accidentally walk out with the key
        - Tester puts in a personal code to access a locker
            - Pros: No keys to lose
            - Cons: Tester can forget their code; Requires a few steps that could be frustrating to testers
        - Tester uses a barcode from back of Driver’s License or Student ID

            - Pros: No keys to lose
            - Cons: Tester has to take ID in testing room with them
- Lobby
    - Candidates will need a comfortable space to sit while filling out paperwork or waiting for final check in
    - Space must be large enough for multiple candidates to fill out paperwork and move around
    - Furniture must be flexible, comfortable attractive and moveable
        - Custom built furniture is expensive and may not be flexible enough to grow with evolving needs
- Check in counter
    - This is the area that candidates first encounter when entering the testing center
        - Should be large enough to accommodate at least two staff members and their appropriate workspace
        - Part of the counter should be low to allow easy check in of candidates in wheelchairs
- Administration/exam check in area
    - Many test vendors require a separate check in area in which a candidate's picture, signature, fingerprint, palm print, and other data are captured
        - A space with a plain white background for pictures
        - A desk that allows candidates to easily sign paperwork, provide fingerprints or other data
        - Easy access to testing rooms
            - Final step before commencing the exam
            - Candidates will need to be escorted to their testing station from this area
- Break room
    - A space away from the lobby and testing room to allow staff members to take a break or eat lunch
        - Refrigerator
        - Microwave
        - Coffee pot
        - Couch or lounge chairs
        - Table
- Secure storage
    - Test vendors require that their exams be stored in an area that is only accessible by staff
        - Can also double as storage for office supplies
- ADA accessible
    - Automatic entrance door
        - Consider automatic doors for testing rooms

                - Automatic doors can create additional noise so should weigh benefits and costs.
    - Aisles wide enough for wheelchairs
    - Adjustable height workstations
- Restrooms
    - Easy access to restrooms
    - Restrooms do not need to be located inside the testing center but should be close by. Ensure they are located far enough from the testing rooms to minimize distraction.
- Signage
    - Adequate signage to easily locate the testing center
    - Signs posted informing candidates that testing area is being video monitored (if applicable)
    - Signs posted for emergency exits and evacuation routes
    - Other signs to consider
        - Signs showing or listing prohibited items
        - Signs messaging inappropriate testing behavior
            - For Example: No talking to other candidates
- Assessment
    - Build assessment into your plan
        - You may need to justify funding as your project evolves
        - “Gate counts” will inform on usage of the test center
        - A method of collecting assessments or surveys
            - Online
            - Print
- Elevator
    - Building must be equipped with an elevator if the test center is not on the first floor
- Considerations
    - As online proctoring is becoming more popular an “Online Proctoring Room” might be a prudent consideration
        - This would be a room(s) where a staff member would have everything necessary to administer exams online
            - Computer
            - Monitor
            - Webcam
            - Headset
        - The room should be outside of the testing room as the staff members will need to talk with the testers
            - Large enough for a staff member to be comfortable for long periods of time
            - Designed to minimize outside noise

- Space could flexibly be used for private testing needs, as well.

Technology

Given the increase in computer-based exams, planning for technology should be a priority in designing a test center. Technology changes rapidly and vendor requirements will shift with this over time. Therefore, this guide is meant to provide a framework for considerations needed in designing a computer lab for testing. Decisions should be made in consultation with test vendor guidelines and institutional requirements. Test center administrators are strongly encouraged to consult with their institution's Information Technology (IT) and Instructional Design staff. While some design aspects of test centers are relatively stable (e.g. layout, furnishings), technological improvements will require adaptability and updating over time. Test center administrators should consider planning for computer refresh timelines, processes and resources to manage software updates, and general maintenance of computer facilities.

Considerations

- Administrative privileges on test center workstations is strongly encouraged. Work with IT staff to ensure that all testing staff can update and install software to minimize disruptions to testing.
- Types of Computers
    - Desktop
        - Most popular
        - Easily configured or updated
            - RAM
            - Sound card
    - Laptop
        - Portable, generally less expensive than desktops but more than tablets
        - Hardware can be upgraded, but may not be as modifiable as desktop
        - May have higher range hardware that allows for administering more demanding test software
        - Able to use Wi-Fi or ethernet
        - May not be permitted by some test vendors
    - Tablet
        - Portable and inexpensive
        - Cannot upgrade hardware, so would require buying new tablets when technology is degraded
        - Best use may be for class exams that do not require typing
        - Tablets may have lower-end central processing units (CPUs) that could be unable to handle more demanding test software
        - Logging into Wi-Fi could present problems

        - May not be permitted by some test vendors and may not work with some platforms
- Peripherals
    - Keyboard
        - Tactile
        - Quiet
    - Mouse
        - Consider having a roller ball or other type of “mouse” available for candidate who can’t use a mouse.
    - Monitor
        - Size
            - Many test vendors have size requirements
        - Touch screen
            - A touch screen may be good for some candidates
            - Keeping them clean would be an issue
        - Swivel and adjustable
            - Candidates can adjust for best individual viewing
    - Headphones
        - Noise cancelling headphones can be used for exams with an audio component.
        - Regular headphones or ear plugs should be available for candidates to muffle noise.
- Networking
    - Hardwired internet
        - Best choice for fastest and most secure connection
        - May be required by contract with some test vendors
        - Most secure method
    - Wi-Fi
        - Could be used for large groups, particularly in auxiliary testing spaces such as large lecture halls.
        - Too many at one time can overwhelm Wi-fi.
        - Recommend having a hot spot within testing center
    - Work with institutional networking staff to consult regarding static versus dynamic IP (internet protocol) on workstations. Some test vendors may require static IP addresses, which could be outside typical network design.
- Software
    - Monitoring software can be used to remotely monitor workstation computers.
        - Some software permits staff to launch testing programs from their workstations rather than entering the testing lab.
        - Staff can pause workstations if they notice irregularities. problems
        - Software may allow recording of activity on the workstation, providing more evidence in cases of irregularity reporting.

- Lockdown browsers prevent candidates from accessing outside websites or other software.
  - Lockdown browsers may be built-in for use by some test vendors.
  - Institutions may have lockdown browsers already built-in to the learning management system (LMS).
  - Test centers may consider installing a lockdown browser to use when built-in options are not available.
- Accessibility software
  - Test center administrators are encouraged to consult with the Disability Service Office (DSO) and IT staff to identify software and other equipment to assist candidates with accommodations in accessing exams. This list provides some examples of software, though is not exhaustive and is not an endorsement of products by NCTA. Information and links are provided for convenience, but may not be updated with any changes:
    - JAWS (Job Access with Speech) is a screen reader that provides assistance to individuals with vision loss, providing speech and Braille output options.
      - https://www.freedomscientific.com/products/software/jaws/
    - CAR (Central Access Reader) is a free, open-source text-to-speech software for use with print-related disabilities.
      - http://www.cwu.edu/central-access/reader
    - ZoomText is a screen magnification and reading program for visual disabilities.
      - https://www.zoomtext.com/
    - Kurzweil 3000 is a comprehensive educational technology with text-to-speech, text magnification, and customization options to assist individuals with visual and reading impairments.
      - https://www.kurzweiledu.com/default.html
    - Dragon Naturally Speaking is a speech-to-text software.
      - https://www.dragon-naturally-speaking.com/
    - Other options

- Cameras
  - Video cameras can be a great tool for proctors to monitor candidates, and may be required by some test vendors.
    - Consider the ratio of cameras per workstation and how to maximize visibility of workstations, while balancing with ease of monitoring for staff. When possible, install 1 camera per 2 workstations
    - Recording
      - Consider how long to store recordings

        - Many test vendors have their own requirements, such as 30 or 60 days.
        - Have a process in place for storing recordings longer-term, should irregularities occur. Also consider how to share recordings to test vendors or conduct offices on campus.
    - Audio
        - A consideration if there are concerns about candidates talking or engaging in any auditory behavior that may be distracting or impact test integrity.
        - Audio recordings may also be used if there is a confrontation within the testing room, either between candidates or with test staff.
        - Make sure you have an easy method to send recordings to others for review
    - Pan/Tilt/Zoom
        - Cameras with this ability are more expensive but allow proctors to focus on workstations of concern
- Improvements in digital security may impact test center procedures.
    - Digital IDs are electronic identity cards or certificates that provide additional security. Many states are working on developing Digital IDs that can be used on phones. Test center staff may require technology to verify ID is legitimate and will need to adjust check-in and personal belonging storage procedures should these be in use.
    - Two-Factor Authentication (2FA) is an additional level of security in verifying identity. Institutions and test vendors may implement policies that require examinees to engage with authentication applications on phones or other devices, which will impact the check-in process.
- Clocks
    - Digital clocks are often the best overall choice.
        - Quiet – some candidates are bothered by ticking
        - Lightweight and easy to mount
        - Large, easy to read numbers, which can be a difficulty for candidates with analog clocks.
        - Can get versions with auto adjust:
            - Uses frequencies from NIST's Colorado Atomic Clock
            - Do not have to adjust for Daylight Savings Time
        - Multiple options in terms of size and features
            - Some would be best for a lobby, others for testing room
            - Consider purchasing clocks with thermometers to allow monitoring temperature in testing rooms
        - Battery operated, allowing clock to be placed where needed

        - Very affordable
- Planning for future technology
    - The need for increased bandwidth and power outlets will be a guaranteed constant for technology. Have a plan for being able to easily update cabling in your test center as needed.
    - Consult with IT to develop a computer refresh plan, allowing for replacement of degraded technology on a planned timeline.
- Sound dampening
    - White noise machine/sound masking system should be considered in designing test centers.
        - Sound masking is the addition of a familiar sounding, air conditioning-like background sound to an environment. Masking covers up or “masks” human speech and helps mitigate the distraction of other sounds, making an environment more comfortable, workers more productive and creating speech privacy.

Summary

The concepts presented in this document represent the consensus of testing professionals. This document is intended to identify views of what constitutes the Ideal Test Center.

We hope this document will be the foundation for the creation of your Ideal Test Center