

Exploring Effective Sight-Reading Methods for Intermediate-Level Pianists in Auditory, Visual and Technical Proficient Aspects: A Literature Review

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Abstract: *The act of playing music at the first sight of the piece is sight-reading. Sight-reading plays a significant role in learning music and it is not uncommon to see that sight-reading is included in lots of examinations. Sight-reading is required for lots of activities highlighted by music educators and is a useful ability. Although lots of pupils think sight-reading is difficult, it can be improved by diligent and effective practice. Some effective auditory, visual and technical proficient methods can improve sight-reading skill. In order to enhance pupils' skills in sight-reading, this literature review concentrates exploring effective sight-reading strategies for intermediate-level pianists in auditory, visual and technical proficient aspects.*

Keywords: *sight-reading; intermediate-level pianists; auditory; visual; technical proficient*

1. Introduction

The act of playing music at the first sight of the piece is visual playing or sight-reading (Fourie, 2004)^[1]. This is the interpretation of sight-reading. Teachers and pupils place a strong emphasis on sight-reading in music education, the ability to understand and play music for the first time (Hayward & Gromko, 2009)^[2]. Additionally, Sight-reading is required for lots of activities highlighted by music educators and is a useful ability (Priest, 1989)^[3]. Furthermore, in western classical music culture, the useful ability of sight-reading is mastered by all musicians in a particular field (Kopiez & Lee, 2008)^[4]. Sight-reading plays a significant role in learning music and it is not uncommon to see that sight-reading is included in lots of examinations, such as ABRSM and so on. However, the process of sight-reading on the piano is complex, so the majority of professional pianists and piano learners believe that it is difficult for them to read sheet music fluently (Fourie, 2004). It is generally believed that sight-reading is hard for most of people. Sight-reading proficiency has nothing to do with talent, but an example of creative practice and diligence (Thompson & Lehmann, 2004)^[5]. Fortunately, sight-reading can be improved by diligent and effective practices. In order to improve pupils' ability in sight-reading, this literature review focuses on exploring effective sight-reading methods for intermediate-level pianists in auditory, visual and technical proficient aspects.

2. Aural discrimination

Listening practices can improve sight-reading skills. Smooth instrumental performance, a strong desire to play and emotional identification are all required by the sound of music, whether real or imagined (Priest, 1989). This creates a connection between sound, hearing and performance. Symbolic reading and writing are influenced by auditory work in formal music education (Priest, 1989). Moreover, the mental transformation of auditory images, understanding and distinguishing or inaudible sounds is involved in the processing of symbols, so skilled players can mentally hear what the symbols represent and understand music (Fourie, 2004). It can be seen that music teachers and pupils cannot ignore the relationship between listening and sight-reading. Hearing is used by music reading skills and processing skills, spatial components are formed by auditory images of sounds, imaginary auditory images can be heard in performance skills (Hayward & Gromko, 2009). Additionally, there must be an auditory image that is performed visually for the musical experience to have a musical effect before it is played. Moreover, in the form of sound, the image is imitated like a previously known pieces (Priest, 1989). The above two points are a process of listening in sight-reading. The core of musical talent is auditory experience, and teaching strategies should be based on hearing because performances skills are the core goal of musical instrument teaching, and other activities must be subordinated to it (Priest, 1989).

After an initial understanding of the relationship between listening and sight-reading, here are some ways to explore auditory-based teaching methods to enhance sight-reading skills. The upcoming sight-reading must be prepared by the pupils as part of the usual daily activities, such as rhythm practice, pitch practice (describing chords) and simple but progressive sight-reading. In this regard, some sight-reading examinations should be taken by pupils at the end of the lesson, such as tapping, playing and executing music flashes (Pike, 2012)^[6]. Teachers can refer to these combinations of listening tests and sight-reading exercises to improve pupils' sight-reading ability. Teachers can use some activities to establish sound image in order to help pupils subconsciously associate musical instrument performance with the auditory spatial image of sound, for example, pupils can understand the context of the rhythm by clapping, tapping and discussing the rhythms (Hayward & Gromko, 2009). Comparing these two studies, it could be found that rhythm exercise, such as tapping is embraced by lots of teachers and pupils. Therefore, it is a good way for pupils to improve their sight-reading skills. A useful strategy to develop sight-reading skills is that the melody and rhythm are positively influenced by sight-singing and counting syllables in sight-reading (Mishra, 2015)^[7]. Players can concentrate not only on rhythm but also on melody. Only when rhythm and melody information are executed and processed at the same time can the sight-reading ability be improved (Mishra, 2015). Therefore, in the practice of sight-reading based on hearing, it is necessary to grasp the relationship between rhythm and melody. Sight-reading ability is improved by the player's increasing auditory training and application opportunities, and auditory representation is formed and developed by sight-reading ability. Teachers can teach pupils to recognise and listen to different chord progressions, engage in sight singing, and understand different musical sounds and styles, thereby developing their internal skills of anticipating how harmony and melody should sound (Wristen, 2005)^[8]. When teachers provide pupils with exposure to the sound of different musical styles, sight singing and teach them to recognise different chord progressions, it is helpful for improving pupils' sight-reading skills. Pitch recognition is built on pitch memory in sight-reading, while pitch memory is relied on by auditory recognition (Fourie, 2004). Some aural exercises based on pitch memory can improve sight-reading ability. To enhance listening skills, sound maps can be made by plying by ears, keyboard harmony, composition and visualization (Fourie, 2004). Aural exercises such as composition, keyboard harmony and playing by ear can train listening skills to improve sight-reading. Teachers can use these "hearing what is seen" strategies without help of the piano: to enable pupils to analyze their own melodic lines and discover the pitch changes, harmonic structures, and modes contained in some of the more difficult phrases, educators can teach pupils to distinguish interval notes by ear and eye. Apart from this, reading phrases by syllables or numbers like reading lyrics, which can make pupils pay attention to the relationship between their pitch changes and other parts of sounds (Heydenburg, 1960)^[9]. These auditory exercises can cultivate pupils' sight-reading skills.

3. Look ahead

It is useful for readers to look ahead during sight-reading. The eye-hand span is where the music player must look forward from the correctly playing note (Huovinen et al., 2018)^[10]. This is what looking ahead means in sight-reading. Possibly more difficult imminent symbols are somewhat less typical and irregular, directing the jumping action even before they are fixed (Huovinen et al., 2018). Players may encounter some special symbols and notes in sight-reading. When the music is played at a relatively uniform rhythm, all immediate difficulties must be discovered in advance in order for the difficult symbols to be deciphered by the player, despite the greater workload, and a sequence of actions is performance on the musical instrument notes prepared (Huovinen et al., 2018). Additionally, larger spans of space are always suggested by early draws in response to some difficulty because the playing of the notes takes time apart from occupying the graphic space in the visual score (Huovinen et al., 2018). The reader looks ahead in order to detect difficulties and prepare for what might follow during sight-reading. The player can allocate enough time which is limited processing to these difficulties. The obvious difficulties in the score will attract the first fixation early in the course of the music performance. These are to be expected (Huovinen et al., 2018). It is very significant for players to allocate more time to the difficult points during sight-reading, for example, players would look at other notes, read emotions and presence markers thanks to the time approved by the long note (Goolsby, 1994)^[11]. Moreover, relatively sensitive responses are shown by skilled players to unusual symbols that may appear right away (Huovinen et al., 2018). Teachers can try to train the pupils to be sensitive to difficulties during sight-reading. Players can develop quick sensitivity about upcoming difficulties, as more difficult marks occupy larger scales in limited processing time (Huovinen et al., 2018). Boosting the sensitivity is helpful for learners to overcome the problems during sight-reading. Regardless of whether the timing gained by early observation is really necessary to react to all the obvious difficulties, this should be a useful habit to develop, all and any goals a player may want are aided by a preview of the time buffer (Huovinen et

al., 2018). Teachers have to promote the ability of pupils to look ahead during sight-reading in simple pieces, and when pupils form a habit, they can control more difficult pieces. Potential processing difficulties are predicted by the player quickly looking further afield, albeit with a small range of irregular difficulties (Huovinen et al., 2018).

Teacher can use a card to cover the moment before the pupils play, thus encouraging the pupils to complete the sight-reading method by looking ahead since future mistakes can be helped to prevent by looking ahead, but the wrong rhythms and notes of the past cannot be fixed (Mauk, 2020)^[12]. Teachers can use this method to remind pupils to look ahead while practising sight-reading, at the same time, this strategy brings a new perspective, which is to move past errors and keep playing. The reason for the player's failure to play is trying to fix the errors instead of continuing to play as required and accepting past note errors, which makes more serious mistakes (Banton, 1995)^[13]. More mistakes are made when pianists try to correct previous mistakes. Sight-reading is the ability to play the piece correctly without interruptions and stops during the performance, and to correctly express the music and normal rhythm (Thompson & Lehmann, 2004). The importance of sight-reading coherence is emphasized here. Even if the players are playing the incorrect notes, they have to keep playing because the most important thing in the sight-reading process is to maintain a smooth and rhythmic lifeblood, that is, the ability to execute in real time without stopping to correct mistakes and understand the content of the pieces, fluency is the strictest standard in sight-reading (Wristen, 2005). Pianists forgetting past errors and keeping playing improves continuity of repertoires. In summary, looking ahead is a useful avenue for pupils to improve sight-reading skills. In time-controlled performances, eye-hand spans solve complex music (Huovinen et al., 2018).

4. Technical proficiency

One of the ways to enhance sight-reading is to become familiar with music theory and the musical instruments to play. In order to understand music, basic performance skills must be required by the players (Wristen, 2005). In this regard, the sequence of things in sight-reading is: first, knowing the musical symbols, next, processing the musical symbols, and finally playing them (Thompson & Lehmann, 2004). It is very significant for learners to master the basic music theory. Sight-reading is made more difficult by the combination of these basic elements in the score: (a) context (form, musical mode, expressive notation and articulation), (b) harmony (chord progressions and patterns), (c) melody (movement, direction and pitch), and (d) rhythm (accent, pattern, duration and neat) (Wristen, 2005). Only by mastering these basic music knowledges can pianists defuse complex sight-reading. The readers play according to the principles of performance practice that govern the repertoire, use the pedals, and maintain a good balance between harmony and melody, these examples may appear in sight-reading (Wristen, 2005). Pianists have to apply some familiar piano techniques during sight-reading. Musical expression is also included in sight-reading, apart from playing the exact notes in the correct rhythm (Thompson & Lehmann, 2004). Here the link between sight-reading and musical technology is established.

The diatonic arrangement, rhythm and tonal patterns can be predicted by skilled players, so they can play the work seeing the entire piece (Goolsby, 1994). For example, fingering patterns, intervals and chord distances on different keys, arpeggios and scale combinations these special music memory modes (Fourie, 2004). Furthermore, familiar patterns can be quickly identified by the readers with minimal cues, such as a series of diminished seventh arpeggios since such familiar patterns stand out and are drawn to the readers' attention (Thompson & Lehmann, 2004). Pianists can use basic musical knowledge to spend less time looking for notes. In order to develop visual browsing, the memory maps from previous readings and performance studies can be linked by the brains of the performers. Despite the fact that these symbols emerge as a new experience and contextually specified form, the players know some patterns and are familiar with individual notes (Fourie, 2004). Musicians can improve the speed of sight-reading browsing by combining patterns learned in the past. Teachers can systematically teach pupils music theory and history, which pupils can use them to practise. Equally, Teachers ask pupils to label and identify the style, harmonic structure, rhythm and melody of the pieces they are preparing to play or have heard before. More in-depth applications include guided improvisation and composing for pupils with special chord progressions or styles. Additionally, Teachers need to teach pupils to understand and manage musical backgrounds, such as performance practice, form and texture, melodic patterns, understanding tonal and harmonic functions (Wristen, 2005). Educators can try to use these teaching strategies to help students with pattern recognition to improve sight-reading. Movement sequences are used more time by skilled musicians to translate visual information since they have no difficulty understanding all the meaning of the symbols (Fourie, 2004). Learners who have mastered proficient

performance techniques can strive for more time to digest sight-reading information for themselves. Musicians can use music theory knowledge to make simple musical expressions, pay attention to notes and dynamics in order to enhance sight-reading, that is, believable content is predicted, musicians are able to create appropriate expectations for how the music continues and need rich music style experience (Lehmann & Kopiez, 2009)^[14]. Performers apply music theory to predict the content of sight-reading to improve the efficiency of sight-reading. Musical events are anticipated by the musicians as the music develops during the sight-reading process since their brain remembers that no sound map is provided to imitate in the new pieces (Fourie, 2004). This is why readers predict the content of the score. Good music expression in order to be played by the learners, they have to predict what the content will come, such as adding deceleration at the end of the phrase (Lehmann & Kopiez, 2009). The importance of the relationship between musical predictions and familiar musical expressions in sight-reading. To enhance sight-reading, a broader approach to expectancy development and musical comprehension can be tried by teachers because musical notation is played sensibly rather than a simple label during sight-reading (Mishra, 2014)^[15]. Teachers can support students in a deeper understanding of music and music prediction to boost sight-reading skill. More repertoire for accompaniment is mastered by better piano readers, and they spend more time on accompaniment, resulting in their familiar with the piano, thus improving playing skills and sight-reading skills (Thompson & Lehmann, 2004). Learners practising accompaniment can enhance sight-reading ability.

Apart from being familiar with music theory, readers can develop their sight-reading skills by becoming familiar with the musical instruments they are learning. Learners can find their own direction on the musical instruments and liberate their vision to browse the pieces instead of looking at their own musical instruments all the time, they have to get used to playing their musical instruments (Lehmann & Kopiez, 2009). Additionally, only a certain amount of confidence and trust in the ability to move readers' fingers on the keyboard without leading the way would allow readers to concentrate on navigating the pieces (Banton, 1995). When players become familiar with their musical instruments, they become more engaged in observing the pieces. The distance between the note's changes on the keyboard according to the position of the intervals on the keys but does not change according to the visual distance on the score. When different intervals are faced by the readers, in order to solve this visual browsing problem, the different physical distances on the keyboard should be translated by their brains into the visual distance of the score (Fourie, 2004). Pianists improve sight-reading skills by becoming familiar with physical distance between keyboards. The decisive factor in improving sight-reading ability is fingering choice, especially for pianists (Thompson & Lehmann, 2004). Selection of valid possible fingerings allows the pianist to play more continuously and faster. Pupils who are familiar with music theory and their own musical instruments at the same time can enhance sight-reading skills.

5. Conclusion

Sight-reading plays an important role in learning music. Although lots of pupils think sight-reading is difficult, it can be improved by diligent and effective practice. In order to enhance pupils' skills in sight-reading, this literature review concentrates exploring effective sight-reading strategies for intermediate-level pianists in auditory, visual and technical proficient aspects. When it comes to the aural discrimination, piano teachers and pupils have to focus on the relationship between hearing and sight-reading. Some listening exercises can improve sight-reading skills: rhythm practices (tapping, clapping, discussing the rhythms); pitch practices (pitch memory, reading phrases by syllables and numbers); establishing sound images; practices combining rhythm and melody, understanding different musical sounds, chord progressions and styles; playing by ear (composition, keyboard harmony). In terms of the looking ahead, it is a good way for pupils to improve sight-reading skills. When pupils look ahead during sight-reading process, they can detect difficulties and prepare for what might follow; they can allocate more time to the difficult points; they can be sensitive to difficulties. Moreover, pupils have to forget past errors and keep playing as they look forward since more mistakes are made when pianists try to correct previous mistakes. These effective avenues about looking ahead, forgetting past mistakes and keeping playing can improve the continuity of repertoires. Yet for the technical proficiency, when pupils become familiar with the music theory, they can defuse complex sight-reading; they can use basic musical knowledge to spend less time looking for notes; they can improve the speed of sight-reading browsing by combining patterns learned in the past; they can strive for more time to digest sight-reading information; they can predict the content of sight-reading. When players become familiar with their musical instruments, they become more engaged in observing the pieces. To summarise, some effective auditory, visual and technical proficient methods can improve sight-reading skill.

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