

Graded Piano Repertoire Database: An Innovative and Versatile Approach to the Piano Repertoire Guide

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This paper discusses the pedagogical value of a varied and individual solo piano repertoire and describes the development of an innovative and versatile piano repertoire guide in the form of a relational database. The enormity of the solo piano repertoire is such that it is certainly impractical, if not impossible, for the average teacher to effectively select pedagogical and performance material unaided. Many piano repertoire guides designed to address this need have been published. The format of a small selection of repertoire guides is summarised and compared with a new approach in the form of a web-based relational database. Graded piano repertoire (GPR) is an ongoing project designed to meet the repertoire needs of everyday teaching by facilitating the selection of suitable piano repertoire for pedagogical and performance purposes through flexible search options. The underlying design, functionality, pedagogical applications and possible future directions and implications of this new approach are outlined.

Introduction

Music for solo piano, including both the concert and the extensive teaching repertoire, is the largest solo literature composed for any instrument (Magrath, 1995), with the possible exception of the voice (Hinson, 2000). Although it seems like stating the obvious, sometimes we need to be reminded that repertoire is the reason why most people want to learn to play the piano (Maydwell, 2005). New repertoire is essential to meet the needs of today's students and to maintain interest and vitality (Kowalchuk & Lancaster, 2005). Caramia (2005) suggests that too often we stay with the familiar and suggests exploring new repertoire and creative planning for recitals. In addition to their preferred piano method, many studio teachers use supplementary repertoire in order to meet pedagogical needs, student preferences, examination requirements, and competition guidelines or simply to motivate. Hughes and Wilson (2005) promote the use of carefully chosen repertoire to teach musical concepts and technical elements and propose the selection of individually tailored selections for effective teaching. Camp (1992) advocates a flexible philosophy designed to meet diverse and individual student needs. The selection of repertoire best meeting the unique needs of each student is an essential aspect of a flexible approach, with the teacher the deciding factor between whether a student is limited to a spartan diet or presented with a veritable banquet of music. However, the enormity of the solo piano repertoire

is such that it is certainly impractical, if not impossible, for the average teacher to effectively select pedagogical and performance material unaided. It is much easier to use pre-selected collections than to undertake the necessary time consuming exploration of the literature, even with the aid of one of the many published repertoire guides (Barnard, T. & Gutierrez, E., 2006; Hinson, M., 2000; Magrath, J., 1995; Friskin, J. & Freundlich, I., 1973; Hutcheson, E., 1969; Gillespie, J., 1965). Reviews and advertisements in music magazines, workshops, publishers' catalogues and brochures provide an avenue for teachers to keep abreast of new piano music publications (Bastien, 1988).

Brief Overview of Typical Repertoire Guides:

General characteristics

A variety of guides to piano repertoire are readily available in printed format, giving considerable assistance to teachers wishing to make their own choices regarding this important aspect of a student's musical experience. The principal differences between the various publications concern the classification method, the degree and type of annotation, and the grading system.

One of the primary factors influencing choice of repertoire is level of difficulty. Trevor Barnard and Elizabeth Gutierrez (2006) meet this need in their uncomplicated graded bibliography. This publication provides a listing of intermediate to advanced level repertoire classified into four numerical levels of difficulty. Hinson (2000) also uses four levels but includes a wider range of difficulty, from easy to difficult. In addition, Hinson includes brief descriptions of general style characteristics, form, unusual features, interpretive suggestions, and possible pianistic problems. Both of these publications are arranged alphabetically and provide publication details.

A more extensive grading system is used by Magrath (1995) involving a system of ten levels of difficulty, ranging from elementary to moderate level standard piano works, designed to enable selection of appropriate repertoire to systematically foster technical and musical growth. Entries are arranged by composers grouped first by historical period and then alphabetically within each period. Magrath's annotations include general style characteristics and unique features together with some pedagogical considerations. Friskin & Freundlich (1973) also arrange composers alphabetically within chronological stylistic periods and provide brief descriptive notes with some qualitative indications of difficulty.

Disadvantages of typical repertoire guides

Whilst there are many excellent books devoted to piano repertoire, all suffer necessarily from the limitations of the printed format, i.e. they must be classified according to one or two primary criteria, and are then fixed. This inevitably results in the following disadvantages:

- 1) The fixed format means that the search facility is severely limited and requires a considerable knowledge of the repertoire to be effective:
 - (a) It is difficult to know where to start looking for repertoire to meet specific pedagogical needs without a sound knowledge of potential sources
 - (b) It is impossible to be able to search for repertoire of a particular level of difficulty without prior knowledge
- 2) The printed format restricts the amount of information that can be realistically provided such that:
 - (a) The smaller the numbers of works, the greater the amount of information possible
 - (b) The larger the number of works, the smaller the amount of information possible because of the sheer size and preparation time necessary.
- 3) Any modifications, additions, deletions, corrections must wait for a new edition to be published in the quest to keep up to date:
 - (a) Constantly changing repertoire with the influx of new compositions, the unavailability of works out of print
 - (b) Changes in the subjective judgment of what is deemed ‘worthy’ for inclusion (Hinson, 2000)

The search for a better system

The impetus for the development of the GPR database was a need that emerged in my personal teaching experience. The immensity of the solo piano repertoire is daunting to anyone wishing to undertake the search for appropriate repertoire themselves and the limitations of available repertoire guides prompted the search for a better system. Original attempts to maintain notes on repertoire in a word-processing document, arranged by level of difficulty, resulted in the same disadvantages as the published repertoire guides. The idea of setting up a database of piano repertoire was investigated next and the relational database chosen as the best option, offering the following desirable features (McFadden & Hoffer, 1994):

- ⌚ Multiple retrieval pathways (facilitating search flexibility)
- ⌚ Data independence (enabling continual evolution of data)
- ⌚ Virtually unlimited storage capacity (enabling continual expansion)

Graded Piano Repertoire: Design

The relational database contains data stored in a structure of rows and columns (see Table 1). Records are entered in rows according to a set of attributes or fields (columns). The GPR database is a web-based relational database currently containing information on approximately 2,000 solo piano compositions organised in the following seven tables:

- ⌚ Piece table: Includes compositions ranging from elementary teaching pieces to virtuosic compositions from the concert repertoire. The general description of each composition includes technical features, length in pages and approximate performance time
- ⌚ Composer Table: Brief biographical information is provided on each composer
- ⌚ Period Table: Contains information on each historical period with general stylistic characteristics
- ⌚ Level (Difficulty) Table: Level of difficulty assigned and related to other systems.
- ⌚ Form Table: Information provided on form or style together with brief analytical notes including terminology
- ⌚ Pedagogy Table: A significant pedagogical feature is highlighted and described
- ⌚ Source Table: Publication source used in the development of the GPR database is detailed

Figure 1: GPR Entity Relationship Diagram

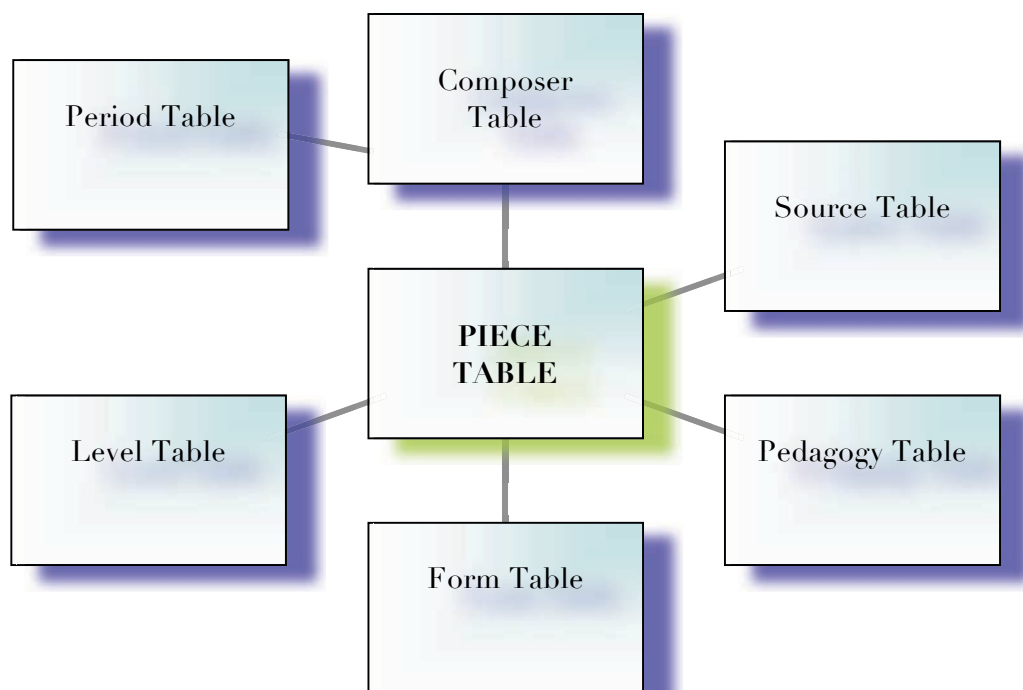
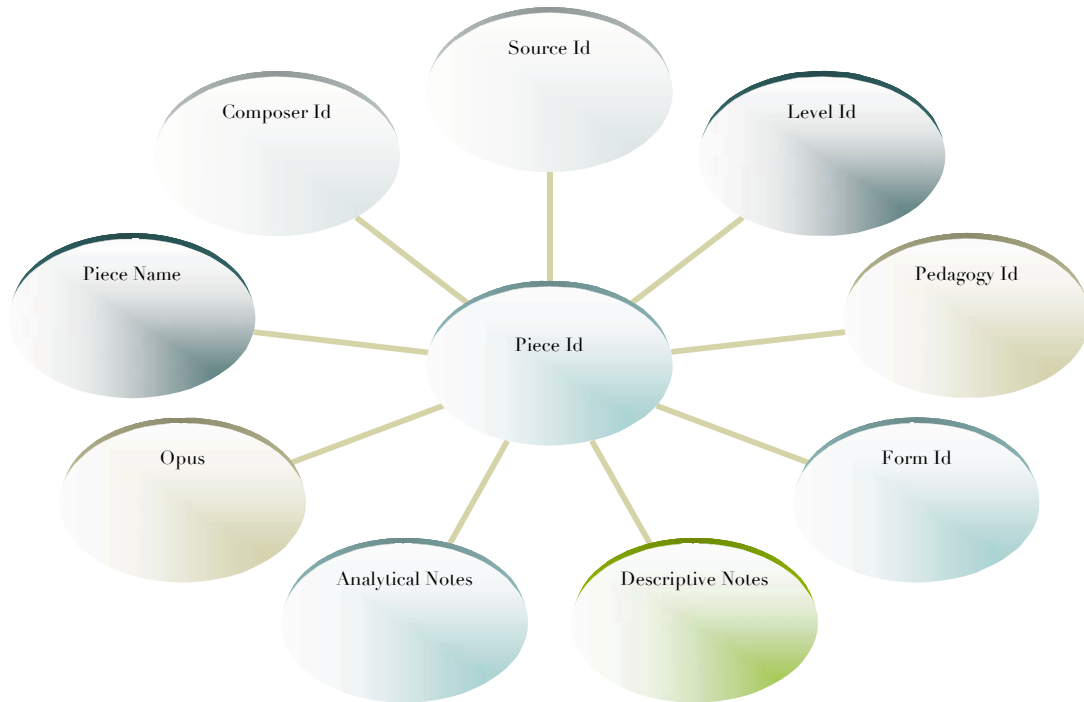


Figure 2: Diagrammatic Representation of Piece Table



The relationship between these seven tables is shown in the entity relationship diagram (see Figure 1). Each of the following five tables: Composer, Source, Level, Form and Pedagogy, is linked to the piece table via its primary key (unique identifier), which then becomes a foreign (referential) key in the piece table (van der Lans, 1993) (see Figure 2). The Period Table is linked to the Composer Table in the same way. The primary keys are all numerical values that auto-increment as each new record is added. The primary key for Level corresponds to the actual level and appears in the search result. The primary keys for all other tables function solely as a unique identifier and are not shown in the search result.

The Graded Piano Repertoire Grading System:

Systems of grading in current use include examination syllabuses, piano method books, and collections of pieces directed at specific levels of mastery. The grading system designed for the GPR database assigns a specific level of difficulty to each piece, correlating this with other systems and a guide to common technical features. The GPR grading table (see Table 1) outlines the

relationship between level of difficulty and these various systems. However, compositions frequently do not fit neatly within a category and a subjective decision must be made on the closest fit and the degree of learning difficulty based on teaching experience (Magrath, 1995). Even though the decision regarding level of difficulty is always a subjective one, any one system has at least the value of consistency. Level of difficulty is an essential factor in choosing pedagogical repertoire and the ability to search by this criterion is a significant benefit of the relational database design.

Table 1: GPR Grading Table (Excerpt)

Level	Syllabus Grade	General Classification	Characteristic Features
4	Grade 2	Late Elementary	Melody may occur in left hand. Interval of 7 th . Swing rhythm. Dotted eighth note. Triplet. Larger chords including four note chords. Broken chord accompaniments. Common time & Cut-time. Compound time.
5	Grade 3	Early Intermediate	Greater independence of hands Arpeggiated chords. Sixteenth note and rest. Continuous pedal technique. Appoggiatura and acciaccatura.
6	Grade 4	Intermediate	More complex note reading outside staff. Larger left hand leaps. Chromaticism and more variety in size and type of chords. Ornaments: trill, mordent, turn.

Advantages of the database design

The web-based relational database design offers significant advantages to both the designer and the user. The logical design of the GPR database (see Figure 1) means that linked (shared) data need only be entered once, minimizing duplication and anomalies. Thus, the main advantages to the designer are minimisation of redundancy, error and inconsistencies and maximisation of data evolution, retrieval and storage (McFadden & Hoffer, 1994). The independence of the data input from the application software means that the

data can be continually updated by the administrator without necessitating a change in the application programs. This major consideration, together with the fact that the database is internet-based, results in user benefits of instantaneous access to updates, maximised search flexibility, optional print format, and uninterrupted world-wide accessibility. A substantial benefit of the database design is that it does not require any prior knowledge of the piano repertoire in order to achieve a successful result.

Searching Graded Piano Repertoire:

The GPR database has been designed to allow considerable diversity in search options with two main types of search available (see Figure 3):

- ⌚ Keyword search by piece name and/or composer surname. Keyword search may be either partial matching or exact matching. Partial keyword matching will give more results, while exact matching will give more specific results.
- ⌚ Advanced search for a selection of pieces by any combination of the following attributes: level of difficulty, composer, stylistic period, country, form or style, and/or main pedagogical feature.

An inquiry for a specific composition will result in the provision of all information for that record. A less specific inquiry will result in the provision of limited information on all records matching the criteria used in the inquiry. Selection of one of these records will result in the provision of all information for that record in a separate window. The complete record provided on a selection by either search method is available for printing. The capacity to search for repertoire that meets specific criteria allows users to tailor requests to specific needs or preferences. It is this feature that sets GPR apart from traditional bibliographies, facilitating the ‘flexible’ approach (Camp, 1992) to student diversity.

Applications of Graded Piano Repertoire

GPR was designed primarily as a piano teaching resource but also has relevance for advanced performers in selection of their own repertoire. Possible applications include the provision of repertoire selections to meet pedagogical goals, for motivational purposes, recitals, free choice options in performance examinations or specific study purposes, e.g. works of a particular period, from a particular country or by a particular composer. The database will provide repertoire selections meeting the required criteria and makes available notes on each selection in a printable format, valuable both in everyday teaching to expand student knowledge and understanding and as a resource for the general knowledge component of examinations.

Figure 3: GPR Search Function

How The GPR Search Works...

- Use the Keyword search or the Advanced search to find a composition from the GPR Database.
- Select the desired composition from the results returned.
- Print the detailed piece information.

Specific search examples

Both keyword and advanced searches will bring up an exact match or a list of pieces fitting the search criteria, providing there are matches in the database. If the advanced search is too specific, there may be no matching repertoire. In this case, a positive result may be obtained by omitting one or more of the selection criteria. This is a temporary situation while the database is in the early stages of development.

The information provided on each piece includes a brief description, including page length and/or performance time, composer and brief biographical notes, level of difficulty, musical form or style, brief analytical notes, information on a significant pedagogical feature, and details of the publication used in developing the database. The pedagogical feature chosen is based on a subjective decision of the relative significance of the technical features present in any given piece. Although opinions may differ, it nevertheless allows selection of repertoire on this basis, providing a valuable pedagogical aid. The option of including more than one pedagogical feature

was considered but not pursued at this point because of the added complexity. It remains, however a potential option for inclusion in the future.

The following examples demonstrate the application of the types of search available with typical results from the GPR database:

1) **Keyword Search:** Provision of information on a specific piano solo for pedagogical purposes – useful for general knowledge component of performance examinations.

(a) Search type: Partial Keyword Match

🕒 Search context: Piece Name and Composer

🕒 Piece Name: Fugue

🕒 Composer (surname): Scarlatti

Search Results in printable format: Sonata in G minor (The Cat's Fugue) by Domenico Scarlatti (see Figure 3)

(b) Search type: Match keywords exactly

🕒 Search context: Piece Name and Composer

🕒 Piece Name: In Der Nacht

🕒 Composer (surname): Barratt

Search Results in printable format: In Der Nacht by Carol Barratt (see Figure 4).

Figure 4: Keyword Search – In Der Nacht

In Der Nacht

Hypnotic long-line cantabile over broken chord accompaniment in sixteenth notes, passing between the hands [Three pages; approx. 2.00].

Composer: Carol Barratt, England (b. 1945).
Carol Barratt is a leading piano teacher and specialist in music education. Her compositions range from educational music for young children to concert repertoire. She was the first female to be awarded the Martin Musical Scholarship for composition by the Philharmonia Society. She is an honorary member of the Royal School of Music and is active throughout the UK as a workshop facilitator and lecturer.

Period: 20th/21st Century
20th/21st Century music encompasses a great diversity of styles from conservative to avant-garde. These include: impressionism, expressionism, serialism, neoclassicism, post-modernism, minimalism, jazz and Latin American influences and new national styles. Melody - wide pitch range, angular melodies, folk melodies, short motives with narrow pitch range, irregular phrase lengths, improvisatory styles, modes, pentatonic, whole tone and blues scales. Harmony - dissonance, chord clusters, non-triadic harmony (quartal, quintal), parallel chords, 6th, 7th and 9th chords, absence of strong cadence points, tonal ambiguity or bitonality, drone and ostinato accompaniments. Chords may be used for their sonorous effect rather than harmonic function. Time and rhythm - syncopation, swing rhythms, changing metres, and frequent tempo changes. Other features include significant use of the extremities of the keyboard and detailed expressive instructions. Rubato may be governed by pictorial considerations rather than emotional and the use of the pedals is often essential to an effective interpretation. Impressionistic compositions frequently necessitate gradations of sound involving the most delicate balance ever employed in performance.

GPR Level: 9

Typical Examination Grade: Grade 7

Classification: Early Advanced

Musical Form or Style: Fantasie (Fantasia, Fantasy)
A musical composition of an improvisational character and free form, usually in one movement. Successful performance often requires considerable musical maturity and sensitivity and the ability to grasp and project the overall design.

Analytical Notes: Key: C major. Compound duple. Terms: In der nacht: In the night.

Main Pedagogical Feature: Voicing.
Voicing is essentially a refined extension of the concept of balance. Chord voicing and voicing of melody and accompaniment within a hand are advanced skills necessary for much of the more difficult piano repertoire.

Source: Fantasy Preludes

Publisher: Boosey & Hawkes

2) Advanced Search: Provision of selections to meet individual preferences designed to meet specific pedagogical purposes, recital or performance examination repertoire, specific styles, periods, composers. A combination of search criteria can be chosen from drop-down menus such that searches can be tailored to suit individual needs and purposes. Currently, the GPR database has drop-down menus for composer, country, period, level, form, pedagogy and source. Any combination of these criteria can be used to tailor a search to particular needs. Pieces matching the chosen criteria will be listed and selection of one of these pieces will result in the provision of all available information on that piece in a separate window in a printable format as with the previous searches.

Conclusion

Directions and implications for the future:

The GPR database is continually being improved and expanded, with new repertoire added daily, with a virtually unlimited potential for expansion. Recently the search menus have been extended to include the publication source. A search using the source menu will display the contents of the publication selected. Each piece can then be selected individually and the information provided perused or printed. The addition of other search menus, pedagogical features, expansion of analytical notes, inclusion of duet/trio repertoire, inclusion of audio samples and/or score fragments are other possibilities.

The demonstrated advantages of the relational database over traditional repertoire guides affirm the GPR model as a significant step towards a better approach. The GPR database displays all of the features of published repertoire guides together with the additional benefits of ease of access, unlimited search capability, immediacy of access to updates, and a potentially limitless capacity for expansion. These features, together with the capacity to access comprehensive, printable information on compositions in a few key strokes, revolutionize the traditional concept of the piano repertoire guide.

About the Author

Lynette Pfundt (FAIMS, M.Ed., B. Appl. Sc. (MLT), BPA (Music), Assoc. Dip. Music) After a successful and rewarding career in diagnostic medical science, culminating in her position as Senior Haematologist and Co-Director of Pathlab Services, Lynette changed direction, combining a part-time position in medical research with tertiary study in music and education. She subsequently held positions in music education at St. Patrick's and Star of the Sea Colleges. Lynette has now chosen to specialize in piano teaching and is currently employed in this capacity at Launceston Church Grammar School, the Grammar Academy, and her home studio.

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References:

- Barnard, T. & Gutierrez, E. (2006): *A Practical Guide to Solo Piano Music*. Galesville MD: Meredith Music Publications.
- Bastien, J. W. (1988): *How to Teach Piano Successfully*. Third Edition. California: Neil A Kjos Music Company.
- Camp, M. W. (1992): *Teaching Piano*. Alfred Publishing Co., Inc., Los Angeles.
- Caramia, T. (2005): The Art of Modern Recital Programming: Using the new to promote the old. In: *Proceedings of the 7th Australian Piano Pedagogy Conference*, University of Adelaide.
www.appca.com.au/2005proceedings.php
- Friskin, J. & Freundlich, I. (1973): *Music for the Piano*. New York: Dover Publications Inc.
- Gillespie, J. (1965): *Five Centuries of Keyboard Music*. New York: Dover Publications, Inc.
- Hinson, M. (2000): *Guide to the Pianist's Repertoire*. Third Edition. Bloomington and Indianapolis: Indiana University Press.
- Hughes, T. & Wilson, J. A. (2005): A Database of Pedagogical Piano Repertoire [online]. In: D. Forrest (Ed), *A Celebration of Voices: XV National Conference Proceedings* (p.290) Parkville, Victoria: Australian Society for Music Education.
- Hutcheson, E. (1969): *The Literature of the Piano*. London: Hutcheson & Co., Ltd.
- Kowalchyk, G. & Lancaster, E. L. (2005): The Professional Piano Teacher in the 21st Century: How Can I Really Keep Up? In: *Proceedings of the 7th*

- Australian Piano Pedagogy Conference*, University of Adelaide.
www.appca.com.au/2005proceedings.php
- Magrath, Jane. (1995): *The Pianist's Guide to Standard Teaching and Performance Literature*. Los Angeles: Alfred Publishing Company Inc.
- Maydwell, F. (2005): Coasting, Roasting or Toasting: Designer Piano Teachers. In: *Proceedings of the 7th Australian Piano Pedagogy Conference*, University of Adelaide. www.appca.com.au/2005proceedings.php
- McFadden, F. R. & Hoffer, J. A. (1994): *Modern Database Management*. Fourth Edition. Redwood City, California: The Benjamin/Cummings Publishing Company, Inc.
- Skaggs, H. G. (1981): Piano Methods: An Annotated list with Descriptive Chart. In: Agay, D. (Ed): *Teaching Piano*. Volume II. New York, London, Sydney, Cologne: Yorktown Music Press, Inc.
- Van der Lans, Rick F. (1993): *Introduction to SQL*. Second Edition. Wokingham, England [etc]: Addison-Wesley Publishing Company, Inc.