

**ERASMUS+ Project “Online Choirs: How to carry out virtual choir
rehearsals with the help of digital tools”**

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**R3.2: Development and refinement of choir pedagogical principles for carrying out
online choir rehearsals**

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Abstract

This document R3.2 is part of Work Package (WP) 3 (Design and refinement of technology solutions and principles to carry out online choir rehearsals) of the ERASMUS+ Project “Online Choirs: How to carry out virtual choir rehearsals with the help of digital tools”.

The activities in WP3 develop principles for carrying out online choir rehearsals by considering technological, choir pedagogical, and socio-technical aspects. Results from WP2, e.g. the identified best practices and challenges as well as the requirement profiles of choirs interested in carrying out online rehearsals guide the development of the technology solution and principles in this WP.

This document R3.2 includes choral pedagogical principles for conducting online choir rehearsals, which have been designed, implemented and evaluated in the different rehearsal periods of the Choir@Home Online Laboratory Choir. The principles cover the different phases of online choir rehearsals, singing postures, voice training, musical skills, compositions and interpretative aspects, and leadership. The final part describes how the developed principles can be adapted to fit the needs of choirs with different characteristics.

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1 Principles for the different phases of online choir rehearsals (R3.2.1)

Online choir rehearsals place special demands on the structuring of work phases. In order to promote both musical quality and social interaction, a clear division into warm-up phase, main phase, and final phase has proven effective. This structure provides orientation and allows for flexible adaptation to the specific circumstances of the digital environment.

The **warm-up phase** serves not only as a vocal preparation but also as an arrival in the virtual space. It offers the opportunity to resolve technical issues, establish mental presence, and bring the group together. In addition, warm-up exercises serve as concrete preparation for the pieces planned in the rehearsal. Compact vocal exercises focusing on breath flow, articulation, and resonance are carried out during this phase. Especially in online rehearsals, promoting self-awareness is crucial, as individual feedback is limited. Questions like “How does that feel?” encourage singers to become more aware of their own voices. Figurative language and metaphors are helpful in this context. The warm-up is complemented by rhythmic games or clapping exercises that also train group cohesion and musical timing. In children’s choirs, playful elements such as animal sounds or imaginative stories are used to enhance attention and joy in singing. The duration of this phase varies depending on the target group – around five to ten minutes for children’s choirs, and ten to fifteen minutes for adult choirs.

The **main phase** focuses on intensive musical work. Despite technical limitations such as latency or reduced non-verbal communication, many aspects can still be implemented efficiently online. Intonation exercises, timing training, or rhythmic precision can be practiced through clapping, using a metronome, or music apps. Alternating between full-group rehearsals and small group work – for example, in breakout rooms – allows for more nuanced musical development. The goal is to cultivate both an individual and collective sense of sound, supported by technical tools such as playbacks, shared sheet music documents, or pre-recorded audio tracks. Singers’ personal responsibility is also reinforced during this phase – for example, through the use of so-called Teach Me files (e.g. chorfit.de, wearevoice.se) or by submitting their own recordings. Even with a reduced sense of ensemble, focused sound work is still possible. In children’s choirs, the main phase is interspersed with frequent activity changes, whereas adults can maintain a continuous musical flow for up to 60 minutes.

The **final phase** serves for reflection, social bonding, and a rounded conclusion. Key rehearsal content can be summarized here and specific, positive feedback given. When working with children, a closing song or a short game can help strengthen the group feeling and end the

session on a positive note. Digital rituals – such as an emoji feedback round or a short musical “goodbye” canon – help foster a sense of connection, even when physical distance remains. Overall, it becomes clear that a well-thought-out and flexible phase structure is the key to successful online rehearsals. It creates continuity, promotes focus, and supports both individual learning and collective musical development. Especially in the digital space, where social feedback is limited, a clear structure provides security and orientation – laying the foundation for musical and educational quality.

2 Recommendations for singing postures in online choir rehearsals (R3.2.2)

Posture plays a central role in online choir rehearsals, as it significantly influences vocal production, breath control, and articulation. While this is generally true for in-person rehearsals as well, it poses particular challenges in the digital space, where visual supervision and immediate correction by the choir director are largely absent. All the more important, then, is a conscious engagement with a functional and healthy singing posture.

As a basic principle, an **active seated posture** is recommended during online rehearsals. The chair should be used in an upright, edge-based manner so that the spine remains elongated, the shoulders relaxed, and breathing unrestricted. Sitting carries a particular risk of slouching – which can be counteracted through intentional posture guidance. The technical setup plays an important role here: camera and screen should be positioned at eye level to ensure a neutral head position. Likewise, the placement of the sheet music – whether on a physical music stand or digitally on a second screen – should be arranged in a way that avoids twisted or awkward positions.

Because **feedback from the choir director is limited in an online setting**, singers' self-awareness becomes their most important tool. Regular reminders to maintain a relaxed jaw and neck posture, paired with small loosening exercises, can help prevent tension. These include shoulder rolls, jaw relaxation through humming, or conscious breathing pauses.

For **children's choirs**, there are additional specific requirements. Posture training should be implemented in a playful manner. Movement images like “growing like a tree” or “a tower with a soft roof” help children intuitively adopt an upright posture without perceiving it as rigid or exhausting. Children also need more movement than adults – short movement breaks or expressive physical exercises help promote relaxation and concentration. Involving parents can also be helpful, especially when it comes to creating an ergonomically sound workspace.

In **advanced or semi-professional choirs**, the connection between posture, sound conception, and breath control is particularly important. Singers should be specifically trained to pay attention to their physical reactions – such as neck tension, incorrect sitting posture, or restricted breathing space – and to correct these independently. In online rehearsals, **self-responsibility becomes even more central**, which is why posture should be understood not only as a physical foundation for singing, but also as a mental one.

3 Instructions for performing voice training online (R3.2.3)

Vocal training in online choir rehearsals presents new challenges for choir directors, but also opens up creative possibilities. While in-person rehearsals allow conductors to provide constant feedback, intervene with corrections, and guide the ensemble through attentive listening, these options are significantly limited in the digital space. As a result, the focus shifts: self-awareness and personal responsibility of the singers take center stage.

A **key principle** is the development of **self-observation skills**. Singers are encouraged to become consciously aware of their sound, tension, and breathing. Questions like “How does that feel?” or “Where do you feel the tone in your body?” help guide this process. This is supported through the use of metaphors and imagery—for example, describing the sound as “warm light” or a “flying ball” to stimulate imagination and internal sound imagery.

Exercises should be **short, clear, and effective**. In online rehearsals, it is especially important to maintain attention through varied and engaging stimuli. Brief sequences focusing on breath control, articulation, resonance, or register blending can be easily integrated into the session. It's helpful if the conductor demonstrates the exercise while participants sing along with their microphones muted—optionally followed by short, individual feedback.

The use of **playbacks or accompaniment tracks** can provide structure and rhythmic stability to the vocal work. Combined with visual cues (such as hand signals, gestures, or displayed images), this creates a **multimodal learning environment**. Submitting short practice recordings for individual feedback afterward is another way to incorporate personalized input into online formats.

In **children's choirs**, vocal training should be **playful, movement-based, and ritualized**. Repeating elements like imaginative stories, animal sounds, or movement songs enhance motivation and body awareness. The combination of listening, seeing, and imitation fosters effective learning—even within shorter attention spans.

In summary, **vocal training in digital formats does not mean compromising on quality**, but rather redefining the path to achieving it. It requires precise guidance, vivid language, and a high level of empathy from the choir director—while also promoting sustainable self-responsibility among singers.

4 Principles for improving intonation, listening to each other, timing, and harmony in online choir rehearsals (R3.2.4)

The musical quality of a choir is especially evident in its ability to intonate together, maintain precise timing, and develop a balanced sound. These aspects present particular challenges in the digital space, where it's not possible to perceive all voices simultaneously. Nevertheless, there are many methods for effectively fostering intonation, listening, timing, and choral sound online.

A central area is **intonation training**. Since singing together in real time is technically limited, the focus shifts to individual sound awareness. Singers can sing along with playbacks, reference tones, or a digital instrument to check their own intonation. It is also important to address the difference between room sound and headphone sound, as the listening experience through headphones is often distorted. Exercises that strengthen **inner aural imagery** can help stabilize intonation before singing. Questions like “How do I imagine the tone?” or “Where do I feel the resonance?” support this process.

Mutual listening is only indirectly possible in online rehearsals, but it can still be encouraged. Alternating between solo and group moments—for example, in breakout rooms—helps preserve the ensemble feeling. Active listening exercises, such as identifying and repeating rhythmic or melodic patterns, train auditory attention. In this setting, the **choir director plays a crucial role**: even without hearing all voices at once, they can give targeted cues regarding articulation, musical intention, or balance, thus enhancing awareness of ensemble music-making.

Timing can be effectively trained in the digital space as well. Clapping exercises with a metronome or click track, rhythmic speaking, or call-and-response techniques provide structure and orientation. For children, playful formats like rhythm riddles or movement-based tasks are especially motivating and help develop a sense of timing.

When it comes to **choral sound**, the focus shifts to targeted individual work. In small groups, singers can work on tone color, dynamics, and intonation nuances. Recordings of one's own singing can be particularly useful. Comparing "before and after" versions or receiving specific feedback from the choir director promotes a reflective approach to vocal sound.

In conclusion: While **ensemble work cannot occur in the usual form online**, core musical skills can still be developed through **creative, focused, and media-appropriate methods**.

What matters most is that the choir director provides **clear structure**, observes closely and carefully, and is open to trying **new approaches** with confidence.

5 Principles for rehearsing compositions and teaching interpretive aspects (R3.2.5)

Working on different compositions and interpretive content remains a central part of choir rehearsals—even in the digital space—but under different conditions. While in-person rehearsals often rely heavily on direct, non-verbal communication, online rehearsals require a stronger focus on **verbal clarity, preparation, and creative methods.**

Repertoire selection plays a crucial role. Pieces with homophonic textures, clear structure, and recurring forms such as refrains, canons, or circle songs are particularly well-suited for the digital environment. These can be rehearsed relatively smoothly, even with slight time delays or asynchronous settings. Polyphonic works, on the other hand, demand greater independence from the singers and are best used when additional preparation is possible or when working in smaller groups.

Digital tools such as pre-recorded tracks, MIDI files, or practice platforms help support repertoire work effectively. This allows each singer to prepare individually and then build upon that foundation during group rehearsals. Since simultaneous music-making is technically limited online, **preparation and follow-up outside of rehearsal** become even more important.

The **methodology of rehearsing** also changes: conducting gestures, facial expressions, and body language often come across with delay or not fully via screen. As a result, **verbal guidance becomes the primary leadership tool.** Clear, vivid descriptions, targeted questions, and verbal cues (like count-ins, rhythmic prompts, or clicks) replace the usual non-verbal signals. Online rehearsals thus become a space for **intentional and reflective musical engagement.**

Interpretation thrives on emotional involvement—even online. Questions such as “What mood does this passage convey?” or “What do we want to express in this section?” can help bring out the emotional depth of a piece. Metaphors, tone images, and emotional comparisons can provide further support. Speaking the text with emphasis, breath awareness, and clear intention can also be a powerful tool for enhancing expression and musical understanding. Singers can record and reflect on individual sections, deepening their personal engagement with interpretation and musical expression.

In summary: **Online rehearsals require new approaches to repertoire work,** but they also present opportunities to deepen musical content, strengthen individual responsibility, and foster more conscious interpretation. The **choir director plays a mediating role,** using technology, language, and emotional connection to create a new quality of shared singing.

6 Principles for leadership in online choir rehearsals (R3.2.6)

Leading online choir rehearsals presents choir directors with new challenges and calls for an expanded understanding of their role. In addition to musical expertise, strong communication skills, technical proficiency, and pedagogical sensitivity are essential. The conductor not only provides musical leadership but also takes on the roles of **moderator, organizer, and motivator** in the virtual space.

A key element is **clear and structured communication**. Since body language, conducting gestures, and facial expressions are only partially transmitted online, verbal communication must be used more deliberately. Verbal count-ins, metaphors, clear instructions, and visual cues replace the intuitive, non-verbal expressions typically used in live settings. A well-prepared rehearsal structure—with transparent transitions, rituals, and consistent routines—offers singers a sense of security and promotes cohesion.

Pedagogical sensitivity is also especially important in the digital space. Many singers feel uncertain in front of the camera or struggle with technical devices, and connection issues or latency are more common. The choir director should meet these challenges with empathy, offer support, and foster a **culture of tolerance for mistakes**. At the same time, it is important to sustain motivation through targeted musical successes—such as achievable short-term goals, creative exercises, or spontaneous moments of success.

A culture of **appreciative feedback** is essential. Personalized responses, brief moments of praise, or small humorous elements help strengthen relationships and support social connection, even across physical distances.

Technical responsibility is also part of the director's role in an online setting. They should open rehearsal rooms in advance, facilitate tech checks, and distribute materials like sheet music or playbacks in a timely manner. For larger groups, **delegating tasks** is helpful—such as assigning a technical co-host to manage the platform, breakout rooms, or chat communication.

Finally, **flexibility** is a key characteristic of effective online leadership. If technical disruptions occur or group concentration wanes, the director must be able to improvise, shorten content, or adjust methods on the fly. Reading group dynamics—even through screens—remains just as important as finding spontaneous solutions and maintaining energy in the room.

In summary, **successful online choir leadership** requires a thoughtful balance of **clarity, empathy, technical coordination, and pedagogical creativity**. Those who combine these elements effectively can create a vibrant, productive, and musically fulfilling rehearsal process – even in the digital space.

7 Choir-pedagogical principles for online choir rehearsals according to different choir requirement profiles

From a choir-pedagogical perspective, the following characteristics have been identified for distinguishing different types of choirs:

- **Type 1:** By instrumentation and vocal range (e.g. mixed choir, women's choir, men's choir, children's choir)
- **Type 2:** Group size (e.g. chamber choir, vocal ensemble, oratorio choir)
- **Type 3:** Function and purpose (e.g. school choir, church choir, opera choir, gospel choir)
- **Type 4:** Repertoire (e.g. church choir, project choir, a cappella choir, oratorio choir, folklore choir)
- **Type 5:** Age structure (e.g. school choir, children's choir, senior choir)
- **Type 6:** Special forms (e.g. senior choir, boys' choir, intergenerational choir)

The tables below describe how the principles for carrying out online choir rehearsals can be adapted to the needs of different types of choirs.

1) By instrumentation and vocal range (e.g. mixed choir, women's choir, men's choir, children's choir)

Table 1: Choir-pedagogical principles adapted to the needs of different choirs (Type 1)

	Children’s Choir:	Women’s/Men’s Choir:	Mixed Choir:	Technical Setup:	Online-Specific Aspects:
Phases	Shorter and more structured phases. Attention span should be considered (max. 30–45 minutes). Frequent changes between singing, movement, and listening. Warm-up also serves as a playful “arrival” phase to settle into the group.	Closer to in-person rehearsal structure, but more time may be needed to adjust to the technology and online sound environment. The warm-up phase also helps singers adapt to headphone/microphone sound.	Flexibility is key due to varying levels of experience. Splitting into smaller voice groups (e.g., sectionals) may be helpful, with shorter sessions for each group.		<p>Providing sheet music, practice tracks, and texts in advance is often recommended, as online time is more limited.</p> <p>Breakout rooms can be used for sectional rehearsals.</p> <p>Interactive elements should be incorporated for children (e.g., “What was different this time?”).</p>
Singer Posture	Introduce posture playfully. Incorporate movement (e.g., “How does a queen sit on her throne?”).	Adults: Emphasize stability and relaxation. Sitting is often necessary, so promote an “active seated posture” (front edge of the chair, upright pelvis, open chest).		Camera at eye level, microphone at mouth level, good lighting. Simple setups for children; adults can invest in more customized equipment.	<p>Practice posture consciously in front of a screen, as sitting and using devices often leads to stiffness.</p> <p>Encourage experienced singers to check their posture using a mirror or camera.</p>

	Children’s Choir:	Women’s/Men’s Choir:	Mixed Choir:	Technical Setup:	Online-Specific Aspects:
Vocal Training	Playful breathing and vocal exercises (e.g., “hissing snake,” “ghost voice”), avoiding strain, focusing on exploring vocal sounds.	Specific work on register transitions (e.g., head/chest voice for women, resonance and depth for men). Emphasis on self-awareness, as conductors cannot always hear individuals.	Combination approach; frequently needs-based. Separate voice development sessions may be useful.		<p>Reduced conductor feedback requires greater self-responsibility and self-monitoring (“How does that feel?”).</p> <p>Focused exercises for voice perception with headphones (e.g., humming to feel vibrations).</p> <p>Clear imagery-based instructions for children and beginners (e.g., “Sound like a warm hairdryer”).</p>
Musical Skills	Rhythm games, body percussion, imitation of simple melodic patterns. Strengthening of ear training (hearing and singing intervals).	Intonation and melodic guidance, harmonic exercises (e.g., simple third and fifth intervals), repertoire focus.	Combined approach; stronger support for beginners, more demanding work for experienced singers.		<ul style="list-style-type: none"> - More individual practice required; singers should be encouraged to use practice tracks or apps (e.g., digital tuning forks). - Gamified elements for children (e.g., “Rhythm riddles” – What did I clap? or “Scale race”).
Compositions and Interpretative Aspects	Verse-based songs, participatory songs, movement songs, chorus repetitions. Success in online rehearsals is often closely tied to enjoyment.	Homophonic pieces are easier for online rehearsals due to fewer synchronization issues. Polyphonic music demands more individual preparation and responsibility.	Broad repertoire possible, but online rehearsals should start with “graspable” literature. More complex works can follow as the group becomes more experienced.		<ul style="list-style-type: none"> - Conducting and non-verbal communication are limited → increased reliance on verbal instructions and imagery for sound. - Children benefit from visual metaphors (e.g., “How does this sound like a sunrise?”).

	Children's Choir:	Women's/Men's Choir:	Mixed Choir:	Technical Setup:	Online-Specific Aspects:
Leadership	<p>Encouragement & Vocal Health: Support male/female voice transitions (e.g., boys' voice change, women's mixed registration).</p> <p>Engagement Strategies: For children, playful leadership with movement;</p>	<p>Encouragement & Vocal Health: Support male/female voice transitions (e.g., boys' voice change, women's mixed registration).</p> <p>Adults: Engagement Strategies: for adults, focus on vocal blending and resonance.</p>		<p>Technical Adaptation: Consider microphone settings and latency issues for online rehearsals.</p>	<p>Clear Communication: Conductors should adapt their instructions based on vocal range and group composition.</p> <p>Rehearsal Structure: Adapt session duration and warm-ups based on vocal stamina.</p>

2) Group size (e.g. chamber choir, vocal ensemble, oratorio choir)

Table 2: Choir-pedagogical principles adapted to the needs of different choirs (Type 2)

	Chamber Choir (approx. 12–30 singers):	Vocal Ensemble (4–12 singers):	Oratorio Choir (>40 singers):	Online-Specific Aspects
Phases	<ul style="list-style-type: none"> - Rehearsals can closely resemble in-person settings, as the group size remains manageable online. - Warm-up is often possible with the entire group; vocal training phases can also be conducted collectively. - Time for detailed work and individual voice training; frequent “run-throughs” can be helpful, as ensemble sound is key. 	<ul style="list-style-type: none"> - Maximum flexibility; rehearsals are often individually tailored. - Small ensembles require a high degree of individual responsibility. - Warm-up can be shorter; focus is often on achieving homogeneous sound and balance. 	<ul style="list-style-type: none"> - A more structured approach is required, with frequent division into voice groups. - Warm-up is more often done individually at home or in small groups, as coordinating large groups online is difficult. - The main phase is heavily focused on sectional rehearsals or individual preparation by the singers. 	<p>Chamber Choir / Vocal Ensemble: Suitable for low-latency software (e.g., Soundjack), as smaller groups are easier to synchronize technically.</p> <p>Oratorio Choir: Often relies on asynchronous preparation (e.g., practice tracks, annotated scores), as real-time singing with large groups is hardly possible online.</p> <p>All Groups: Provide digital preparation materials in advance. Use breakout rooms for sectional rehearsals.</p>
Singer Posture	<ul style="list-style-type: none"> - Sitting or standing is often more flexible, as smaller groups can better accommodate individual needs. - High demand for core tension and body control, as each voice often stands out soloistically. 	<ul style="list-style-type: none"> - Sitting or standing is often more flexible, as smaller groups can better accommodate individual needs. - High demand for core tension and body control, as each voice often stands out soloistically. 	<ul style="list-style-type: none"> - Sitting is generally the norm during online rehearsals. - Less individual monitoring is possible, so general advice on active posture and breath support is necessary. 	<ul style="list-style-type: none"> - In smaller groups, the conductor can better observe individual singers’ posture and provide direct feedback. - In larger groups, posture advice is generally limited to general instructions.
Vocal Training	<ul style="list-style-type: none"> - High demands on intonation and vocal balance. - Individual vocal training is often integrated into the group rehearsal (e.g., resonance exercises within the ensemble). 	<ul style="list-style-type: none"> - High demands on intonation and vocal balance. - Individual vocal training is often integrated into the group rehearsal (e.g., resonance exercises within the ensemble). 	<ul style="list-style-type: none"> - Basic exercises to develop a homogeneous choral sound, often as separate vocal training sessions or individual warm-ups at home. - Main focus on secure vocal leadership and endurance, as oratorio 	<p>Chamber Choir / Vocal Ensemble: Low-latency software allows for parallel listening, enabling individual feedback on vocal color and intonation.</p>

	Chamber Choir (approx. 12–30 singers):	Vocal Ensemble (4–12 singers):	Oratorio Choir (>40 singers):	Online-Specific Aspects
	- Each voice needs to be strong and independent, even in online environments.	- Each voice needs to be strong and independent, even in online environments.	works are often long and demanding.	Oratorio Choir: - Vocal training is often individual via audio and video submissions or asyn-chronous tutorials. - Collective practice of breathing techniques or vocal exercises often takes place with singers muted (mute rehearsals).
Musical Skills	- Highest demands on sight-reading, ear training, and intonation. - Detailed sound balance is necessary, as each voice often plays a soloistic role.	- Highest demands on sight-reading, ear training, and intonation. - Detailed sound balance is necessary, as each voice often plays a soloistic role.	- Rhythmic stability and secure vocal leadership are the primary focus. - Frequent repetition in rehearsals is necessary, as large groups are less flexible.	Chamber Choir / Vocal Ensemble: - Good conditions for low-latency software, enabling precise work on intonation and rhythm. - Individual preparation is still essential, as technology cannot always perfectly convey all acoustic nuances. Oratorio Choir: - Rhythm and intonation are often practiced with rehearsal tracks and individual preparation. - Evaluation mechanisms such as individual recordings for homework can be useful.
Compositions and Interpretative Aspects	- Challenging, often polyphonic works, frequently contemporary compositions. - Interpretative nuances are a focus, as each singer directly influences the overall sound.	- Challenging, often polyphonic works, frequently contemporary compositions. - Interpretative nuances are a focus, as each singer directly influences the overall sound.	- Large choral works (e.g., Bach, Handel) with orchestral accompaniment. - Emphasis on clear entries, text clarity, and dynamic range.	Chamber Choir / Vocal Ensemble: - Interpretation work is restricted in low-latency rehearsals, as audio-visual delays hinder gestures and articulation. - More verbal instructions and audio examples are necessary.

	Chamber Choir (approx. 12–30 singers):	Vocal Ensemble (4–12 singers):	Oratorio Choir (>40 singers):	Online-Specific Aspects
				Oratorio Choir: Interpretation is often finalized during in-person rehearsals; online rehearsals are more about securing note accuracy.
Leadership	-Personalized vs. Structured Leadership: Smaller ensembles require detailed, in-dividualized coaching, while large choirs need more structure. -Flexibility & Adaptability: Small groups can handle more interpretative work, whereas large choirs require sectional rehearsals. -Efficient Communication: Direct and concise gestures for large groups; more in-teractive coaching for small ensembles. -Technology Utilization: Small ensembles can use low-latency tools, while large choirs may need recorded guidance. -Encouraging Vocal Independence: Large choirs rely on individual preparation, so conductors should motivate singers to self-study.			

3) Function and purpose (e.g. school choir, church choir, opera choir, gospel choir)

Table 3: Choir-pedagogical principles adapted to the needs of different choirs (Type 3)

	School Choir:	Church Choir:	Opera Choir:	Gospel Choir:	Online-Specific Aspects:
Phases	<ul style="list-style-type: none"> - Rehearsals are strongly pedagogically oriented, often shorter units (30–45 minutes), including playful elements and a mix of singing, movement, and listening. - Warm-up serves not only vocal preparation but also social bonding and group cohesion. - Clear structure is necessary; children need visible orientation aids. 	<ul style="list-style-type: none"> - Weekly rehearsals, often focused on preparing for services or concerts. - Warm-up is designed for quick “getting into function,” less emphasis on extensive vocal training. - Repertoire is often traditional, with a focus on text clarity and blending in the room. 	<ul style="list-style-type: none"> - Often project-based rehearsals tailored to specific productions. - Scenic rehearsals alternate with musical preparation. - Warm-up is often done individually before the rehearsal, as stage work usually starts immediately. 	<ul style="list-style-type: none"> - Rehearsals are often dynamic and community-oriented. - Warm-up includes rhythm exercises and groove elements. - Improvisation and call-and-response may be part of the rehearsal structure. 	<p>School Choir:</p> <ul style="list-style-type: none"> - Playful tools like quizzes or movement tasks are useful. - Clear time management is crucial as children’s attention span is limited online. - Parents should be involved for technical support. <p>Church Choir:</p> <ul style="list-style-type: none"> - Distribute materials in advance to make better use of rehearsal time. - Provide audio recordings for individual preparation. <p>Opera Choir:</p> <ul style="list-style-type: none"> - Split into voice groups as complex scores often require individual preparation. - Develop technical solutions for scenic rehearsals (e.g., camera settings for movement sequences). <p>Gospel Choir:</p> <ul style="list-style-type: none"> - Use rhythm exercises

	School Choir:	Church Choir:	Opera Choir:	Gospel Choir:	Online-Specific Aspects:
					and playback support to establish groove. - Consider creating sing-along videos so singers can practice at home with a group feeling.
Singer Posture	<ul style="list-style-type: none"> - Movement-oriented singing, focus on relaxation and enjoyment. - Flexible alternation between sitting and standing to maintain energy and attention. 	<ul style="list-style-type: none"> - Often long standing periods during services – practice upright but relaxed posture (pelvis aligned, relaxed shoulders). - Combine sitting phases during sermons with activation breaks. 	<ul style="list-style-type: none"> - Stage-ready posture: balance between stability and flexibility. - Combining breath support with body movement is essential due to physical demands during stage performances. 	<ul style="list-style-type: none"> - Dynamic, often movement-based posture. - Integrate rhythmic swaying and relaxed knee posture into rehearsals. 	<p>School Choir: Playfully teach posture (e.g., “We are trees growing tall”).</p> <p>Church Choir: Pay attention to tension, as online rehearsals often lead to long sitting periods.</p> <p>Opera Choir: Allow time to stand and integrate movement into online scenic rehearsals.</p> <p>Gospel Choir: Actively encourage movement online (e.g., clapping, swaying).</p>
Vocal Training	<ul style="list-style-type: none"> - Child-friendly exercises (e.g., animal sounds, sirens, movement songs), careful work with high notes. - Monitor voice development, avoid strain in register transitions. 	<ul style="list-style-type: none"> - Focus on text clarity, articulation, and breath support. - Simple intonation exercises, as the repertoire often emphasizes vocal blending. 	<ul style="list-style-type: none"> - High vocal demands - emphasis on breath support, resonance, and vocal projection. - Register balancing and adjustment to varying vocal demands. 	<ul style="list-style-type: none"> - Belting techniques and vocal power, but also vocal protection through breath support and resonance. - Combination of classical vocal training and pop-oriented techniques. 	<p>Online-Specific Aspects:</p> <p>School Choir: - Use imagery and playful voice exercises. - Encourage self-awareness (e.g., “How does it feel in your body?”).</p>

	School Choir:	Church Choir:	Opera Choir:	Gospel Choir:	Online-Specific Aspects:
					Church Choir: - Provide individual exercises via audio or video. - Encourage collective warm-ups with mute function. Opera Choir: - Stress individual warm-ups due to high vocal demands. - Offer check-ins on vocal health. Gospel Choir: Focus on body tension and breath work, as online settings can reduce energy levels.
Musical Skills	- Rhythm games, ear training, movement exercises. - Pitch security is less important; the focus is on the joy of singing.	- Security in rhythmically simple, homophonic choral settings. - Sight-reading is helpful due to limited rehearsal time before services.	- High note accuracy, fast score comprehension, ensemble singing under the conductor. - Flexibility in scenic transitions.	- Rhythmic precision, call-and-response, improvisation. - Less reliance on sheet music; more imitation and free singing.	School Choir: Digital music games, quiz formats, listening exercises. Church Choir: Provide practice tracks for each voice. Opera Choir: Develop technical tools for score analysis and digital annotations. Gospel Choir: Use rhythm exercises with playback and play-along videos.

	School Choir:	Church Choir:	Opera Choir:	Gospel Choir:	Online-Specific Aspects:
Compositions and Interpretative Aspects	<ul style="list-style-type: none"> - Children's songs, simple canons, action songs. - Interpretation often playful. 	<ul style="list-style-type: none"> - Liturgical works, chorales, sacred choral music. - Emphasis on text clarity and vocal blending. 	<ul style="list-style-type: none"> - Operatic literature, scenic performance shapes interpretation. - Combining vocal quality with stage presence. 	<ul style="list-style-type: none"> - Spirituals, modern gospel pieces. - Strong focus on emotion and dynamics. 	<p>Online-Specific Aspects:</p> <p>School Choir: Simple, repetitive pieces work best online.</p> <p>Church Choir: Focus on familiar works as correction possibilities online are limited.</p> <p>Opera Choir: Secure text and rhythm online; finalize interpretation in person.</p> <p>Gospel Choir: Use playback for rhythm; encourage emotional interpretation online.</p>
Leadership	<ul style="list-style-type: none"> -Motivational Leadership: Church and gospel choirs thrive on emotional engagement, while opera choirs need disciplined, precise leadership. -Rehearsal Dynamics: School choirs benefit from playfulness; church choirs need clear articulation focus; opera choirs require stamina training. -Stage vs. Worship Preparation: Opera choirs involve stage presence training, while church choirs focus on spiritual and textual delivery. -Inclusivity & Group Cohesion: Gospel choirs often integrate community-building, requiring conductors to foster participation. -Adaptability for Online Settings: School choirs need parental support, church choirs benefit from pre-recorded materials, and gospel choirs need rhythmic practice tools. 				

4) Repertoire (e.g. church choir, project choir, a cappella choir, oratorio choir, folklore choir)

Table 4: Choir-pedagogical principles adapted to the needs of different choirs (Type 4)

	Church Choir:	Project Choir:	A Cappella Choir:	Oratorio Choir:	Folklore Choir:	Online-Specific Aspects:
Phases	<ul style="list-style-type: none"> – Regular rehearsals, often aligned with church services. – Warm-up focused on quickly getting into functional mode, emphasizing vocal unity and text clarity. – Rehearsal structure often follows familiar routines, as the repertoire tends to be well-known. 	<ul style="list-style-type: none"> – Limited, intensive rehearsal phases, often over weekends or in blocks. – Warm-up designed for efficiency to start working on repertoire immediately. – High individual responsibility, home preparation is expected. 	<ul style="list-style-type: none"> – High demands on intonation and vocal flexibility. – Warm-up emphasizes sound balance and purity of intervals. – Detailed work on intonation, vowel colors, and rhythm. 	<ul style="list-style-type: none"> – Long-term preparation for large works with orchestras. – Warm-up often in large groups, focusing on ensemble sound and breath control. – Sectional rehearsals are common for complex passages. 	<ul style="list-style-type: none"> – Rehearsals often include movement and cultural context. – Warm-up includes rhythm and articulation; working with different languages is common. – Sometimes accompanied by instruments (e.g., drums) during rehearsals. 	<p>A Cappella Choir:</p> <ul style="list-style-type: none"> – Challenging to implement online; focus on individual preparation and inner hearing. – Synchronization issues; individual rehearsals or low-latency tools like Soundjack recommended. <p>Project Choir:</p> <ul style="list-style-type: none"> – Provide preparation materials and practice tracks to optimize in-person rehearsals. – Online sessions more for organizational purposes than musical work. <p>All:</p> <ul style="list-style-type: none"> – Breakout rooms for sectionals. – Playback tracks or practice videos based on repertoire.
Singer Posture	Often long-standing periods → focus on stability, pelvis alignment, relaxed shoulders.	Long rehearsal blocks → incorporate relaxation exercises.	Core stability is crucial, as each voice is individually significant.	Often long-standing periods → focus on stability, pelvis alignment, relaxed shoulders.	Movement is often part of the performance → flexible posture, dynamic body language.	<ul style="list-style-type: none"> – Practice posture in front of the screen. – Use mirrors or camera feedback for self-checks.

	Church Choir:	Project Choir:	A Cappella Choir:	Oratorio Choir:	Folklore Choir:	Online-Specific Aspects:
Vocal Training	Focus on vocal unity, breath control, and text clarity.	Quick, effective exercises due to limited time → intonation, warm-up, resonance.	Intonation, vowel colors, register balancing.	Focus on vocal unity, breath control, and text clarity.	Articulation, dynamics, regional vocal styles.	<ul style="list-style-type: none"> – High individual responsibility, limited feedback from the conductor. – Warm-ups often done independently.
Musical Skills	Sight-reading, text clarity, basic intonation.	Note security, quick comprehension.	High intonation accuracy, awareness of ensemble sound.	Rhythmic precision, confident entrances.	Rhythmic stability, text accuracy in foreign languages.	
Compositions and Interpretative Aspects	Sacred music, classical choral works.	Diverse, often contemporary repertoire.	Modern, pop, jazz, and classical choral music.	Sacred music, classical choral works.	Regional folk music, often involving movement.	
Leadership	<ul style="list-style-type: none"> -Interpretation & Expression: Conductors must balance textual meaning (church choirs), storytelling (folklore), and vocal precision (a cappella). -Time Management: Project choirs require fast learning strategies, while oratorio choirs need long-term planning. -Vocal Coordination: A cappella choirs demand extreme precision in tuning, while folklore choirs rely on cultural authenticity. -Engagement Strategies: Church and folklore choirs benefit from emotional storytelling, whereas project choirs need efficient sectional planning. -Adaptation: Project choirs need structured pre-rehearsal materials, a cappella choirs require detailed harmonic work, and church choirs should focus on text articulation. 					

5) Age structure (e.g. school choir, children's choir, senior choir)

Table 5: Choir-pedagogical principles adapted to the needs of different choirs (Type 5)

	Children's Choir / School Choir:	Senior Choir:
Phases	Short and playful warm-ups, integrating movement and rhythm. Rehearsals are kept short to maintain engagement.	Longer warm-up phases focusing on breathing and articulation. Rehearsals are shorter, with planned breaks.
Singer Posture	Dynamic and movement-based posture to maintain engagement. Encourage playful, relaxed postures to prevent tension.	Supportive posture exercises focusing on relaxation, core stability, and breath control to ensure comfort.
Vocal Training	Playful breathing and vocal exercises with an emphasis on ear training and rhythm. Voice development should consider vocal health and avoid strain.	Focus on breath control, resonance, and articulation for clear text delivery. Adaptation for potential vocal limitations due to aging.
Musical Skills	Rhythm-based activities, imitation, and movement integration. Repertoire should be engaging and repetitive for memorization.	Strengthening sight-reading, focusing on familiar repertoire, and fostering a comfortable vocal range.
Compositions and Interpretative Aspects	Simple, fun, and repetitive melodies with interactive elements.	Well-known songs enhance confidence and enjoyment. Interpretation should focus on clear diction and expressive phrasing.
Leadership	Engaging, flexible, and interactive leadership that integrates movement and fun challenges.	Supportive leadership with clear and structured instructions, ensuring a comfortable pace.

6) Special forms (e.g. senior choir, boys' choir, intergenerational choir)

Table 6: Choir-pedagogical principles adapted to the needs of different choirs (Type 6)

	Senior Choir:	Boys' Choir:	Intergenerational Choir:
Phases	Warm-ups with a focus on breath control and relaxation. Short and structured rehearsals.	Attention to voice changes, structured warm-ups for vocal stability, and awareness of register shifts.	Balanced rehearsal structure, ensuring both younger and older singers remain engaged.
Singer Posture	Relaxed and well-supported posture, with attention to alignment and breathing.	Posture that supports transitioning voices, ensuring vocal ease.	Adaptable posture approaches to accommodate all age groups, allowing flexibility.
Vocal Training	Light vocal warm-ups, text clarity, and breath support.	Special attention to vocal transition phases, resonance, and healthy singing habits.	Vocal balance exercises to unify different vocal qualities.
Musical Skills	Reinforcement of rhythmic and melodic memory.	Structured exercises to develop pitch accuracy and vocal agility.	Training focused on blending diverse vocal qualities and styles.
Compositions and Interpretative Aspects	Familiar songs that create comfort and enjoyment.	Pieces suited to voice development and vocal transition.	Repertoire that bridges generations, fostering connection and unity.
Leadership	Supportive and clear instructions with an emphasis on engagement.	Close vocal guidance with patience for transitional voices.	Balance in leadership to cater to different age groups while maintaining unity.

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