

CORE RESOURCE

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Introduction

Remote TypeWell is the provision of TypeWell¹ real-time speech-to-text service where some, or all, TypeWell transcribers are not physically present in the location where communication is taking place (such as a classroom). It requires that post-secondary institutions have the ability to provide high-quality and stable audio access to the remote transcriber(s). This is often achieved via Skype or similar programs using a robust wireless internet connection, though some post-secondary institutions have reported using a high-quality telephone system. While the service itself is relatively easy to use once established, the process of preparing to provide the service for the first time was reported to be a significant barrier for many institutions—particularly those with limited resources.

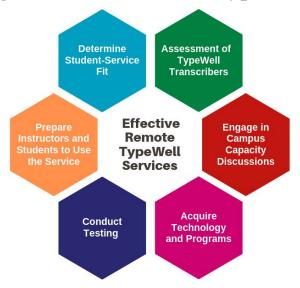
The goal of this resource is to reduce the challenges faced by post-secondary institutions in preparing to provide this valuable service for the first time. This resource and its appendixes contain both high-level considerations and practical information. Of particular interest will be the step-by-step guide to preparing to provide remote TypeWell service for the first time, contained in the section titled Remote TypeWell Preparation Guide.

Information Sources

In order to ensure the relevancy of this document, a community needs assessment was conducted by PCAS in 2019. During this process, nine interviews concerning the facilitators of remote TypeWell service and the challenges they faced were conducted. Six interviews were conducted with professionals working at post-secondary institutions who did and did not have experience with the service, one highly experienced Remote TypeWell transcriber, and two companies with relevant experience. A large part of both the shape of this document and the content within it is a direct result of these interviews. We wish to thank everyone who shared their time, experience, and expertise during this process.

¹ For more information on TypeWell service please see their website at: www.typewell.com/ or the PCAS website at: www.typewell.com/ or <a href="www.

Preparing to Provide Remote TypeWell Service



Remote TypeWell and a Diverse Student Population



Post-secondary institutions work to ensure that a wide range of students feel comfortable, safe, and have access to their campus, services, and classroom content. Beyond a legal requirement to do so, many post-secondary professionals—including many TypeWell transcribers—are passionate about inclusion. Remote TypeWell transcribing is one tool for improving institutional capacity to equitably include a wider range of students, including but not limited to deaf, hard-of-hearing, and deafblind students. Indeed, many of the post-secondary access professionals interviewed mentioned that they were interested in using the service to ensure equitable access to a wide range of students both in and outside classroom contexts, such as graduation.

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While remote TypeWell service is likely to help reduce barriers for a wide range of students, it may not be a good fit for all students. Historically, disability has been used as a demographic label, as a category that some students do or do not fit into (National Educational Association of Disabled Students, 2018). This approach to disability can encourage the use of prescriptive accommodations, with those students in specific disability categories only being eligible for specific types of accommodations. However, a student-centered approach that understands the unique experiences, strengths, weaknesses, and history of each student is likely to be the most appropriate in deciding if remote TypeWell service is a good fit for them. Beyond the strengths and limitations of the service itself noted in the next section, the unique lived experience of the student is an important consideration in assessing the appropriateness of fit.

Strengths and Limitation of Remote TypeWell Service

In this section, we will highlight some of the strengths and limitations of this service in order to support critical evaluation of this service. This section, like all others, draws on the insights gained from participants in the community needs assessment and the PCAS TypeWell Shortage Project (PCAS, 2018).

Strengths. The use of remote TypeWell services has a wide range of strengths or benefits, as outlined below:

- Increasing the pool of TypeWell transcribers available to an institution. For some institutions this will increase the number from zero, for others it will increase access to transcribers outside of their local community.
- Students may enjoy the reduced visibility of the service, particularly if all transcribers work remotely. This reduced visibility of the service may allay the fear of stigma for many students, a commonly reported concern.
- Once the preparation process is completed, this service is easy to use. Indeed, many institutions have begun using TypeWell transcribing more extensively since adding the capacity to do so remotely.
- The commuting time between campuses can be reduced, making it potentially easier for TypeWell transcribers to provide additional availability to institutions.

Limitations. The following limitations are divided into challenges that are likely to prevent the service from being used, and ones that may affect the quality of access and require additional consideration.

Challenges that are likely to prevent the use of remote TypeWell services:

• **Inability to access connection to high-speed internet.** An internet connection is an essential part of providing remote TypeWell services. Therefore, if no high-speed internet

- is available (sufficient to provide a stable, audio-only Skype call), upgrading institutional infrastructure may be a worthwhile first step. The need for connection may become a particular concern if the class, or a portion of the class, will be conducted outside.
- The requirement of a student, faculty or staff member to set up and remove the equipment. In situations where both transcribers are remote, if neither a student, faculty or staff member is able to take on the responsibility of setting up and removing the equipment, providing remote TypeWell services may be impractical.

Challenges that may affect the quality of the access provided by remote TypeWell services:

- Classes with a large amount of student interaction. If the lesson requires lots of student interaction and both transcribers are remote, the instructor may need to repeat the questions/comments of other students to ensure they are heard by the transcriber. Alternatively, the location of the microphone may need to be changed several times during the class.
- **Highly visual classes**, such as math or visual art, increase the challenge of providing equitable access for transcribers. Therefore, additional support and creative solutions may be needed in such situations.
- Remote transcribers are unable to read student questions out loud, so if this service is required to facilitate student interaction in the classroom, an alternative way of communicating will need to be developed.
- Instructors may need to be trained on how to use and place a wireless lapel microphone (this is only if all transcribers will be remote).

Assessment of Remote TypeWell Transcribers



TypeWell transcribers provide real-time access to lectures using a meaning-for-meaning² process. Like any other human service profession, equitable access is only provided when the professional providing the service is qualified and appropriately matched to work in a given

² For a definition of meaning-for-meaning, please see the TypeWell Website: http://typewell.com/overview/meaning-for-meaning

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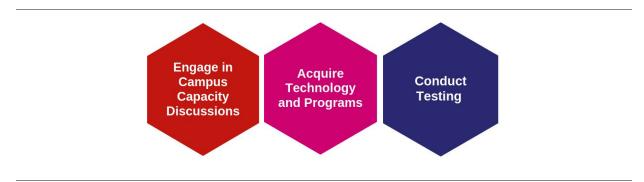
context. Below we outline considerations and the minimum qualifications of a remote TypeWell transcriber. Additional resources and information are located both on the TypeWell and PCAS websites.

In order to become a qualified in-person TypeWell transcriber, individuals must successfully complete the online TypeWell training course. Previous to enrolling in this training course, individuals must demonstrate a typing speed of 60WPM with no errors via the TypeWell typing test³. Upon entry, the course typically takes 35-60 course hours to complete. In addition, due to the decreased contextual information available to remote TypeWell transcribers, it is recommended that transcribers gain at least 50 hours of in-person experience before they work as remote TypeWell transcribers. Without this experience, TypeWell transcribers may struggle to provide equitable access while working remotely.

While the minimum recommended qualification for remote TypeWell transcribers is the successful completion of the TypeWell course and 50 hours of in-person transcribing experience, there are additional considerations. Though not essential or a requirement, those with experience in a particular area of study may find it easier to transcribe classes on that topic. A good match and working relationship between transcribers paired to work together may also help to promote improved service as they will be better able to predict and support each other.

Finally, it is important for post-secondary access professionals to maintain a high-quality working relationship with the TypeWell transcribers who are hired at your institution. On a practical level, this may help to better retain the services of TypeWell transcribers by promoting their work satisfaction (PCAS, 2018). It may also help transcribers to feel comfortable providing feedback to access service professionals. It is not a stretch to understand high-quality working relationships with service professionals as a type of quality assurance.

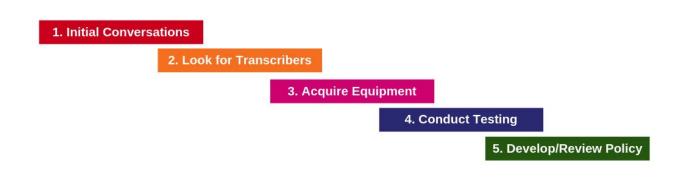
Remote TypeWell Preparation Guide



³PCAS may also cover the course fees. For additional information on this process and its requirements, please contact PCAS@BCIT.ca.

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In this section, we identify and explain the steps of preparing to provide remote TypeWell services for the first time. After completing the steps outlined below, you should be able to provide remote TypeWell services, although additional refinement will likely be needed.



1. Initial Conversations

The Importance of Initial Conversations

Those interviewed about their experience with using remote TypeWell services identified that some key initial conversations would have supported their preparations to provide remote TypeWell services for the first time. It was recommended that conversations be held with the IT department and faculty. Conversations with the IT department could focus on the technology infrastructure required, while the conversations with the faculty could help identify key needs to ensure instructor comfort. These conversations are largely seen as foundational to subsequent tasks and thus are highly recommended for anyone preparing to provide TypeWell transcribing for the first time. Key considerations and recommendations for these conversations are made below.

Engage in discussion with the IT department. This conversation should be used to identify if there is sufficient internet capacity to support the stable use of audio-connection through a program like Skype or Zoom throughout the day. Below is a list of suggested questions to guide the discussion, help you to identify if providing Remote TypeWell is currently possible on your campus, and provide you with a foundation to improve the system if it is insufficient.

General questions:

A. Do we have sufficient internet capacity to allow for a student to use Skype to stream stable audio throughout the day?

B. How can a student ensure the most stable connection? Is there a way to access our network that would help to ensure a more stable connection?

Often, due to the complex interaction between wireless signals and the built environment, using Wifi to connect to the internet will be less stable than a wired connection. However, there are often additional security requirements for devices attempting to connect to a wired connection on academic campuses. Also, a wired connection may increase the complexity of the setup and navigation of the classroom environment for students, as wired internet ports will only be available in specific parts of a classroom. Finally, many students worry about the potential stigma they may face by having their accommodations stand out, and the use of wired internet will no doubt increase the visibility of the use of remote TypeWell.

For the reasons listed above, as well as the robustness of wireless infrastructure at most post-secondary institutions, it is expected that Wifi will be the most effective option for the vast majority of post-secondary institutions in British Columbia. However, there are situations and settings where a wired internet connection may be the most practical, and, for this reason, relevant questions for both wired and wireless connections are included below.

Questions if a wired connection is to be used:

- A. Are there easy access ports in most classrooms (or in the classroom that the student is expected to use)?
- B. Can non-institutional computers access the wired connection?
- C. What credentials are required to login to the wired network (can students typically access this network)?

Questions if a wireless connection is to be used:

A. Are there times of the day/week when Wifi bandwidth⁴ may not allow for stable audio-stream using Skype or Zoom? If so, is there a way to improve Wifi access for students, or is there another wireless network that may be more stable?

⁴ **Bandwidth** can be understood to be the amount of data that can be transmitted and received through the infrastructure at a single point in time. It can be visually conceptualized as how much water can flow through a water pipe to a house. If there happens to be a large amount of data being used, the "flow" of data to an individual device may decrease.

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- B. Are there areas of the campus that may have insufficient signal strength⁵ to allow for stable audio-stream using Skype or Zoom?
- C. Do you predict any additional challenges with a student using the Wifi to audio-stream a classroom presentation?

Engage in discussion with the faculty association or specific department/faculty. Many of the participants in the community needs assessment identified that preparing faculty is a vital step to the development of effective remote TypeWell services. Specifically, without trust between teacher and transcriber, and understanding of the overall process, faculty may be resistant to the use of remote TypeWell in their classroom. For some, this resistance stemmed from concern about being recorded or losing their intellectual property, for others it was a misunderstanding about how the process worked. Either way, several participants reported that the service was less effective when faculty resistance was high, and that it could lead to students experiencing increased stigma or discrimination.

It is recommended that, if possible and practical, a dialogue is opened between access services and faculty departments early in the process. The following questions were developed based on community needs participants' suggestions and feedback. If a student plans to attend a specific program, then it may be worthwhile to direct these questions to the relevant department.

Note:

It is worthwhile to engage in discussion with faculty early in the process, to better understand their concerns about the remote TypeWell process. By addressing faculty concerns early in the process, high quality and trusting relationships can be built.

Suggested questions for faculty:

- A. What guestions do you have about remote TypeWell services?
- B. What concerns do you have about remote TypeWell services?
- C. What information or activity would help faculty to feel more comfortable using remote TypeWell services to improve the accessibility of their classes?

⁵ **Signal strength** is a measure of the radio transmission of Wifi, and is thus an interaction between a device (or computer/lpad), the building, and the campus IT infrastructure. Many factors impact the signal strength experienced in any given area of a campus.

D. Is there anything that our department can do to help prepare, or improve, the experience of remote TypeWell services for faculty?

2. Look for Transcribers

Hiring Remote TypeWell Transcribers⁶

For many, this was the crux of preparing to provide remote TypeWell services, as there is an ongoing shortage of TypeWell transcribers. For those who are preparing in advance of a registered student who will use the service, building a roster of remote TypeWell transcribers will be an important step to improving the ease of providing the service when it is required. However, for those with a student already registered, this step will take a considerable amount of time and focus. Below are the recommended steps to finding a qualified TypeWell transcriber.

- A. Review the duties of TypeWell transcribers found on the PCAS website.
- B. **Develop internal policies** around pay-rate, expectations, and responsibilities for remote TypeWell transcribers at your institution.
 - a. Remote TypeWell transcribers require time and information to prepare for each class. It is standard practice for this time to be paid at their normal rate.
 - i. It is important for instructors or access service professionals to send visuals (like PowerPoint slides) and classroom information to transcribers significantly in advance. Plan for transcribers to be granted access to course portals or websites (like Moodle or Blackboard) if used by faculty.
 - ii. For additional information on this aspect please see the <u>TypeWell</u> website.
 - b. Due to the mental and physical strain of providing the service, Remote TypeWell transcribers require a co-transcriber for any courses over 1 hour.
 - c. Transcripts are edited before they are provided to students (for a study aid), and it is standard practice for this editing time to be paid.
 - d. Based on previous research, a strong relationship with a coordinator, effective and clear policies, a higher rate of pay, and the opportunity to work regularly with a well-matched co-transcriber were all reported to increase the desire of a TypeWell transcriber to work at a particular institution. All of these elements are well worth considering in the development of hiring processes.
- C. Write a job description for a remote TypeWell transcriber contract (or staff) position (information on this topic, and a sample job description, can be found on the PCAS website).

⁶ If you experience significant issues with locating a TypeWell transcriber in British Columbia, please contact PCAS for additional information and recommendations.

- a. If you have a student registered in specific classes, it is worthwhile to list the specific courses, dates, and times during which a TypeWell transcriber will be needed.
- D. **Email the job description** to the PCAS jobs line (PCAS@bcit.ca) for distribution to TypeWell transcribers registered with PCAS.

E. Screen and interview transcribers

- a. Ideally, this is an opportunity to ensure a good match between the course content (or popular programs at your institution) and the background or experience of a transcriber.
- b. This should also be an opportunity to get to know the transcriber and develop rapport, as this seems to help to ensure retention.
- c. When you hire a transcriber, it may be helpful to ask them who they work well with and who they would recommend you contact. This allows for an effective co-transcribing team to be built, and is often a very effective recruitment method.
- d. Often, it is best practice to develop a roster of transcribers who are all interested in providing services at your institution, either by hiring them or by developing an approved contractor list. Developing such a roster may increase the chances of a team of transcribers being available for a particular class.
- F. **Actively maintain a good working relationship** with the hired transcribers, even when they may not be actively providing services, in order to improve the retention of their services.
 - a. Offer them the opportunity to engage in online professional development opportunities, either offering to pay for their time or the cost of the course.
 - b. Keep in touch with them, either through email or occasionally via a virtual meeting. It may be worth considering reimbursing them for this time.
 - c. Ask them if they have experienced any challenges while transcribing at your institution, and actively work towards improving your system based on their feedback (and make that visible to them).
 - d. Try to make them feel valued for the service they provide as professionals.

3. Acquire Equipment

Locate Required Equipment

A. Borrow or purchase at least 2 high-quality microphones (one to use as a backup).

At the time of writing, the most popular and highly recommended microphone is the **Revolabs xTag** lapel microphone. This type of directional microphone is wireless and is worn by the instructor or presenter. In situations where one transcriber is in-person and another is

remote, the use of an omnidirectional microphone⁷ is more common and could be worth considering for such situations. The key factors to consider are ease of use, size, battery life, cost of replacement, the room size, the type of class, and method(s) of instruction (for example, lecture or discussion). Due to the many factors influencing this decision, it may be worthwhile to have a discussion with Assistive Technology British Columbia (ATBC) or your IT department.

ATBC has a loan program, which many institutions make use of. For more information on the ATBC loan program please see their website at www.at-bc.ca. If it is predicted that remote TypeWell will be regularly used, it may be worthwhile to purchase a few high-quality microphones (though purchased microphones will need to be maintained).

B. Borrow or purchase a device to use for audio-streaming (see definitions below) and reading the transcription, or use a student's own device if that is their preference. There should also be a portable charger available for the audio-streaming and or reading device if they are not using their own laptop/tablet. Sometimes students are not able (or forget) to sit near power outlets and may run out of battery for any number of reasons.

A wide range of devices can be used to stream audio to the TypeWell transcriber. The basic requirements for any device are the ability to run Skype or Zoom, connect to your institution's internet connection (via Wifi or wired connection), long-lasting battery (or ability to plug it in), and a USB port. The technical requirements for using a device to access the TypeWell transcription is low and includes the ability to connect to the internet and use an internet browser like Chrome or Safari. So, it can be assumed that if a device can stream the audio, it can be used to read the transcript—even most modern smartphones would have this capacity.

Many institutions reported using a laptop as the audio-streaming and reading device. However, several reported using a tablet or iPad. Ultimately, as the technical requirements are not restrictive, it is recommended that the student's comfort and experience with particular devices be the primary factor for the selection of the audio-streaming and reading device(s). The use of a device that a student is familiar with will reduce the amount of training required, and is likely to promote student comfort.

C. **Establish an account with and install** an audio-streaming program (such as Skype or Zoom) onto the laptop/device that is planned to be used.

⁷ An omnidirectional microphone is designed to be sensitive to sound received from most directions around it. This is opposed to other types of directional microphones that may attempt to reduce background noise via limiting input to specific input directions.

The institutions that were interviewed use Skype or Zoom as the audio-streaming program, however, there are many such programs available. It is worthwhile to decide on the audio-streaming program in consultation with the IT department, ATBC, and institutional policy.

4. Conduct Testing

Conduct a Test of the Remote TypeWell System

Now that you have gathered the information and the technology to provide remote TypeWell service at your institution, the next step is to conduct a test of the system. This testing process serves to reduce unexpected issues and promotes a better understanding of this service. It is important to take detailed notes during this process, for training purposes at your institution.

The testing process is worth dedicating several hours to, and tests should be conducted in various classrooms on campus. It is recommended that the testing includes several student access professionals and a remote TypeWell transcriber (though an IT professional may be a worthwhile addition). At the minimum, two people are required for this test: a student support professional and an experienced TypeWell transcriber.

During the testing, it will be important that you test: setting up the equipment, the internet strength/bandwidth, the placement and use of the microphone, and the audio quality of the microphone as reported by the transcriber. If possible, these elements should be tested in multiple classrooms in your institution as the size, design, shape, and location of the room can affect the audio quality and internet connection.

- A. Contact and hire an experienced remote TypeWell transcriber for a 2 to 3-hour duration through the PCAS listserve. If you have several dates that testing could be conducted, it can be worthwhile indicating that and listing possible dates, as it will increase the likelihood of finding an experienced remote TypeWell transcriber who is available.
 - a. Ask them to install and register for an account with Zoom, Skype, or another streaming program, and send their account information to you in advance.

B. Setup the audio-streaming device.

- a. Charge the wireless microphone in advance (if applicable).
- b. Turn on the laptop or streaming device.
- c. Plugin the microphone to the USB slot in the laptop/streaming device.
 - i. If applicable, ensure the microphone is recognized by the laptop/streaming device.
- d. Connect to the internet.

- e. Open and login to Skype, Zoom or other streaming programs.
- C. Call or have the remote TypeWell transcriber call you using Skype/Zoom
 - a. It may be best to practice how you expect the process will be done by a student. It may be more practical for a student to call the transcriber. However, if you are using Skype, due to how the call is hosted, it is best practice for the transcriber to call the student, as their internet is likely to be more robust.
- D. Ask the remote TypeWell transcriber to send you the online transcription link.
- E. One person should function as the "instructor" and walk around the room, with another person pretending to be the "student" and watching the transcription. It is best to try this with the "instructor" and "student" in different positions around the room, to test the internet and the audio quality of the wireless microphone in various locations.
 - a. Ask the transcriber to indicate if audio quality gets worse.
 - b. Note any issues that arise during the testing, as well as the setup process.
 - c. At the end of the test, ask the transcriber to comment on the audio quality and any challenges they may have experienced.
- F. If possible, **test the microphone in different positions** in relation to the instructor (or on the instructor if using a lapel mic). If possible, having a third person on campus to pretend to be a student asking a question may be worthwhile as this is likely to happen in a real classroom.
 - a. Again, ask the transcriber questions and make notes on any issues that arise.
- G. Repeat the test in other locations in your institution if possible, to ensure consistency in the connection and audio quality.

Note:

The testing process may be worthwhile repeating with faculty to function as an orientation to the service. Several institutions have reported significant success with promoting instructor comfort and skill with remote TypeWell services using this approach.

H. **Address any issues that arise**, particularly if they were significant enough to cause a student to be unable to equitably access the service.

5. Develop/Review Policy

Develop Institutional Policy and Best Practices for Remote TypeWell Services

Once the actual technological systems have been successfully tested, the next step is to develop practices and policies that support equitable access for students who use this service.

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Best practice guidelines and policies help to support an inclusive campus and to support TypeWell transcribers in providing effective services. The development of effective policies also seems to promote retention of TypeWell providers (PCAS, 2018), and helps to prevent issues with knowledge legacy due to changes in staff or infrequent use of the service. This process may be done in consultation with hired or contracted remote TypeWell transcribers and used as an opportunity to both form connections and ensure that the practices and policies are reflective of real-world needs.

While it is beyond the scope of this resource to provide or suggest specific best practices or policies, some key areas below were identified both in the community needs assessment and the PCAS TypeWell Shortage Project Public Report (PCAS, 2018) and shared below. Ultimately, the key areas listed below are non-exhaustive, and additional areas may be required at your institution.

5.1 Key Areas of Policy Consideration

- A. The Privacy and Information Protection Act
- B. Instructor's intellectual property
- C. How, and if, the transcript and access to the transcribing service can be shared with other students

5.2 Key Areas of Best Practice Development

- A. How to prepare students to use TypeWell services (see Appendix 1: Student Orientation Guide for suggestions)
- B. How far in advance should visual and classroom information be shared with the remote TypeWell transcribers, and how?
- C. How far in advance will TypeWell transcribers be provided with access to the relevant course space (ie: Blackboard or Moodle)?
- D. Will the quality of the service be measured, and if so, how?
- E. How will you support remote TypeWell transcribers in providing the best service?
- F. Why, when, and how often will you offer remote TypeWell transcribers increases in their rate of pay?
- G. If a technological issue arises during class, who is responsible for troubleshooting the issue? Who should the student or transcriber contact?
- H. Is there a backup plan for if a technological issue arises during class?
- I. If a microphone battery runs out (a common issue), will there be a charged backup available? If so, where, and who is responsible to obtain it?
- J. How will instructors be notified and orientated to the remote TypeWell service (see Appendix 2)?
- K. If an instructor has concerns or additional questions, who can they contact?

Terminology & Technology Related to Remote TypeWell

Below is a list of common terminology and technology used during remote TypeWell service. It may be worthwhile to use this as a living document and to add to this list as technology changes. Ultimately, it is recommended that ATBC should be used as a resource for equipment as they are content experts in this area.

Terminology:

- 1. Reader Device: a physical device that is used to access the transcription during class. Often this is a laptop or tablet, but it may also be a smart-phone with an internet connection. The reader device is also commonly the audio-streaming device, but may not be.
- 2. **Hybrid Remote Model:** when an in-person TypeWell transcriber and a remote TypeWell transcriber work together to provide the speech-to-text service. It is often used to augment the number of available transcribers at an institution. It is one of the more robust methods of providing this service, as the in-person transcriber can be made responsible for equipment setup, reading typed student responses, and to provide any information missed by the remote Transcriber.
- 3. **Fully Remote Model:** when all transcribers are based outside the classroom. In this model, it is often the responsibility of students to set up the equipment, and backup systems need to be in place in case the audio connection becomes unstable. That said, this approach is desired by many students, as it allows them to decrease the visibility of the service, and thus, decrease concerns about stigma. Finally, this approach allows for the service to be provided in small communities where no local transcribers are available.

Commonly Used Technology:

- 1. Audio-streaming device: the physical device that connects to the microphone and transmits the classroom audio to the remote TypeWell transcriber. A wide range of devices were reported to work well. Most institutions use a laptop computer, while others use an iPad or tablet device. Ultimately, the majority of budget laptops would be more than capable of being used for this purpose.
- 2. **Audio-streaming program:** a program that provides audio to the remote TypeWell transcriber(s) via an internet connection. Most commonly this is Skype or Zoom, but another program may be used.
- **3. Microphone:** a vast majority of those interviewed recommended the use of the RevoLabs Xtag wireless microphone. However, some used a wired omnidirectional microphone, such as the Blue Yeti or Blue Snowball microphone. In situations where a Hybrid Remote Model is being used, such omnidirectional mics seem to be used more often. Testing and consultation are recommended.

Troubleshooting Common Issues

The majority of institutions experienced very few challenges providing remote TypeWell services after the initial setup process. Indeed, many commented on the ease and effectiveness of this service. These rare challenges are identified below and recommendations are provided.

1. Internet connection is weak or disconnects frequently.

- A. Contact the IT department to discuss improving the wireless network in that location.
- B. Contact the IT department to discuss connecting to a different wireless network, such as the employee wireless network.
- C. Move the classroom location, if possible.
- D. A high-quality conference phone may be used to temporarily provide access to the remote transcriber, though the audio quality will likely be reduced.

2. Wireless microphone breaks or runs out of battery during a class.

A. Have a charged backup microphone available and accessible to the student.

3. The remote transcriber(s) can not hear student comments and questions.

A. Orientate the instructor to repeat or summarize student questions and comments.

4. Internet or technological issues arise during a class.

- A. Develop a procedure of who a student can contact to resolve technical issues.
- B. Develop a procedure of who an instructor can contact to resolve technical issues.
- C. A high-quality conference phone may be used, though this may affect audio quality.

5. TypeWell transcriber or student is unable to authenticate the TypeWell license due to administrative account settings.

Note:

The TypeWell license needs to be authenticated regularly. The process requires the Transcriber, or occasionally the student, to copy an authentication key from the TypeWell program and input it into a specific TypeWell webpage. The TypeWell webpage then generates the required new authentication code. If they are unable to complete it during the grace period, the TypeWell program will become locked. Incorrect settings will force an administrator to complete this process, and this individual may not be available when the

prompt is seen. Following a grace period, failure to authenticate will prevent the use of the TypeWell program.

- A. Review the TypeWell license account settings at your institution.
- B. Adjust administrative account settings to allow students/transcribers to complete the process themselves.
- C. Contact the TypeWell company for additional support on this topic if needed.

Conclusion

Like any service, and particularly those that are connected to technology, it is recommended that occasional review of the service and technology be conducted. In particular, it is worthwhile reviewing the programs, audio-streaming devices, and microphones being used. As technology evolves and changes, it may be possible that other programs and devices may provide improved performance. Additionally, a regular review of this service as it relates to institutional policy and best practice is warranted.

Remote TypeWell service has the potential to increase the ability of post-secondary institutions to provide equitable access to education for some students in British Columbia. As access to education is a human right (United Nations, 2006), remote TypeWell is an important tool for post-secondary institutions to possess. Though not without its challenges, the service has been widely reported to be effective and relatively easy to provide once established. It is our hope that the information contained in this resource helps to reduce the challenges associated with establishing this service at your institution.

Reference

- National Educational Association of Disabled Students. (2018). *Landscape of Accessibility* and Accommodation in Post-Secondary Education for Students with Disabilities.

 Retrieved from
 - $\frac{https://www.neads.ca/en/about/media/AccessibilityandAccommodation\%202018-5landscapereport.pdf}{}$
- Post-Secondary Communication Access Services. (2018). PCAS TypeWell Shortage Project Public Report.
- United Nations. (2006). Convention on the Rights of Persons with Disabilities. Retrieved from
 - https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html



CORE RESOURCE



APPENDIX B: INSTRUCTOR ORIENTATION GUIDE

Prepare

Introduction

Remote TypeWell is the provision of TypeWell¹ real-time Instructors and speech-to-text service where some, or all, TypeWell transcribers are not Students to Use physically present in the location where the communication is taking place. TypeWell transcribers are provided audio access to the communication via the internet and provide students with a real-time, meaning-for-meaning² written transcript of the information being shared in English. Remote services are an effective way to increase access to a wide range of students when in-class transcribers are not available³.

Based on previous PCAS research, the orientation of post-secondary instructors to remote TypeWell service emerged as a key need to ensure equitable access to students who use this service. Access service professionals identified that orientation prior to the start of class helped to reduce instructor resistance to the service and increased efficacy of the service. TypeWell transcribers identified that orientation of instructors increased their ability to focus on providing high-quality service during classes. Finally, both transcribers and access service professionals reported that failure to orientate instructors seemed to increase student experiences of stigma and discrimination.

This guide is designed to support the development of an effective orientation for instructors. As each post-secondary institution is unique, the information, suggestions, and recommendations in this guide are not intended to be exhaustive.

A large portion of the information and recommendations contained in this guide were gathered from the access service professionals, transcribers, and organizations who took part in the PCAS community needs assessment conducted in 2019 and the PCAS TypeWell shortage project conducted in 2018. We wish to thank all participants for all the wisdom they shared.

Supporting Instructor Comfort

For instructors, the addition of another (often unknown) professional into the classroom may feel uncomfortable or unsettling. Thus, there is a need to ensure that they are comfortable, confident, and understand the services provided by remote TypeWell transcribers. Instructors will be working alongside and interacting with another professional—even if it is through the internet—and it is helpful to prepare them for this. Below, some common concerns are identified, and recommendations are made.

¹ Additional information and resources are available on the TypeWell (www.TypeWell.com) and PCAS (www.bcit.ca/pcas) websites.

² For a definition of meaning-for-meaning, please see the TypeWell Website: http://typewell.com/overview/meaning-for-meaning

³ For additional information on this service, please see the PCAS Remote TypeWell Core Resource.

Concern	Recommendation(s)
Instructors may be concerned about their lecture or intellectual property being recorded or shared.	 Develop a privacy contract for students in which they agree to not share the transcript provided to them. Develop a privacy contract for the TypeWell transcriber in which they agree to not record the audio stream or distribute it.
Instructors may worry about being observed by another professional, particularly one outside of their department or institution.	 Introduce the instructor to the transcriber in order to support relationship development. Introduce the instructor to another faculty member who had a positive experience with the service or specific transcriber(s). Remind the instructor that transcribers are there to help make their classroom accessible, not to judge or evaluate them.
Instructors may be apprehensive about potential disruption to their teaching.	 Introduce the instructor to another faculty member who had a positive experience with the service. Provide all instructors an overview of the service—often the unknown seems more intimidating than the reality of the service. Remind them that the transcribers are there to help them improve the accessibility of their classrooms.
Instructors may worry about how to ensure the service is effective.	 Develop clear guidelines around what, when, and how they should communicate with the transcriber. Provide them with a contact person for any concerns or questions they may have regarding the service.
Unique or additional concern based on institutional context.	It is recommended that, if possible, discussion with the faculty or specific department may help to identify unique or additional concerns worth preparing for.

Orientation to the Service

It is important to ensure that the instructor understands how remote TypeWell services work. Though instructors do not need to be experts, understanding the process and technology involved can increase the effective use of the remote TypeWell service. Furthermore, developing an effective orientation to the practical aspects of the service is likely to increase the equity provided by the service at your institution. The formats for instructor orientations reported in the community needs assessment ranged significantly: some institutions developed an FAQ document while others provided live demonstrations of the service to department members. Key topics for instructor orientation are outlined below.

Describe the Work of TypeWell Transcribers at Your Institution:

- Remind instructors that transcribers are trained professionals who provide meaning-for-meaning real-time transcripts to help make their classroom more accessible
- Emphasize that transcribers do not evaluate the instructor but provide access to the communication that takes place in the classroom (or elsewhere on campus).
- Explain what ethics, policy and or agreements guide transcriber service at your institution.

An overview of the technology used to provide the service, including:

- The use of a secure audio-streaming program to provide audio to the transcriber.
- How to use the microphone(s). In particular, how instructors control the microphone, its limitations, and some practical tips for ensuring its effective use (such as repeating student comments or questions).

What the limitations of the service are:

- Ensure that instructors understand that videos shown in class still need to be captioned, as they cannot be captioned during class by the transcriber.
- Remind them that transcribers cannot transcribe what they are unable to hear, and so they should be thoughtful of effectively using the microphone and what may or may not be picked up by it (such as student comments or questions).
- Emphasize that without information on each class provided at least 48 hours in advance, transcribers may not be able to provide effective access.

How instructors can help to make sure that their classrooms are accessible via remote TypeWell service:

- By providing any planned visuals (like PowerPoints) and classroom topics to the transcriber(s) at least 48 hours in advance. Instructors should also give transcribers access to class websites or class portals.
- Making sure they use the microphone effectively.
- By repeating any relevant student comments or questions that may not have been picked up by the microphone.

Tips for Orienting Instructors:

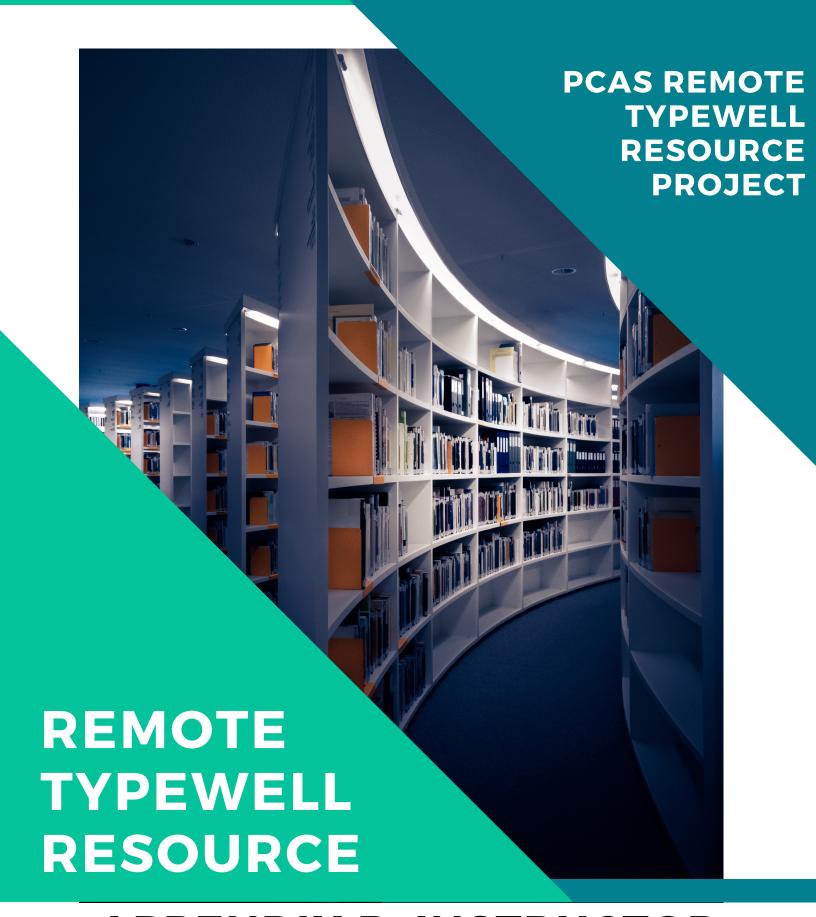
- Develop a short and simple FAQ sheet you can send to instructors when you let them know that the service will be used to make their classroom more inclusive.
 - This is the most common orientation technique and has been reported as successful for many.
- In all communication, emphasize to instructors that the service helps them to make their classrooms more equitable (rather than focusing on the student(s) using the service).
- Connect with instructors and address concerns prior to a student entering their classroom. This will help to avoid instructor resistance, which can lead to stigmatization or oppression of the student.
- Offer to connect instructors with other faculty members who have had positive experiences with the service.
- Develop your orientation process in collaboration with faculty. It is likely that faculty members have specific questions and suggestions that can make the process more effective
- Provide live demonstrations of the service when possible as they are a very effective way to help instructors understand and become comfortable with remote TypeWell service.

Note:

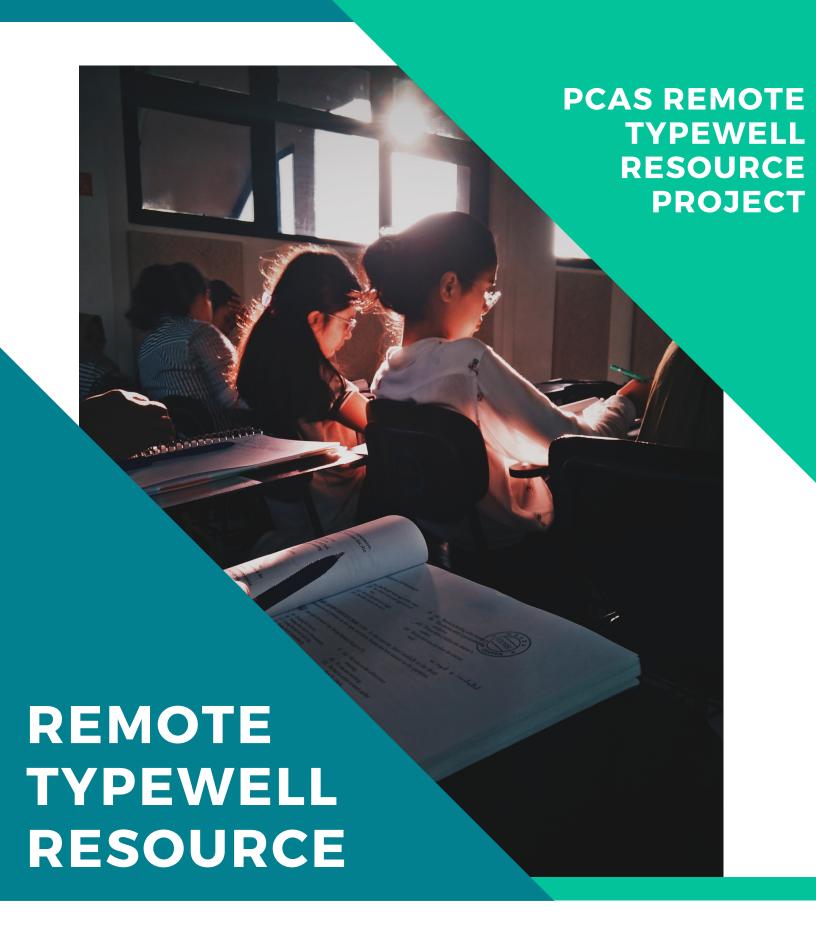
If you know the department or the program a student plans to study in, it may be particularly worthwhile to invite all of the instructors of that program or department to a live demonstration and presentation of the service.

Conclusion

We hope that this guide is helpful in the development of an instructor orientation at your institution. In turn, we hope that by supporting instructors' comfort and use of this service, you can increase the inclusion of a wider range of students at your institution. If you have any questions not covered by this guide, we encourage you to contact us at PCAS@bcit.ca.



APPENDIX B: INSTRUCTOR ORIENTATION GUIDE



APPENDIX A: STUDENT ORIENTATION GUIDE





Remote TypeWell is the provision of TypeWell¹ real-time speech-to-text service where some, or all, TypeWell transcribers are not physically present in the location where communication is taking place. TypeWell transcribers are provided audio access to the classroom communication via the internet and provide students with a real-time meaning-for-meaning² written transcript of the information being shared.

Thus, this is one way that post-secondary institutions can increase equitable access to the campus, services, and classroom content for a wider range of students when the number of in-person transcribers is insufficient³.

Based on numerous and interconnected factors, some students will find the service of significant benefit, while others will not. Ultimately, students themselves, as experts of their lived experience, are in the best position to evaluate the benefit of this service.

Being a post-secondary student is stressful for many, even without needing to interact with and manage a service like TypeWell transcribing. In order to support student comfort and maximize the benefits of this service, all students should be provided with training and an orientation on how to use this service. The amount, depth, and topics covered during the student orientation process will need to be tailored to each student.

Based on previous research, the following topics are suggested as a foundation for the development of a student orientation process. Each post-secondary institution is unique, thus each post-secondary institution will need to develop a unique orientation process. It is recommended that those who will be responsible for the orientation of students test the service themselves in advance, and use their notes from the experience to help inform the orientation process.

A large portion of the information and recommendations contained in this guide were gathered from the access service professionals, transcribers, and organizations who took part in the PCAS community needs assessment conducted in 2019 and the PCAS TypeWell shortage project conducted in 2018. We wish to thank all participants for all the wisdom they shared.

Orientation to the Service

What is Remote TypeWell Service

Some students may have experience with remote TypeWell service previously, but some may not. Additionally, those who may have experience with TypeWell service may not be familiar with using it in a post-secondary setting or with remote TypeWell service specifically.

¹ Additional information and resources are available on the TypeWell (www.TypeWell.com) and PCAS (www.bcit.ca/pcas) websites.

² For a definition of meaning-for-meaning, please see the TypeWell Website: http://typewell.com/overview/meaning-for-meaning

³ For additional information on this service, please see the PCAS Remote TypeWell Core Resource.

Ideally, an orientation to the service will include a demonstration. Several institutions who participated in the community needs assessment reported that using remote TypeWell service to communicate during a one-on-one meeting with a student can be a highly effective demonstration of the service. It may also be worthwhile to review the strengths and weaknesses of the service with each student, These include:

Strengths	Limitations/Challenges
 More discrete than many other services It may be easier to find an available transcriber, or make it possible to provide the service if local transcribers are not available The student(s) using the service will be emailed an edited copy of the TypeWell transcription after each class, which can be used as a study aid. 	 Internet strength will impact the quality of the service and may vary based on the time of day or area of campus Some comments may be missed by the microphone depending on the room and classroom dynamics Student's visual focus will need to be split between the environment and screen Students often need to take on the responsibility of equipment set-up and management when all transcribers are remote

Institutional Expectations and Policy

As institutional remote TypeWell policy and procedures vary, it is important to review yours with students. Some areas to consider discussing are:

- If, and when, a student can expect to receive an edited transcript after the class.
- What responsibilities students have in using this service.
- Procedures around how and who the student notifies when they will be absent or class is cancelled.
- How students can request changes in the service.
- If they are allowed to share edited transcripts with others, and if so, under what conditions.

Equipment & Service Training

Equipment Management

Note:

If an in-person transcriber will be present, then they can be made responsible for the set-up and maintenance of the equipment. However, if all transcribers will be remote, then typically students are made responsible for the set-up and maintenance of equipment.

While the specific equipment and processes will be different between institutions, some key skills worth supporting students in developing are:

- How to set up the audio-streaming device, and how to connect to the internet.
- How to connect the microphone to the audio streaming device, and how to identify an effective location for it.
- How to use the audio streaming program (such as Skype or Zoom), and connect with the transcriber(s)/accept a connection request from the transcriber.
- How to use the reader device (if separate from the audio-streaming device).

Note:

Some institutions may ask the student to pick up the equipment daily, but many lend the equipment to students. If the student will be loaned the required equipment, then it may be worth supporting them in strategizing how they will make sure the equipment is ready for each class.

Strategies and plans should be developed to support students with:

- Ways to ensure that the audio-streaming device, microphone, and external backup battery are charged before each class.
- Who to contact if they are unable to connect to the internet or the internet disconnects.
- What to do if a device breaks before, during, or after they were scheduled to use the service.
- What to do if the microphone is not picking up important parts of the communication taking place.
- What to do if they are unable to connect with the transcriber.

Note:

Assistive Technology British Columbia (ATBC), may also be a good resource for this aspect as they have significant experience supporting and training students with various technologies.

Self-Advocacy Skills

Based on the data collected, student self-advocacy skills are an important factor of effective service and student comfort. Some of the key areas of self-advocacy are:

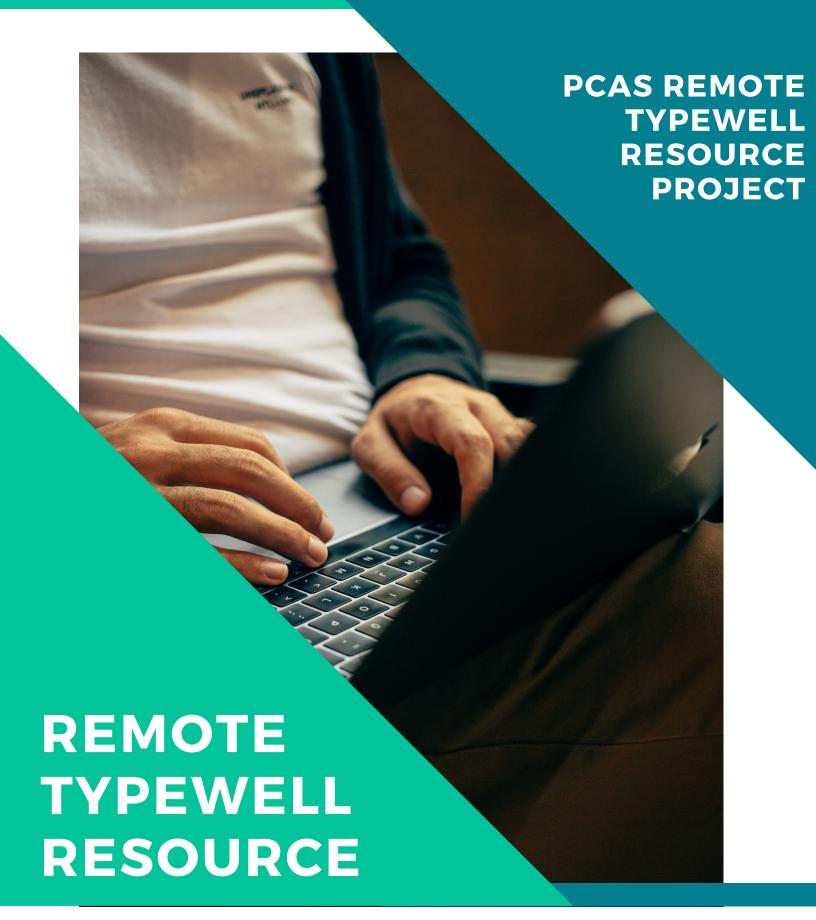
- Who they can contact for support if they experience barriers or discrimination.
- Their rights as a student using this service, including institutional policy.
- Their right as a student to high-quality service, including who to contact if they have concerns with the service or provider(s).
- Strategies for discussing the with instructors, students, or staff who are resistant to the service.
- If, when, and with whom transcripts of a class can be shared.
- On-campus services that support their emotional, social, and spiritual well-being, and the accessibility of these services.

Attitudinal and Institutional Barriers

It is important to note that while student self-advocacy skills will always play a part in a student's success, there is a considerable need to reduce institutional and attitudinal barriers. Indeed, even with a relatively small sample size, several stories of significant stigmatization and discrimination by staff and instructors towards students using this service were reported. Many of the reported situations arose due to a lack of instructor comfort and understanding of remote TypeWell service, so there is a significant need to conduct instructor orientations as well.

Conclusion

We encourage you to use this guide as a foundational manual to orientate and train students to use remote TypeWell service at your institution, and to make additions and changes to the process as you gain experience with the service. We hope that the tips and suggestions in this document help to support student comfort with the service, and thus promote increased equity in your institution. If you have any additional questions please contact PCAST at PCAS@bcit.ca.



APPENDIX A: STUDENT ORIENTATION GUIDE