



MS Dissertation
Human Resource Management

**Belbin's Team role theory applied to
musicgroups**

Erik Robert Qvick

Lokaverkefni til MS-gráðu í viðskiptafræði

Leidbeinandi: Gylfi Dalmann Aðalsteinsson



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Erik Robert Qvick

Abstract

Can R Meredith Belbin's team role theory be applied to music groups? Could team role behavior have a impact on team work and group dynamic, and also on the success and productivity of a music group? This research analyzes the application of Belbin team role theory on three music groups consisting of Icelandic professional musicians to shed light on the possibilities of such relationships. The research examine the possibilities of relationships between team role behavior and it's impact on the teamwork and success of the three music groups through the usage of the Belbin team role self-perception inventory and unstructured interviews. The population of interest are members of the Icelandic Musicians Union (FÌH). The research finds that Belbin's team role theory can be applied to a music group setting through the usage of the BTRSPI test, and that the self-perceived team roles are apparent and valid. The combined data from the interviews and BTRSPI test indicates that there is a relationship between the team roles and the music groups teamwork and group dynamic.

The research does however not find any valid correlations between the music groups team role composition and performance, but suggest that both good group dynamic and interpersonal dynamic have a positive effect on teamwork and the collective output of a music group. The research attempted to examine the impact of team roles on success and productivity, but cannot accurately measure those variables due to the subjective nature of such measurements.

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1 Introduction

The author himself is a professional musician and have spent the past 20 years performing and working with many music groups and musicians in a wide variety of different musical settings. Working in a field of art such as music is fascinating in many ways, there is a collective drive within music groups to become better, both as individual musicians but also a drive to perfect the music group as a unit. Quite often there can be clashes of opinions and personalities between the members of a music group. There are many music groups that have split up over artistic differences and money feuds. The actual individual inputs and outputs of music as a commodity can sometimes be complex to trace since the connection to the music can be of strong personal and emotional nature to the members of music groups. Nevertheless, many music groups continue to work together despite having artistic and sometimes personal differences, putting aside such obstacles for the better good of the collective effort. Having had the great fortune to perform, interact and observe a multitude of musicians from all over the world in many styles of music, the idea of doing a research on teamwork, how groups and ensembles function with both formal or informal leaders, team roles in both explicit and in tacit ways took form. Even though many musicians spend countless hours refining their craft and skills on their instrument in order to become a good musician, such skills can be obsolete if the musician in question cannot function in a group of other musicians. My own experiences from professional work suggested that having good teamwork and good interpersonal dynamics within a music ensemble were essential for the success and longevity of a music group.

1.1 Overview

The application of Belbin's team role theory on professional Icelandic musicians and their working music groups. This study uses Belbin's definition of a role as a tendency to behave, contribute and interrelate with others in a particular way (Belbin, 1981. Belbin, 1993). By adapting this definition for music groups, the term Role goes further than describing the formal ensemble position such as singer or guitarist, and will rather outline the types of behavior, strategy and communication

which musicians use while engaging with the other group members. In a music group, it is likely that its members will occupy more than one of these team roles. Though it is not necessary for all team roles to be filled, music groups can cover many of them, spread across a range of individuals.

1.2 Relevant Background

Why a research on Icelandic music groups? Icelandic musicians and their music groups represents an interesting research setting for this study. Just like any other traditional business, a music group can have products and commodities to be marketed and sold in the form of concerts, music recordings, merchandise etc. Also, as a business they have many stakeholders in the Icelandic economy such as customers, audiences, colleagues etc. There are studies focusing on the actual managerial and promotional work that Icelandic Musicians take on in their daily work, in other words *what* musicians and music groups do (Haraldsson, 2011. Másson, 2010) but few studies that look into what actually goes on in terms of teamwork, i.e *how* they do it.

If we would view the music group as a organizational form, what kinds of teamwork takes place between Icelandic musicians and how do they organize the work within their ensembles and musical groups? Would it be possible to apply Belbin's Teamrole Theory on music groups? If so, would it be possible to see a connection between a well balanced team role composition and the productivity and success of a music group?

1.3 Music Groups

The term musical group can be a very complex description since groups can perform and compose in a wide variety of styles and music traditions (Kernfeld, 2002). A music ensemble can be defined as a group consisting of two or more musicians who perform instrumental or vocal music. Within each musical style different norms have developed according to the sizes and instrumental composition of different ensembles, and different requirements for the repertoire of songs or musical work that these ensembles perform. A group of two musicians is called a duo, a group of three is a trio, a group of four a quartet, a group of five a quintet and so on. A musician who performs alone is usually termed a solo musician or solo artist. Occasionally, a solo artist must rely on a accompaniment band, i.e a backup band or

rhythm section in order to perform (Randel, 2003). A band/music group is not only made up of the instruments that make up the team, but the individuals who play them. This study choose to focus on those musicians who's main stylistic and instrumental performance lies within the Afro American tradition of popular music, i.e Blues, Jazz, Pop and Rock.

The music group represents an interesting framework for a study on team roles, since in addition to the necessary instrumental requirements, each member of an ensemble is required to engage in interpersonal and inter-performer interactions. But does a music group have anything in common with the kind of teamwork that occurs companies and organization? Are not music ensembles completely different from contemporary business organizations? Tovstiga, Odenthal and Goerner (2004) research suggests that they are not, and that the analogy to the business organization is striking: performing ensemble musicians are organized in complex organizational units, they succeed in creating cohesion and coordination within an working environment full of potential pitfalls and obstacles (Tovstiga, Odenthal and Goerner, 2004). They achieve this by maintaining an *"balance between multiple, simultaneously occurring knowledge streams that feed on tacit and explicit, as well as individual and collective impulses"* (Tovstiga, Odenthal and Goerner 2004, pp2). Musicians are involved in interpersonal interactions during both rehearsals and performance, Goodman states in his study that *"ensemble performance is about teamwork [...] Half the battle of making music together (and ultimately staying together as an ensemble) is fought on social grounds."* (Goodman 2002, p.163).

Musical skills alone are usually not enough to be successful as a musician. One main factor that contributes to success is having good interpersonal skills. Dobson and Gaunt (Dobson and Gaunt, 2013) research on musicians engaging in orchestral performance showed that strong social and interpersonal skills were cited as the most important ones for orchestral work, with participants stressing the significance of maintaining good social relationships with colleagues in order to foster a conducive environment in order to achieve excellence on stage. Musicians rely on the other members in the music group, especially during performance members must be able to trust and respect the musical abilities of their fellow members (Monson, 1996). In highly creative ensembles such as a improvising jazz group, no one member acts as the leader of the performance, instead the collective input of the whole group leads to the creative output and end product in the form of a

performance (Sawyer, 1999). One question that one might ask is of course, why play in a band? Why partake in a musical group with several members with the possibility of many interpersonal issues and teamwork related problems when a musician can be an independent solo artist?

Alchian and Demsetz (1972) applies the theory of the firm to music groups and argues that by creating a firm we can reduce transaction costs by combining the several inputs of a firm to create a jointly produced output or product which thereby produces greater benefit for each input when compared to the cost of Market transactions (Alchian and Demsetz, 1972). In layman words, it is cheaper to form a band than having to hire each member of the ensemble to individually produce the output/product. Ballestrina and Ciarda (2010) argues that music groups where one or two members writes and arranges all the groups musical output (totalitarian leader/s) and only uses the other members as performers are employing a form of transaction cost economics called hierarchical relationship. Groups that imply hierarchical relationships are a form of production team, whereas music groups that collectively compose and arranges are proper "bands" that engage in a bi-lateral relationship.

The analysis of Ballestrino and Ciardo (2010) demonstrates that a music group can function like a carefully orchestrated organization. If the music group has clear defined tasks that are assigned to their respective member, and those tasks are based on each members competence, such a organizational structure will be conducive to high quality outputs and outcomes (Ballestrino and Ciardo, 2010). It is interesting though to note that recent studies have shown that formal music training and education rarely address the social skills that are needed to aid the interplay and collaboration between musicians that is needed in the actual work situation (Lehmann, Sloboda and Woody, 2007). There is often a transitional period where the educational environment, which emphasizes individual technical accomplishment, clashes with the competitive professional environment where a collaborative perspective is needed for success (Hager and Johnsson, 2009). Many Icelandic musicians benefit from networking and marketing their music through traditional media and the Internet, networking is important both for their musical output but also for themselves as working musicians (Thorsteinsson, 2011). Connecting with other musicians through networking is essential, but convincing other musicians of the value of their work is more than often accomplished through the combination of both the musicians written work and his/hers personality and interpersonal skills (Frost, 2000).

1.4 Work situation and environment of professional Icelandic musicians

Since the focus of this paper is on Icelandic musicians playing and performing mainly in the afro American tradition of music (Jazz, Blues, Pop, Rock) it might be helpful for the reader to have a short historical overview that tells the evolution of Icelandic popular music scene up to the current work situation of professional musicians.

1930 marks a watershed in Icelandic musical history because of the establishment of the two institutions College of Music in Reykjavík and the National Radio Broadcaster. The first symphony orchestra, The Icelandic Symphony Orchestra, was established two decades later, in 1950. (Arnastofnun, 2014) The postwar years of 1950s saw a rapidly growing music scene in Iceland with the rise of popular music and the rock band wave between 1956-63 (Icelandicmusic.com, 2008. Hjálmarsson, 2013). The American Military Base in Keflavik played a very important role in the popular music history of Iceland since the radiobroadcast which transmitted from the Military base broadcasted music radio programs from mainland America featuring all the current popular music. Kanaútvarpið was the dominating radiostation in postwar Iceland playing popular American music (Aðalbergisdottir, 2011). The National Radio Broadcaster (RUV) played a very limited amount of popular music in the 1950's but with the radio broadcasting of the military base Icelanders were exposed to the popular music of America. There were a great demand for entertainment from the inhabitants of the Military base and many Icelandic musicians performed at the Military Base, providing music for dances, concerts and other festivities during the 1950-60's. A regular working week for a music group could include up to 2-3 performances at the Base only (Hjartarson, 2008).

During the 1940's-1960 much of the foundation for the current Icelandic music industry and work for professional musicians in Iceland were laid down, the main bulk of work during those year was functional work and events like dances such as the ones held at Hotel Borg were the group KK Sextett and Svavar Gest held court in the 1950s to 1960's. The late 1950's and early 1960's were a expansive time in house building in Iceland and many community houses that were built in the countryside served a important function as meeting places for people. Those community houses gave birth to a special kind of festivity event called Sveitaball, A myriad of dance

bands providing music for such Sveitaball events were active up until the late 1990', but the 2000's saw a slow decline of work related to such events. The popular music scene have been blooming in Iceland since the 1960's with many Icelandic pop bands performing and recording original compositions. But since the market for work is limited and small in Iceland due to the size of it's population, it can prove very hard to work as a full time professional musician. Today the competition is high for well paying music performances and in order for Icelandic musicians to make a living, they need to be well-rounded and diverse, or specialize in a certain branch of music or skill. (Blöndal, 2013; Hjálmarsson, 2001; Hjálmarsson, 2012; Hjálmarsson, 2013). Pinheiro and Dowd's (2009) research on musicians in three metropolitan areas show that very few musicians reach monetary success in their work. Because of limited work opportunities, many musicians have to branch out into a wider range of work settings in functional work such as Instrumental teaching, performing at weddings and corporate events etc. (Pinheiro and Dowd 2009).

1.5 Thesis structure

The first chapter looks at the written research on music groups and how musicians work together and involves shared leadership, group dynamics, leadership in order to get a overview of the different factors that might influence the music groups team work. Second chapter concerns R Meredith Belbin's team role theory and gives a overview of the different team roles. We also look at research that applies Belbin's team role theory to music groups in order to gain more information from which to draw conclusions. The third chapter examines the research findings of the music groups and the Fourth Chapter gives us a summary and conclusions.

2 Literature review

Research into sociological and psychological fields have provided valuable insights on organizational teamwork and described how leaders and managers can assist their groups and organizations to perform effectively (Shaw, 1971. Forsyth, 1990). Could group dynamics and team work be factors that would have noticeable impact on how members of music ensembles function? Research with direct relevance to the field of music has mainly been focusing on the orchestral music work environment and classical music. A limited amount of researches have applied teamwork research on group work and interpersonal dynamics among musicians and music groups to the field of contemporary music, I.e Jazz, Pop, Rock. Since the majority of written work and research in this field has focused mainly on orchestral and chamber ensembles, it is hard to determine whether the research work on classical music ensembles apply directly to music groups performing other kinds of musical styles.

Like any other group of persons working together, musical ensembles are subject to powerful interpersonal dynamics and social processes. The success of the group can ultimately hinge on how the musicians handle leadership, individuality and collaborative problem solving among themselves. (Lehmann and Sloboda, 2007 pp 166).

Robert R Faulkner (1973) was one of the first to research the working environment of musicians and the group functions and interpersonal dynamics within a music ensemble (Faulkner, 1973). The research of Faulkner comes to the same conclusion as Ford and Davidson's (2003) study on Wind Quintets and String Quintets: Music ensembles need good interpersonal dynamics to function effectively and musicians themselves understand the importance of teamwork in a ensemble (Ford and Davidson, 2003). Dobson and Gaunt research from 2013 on musical and social communication in expert orchestral performance undertook a study to see what skills and qualities orchestral musicians consider to be essential for their work. The most frequently cited skills and qualities required for the work in a ensemble was Interpersonal/Social skills and Teamwork/Understanding of one's own role (Dobson and Gaunt, 2013).

2.1 Group cohesion

Research in sports settings has revealed the importance of variables such as group cohesion and the collective efficiency of a team (Balaguer, Duda, Atienza and Mayo, 2002). There have been made similar research and examination of such variables in large music ensembles. Matthews and Kitsantas research on instrumentalists showed that music students who have a strong sense of collective efficacy and group cohesion are more likely to perceive their leaders as supportive (Matthews and Kitsantas, 2007). A musical ensemble is quite an unusual kind of social group and the mode of interaction within the group involves degrees of intimacy and subtlety that is possibly not equalled by any other kind of group or teamwork (Young and Colham, 1979). Murningham and Conlon examined both successful and unsuccessful String Quartets and discovered that group cohesion was heavily dependent on organizational aspects of the of group (Murningham and Conlon, 1991). For instance, it was discovered in a majority of the cases within their research that the first Violinist took a leader position in both administrative and performance related decision making, it was also found that in order secure a "good" group functioning, the second violinist had to be offered a great deal of social support from the other members of the group. In order for the second violinist to perceive him/herself as a equal contributor of the group, it was necessary for the other members to demonstrate that they valued the opinion and work input of that member (Murningham and Conlon, 1991). Could the team spirit of the band and group cohesion be a factor that influences the longevity of the musical groups work and output? There has been some debate about the strength of interpersonal attraction as a strong factor of group cohesion. Alexandra Arvantis study on group cohesion examined factors of group cohesion based on Carron's Model of Factors Affecting Cohesion. The sample consisted of 25 musical bands that all shared a goal of touring or performing music as professional musicians. Results from the study show that while interpersonal attraction and social cohesion are a leading component of group cohesion, task cohesion is a stronger force. Groups are more likely to stay together because of their commitment to the task and common goals than their affinity for one another. Specifically, band members depend on dedication to their music and shared vision to stay together more than being best friends (Arvantis, 2008).

More specifically, the following results were noted: Bands that had been together three or more years had developed a routine in dealing with interpersonal issues. Situations that would ordinarily cause conflict, such as monetary disputes, touring dates and criticism during practice were dealt with swiftly and maturely. This comes directly from the members experience in the industry and from fellow band members. Bands that had been together for six or more years were relatively stable in their career position. By this time, they were profitable and on a path to bigger success. This fueled the music group's drive to stay together as a unit and handle issues as they arose (Arvantis, 2008).

Music groups are a type of team that relies on the creative forces of their members, but from whom or where does creativity emerge from within a music group? Or could it be a collaborative effort? Dr Keith Sawyer's paper on collaboration in music ensembles found that all members of the music groups in his research contributed to creativity, and no one person was associated with all the creativity within those groups, instead the interpersonal dynamics of the group had the largest influence the creative output of the group (Sawyer, 2006). The ways of communication within the music group have an influence on it's creative output and teamwork. A study on interaction and collaboration in jazz groups showed that both verbal and nonverbal Collaboration sparked creativity (Seddon, 2005). Ginsberg and King study of duo collaborations indicated that in small sized teams such as a duo, the collaboration was largely based around a nonverbal dialog between the two musicians. The ongoing dialog over the music and how it should be prepared and performed was mainly nonverbal but still sparked creativity (Ginsberg and King, 2007). When musicians rehearse and prepare their work, the collaboration process is constantly affected by social influences from other members, and sometimes the musical role or instrumental hierarchy is embedded within the actual musical composition. Elaine King's research from 2004 divides the collaboration process into social collaboration and musical collaboration, where social collaboration is affected by socio-cultural factors and team roles within the group, and musical collaboration is the coordination of content and process (King, 2004).

2.2 Leadership.

The majority of literature on leadership in music focus on groups/ensembles performing classical music, and the results do indicate that there is a connection

between the leading melodic instrument/vocals and leadership. Both Young and Colham's (1979) and Murningham and Colham's (1991) research on string quartets showed that the string quartet are led by the person playing the 1st violin (Young and Colham, 1979. Murningham and Colham, 1991). Though in a similar research made on wind quintets the leadership position was not as clearly defined since a majority of members in the wind quintets answered that they did not have a leader. Instead, each member felt that they had a equal part of the team work and that decision making was made in a democratic fashion by all the members. This however lead to a fair amount of conflict within the quintets and subgroups were sometimes formed within the groups due to the tension where the subgroups formed a majority/minority division of the ensemble, i.e. 3/2 or 4/1 (Ford and Davidson, 2003). It is a common feature and more of a genre tradition in classical music that ensembles and orchestras perform music written by an external composer. But in the African-American tradition of music, i.e. popular music, music groups are more likely to perform original compositions. Could there be a relationship between the member who writes music and that person positional status within the group? Tim Sheinman's (Sheinman, 2013) research shows that the majority of rock bands interviewed in his study contained a clearly defined leader, with only a minority of bands not having clear leadership, either because of group conflict or because of a collective ethic within the groups. In the instances of bands that had a defined leader, this person was in all cases the groups songwriter. In all the groups, the songwriters were also greatly involved in many managerial areas of the band as well as key decision making. Autocratic leadership often existed in groups, with a clearly defined single person at the head of the band and within these groups the songwriter's authority was massive (Sheinman, 2013).

The leader of the group can clearly have an impact on the group dynamic of the ensemble. Research on quartet rehearsals indicated that the ensembles with a regular leader showed more evidence of stable team role behavior, a better group progress and a consistently more focused group dynamic than those ensembles that did not have a regular leader (King, 2006). An example of a musician who had his name as both the leader and founder of his group, but who actively worked to abolish authoritarian control in his ensembles was jazz musician Miles Davis. In order to produce highly creative music during the group performances, Davis engaged all his group members in a democratic fashion by not employing himself as an authoritarian

certainty. This created a high level of group cohesion with dynamic interplay between the group members during music performances (Kenny and Gellrich, 2002). The cohesion of the group can have an impact on the personnel changes in music groups, could perhaps certain instruments in an ensemble indirectly influence the cohesion of a group?

An overwhelming majority of the wind quintets in Ford and Davidson 2003 research have had personnel changes. One instrument in particular, the horn player, had a much higher percentage rate of personnel change than the other instruments in the wind quintets. The other wind instruments of the quintets consistently complained over the horn player's lack of dedication and commitments. The horn players themselves had a different view and stated that the nature of being the only Brass instrument in a wind quintet had an impact on the horn player's longevity in the ensembles (Ford and Davidson, 2003). Member and personnel changes can sometimes bring new team roles and creativity into a group. Ucbasaran et al 2011 research on entrepreneurial teams in a Jazz ensemble setting found that leaders of such music groups sought to maximize diversity within their teams as a means of fuelling it's creativity, but the consequences of having so highly diverse teams were dysfunctional conflict and departing members. The strong personalities of the members and individual desire of becoming leaders themselves led to departure from the music groups, however, this was embraced by the leaders of the music groups as a opportunity to inject new knowledge in to the music group by introducing new members to it (Ucbasaran, Lockett and Humphreys, 2011).

2.3 Shared Leadership

Badhurst and Ladkin research from 2012 explored the phenomena of leadership in orchestras and jazz ensembles where no one person takes the duty of guiding and motivating the group action of the music ensemble. They found that in classical orchestras the traditional authoritarian of conductors are challenged by the orchestra musicians taking on a active role in the production of their output, thereby shifting the authority around the particular members. Badhurst Ladkin define the leadership in the groups as a joint plural action that is enabled through individuals recognizing other members expertise and allowing those individuals to partake in the decision process of the group. However, joint plural action is dependent on group cooperation and the authors finds that the tendency for groups to default to a sole leader is engrained deeply in most groups collective psyche (Badhurst and Ladkin, 2012).

2.4 Selfmanaged Teams

Research has been made on string quartets to determine if they function as a form or self managed team. In the instance of a string quartet, all four musicians partake in the work at an equal level at the performance. Gilboa and Schmotkin 2010 research showed that there were no pre-existing hierarchy set between the members similar to the hierarchy that can be seen within a symphony orchestra where there is a director/conductor versus the musicians barrier. String quartets were described as sharing the same characteristics as a self managed team, i.e., a working structure where all partners share an equal responsibility in the development of a project (Gilboa and Tal Schmotkin, 2010). Leadership in self managed teams is unique in the way that the team members share and rotate the role of leader. Each member is responsible for the goals set by the team and must develop the leader qualities needed and studies have shown that this approach to leadership resulted in high commitment within the team and increased performance levels (Erez, Lepine and Elms, 2002).

In some music ensembles the interplay between the leader or, the individual playing the lead instrument, and the other member's roles can have an impact on the group collective output and performance. The research of Murnighan et al (Murnighan, 2001. Murnighan and Conlon, 1991) focus on the relationship between the internal group dynamics and success among professional string quartets in Great Britain. They observed the group dynamic and found three basic paradoxes within the music ensemble that were: Leadership versus democracy, The paradox of the second violinist and Confrontation versus compromise. The main findings of their research were that the more successful quartets recognized but did not openly discuss the paradoxes. Instead, they managed these inherent contradictions implicitly and did not try to resolve them (Murnighan, 2001. Murnighan and Conlon, 1991).

Smith and Berg (1987, 1991) extensive research presented the idea that groups face inherent paradoxes. A paradox was defined generally as a contradictory, self-referential statement or statements that generate a vicious cycle. One example of the many group paradoxes noted by Smith and Berg is the paradox of identity, which is characterized by the struggle of individuals and the group to each establish a meaningful identity that is an integral part of the other (Smith and Berg, 1987. Smith and Berg, 1991). Murnighan and Conlon (1991) found that the String quartets faced

conflicting facts, but if the quartets understood and absorbed the inherent paradoxes, it could actually work as an element for success. The music that the string quartets performs typically gives the leader-position to the first violinist since the majority of written music for string quartets traditionally gives the first violinist the most musical opportunities and responsibilities. However, all the members of the string quartets stated that they had joined the ensemble with the intention of being able to have an equal voice in how the ensemble played and performed. This notion also was found in other areas of the string quartets work, all members of the ensembles are expected to share the workload equally but the first violinist are often the most well known and recognized member of the ensemble (Murnighan and Conlon, 1991). By comparison, the members of a Symphony Orchestra are more bound by its conductor's decision making (Koivunen, 2003), while the individual members of a string quartet have an equal share in the input of the performance of their music (Murnighan and Conlon, 1991). Murnighan and Conlon's study was in favor of Smith and Bergs 1991 contention that groups have inherent paradoxes, but Murnighan and Conlon argued against their hypothesis that groups should confront those paradoxes. They found that the most successful of the string quartets understood and accepted the inherent paradoxes and that their members managed them implicitly, but also that members of less successful quartets pushed their first violinist to take on an authoritarian leader role (Smith and Berg, 1987; Smith and Berg, 1991; Murnighan and Conlon, 1991).

2.5 The musicgroup as a firm

Balestrina and Ciardo research from 2011 argue that most rock bands who have been successful have relied on an efficient internal organization in which productive tasks were allocated according to the principle of comparative advantage. Balestrina and Ciardo also note that efficient organizational structures are difficult to achieve and to maintain in the case of a musical group but suggest that their analysis yields valuable insights for the study of the internal organization of productive teams without a pre-ordained hierarchical structure. The authors argue that all highly successful rock groups share a crucial characteristic: the successful groups relied on a clear allocation of labor among the members that enabled each member to utilize his or hers abilities to the fullest. Successful music groups were capable of achieving and sustaining their career for an extended period of time through an efficient allocation of

their individual skills, in where members specialized on the basis of their comparative advantage (Balestrina and Ciardo, 2011). Phillips and Strachan (2014) argue that there is something unique about the output of the music group even with changes in the structure of contracts, compensation, and consumer focus on the artist that explain the resilience of the rock band as an organizational form to produce music (Philips and Strachan, 2014). In other words, despite the many difficulties of keeping a band together, if the band stays together it will be more successful and lucrative for a member to stay in the band rather than pursuing a solo career. The authors build this notion on Alchian and Demsetz work on the theory of the firm (Alchian and Demsetz, 1972). Alchian and Demsetz argue that creating a firm reduces transactions costs, and that *"combining several inputs to create a jointly produced output produces greater benefit to each input when compared with the cost of market transactions between each input"* (Philips and Strachan, 2014 pp 4). In other words, forming a band is cheaper than employing each member of the group separately to produce the output, and if the band manages to stay together for a extended period of time, the monetary benefit will be greater for each individual member than leaving the band to pursue a solo career. The research of Gerstin points out that to a great extent, musicians professional lives occur in relatively small, face-to-face musical networks. The interaction between musicians is central to the process of making music and a major factor in the interplay of musical networks is the politics of authority and hierarchy that emerge from musicians working together, depending on one another, and competing with each other (Gerstin, 1998).

2.6 Music Industry cluster.

Research have been made on the significance of location and regional importance for agglomeration of industries. Dr Michael Porter defines industry clusters as geographical concentrations of firms involved in similar and related activities, and Porter finds that within such clusters roughly four types of innovation can be found, innovation in technique, artistic innovation, business innovation and innovation in product development (Porter, 2000). Such types of industry clusters can promote production efficiency and innovation (Picard, 2009). Florida et al (2008) argue that musicians will be attracted to such clusters where scale economies can take place and that a broad artistic, cultural and entertainment economy can provide demand for musicians (Florida, Mellander and Stolarick, 2008). The majority of music related

work is located around the Reykjavik area where the bulk of music performances and concerts take place in Iceland. In the year 2008 a total of 1940 concerts were held around Iceland with a majority of those, 1390 concerts, taking place within the Capitol Region (Sigurðardóttir and Young, 2011). The Media cluster that is presented in the research on the city Nashville, Usa by Dr Garret Harper and Chris Cotton, shows a number of characteristics that are common to the example of Reykjavik as a industry cluster (Harper and Cotton, 2013). Both share flexible, informal networks based on frequent face-to-face interaction, trust-based interconnections among some large and many small firms and their subcontractors, specialized local infrastructures and institutions, and common skilled labor pool. (Sigurðardóttir and Young, 2011. Harper and Cotton, 2013). The National TV broadcasting and Radio RÚV station, along with the commercial radio stations Bylgjan, X977 are located in Reykjavik. The two large theaters Þjóðleikhúsið and Borgarleikhúsið together with the Icelandic Symphony Orchestra and Reykjavik Chamber Orchestra employ many musicians. As a result of this industry cluster, the main music scene is concentrated in and around the capital city Reykjavik (Sigurðardóttir and Young, 2011). The paper that Barry Shanks published in 1988 points out the usefulness of a notion of a "Scene" when accounting for the relationship between different musical practices that unfolds within a given geographical space (Shanks, 1988). The Icelandic music scene and music industry have a large impact on the national economy, and even though they are both still recovering from the recession of 2007, they have grown over the past years (Sigurðardóttir and Young, 2011).

Haraldur Haraldsson (2011) researched the factors that could have positive influence on the growth and creativity of Icelandic music groups and one of the main findings from interviews in the research was that all music groups establish goals to drive their work onwards and that mutual respect is a very important factor in interpersonal relations. In order to be successful in the Icelandic music scene, a group must have a attractive product (original and good music), good contact net and a team that works together (Haraldsson, 2011). The modern music industry of Iceland have become a large part of the national economy with several large concert events and music festivals such as the annual Iceland Airwaves music festival and the Christmas concert series Frostròsir and Jòlagestir Bò. The turnover for the two annual events Iceland Airwaves and Frostròsir alone is estimated to a amount of 1

milliard iskr during the month of december (Vb.is, 2011. Vb.is, 2012. Young, 2010. Young, 2011. Young, 2012). Many of the musicians that are working inside the industry cluster of Reykjavik are members of The Icelandic Musicians Union (Félag Islenskra Hljómlistarmanna). The Icelandic Musicians Union was founded in 1932 and today it is a trade union that is affiliated with the Association of Academics (BHM). The Musicians' Union (FÍH) is an organization which represents over 750 musicians working in all sectors of the Icelandic music business. An indication of the number of practicing musicians in Iceland can be estimated from the number of registered members in musicians unions and associations. However, only a portion of musicians can be expected to be registered in such unions, so the total number should be greater than these figures would indicate. Also adding into the estimate, some musicians may be registered in more than one union, which further complicates any estimates. In 2009, 604 musicians were registered in the Icelandic Musicians' Union (FÍH), 273 were registered in the Icelandic Society of Authors & Composers (FTT), 156 in the Association of Icelandic Musicians (FÍT) and 55 in the Society of Icelandic Composers (TÍ). This totals 1088 members of musicians' unions and associations in 2009, which is most likely to include some duplication and triplication, as musicians can be members of more than one union/ association (Sigurðardóttir and Young, 2011).

3 Belbin Team Role Theory

In 1969, the chairman of the Industrial Training Research Unit Cambridge, R Meredith Belbin, began a computer based research on effective teams in cooperation with the Administrative Staff College in Henley, United Kingdom. Middle management syndicate teams were selected and given a set of psychometric tests and where then observed with the focus on characteristics of both successful and unsuccessful teams. After extensive observations of team functioning Belbin published his findings in 1981 in his book "Management teams, why they succeed or fail". The most interesting observation was the importance of team roles in successful and effective teams. Belbin found that the individuals in teams tended to assume different team roles. Belbin defined this as "*a tendency to behave, contribute and interrelate with others in a particular way.*" (Belbin 1981, p 61)

Belbin's team role theory is based on the following principles: each member contributes to the team through both a functional (task) role and a team role. An optimal balance is needed between these two roles for each team member. A team member's primary and secondary team roles can be identified based on the results of the Belbin Team Role Self Perception Inventory (BTRSPI). A balanced mix of team roles within a team usually leads to higher performance (Belbin, 1981:132-133). The research of Belbin concludes that the success, or unsuccess of teams are mostly dependent on the behavior of the team members and how they interact with each other and apply their capabilities to reach decisions and end results. The successful teams were composed of members possessing compatible Team roles while the unsuccessful teams had a composition of incompatible team roles. The mismatching of team roles and missing team roles resulted in personality clashes and conflict.

Belbin identified eight team roles and their correlative behaviors necessary for the ideal team composition while observing and analyzing the data from the Management Games. Belbin developed two questionnaires and through the use of those questionnaires, the Belbin Team Role Self Perception Inventory (BTRSPI) and the Observers Assessment questionnaire, it is possible to identify the two team roles a team member naturally can perform given no pressure to act otherwise, four roles

which the members is able to assume, and two team roles which are best avoided (Belbin, 1981, Belbin, 1993).

This study focuses on self perception only, and does not use the Observers Assessment Questionnaire that Belbin developed in the later stages of his team role study (Belbin, 1993). This study will use the BTRSPI to assess the possible Belbin Team Roles thereby focusing on the musicians *self perception* of their team role.

3.1 Description of Belbin's Eight Team Roles

Here follows a condensed description of each of the eight team roles as they are described in Meredith Belbin's two books *Management Teams, why they succeed or fail* from 1981 and *Team Roles at Work* from 1993.

1) The Coordinator/Chairman:

This was the first of the team roles discovered by Belbin. During the earlier stages of Belbin's research, the role of the Coordinator was first named The Chairman, but it was later subsequently renamed to the Coordinator. The Coordinator is one type of team leader and functions as the positive motivator of the team and is usually in a permanent position as a leader. Coordinators are calm and confident leaders that guide and control the other team members in the teamwork situation in a head of the table manner. The Coordinator listens to members and potential contributors in the team in an objective manner. A person with this team role is aware of every team member's strengths and weaknesses and has a natural ability to get the best out of their potential while guiding the team towards their objectives and goals. The weakness of this team role is that a Coordinator can be manipulative and they often delegate their own work to other members (Belbin, 1981. Belbin, 1993).

2) The Shaper:

The Shaper is the other of the two leadership type roles described by Belbin. The shaper is often a bit more abrasive motivator than his leader counterpart the Coordinator. The Shaper can be impatient and provocative but gets the job done. A Shaper has a naturally strong drive and is very demanding to the other members when overcoming obstacles in the team work, this can often lead to confrontations and arguments with the Shaper coming off as a slave driver. Shapers are demanding and competitive, but they stimulate the team by challenging ineffectiveness and pushing their team members to excel in their work (Belbin, 1981. Belbin, 1993).

3) The Plant:

The Plant is a innovator, problem solver and the team's source for original ideas. Plants are individualists and they embrace unorthodox ideas and new approaches with their imagination and great intellect. The Plant is knowledgeable and innovative, but their allowable weakness is that they tend to have too strong personal relations connected to their ideas. Belbin describes Plants as inclined to disregard practical details and protocol. (Belbin, 1981. Belbin, 1993).

4) The Monitor-Evaluator:

The Monitor-evaluator is the person within the team who evaluates and analyses options and possible decisions by finding errors and mistakes in the teams plan before making commitments. The Monitor-evaluator has a clear judgement without any emotions related to the tasks of the team and can therefore be seen as skeptical and cynic by the other members. The weakness of the Monitor-evaluator role is that this member lacks inspiration and the necessary ability to motivate the other team members (Belbin, 1981. Belbin, 1993).

5) The Resource-Investigator:

The Resource-investigator is the team's provider of external resources of information to the team. Resource-investigators are enthusiastic, have great communication skills and many external contacts. They are extrovert and quick to respond to new challenges and explore alternatives. The weakness of the Resource-investigator is that they easily loose interest after the first spark of fascination for a project (Belbin, 1981. Belbin, 1993).

6) The Implementer

Belbin's original name for this specific team role was Company-Worker, but later changed the name to the Implementer. The Implementer is the member who turns concepts into actual working procedures. This team member seeks out and finds the unfilled needs of the team and will engage in projects that other team members would avoid. The team can count on this member carry out all his/her duties. The Implementer has great organizing skills, self-discipline and practical common sense. The weakness of the Implementer is that this member does not have flexibility or responsiveness to unproven ideas (Belbin, 1981. Belbin, 1993).

7) The Team Worker:

The Team worker is the gel that holds the team together by resolving conflicts and promoting team spirit. The Team Worker is socially oriented and builds up the cohesiveness of the team. The Team Worker is however indecisive in difficult decision making and can easily be influenced by other members (Belbin, 1981. Belbin, 1993).

8) The Completer-Finisher:

The Completer-Finisher has attention for details and deadlines, this member makes sure that the teams plans are carried out and finished in time. The Completer-Finisher is orderly and has the capacity to follow through the ideas while keeping attention to all the details. This person is typically painstaking, orderly and conscientious. The flipside or allowable weakness of the Completer-Finisher is that this team role can be very anxious, worries over minor details and can be reluctant to let go of the safe and stable elements of a project (Belbin, 1981. Belbin, 1993).

3.2 Primary and secondary team roles:

Belbin divides the team roles into Primary and Secondary team roles. Most team members occupy more than one role and the members contributions to the team are expressed in their Primary and Secondary roles. The persons strongest role is the Primary role which can be enacted with ease whereas the second and third role are the Secondary roles which are only possible to enable on a temporary basis, i.e. when the situation calls for it. For example, a member of the team may switch to the secondary role in instances where the team is missing a role. The lowest scoring role in the BTRSPI is also that person's weakest role and that role should be avoided (Belbin, 1981. Belbin, 1993). Since many teams have fewer than eight members, the importance of secondary team roles can prove crucial to a team. Fisher et al took the idea of secondary roles further in their research (Fisher, Hunter and Macrosson, 1998) and divided the secondary roles in two groups. The first group is made up of relationship roles and the second group task roles. Their findings showed that a member with a primary task role would be less likely to adopt a secondary relationship role and vice versa.

3.3 Team composition/team role combination and team performance.

Belbin defines team roles as:

a pattern of behaviour characteristic of the way in which one team member interacts with another so as to facilitate the progress of the team as a whole ... Each of these team-roles (is) associated with characteristic types of personality as measured by the tests used in the experiments. (Belbin, 1981 pp 169-170).

One of the cornerstones of Belbin team role theory is the notion that a team can only function efficient if the personal characteristics that make up the team are complementing each other. Individuals who are similar tend to compete with each other over whom performs a task best, this often leads to conflict within the team which is obstructive and prevents the team from reaching it's full potential. Belbin finds through his research on teams that each individual in a team assumes a role, and that each role has specific strengths that compensates for the weaknesses that are associated with the other members team roles (Belbin, 1981. Belbin, 1993). The actual impact of team role behavior on the teams performance is difficult to measure since both a team with stable team role behavior and a team with flexible team role behavior can both be successful. This study uses the word "role" to denote team roles that are in line with Belbin's definition.

Role identification can help team members to decide what should be done in order to meet expectations of their team members, and what they in turn can expect from fellow team members. The research of Belbin suggests that for team interaction to be successful, the team members must reach some compliance concerning their relative roles. The composition and balance of team roles within the team will have positive or negative impact on the efficiency and success of the team.

Belbin experimented with many different combinations of team roles to observe the team behavior and performance. One example of a composition of a team is the "Apollo Syndrome" team. Belbins research team found that a team made up of too many Plants was inclined to fail and consequently named teams with such team role combinations "Apollo teams" (Belbin, 1981. Belbin, 1993). Belbin discovered this when experimenting by assembling a team only made up of bright and talented members (Plants). The assumption was that a team with such talented members would outperform the other teams during the experiment, but to their surprise, the

team with many Plants actually performed the worst. The reason behind those results was that a team with too many members with high analytical skills (Plants) will be preoccupied with having their own ideas put into action and they will also be reluctant to opinions from other members. A team composed of Plants will struggle to get anything done since they spend too much time debating the advantages and disadvantages of their suggestions. The composition of a team could be balanced out by bringing in other team roles, for instance by adding a Coordinator who would ease decision making, or a Team worker who would use diplomacy to avert friction, or a Implementer who would put ideas into action, or the Completer Finisher who would perfect the team's work (Belbin, 1981. Belbin, 1993).The following table provides a short overview of the roles team participation and personal style.

Table 1 Team participation and personal style (Belbin, 1981. Belbin, 1993).

Belbin Team Roles	Team Participation	Personal style
Plant	Creating Ideas	Innovator
Resource Investigator	Seeking information and resources	Outgoing explorer
Coordinator	Coordinating effort	Facilitator
Shaper	Directing activity	Agressive achiever
Monitor Evaluator	Critically assessing products and activities	Devils advocate
Team worker	Attending to group processes	Harmonizer
Implementer	Testing and implementing ideas	Practical and efficient
Completer Finisher	Attending to detail and chasing progress	Conscientious

One important thing to point out is that although there are eight team roles, it does not mean that a team must have eight persons in every instance since each member of the team is capable of playing up to two or three of the identified roles.

Belbin observed in his research data the strengths of each team role, but also what he refers to as the allowable weaknesses of each team role. The Allowable weaknesses can be thought of as the flipside of the team roles behavioral characteristics, but the weaknesses are allowable because of the strength that goes with each team role. Belbin writes that *"if the weakness is the price that is liable to be paid for a strength, it does not matter at all, for it is a fair trade-off"*, but he also states that the person with that strength needs to *"develop an appropriate strategy for managing that weakness"* (Belbin, 1993a: 51-52).

Table 2 provides a more detailed description of the team roles as well as the allowable weaknesses that Belbin found for each team role type.

Table 2 Team role contribution and allowable weakness (Belbin, 1981. Belbin, 1993).

Team Role	Team Role Contribution	Allowable Weakness
Plant	Creative, Imaginative, problem solver	Ignores details, Too pre-occupied to communicate effectively
Resource Investigator	Extrovert and enthusiastic, communicative. Explores opportunities, develops contacts	Overoptimistic, Loses interest once initial enthusiasm has passed
Coordinator	Confident, clarifies goals, promotes decision making, delegates well	Can be seen as manipulative. Delegates personal work
Shaper	Challenging, Dynamic, thrives on pressure, Has the drive and courage to overcome obstacles	Can provoke others, hurts peoples feelings
Monitor Evaluator	Sober, strategic and discerning, Sees all options, judges accurately	Lacks drive and ability to inspire other. Overly critical
Team worker	Cooperative, Mild and Diplomatic, Averts friction and calms the waters, Listens and builds	Indecisive in crunch situations, Can easily be influenced
Implementer	Disciplines, reliable and efficient. Turns ideas into action	Somewhat inflexible. Slow to respond to new possibilities
Completer Finisher	Painstaking, Conscientious and anxious, Seeks out errors and omissions, Delivers on time	Worries too much, Reluctant to delegate, Nit-picker.

Belbin argues that the weakness of the team roles are allowable and should not be corrected as that might undermine the strength of that team roles characteristic, but if the allowable weakness detracts the members contribution to the team rather than enhancing it the leader of the team should take action. For example, a Shaper is prone to frustration and irritation. This behavior could normally be useful in a situation where there are difficult obstacles to overcome and the team lacks a bit of drive. But if the Shapers frustration and irritation with the slow progression of events runs over in to hurting others and the Shaper is unable to apologize to team members, then the team members can turn against the Shaper and ignore the Shapers encouragement and this could be detrimental to the future success of the team (Belbin, 1981. Belbin, 1993). Table 3 illustrates the fine line separating the team roles allowable weaknesses from it's unacceptable behavior.

Table 3: Allowable and non-allowable team role weaknesses (Belbin, 1981. Belbin, 1993).

Weaknesses		
Team Role	Allowable	Not Allowable
Plant	Preoccupied with ideas, neglects practical matters	A overly personal attachment and "ownership" of ideas
Resource Investigator	Loses enthusiasm after initial excitement	Can let the team down by neglecting necessary follow up work.
Coordinator	Inclined to laziness if some else on the team can be delegated to do the work	Taking credit for a team effort
Shaper	Frustrated and irritated	Unable to recover a situation with a apology
Monitor Evaluator	Skepticism with logic	Cynicism without logic
Team worker	Indecisive in critical issues	Avoiding situations that cause pressure
Implementer	Following the traditional and proven	Obstructing change
Completer Finisher	Perfectionism	Obsessive behavior

3.4 Functional/Task Roles vs. Team Roles

Belbin makes a distinction between a Functional Role and Team Role and a main theme of Belbin's work is the advocacy of matching functional roles and team roles. In Belbin theory the functional role embodies the literal work, physical actions, intellectual activity, and specific goals related to a person's job. Conversely, the Belbin team role describes the nature of the contributions a person makes to the group effort, which are often unnoticed and generally not directly tied to job requirements (Belbin, 1981. Belbin, 1993). Although Belbin's theory is drawn from the world of management, it could be applied in research on musical groups where the functional (task) role that the musician assumes in a musical group setting is the playing and performing of music. King's research (King, 2006) applies this to a music group context where the functional Role of the musician can exist within and outside rehearsals (e.g. responsibility for learning and being able to perform a certain piece of music, organizing rehearsals) and the team Role is a reflection of the musicians individual and collaborative behavior. e.g. presenting musical ideas and interacting with the other members in order to improve the performance of a concert (King, 2006) Sheinman's research on Belbin team roles in music groups finds that non-leader types in music groups tend to assume a more task oriented role than their team role. In autocratic teams with a clearly defined leader the other members assume a more functional role through the formal position as instrumentalist of the group (Sheinman, 2013).

3.5 Team roles and team performance

The central theme of Belbin's theory is that if a team has a balanced spread of team roles, the higher the inclination will be for a high performance team. Belbin's theory is that there is a cause and effect relationship between team role balance and team performance. Belbin's initial idea was that different types of people interact in different ways and that a set of roles need to present in order for a team to be successful (Belbin, 1981. Belbin, 1993). Henry and Steven conducted controlled experiments to investigate performance effectiveness of teams with positive results that demonstrated that Belbin's roles provide useful information to form teams. One conclusion of specific interest from their study was that having one single leader of a team improves that team's performance over those teams having multiple leaders or no leader (Henry and Steven, 1999). Research have been made which implicates that,

while a team might have a diversity of team roles, it does not automatically lead to better performance. Batenburg, Van Walbeek and Der Maur research recreated Belbin's management games in order to assess the relationship of team role diversity and team performance and found that there was no relationship between the two. Additionally, the Belbin role of the team leader was not related to team performance either (Batenburg, Van Walbeek and Der Maur, 2013). Senior's study from 1997 does give some support to the Belbin's claim that there is a link between team role balance and team performance but the general consensus is that difficulties occur when there is little objective measures to judge team performance (Senior, 1997).

Belbin's team roles offer some prediction regarding the archetypes of behavior associated with each team role. Pairing of certain roles can prove more constructive than others since they are well combined, while other pairings can prove destructive. For example, the pairing of a Shaper and an Implementer combines the Shapers practical task solving with the Implementers drive to finish the work. Pairing a Plant with a Coordinator combines the creativity of the Plant with the effective management of the Coordinator. An example of pairings that can prove destructive: having two Shapers on the same team may be problematic since they are likely to compete for the role of leader, which may have negative consequences for the teams success. Belbin expanded this concept beyond the dyadic team role pairings unto larger groups with several team roles present. For example, a team role combination of one Monitor Evaluator with one Team Worker and two Implementer but no Plant in the team: The Implementer moves the team along while the Team Worker provides a good team dynamic and prevents conflict between the two Implementers. This team runs a smooth operation but has limited creativity and would benefit from a Plant or Resource Investigator. The Monitor Evaluator makes little contribution to the team since there is no ideas to criticize and few problems to solve (Belbin, 1981. Belbin, 1993).

3.6 Criticism of Belbin's Team Theory

The most common critique to Belbin's work is over the validity of Belbin's research since it was carried out in a simulated work setting and not in a actual work environment (Dawson, Lord and Pheiffer, 1996). Belbin's main research findings are based on his use of Management Games instead of actual empirical data. Several researchers (Furnham, Steele and Pendleton, 1993) claim that in order to get a proper

overview of the Belbin Team Roles one must use the Belbin Interplace Software system which includes the Observers' Assessment. The critics point out that the BTRSPI test on it's own is not a reliable measurement tool to assess possible team roles. The validity of the BTRSPI test have been criticized due to the extensive use of it by management in many industries, and the possibility of it being a invalid model have been raised by researchers (Furnham, Steele and Pendleton, 1993). The research of Furnham et al (Furnham et al 1993) raised concerns over the ipsative nature of the BTRSPI test. Ipsative indicates the quality of the test in which changes in one measured dimension affects another dimension. (Johnson et al, 1988) Furnham et al (Furnham, Steele and Pendleton, 1993) concludes that both the internal reliability of the instrument and the inventory's factor structure are lacking predictive validity. Belbin refuted Furnham et als critique in 1993 and argued that the BTRSPI test cannot be judged against other personality trait questionnaires since the BTRSPI test is based around behavior evaluation (Belbin, 1993).

3.7 Research applying Belbin's team role theory in music.

There is a very limited amount of research on Belbin's team roles in a music group setting and the time of writing there are two known published works that focus on Belbin team roles applied to music groups and ensembles. Tim Sheinman's (Sheinman 2013) study examined British rock bands through multiple case studies and interviews and applied the Belbin team roles to those bands in order to provide a framework of the group interaction. Sheinman's research results indicate that rock bands are generally lead by the songwriting members whom also take on a number of related activities. The participation of the bands members are shaped by factors related to their creative control, encouragement and commitment which create configurations of roles within the group. Sheinman found three distinct types of leadership: Autocratic, Laissez Faire and Shared leadership. Autocratic leadership often existed in groups with a clearly defined bandleader and the bands songwriter's exercise a great deal of authority and were involved in all processes of the band. The paradox of leadership vs democracy from Murnigham and Conlon 1991 study was also found in the results. Sheinman found that the Belbin team roles were spread in several ways, in autocratic groups the role of Teamworker was frequent, Lassiez Faire groups seemed to have many Plants and that Lassiez Faire bands had a hard

time implementing their ideas. One interesting find was that all females but one in the study had the primary team role of Team worker (Sheinman, 2013).

Elaine C King (2006) research on music groups applied Belbin's role theory to quartets of student musicians and the results indicate that the musicians in the quartets assume the common roles (King, 2006). King uses Belbin's team roles, but modifies the names to fit the musicians in the research, King's modified team roles are named Leader, Deputy-Leader, Contributor, Inquirer, Fidget, Joker, Distractor and Quiet One. It was found that the musicians represented one or several of the roles during rehearsals and sometimes the members changed roles during the rehearsals by compensating for mood changes occurring among the groups members. The Quartets with a regular Leader had a more stable team role behavior than those without such a leader and they also exhibited a consistently more focused group dynamic and better progress, highlighting the impact of Leaders or Non Leadership roles on the groups success. These team roles are similar to the Belbin roles and share similar qualities. King describes the team roles identified as: the Leader, directs most of the activities of the rehearsal, the Fidget, appears rather uninvolved in the activities at rehearsal, but has a audible or physically presence by constantly doing something like tuning the instrument, playing random notes or stroking hair. The Deputy Leader is a strong contributor to rehearsal activities and appears to want to lead, and in some cases does lead. The Quiet One, hardly says anything during rehearsal. The Inquirer, seeks individual sought reassurance or guidance from the group (King, 2006). Evidently, these team roles shifted from one member to another during rehearsals thereby changing the group dynamic, for instance, several members acted as Leader. Similarly, individual members did display several team roles during the same rehearsal, one member was the Deputy-Leader but also acted as the Fidget. Also, some quartets have several members could assume the same team roles during the same rehearsal, for instance two Deputy-Leaders or two Quiet Ones (King, 2006).

Sheinman points out that Rock bands primarily differ from their classical counterparts in the important aspect of music composition, rock musicians mainly engage in original compositions and Sheinman found that the composer of the music usually is the bandleader, whereas Orchestras primarily perform music written for the ensemble by an external composer and employs the traditional role of the conductor as the leader of the orchestra (Sheinman, 2013). Neither Sheinman nor King used the BTRSPI test when assessing the Belbin team roles, instead they used

qualitative interview methods and observation as a base for determining the members roles.

4 Research design and methodology

This research is an explorative investigation with the aim to assess and examine the Belbin team roles functioning within music ensembles, specifically within music groups of professional Icelandic musicians, and additionally to assess Belbin team roles in relation to the music groups performance and productivity.

4.1 Aims and objectives

This study will focus on participant perception only through the BTRSPI test. This study uses the Belbin Team Role Self Perception Inventory and unstructured interviews to map the Belbin team roles that might be present within the musical groups in the study and how team roles might affect the music groups efficiency and success. At the time of this writing there are only two known study's that apply Belbin Team Role theory to a music group setting, Elaine C King's study from 2006 and Tim Steinman's study from 2013. Belbin's notion of connecting the team's role composition and it's effect on the team's effectiveness or success proves to be a complex task when studying music groups since it's hard to determine exactly what to measure as a effective or successful music group. This study will not measure any function related tasks such as instrumental ability, instead this study focuses on the individual members team role and their perception of that role and how team role composition affects group dynamic and team performance. Any conclusions made by this research will hopefully make a contribution in terms of usage of Belbin team role theory applied to music groups.

4.2 Research problem formulation

The problem statement is as follows:

- Can the Belbin team role theory be meaningfully applied to a music group?

With the following sub-problem statements:

- Does Team role behavior have an impact on the team work within the music groups?
- Does Team role behavior have an impact on the success and productivity of the music groups?

4.3 Case study

This research makes use of Case studies which is a research methodology which combines individual interviews and record analyses with the objective to obtain multiple perspectives of, in this case a music group at a point in time (Cooper and Schindler, 2011). The three professional music groups each represents a case study, the decision was made to include a extra case study as a informative and casual way of explaining the form of the case study by using one of the best known music groups in popular music history as a descriptive example: The Beatles.

4.4 Research population

In order to get valid insight into how working music groups function the decision was made to focus on active music groups consisting of professional musicians, and the next decision was made to use members of the Icelandic Musicians Union as the population. The population is quite dense and many of those musicians within the population can work together in a variety of free-lance musical settings, so precautions had to be made to ensure that members of one group did not participate as members of another. (I.e., the bass player of group X and group Y could only participate in the study as member of one of the two ensembles). The target population is the members of the Icelandic Musicians Union which are all professional musicians. The Icelandic musicians union has approximately 300 members. A number of known music groups within the population of union members were approached and invited to participate, three groups accepted the invitation to be studied but demanded to remain anonymous. Those three groups represent the opportunity sample from the target population. Some music groups were reluctant to participate in this kind of study, perhaps due to a uncertainty regarding the outcome of the teamwork research and the groups anonymity. Also, a large number of music groups had recently ceased to perform on a regular basis, or had disbanded which greatly diminished the number of music group within the population.

4.5 Participants

The opportunity sample of interest to this study were three music groups consisting of team sizes between three to four members. These three ensembles are groups of musicians who meet and work together as teams, which involve decision making related to their performances and work as a music group. The music groups were

picked out from a known number of regularly working music groups consisting of members from the Icelandic Musicians Union. The three ensembles work in a variety of situations and perform musical styles ranging from performing original compositions, to functioning as ensembles required to accompany singers and soloists.

A total of 10 musicians took part in the research. The three music groups consisted of one Quartet (Quartet), consisting of the instruments Woodwind, Guitar, Double Bass and Drums. One Trio (Trio A), consisting of the instruments Piano, Guitar and Drums, and another Trio (Trio B), consisting of the instruments Piano, Double-bass and Drums. All participants of the music groups are professional musicians, they have a higher education in their professional field (BA, MA or similar) and perform a variety of music, but do mostly perform music with an emphasis on the African-American tradition i.e Jazz, Blues, Pop Rock. At the time of the questionnaire, all three music groups were active and performing in the capitol area of Reykjavik, Iceland with occasional international performances.

Table 4 provides an overview of the three music groups and participants, as well as composition and time together as a working group.

Table 4 Participants overview:

Group	Mean Age	Time together as working music group	Gender Composition	Instrument composition
Quartet	39,5	4 years	4 Males	Woodwind, Guitar, Bass, Drums
Trio A	40	8 years	3 Males	Piano, Guitar, Drums
Trio B	46	1 year	3 Males	Piano, Doublebass, Drums

4.6 Research design

This study used mixed research methods, which involved both Quantitative and Qualitative research methods in the forms of the Belbin team role self perception inventory test and unstructured interviews. The combined data from the quantitative research method (BTRSPI) and qualitative research method (Interviews) formed the basis for the case study's of the music groups.

The obvious choice for this study was to use the Belbin Team Role Self Perception Inventory as it's quantitative research method. Belbin Team Role Theory was devised as a result of the studies conducted by R. Meredith Belbin during the 1970s at the Administrative Staff College Henley UK. The Belbin team role self perception inventory (BTRSPI) is a quantitative research method that was designed to measure behavioral characteristics which individuals display when working in teams (Belbin, 1981. Belbin, 1993). Since the BTRSPI measures behavior rather than personality, it is not considered to be a psychometric test (psychometric tests measure attributes of personality). The members (10 individuals) of the three music groups completed the Belbin eight-role version of the Self Perception Inventory (BTRSPI) in order to collect data on the Belbin team role characteristics of their respective music group. In Belbin's original 1981 book on his research, the BTRSPI inventory was supplied which could be used as a guidance for finding these team roles described in Belbin's research. The BTRSPI inventory was not meant to be a stand alone psychometric test, and Belbin did address that subject in the debate over the validity of the BTRSPI test (Belbin, 1993). But due to it's simplicity of use, the BTRSPI test is now one the most widely used tools for team role preferences (Balderson and Broderick, 1996).

The Belbin Team Role Self Perception Inventory evaluates participants team roles in order of behavioral preference. The BTRSPI gives insight into how effectively a team is likely to work together and can help identifying matches and mismatches in Team Role distribution which might have an impact on a groups success. The BTRSPI version used for this study is a 70 item inventory divided into 7 sets of statements, each set consisting of 10 statements. The participant has to choose statements that best represent his/her behavior and for each set of 10 statements the participant needs to assign a total of 10 points and distribute them in order of preference between the individual statements. The data from the Belbin Team Inventory was interpreted to assess the team roles of each individual member of the groups.

Interviews is a form of Qualitative research method and this study used unstructured interviews with a set of thematic predetermined topics that can be brought up during the interviews (Cooper and Schindler, 2011). This study uses a predetermined topic theme for the interviews identical to the ones used by Tim Sheinman in his study on Belbin roles within rock bands (Sheinman, 2013).

The themes that Sheinman used were: Songwriting, Arrangement and Performance, Coordination, Communication and Social Dynamics. This study used the same themes to assess and evaluate the interview results. One member of each group were interviewed, the conversation were taped with a voice recorder and transcripts of these interviews were made, these transcripts were then coded, manually looking for similarities and differences. Questions regarding media exposure, frequency of performing and music output were also asked during the interviews to assess team role influence on performance and group success. Additional information on the three subjects media exposure, frequency of performing and music output was obtained through a extensive Internet research on each individual music group.

This table gives a overview of the four interview themes and possible interview questions

Table 5 Overview of the thematically based themes for unstructured interviews.
Adapted from Tim Sheinman's 2013 study (Sheinman, 2013 p 19).

Themes	Questions	
Songwriting	How do you contribute to the composition of music within the group?	How do you interact with the other members in the process of composition of music?
Arrangement and performance	How do you contribute to the arranging and rehearsing in the group?	How do you interact with the other members in the process of arranging? Are there differences in roles between rehearsal and performance?
Coordination	How are rehearsals conducted?	Do you particularly take a leadership role in one aspect of rehearsal? How about the other members?
Communication	How would you describe some communication processes in the group?	
Social Dynamics	Can you talk about the social relationships in your music group?	

4.7 Measuring performance and success related to team roles.

This study will attempt to measure performance and success of the three music groups in order to assess whether the composition of Belbin Team Roles affect the performance of the music groups. Hence, in this study we will use measures of media exposure, frequency of performing and music output as indicators of objective success. This study does not attempt to measure artistic success.

R Meredith Belbin states that the team role composition affects the performance of teams, a team with a well balanced composition of team roles should be more successful and have a better team performance than those teams who have a unbalance in their team role composition. Belbin measured team performance in terms of winning and losing the Management games in his research studies (Belbin, 1981. Belbin, 1993).

The complicated question that appears for the author of this study is how to actually measure the performance and success of a music group? What does it mean to be successful as a music group?

What is a efficient performance of a music group and how can we measure it?

Success is clearly related to the achievements of a goal or goals, whether it might be at an organizational or individual level. However, the meaning of success to one specific music group may differ from that meaning to another music group. Music has many features that needs to be taken into account when measuring, but how can one measure the actual value of a performance? Is it even possible to devise metrics regarding music and the musical experience? Success as a musician is a multi-dimensional concept that can been defined rather different ways.

Some scholars have focused on artistic success while others focus on monetary success. The measuring of success seen in traditional business literature usually fall into three categories: financial, productivity, and efficiency (Mankiw and Taylor, 2011) Financial success can be measured as revenues, profits, or dividends. but it's overall quite complex to apply business concepts to music and the literature is lacking research in that specific area. Fisher et al's 2009 study offer a very interesting formula for calculating success of music group. For a musical group, the main streams of revenues can be measured from performance fees and sales of recorded music. Productivity can be measured by the frequency and type of revenue earnings, which for a musical group can translate to number of performances,

performance attendance and number of units (Cd's, Merchandise etc) sale. Measures of efficiency combines productivity with financial results, which for a musical group could translate to revenues per member from performances and recordings (Fisher, Pearson, Goolsby and Onken, 2009).

What is quite interesting is that Fisher et al suggests that the groups improved performing and the length of time the band has been performing together might be considered measures of efficiency. So, general indicators surrounding efficiency should also relate to financial performance, and the longevity of the music group should relate to increased revenue opportunities.

Clearly the economic aspects are related to commercial success, but artistic success can also be an incentive for a music group. Fisher et al suggests the artistic success relates to the creative aspect such as writing original compositions, recording and performing music, and could additionally concern the quality of the music. Also, other factors can include the musicians desire to succeed, publicity and fame (Fisher, Pearson, Goolsby and Onken, 2009). Pinheiro and Dowd research from 2009 found that relatively few musicians enjoy success, interestingly however is that their findings show that musicians with the combination of much social capital (number of local musicians known) and human capital (years of musical experience) had a higher monetary success, but little artistic success, than those musicians with little social and human capital (Pinheiro and Dowd, 2009). Zwaan, Bogt and Raaijmaker research on Musicians in the Netherlands showed that musicians often have to play in more than one music group to sustain themselves economically, in addition they have to rely on other jobs, either music related work such as instrumental teaching or working short periods as freelance musicians (Zwaan, Bogt and Raaijmaker 2009).

King's 2006 research on team roles in quartets found data that supported their hypothesis that music groups with balanced and stable team roles would be more successful than those with varying team roles since they would have better progress in rehearsals, consistently focused group dynamics and better performance (King, 2006). Sheinman 2013 research does not measure any factors of music group success but suggests that team role composition does influence group dynamic and the social and working processes of the music group, which in its turn affect the performance of the group (Sheinman, 2013). Most authors in the field music studies have pointed out that musicians, and their musical outputs in the form of products are in contact with their market and audience through media exposure, sales of music products and

concerts performances. Those three basic means of income for a musician can also serve as indicators of objective success. These basic means also represent the three most important ways for musicians to gain an income with their musical activities (Luck, 2012. Fisher, Pearson, Goolsby and Onken, 2009. Pinheiro and Dowd. 2009).

4.8 Limitations to study.

There are several implementation problems and difficulties for this study. This study only used the Belbin Self Perception test and did not include the more recent Belbin Observer Assessment test. The members of the music groups were reluctant to assess each others involvement in the groups effort during the interviews. The Belbin Interplace Software might have helped with a clearer overview but then both Belbin tests (BTRSPI and Belbin observer assessments test) would have to be taken by all musicians in the study in order to function fully. None of the music groups were assembled using the Belbin BTRSPI test and were likely formed on functional role requirements and instrumental ability, adding also in that the differing goals and levels of commitment of the music groups would probably play into the outcome of the research. Under other circumstances, it would have been desirable to have more than three music groups to study. Ideally, the groups should have taken the BTRSPI test and the researcher would also observe and interview the members during rehearsals and performances in order to get a broader foundation to draw conclusions from. However, due to the irregular working periods and working hours of musicians in the study, the complexity of such a task turned out to be far too time consuming, the research would then have to span over a long term period of time due to the nature of such a study.

In management theory and research the focus has traditionally been on measurement of effectiveness or performance of a team, but this raises a difficult question, how do we measure effectiveness and performance of the music groups that participate in this research? Belbin theory also measure team role impact on teams in terms of actual team success and performance, but can the same measurements be applied to a music groups work? Success in the field of arts/music does not only involve monetary success, there might be other factors of success and incentives at play for the business of music such as media coverage, peer admiration, artistic growth and integrity

4.9 Data analyses

Upon completion of the BTRSPI tests and interviews, the individual BTRSPI tests were individually analyzed and interviews were transcribed.

Analysis was conducted in the following manner;

1. Each case study of the music groups was individually analyzed, through examination of the BTRSPI tests and the interviews focusing on data driven findings.

The data was interpreted in the following ways;

- a. Assigning of Belbin Roles to the individual members of the music groups
- b. Assessing teamwork and interpersonal dynamics based on the four themes of the interview questions.
- c. Determining the possible connection between the music groups team role composition and the groups performance and success based on the BTRSPI and interviews.

5 Example Case study: The example of Belbin role theory applied to the music group the Beatles.

The music group The Beatles are widely regarded as the greatest and most influential group of the rock music era. The Beatles are the epitome of a modern music group, and their catalogue of music is one of the most sold in the history of music with over 600 millions records sold (Cnbc 2014). The following short case study will use the Beatles as a example to show and explain some of the main themes of Belbins team role theory. After reading and becoming inspired by Tim Sheinmans blog essay on Tim Finks webblog on The Beatles team roles and songwriting process (Sheinman, 2013), I decided to take Sheinman's idea on the Beatles and Belbin Team roles further. It should be interesting to apply Belbin Role Theory to the example of the Beatles since they are the one music group that most persons are likely to know of and also to have heard their music, thereby serving as a interesting and small case study for Belbin's team roles.

Then I saw that one show that everybody saw that changed all of our lives, The Beatles on the Ed Sullivan Show in february of '64. The thing that struck me...four guys who were being front men and each important to the band. Also, the four of them looked as if they belonged to the same band. (Gene Simmons. Leaf and Sharp, 2003. pp8).

The Beatles was a great team, but their greatness did not only lay in the team composition. The Beatles were not made up of the best qualified instrumentalists but they took the previously separate traditional skills of songwriting, arrangement, backing instrument and production and fused them together into one skillful team unit. The Beatles decided to share the vocal duties and the four members all contributed to the groups musical output by composing original music for the group. By contrast, a Jazz Band is usually made up of a rhythm section (Drums, Bass, Piano/Guitar) that provides the accompaniment for the bands Soloist or Singer. Traditionally, Jazz Bands have had a distinctive Leader, be it the main soloist/composer or singer. The Beatles consisted of Paul McCartney, John Lennon, George Harrison and Ringo Starr. The recording engineer and producer George

Martin, sometimes called the fifth member of the group, played a great role in the teamwork and consequently the success of the Beatles and Martin should be taken into account in the group dynamic and interplay within the Beatles.

Based on the Tim Sheinmans essay (Sheinman, 2013) and the vast written material on the Beatles it is possible to trace the characteristics of the Belbin Roles and to see how the Beatles in fact effectively covered many of Belbin's eight team roles as a music group. One can see that the Beatles had a well balanced team composition that covered a wide range of team roles, resulting in a balanced, consistent and high-quality product sustained over many years, namely their recorded musical legacy (Lewisohn, 2006. Goodman, 2001. Miles, 1998. Tillery, 2011. Neill, 2011. Martin, 1995).

The Beatles team role overview:

John Lennon - Plant and Shaper. Creative and imaginative, willful, pre-occupied

Paul McCartney - Coordinator and Implementer. Versatile, technical musician who could refine ideas, present his own and finesse things in the studio.

George Harrison – Team worker. Sober, mild and skilled at his instrument. Highly imaginative, but often sidelined by the personalities of Lennon and McCartney.

Ringo Starr - Resource Investigator, Teamworker. Extrovert, witty and social. Good at diffusing tension in the group.

George Martin - Coordinator, Monitor Evaluator, Completer Finisher. Though not an official member of the group, Martin proved crucial to the Beatles. Strong people manager and fine strategist who often sorted out problems left by the band in the studio when recording music.

Interesting to point out is that before the Beatles became the stable team which we know, there were interpersonal issues within the group that led to the firing of the group's drummer and original member Pete Best. The three original members of the Beatles, Paul McCartney, George Harrison and John Lennon had interpersonal issues with Pete Best that led to them firing him from the band. The official statement and comments from the three remaining members were that his firing from the band was linked to musical inability and lack of interest on Best's behalf. Research has however indicated that the group dynamic was in unbalance due to other reasons, Paul, George and John were jealous and envious of the handsome Pete Best and did not approve him taking the attention from audience and fans of the band. Additionally, Pete Best was looked upon by the other members as the odd person out, not fitting in the band and not as an outgoing personality as the others.

(Inglis,1999). There is not as much written material to draw conclusions over Best's team role but based on the interviews with his former members one can assume that Pete Best's team role could have been Resource Investigator/Implementer (Inglis, 1999; Lewisohn, 2006; Goodman, 2001).

6 Results

The following data was compiled from the interviews and the table below gives an overview over the respective music groups measured objective performance and success as a team based on the four interview themes.

Table 6 Overview of the measured success of the music groups.

Music Group	Media Exposure (Low-Medium-High)	Frequency of Performing (Low-Medium-High)	Original Compositions/ Arrangements	Output of recorded music.
Quartet	High level of Media exposure, Coverage in Icelandic press, Performances on national Tv and Radio.	High level of performance, with concerts on a regular basis around Iceland.	Yes/Yes	2 cd's. Moderate sales of recorded music.
Trio A	Medium level of media exposure. Coverage in Icelandic and International press. Performances on national Tv and Radio.	Medium level of performance, with concerts on a semi regular basis both nationally and internationally.	Yes/Yes.	2 cd's. Moderate sales of recorded music.
Trio B	Low level of media exposure.	Low level of performance.	No/Yes.	1 cd. Sales not known.

All three music groups have outputs for sale in the form of recorded music. Two of three music groups compose original music but all music groups perform their own original arrangements of music. Both Quartet and Trio A have released two compact discs that have reached moderate sales. The Quartet has the highest level of media exposure and performance rate, Trio A has a lower level of both media exposure and performance but are performing Internationally on a semi regular basis. Trio B have one released output through a compact disc and have had little media exposure and low performance rate.

The following table shows the results of the Quartet that undertook the Belbin Self Perception Inventory test.

Table 7 BTRSPI test results of Quartet.

	Primary Roles		Secondary Roles					Avoidable Roles	
	1st role	Total Primary Roles	2nd role	3rd role	4th role	5th role	6th role	7th role	8th role
Plant	-	-	-	1	2	5	-	-	-
Team Worker	1	1	1	1	1	-	-	-	-
Shaper	1	1	1	1	-	-	-	-	-
Completer Finisher	-	-	-	1	-	1	1	-	-
Implementer	-	-	-	1	1	2	-	-	-
Coordinator	-	-	-	-	1	3	-	-	-
Monitor Evaluator	1	1	1	-	-	1	-	1	-
Resource Investigator	1	1	1	2	-	-	-	-	-

The results show that the Quartet is made up of the primary team roles and instruments: Teamworker/Bassplayer, Shaper/Woodwind player, Monitor-Evaluator/Drummer and Resource-Investigator/Guitarist. The secondary team roles within the Quartet are Teamworker, Shaper, Monitor Evaluator and Resource Investigator. Worth noting is that there is also one avoidable role within the team, which is the team role Monitor Evaluator. Tables for each individual member's team roles can be found in the appendix section.

The following table shows the Quartet case study summary.

Table 8 Quartet case study summary.

Instrument (Functional Role).	Belbin Team (Primary Secondary/Third)	Role. and	Writes or arrange music	Group work	related	Group Role
Drums	Monitor Evaluator and Team Worker/Resource Investigator		No	No		-
Bassist	Team Worker and Monitor Evaluator/Shaper		No	No		-
Guitarist	Resource Investigator and Shaper/Team Worker		Yes	Managerial activities,books concerts and tours		Leader
Woodwind	Shaper and Resource Investigator/Plant		Yes	Managerial activities,books concerts and tours		Leader

6.1 Quartet case study

The Quartet have been active for 4 years and is well established in the Icelandic music scene in their particular music genre and have been very active with many concert performances. The Quartet has an overrepresentation of the team role Resource/Investigator with one member with Resource Investigator as primary role and two members with Resource as secondary roles. The Resource/Investigator is outward-looking team member focused on opportunities and see possibilities in many places, but can lose focus or wander off, especially towards the end of project when pressure is easing. Also adding in that the team role Completer Finisher scores low in the groups BTRSPI test which indicates that this team both have problems keeping focus on their work and also lacks the drive to finish the work. The two leaders of the Quartet, one primary Shaper and one secondary Shaper might be the driving force that pushes the teamwork forward, albeit in a hard and insensitive way. The Shapers are also likely to compete for the role of the team leader and having two

Shapers in the same team can also prove difficult if the two shapers pull in different directions when it comes to decision making.

Interestingly enough, the other two members have mirroring team roles with primary Monitor Evaluator/secondary Team Worker and Primary Team Worker/secondary Monitor Evaluator. The primary and secondary Team Worker are holding the team together with their willingness to work well (there is also a third role Team Worker) and cohesive team spirit. On the other hand, the primary and secondary Monitor Evaluator can be among the more negative team members being overly critical and damaging to team spirit. Monitor Evaluators lack enthusiasm and charisma, but they fit very well into a team if their role is clear to both themselves and the others in the team. This combination suggests that the two Shapers have to run a tight schedule to keep the teamwork running. The Quartet has only one member with the team role Plant (third role) but three Resource Investigators, this indicates that there might be a limited amount of original internal ideas within the team and that the group could have to look to external resources for creative input. The team is missing some important team roles such as a strong Implementer and Coordinator for efficient working procedures and routines.

There have been several instances of clashes between the two Shapers where the two leaders did not agree on necessary decision making. The drummer and bass player both assume roles that are quite passive and there seems to be an acceptance of the hierarchy of the Quartet from their part. However, they are both Team Workers so it might be their actual presence that keeps the team functioning so well. The two Shaper/Resource Investigator leaders are both individuals with a strong goal awareness and can persuade the team to buy into their plans for the music group.

This table shows the results of the Trio A that undertook the Belbin Self Perception Inventory Test.

Table 9 BTRSPI test results of Trio A.

	Primary Roles		Secondary Roles				Avoidable Roles		
	1st role	Total Primary roles	2nd Role	3rd role	4th role	5th role	6th role	7th role	8th role
Plant	-	-	1	1	1		-	-	-
TeamWorker	-	-	-	1	-	1	1	-	-
Shaper	1	1	1	-	-	-	-	1	-
Completer Finisher	-	-	-	-	-	1	1	1	-
Implementer	2	2	-	-	-	1	-	-	-
Coordinator	-	-	1	1	-	-	-	1	-
Monitor Evaluator	-	-	-	-	1	-	2	-	-
Resource Investigator	-	-	-	-	1	-	-	-	2

Trio A is made up of the primary team roles and instruments: Shaper/Guitar player, Implementer/Drums and Implementer/ Piano player. The secondary team roles within the Trio are Plant, Shaper and Coordinator. Worth noting is that the Trio has two members with the avoidable team role Resource Investigator. Tables for each individual member's team roles can be found in the appendix section.

The following table shows the Trio A case study summary.

Table 10 Trio A case study summary.

Instrument (Functional Role).	Belbin Team Role. (Primary and Secondary/Third)	Writes or arrange music	Group related work	Group Role
Drums	Implementer and Shaper/Plant	Yes	Promotes the groups activities,books tours and concerts	Leader
Pianist	Implementer and Plant/Co Ordinator	Yes	-	Leader
Guitarist	Shaper and Co Ordinator/Team worker	Yes	Promotes the groups activities,books tours and concerts	Leader

6.2 Trio A case study.

The trio have been working together 7 years and are becoming quite established in the Icelandic music scene. This group has good interpersonal chemistry between the members and during the interviews the members mention a sense of friendship within the group. The work process is medium paced in the group since the members are also active as free lance musicians in other projects which takes up some of the designated time that the group should use for its own purposes. The members of the trio all contribute by writing music for the group, but with two members being the main composers of original music for the group. This team has a team role composition that bears resemblance of what Belbin refers to as a Pure Team.

Pure Teams are teams made up of only one team role, this is not a Pure Team but there are two out of three members in the group who have Implementer as their primary team roles. Pure Implementer teams are quite inflexible and have trouble changing established plans due to over-commitment to their work. Put plainly, Implementer teams work very hard but fail to get results. On the other hand, Belbin's management games showed that successful teams need Implementers on board to be efficient. There is also two Shapers in this group, one as primary role and one as

secondary role. According to Belbin theory, the two Shapers are likely to compete over the leader position of the team which can cause problems for the team work. Worth noting is that both Shapers are the active promoters of the Trio's activities and books concerts and tours. While being a small sized group, the Trio A cover the team leader types with a primary Shaper and secondary Coordinator, the essential creativity with a secondary Plant, effective organization and management with two primary Implementers and internal facilitation with a slightly lower scoring secondary Team worker role. Missing roles are the creative negotiator of Resource Investigator, problem analyzer Monitor Evaluator and the guaranteed work delivery of Completer Finisher.

The results of Trio B Belbin Self Perception Test are shown here in table 11.

Table 11 BTRSPI test results for Trio B

	Primary Roles		Secondary Roles					Avoidable Roles	
	1st role	Total Primary Roles	2nd role	3rd role	4th role	5th role	6th role	7th role	8th role
Plant	-	-	-	1	-	-	1	1	-
Team Worker	1	1	-	-	-	1	-	1	-
Shaper	2	2	-	-	-	1	-	-	-
Completer Finisher	-	-	-	-	1	-	-	-	2
Implementer	-	-	1	1	-	1	-	-	-
Coordinator	-	-	1	-	-	-	1	1	-
Monitor Evaluator	-	-	1	-	1	-	1	-	-
Resource Investigator	-	-	-	1	1	-	-	-	1

Trio B consists of the primary team roles and instruments: Team Worker/Piano player, Shaper/Double bass player and Shaper/Drummer. The secondary team roles within the Trio are Implementer ,Coordinator and Monitor Evaluator. Worth noting is that the trio has several avoidable roles within it's team. The avoidable roles are Completer Finisher and Resource Investigator. Tables for each individual member's team roles can be found in the appendix section.

The following table shows the case study summary for Trio B.

Table 12 Trio B case study summary.

Instrument (Functional Role).	BelbinTeamRole. (Primary and Secondary/Third)	Writes or arrange music	Group related work	Group Role
Drums	Shaper and Ordinator/Plant	No	-	-
Pianist	Team Worker and Monitor Evaluator/Implementer	Yes	Managerial and promotional work	Leader
Double Bass	Shaper and Implementer/Resource Investigator	Yes	-	-

6.3 Trio B case study

This group has been working together for a shorter period of time than the other groups in the research. The Trio started as a accompanying band for a singer in conjunction with a musical theater performance but has since then branched out on it's own. This Trio has two members with Shaper as their primary team role. A team with more than one Shaper runs a high risk of provocation and aggravation between the members with Shaper team roles. Interesting to note that the leader of the Trio, who also acted as musical director during the co-work with the musical theater, does not have any of the two characteristic leader team roles (Shaper, Coordinator) as primary or secondary team roles. Team worker leaders are of great benefit for the group interest since they bring about a team spirit of cooperation and are favored by the other members of the team for providing a high morale within the team. This particular member scored very high for the team role as Team worker on the BTRSPI test and is perhaps not by coincidence very much liked by the other two members of the group. Interesting to note is the distribution of Plants in this group. There is only one member with the team role Plant as a lower scoring third role, but two members have the team role Plant as their avoidable role. This suggests that this trio could run into creative problems having limited creative ideas. A similar pattern is found for the team role Resource Investigator with two members having that role as their avoidable role which indicates that this trio are missing members who can

achieve the objectives that the trio sets out. The Trio has a overrepresentation of leadership type roles with two primary Shapers and a secondary Coordinator but a Team Worker who is the actual leader of the trio. This team has an advantage of having a Team Worker as leader, the Team Worker acts as an musical director of the Trio and arranges the music that the trio performs. The Team Worker leader can have the ability too smoothen out potential disagreements between the two Shapers and provide a good atmosphere that propels the team spirit. The primary Team worker is also secondary Monitor Evaluator and third Implementer which suggests that he can weigh the groups different options and turn the teams ideas into plans and working procedures. This team is missing the crucial team role of Completer Finisher which indicates that the trio might have problems finishing plans and work that they set out. The group have good interpersonal interaction between the group members. The primary Team worker is taking on the leader role by doing the bulk of work connected to the groups music performances by arranging the music required for the groups concerts and recordings.

7 Summary of findings.

In this chapter, some general results are explored by examining both the quantitative and the qualitative data with regards to the problem formulation statement and sub-problem statements.

- Can the Belbin team role theory be meaningfully applied to a Music Group?
- Does Team role behavior have an impact on the team work and group dynamic within the music groups?
- Does Team role behavior have an impact on the success and productivity of the music groups? This chapter also tries to determine the possible connection between the music groups team role composition and the groups performance and success based on the BTRSPI, interviews and the case study of the music groups.

7.1 Teamrole theory

Belbin's team role theory can be applied to a music group with good results through the usage of the BTRSPI test. The common Belbin team roles were found in all music groups along with a specific team role composition for each music group consisting of primary and secondary team roles. Data from the interviews supports the findings from the individual BTRSPI test and shows that the members self-perceived team roles are apparent and valid, and data from both research methods indicates that there is a relationship between the team roles found in the respective music groups through the BTRSPI test and unstructured interviews, and the music groups teamwork and group-dynamic. This indicates that the music group members can contribute to the team both through their functional (task) role as instrumentalists and their individual team roles. Most likely there are other factors involved other than the members team roles that influence and shape the group dynamic and teamwork, by applying Belbin's team role theory some general suggestions and themes appear within the music groups but other factors are likely at play.

For example, The guitarist and woodwind of the Quartet brings in the bulk of compositions and arrangements for the Quartet to perform, they also state during interviews that they have a leading instrumental voice within the combination of functional/task-role/instruments they play, in other words, the music performed by

the Quartet dictates their instrumental leader positions. Both guitarist and woodwind player are primary Shapers and have leading roles in the group. The guitarist states in the interview *"...me and (Woodwind player) bring in new music to play with the band, we have asked the other members to contribute music but they have yet to do so...the instruments that me and (woodwind player) play are traditionally the lead melodic and soloist instruments in the type of music that we play...during concerts me and (Woodwind player) do all the talking in between the tunes, presenting the band members, communicating with the crowd and so forth..."* The combined results for the Quartet indicates that these findings are similar to the ones of Young and Colham 1979 and Murnighan and Colham 1991 whose studies found relationship between the leading melodic voice/instrument of the ensemble and leadership. On the other hand, combined results of Trio A are similar to Tim Sheinman's findings that indicate that the composition of music is related to leadership where the main songwriters of the Trio each take on more of a leading role.

This research does not find any correlations that indicate that certain team role compositions perform better than others due to the small size of the population sample, and in order to draw such conclusions a larger sample would be needed. It must also be taken into account that Belbin's Team Roles and team role theory were intended for the creation of a team where a selection can be made in order to assemble a team of well balanced roles. Since the teams of music groups in this research already were assembled with a primary task-related function as common nominator, the validity of Belbin team roles and its relationship to the music groups team work efficiency is not strong. According to Belbin, the team members have a functional role and a team role. For a particular individual, the first type of role indicates the functional role, i.e the task of drumming, whereas the second type indicate that the individual is a Company Worker or a Team Worker. The team role describes how the individual fits into the team, not what particular function the individual performs. But the music groups in this research have been formed with the functional role as the primary reason for having a particular individual in the group, in other words, members bring in the most skilled musician for the specific function and task that their music requires to their group. On the other hand, much of the previous studies on Belbin team role theory has been experimental and with little research made on real teams.

7.2 Teamwork and groupdynamic

The combined findings of the BTRSPI and interviews suggest that certain team role behavior have impact on the teamwork and group dynamic, specifically the leader-type team roles of Shaper and Coordinator. The spread of team roles are slightly unbalanced in the music groups, often with an over-representation of leadership roles (Shaper, Coordinator). Interesting to note though is the leader of the Trio B which is the exception having a very high scoring primary Team Worker role and who is acting as musical-director for the two other members who both have primary Shaper team roles. Despite the apparent unbalance of team roles, most of the music groups in the study have good interpersonal relations and teamwork. A apparent example of that would again be Trio B who have a team role composition of two primary Shapers and one primary Team worker. One would assume that in such a small group that the two Shapers each would try to dominate the team and that the Team worker would have a busy work schedule and hard time trying to please the two leaders. But the leader of Trio B is actually the Team worker who is very good at providing a positive and stimulating atmosphere within the group. The workflow is organized and well planned leaving no room for the two Shapers to intercept the leader position. The bass-player describes it during his interview. *"Our piano player arranged all the music and had prepared all the music-sheets beforehand so it was very easy for us to start playing ...he sets up all the rehearsals and takes care of all the concerts by overseeing everything connected to that..."*

The Team worker has the role as the trio's musical director and manages most aspects of the managerial work such as preparing for rehearsals and booking concerts. Additionally, the Team worker is so well liked by the two Shapers that the work runs smoothly in Trio B.

Umney and Kretsos 2013 study on Jazz musicians in London, UK found that if a member of a group neglected his functional music-role in the group in order to take on the administrative role of the group (the "Fixer"), the "Fixer" role installed a ill fitting sense of hierarchy into the group dynamic with the other members feeling controlled by the "Fixer". This study finds no such evidence that the music groups in the population had a hierarchy of such kind. If anything, the music groups in this study resembles Murnighams and Conlons 1991 study findings in where music ensembles that tacitly accepts the hierarchy and leader paradox, doing so thereby

manages them to continue stay productive and increase the longevity of the ensemble work (Murnighan and Conlon, 1991).

The interviews indicated that group cohesion was affected by the strong sense of friendship within the music groups. Guitarist from Quartet says *"...there have been many disputes and clashes within the group, but we have managed to make up and now somehow we're more in tune than before as a group...after the quarrels we've become better friends, maybe we needed the quarrels to clear the air..."* The pianist from Trio A also says *"...even though we are busy with other projects (free lance work) things are going really well at the moment in the band, we just released a new cd and we're quite busy at the moment with a international tour and a release concert here in Reykjavik. It's quite difficult take the band to the next level, but there's such a good feeling in the band that it makes us work harder..."*

The interview with bass player from Trio B suggests that the individual experience of each member strengthens the collective output of the trio *"...we're all seasoned professionals with a lot of experience so it's very easy working and playing together, we've known each other for many years and have played and worked together in projects in the past...we respect each other, I trust and know that the other members will do their best when working and playing with me...."*

And Bass player from Trio B also states that by having worked with inexperienced musicians in other bands, he thinks that a member's lack of experience can have a negative influence on the group dynamic.

"it's very easy for us to work together because we're so experienced, there's no problems at all...when working with lesser experienced musicians it takes a lot of time to get things done and it's much more stress and quarrels between group members...endless discussions over tiny details".

These comments suggest that efficiency and group dynamic can be related to professional experience and that the members have developed a sense for good teamwork over a longer period of time.

This is in line with Alexa Arvantis findings that the fundamental force that was holding the group together despite difficult challenges was the members affinity for one another, which enhanced their commitment to the group effort. Also similar to Arvantis research findings is the notion that the group cohesion among the music groups in this research increases in strength the longer time period a band has been together, which suggests that good group-dynamic is in relation with the longevity of

the music groups career (Arvantis, 2008). Data from the interviews and case study's of the three music groups indicate that the collaboration in the music group is affected by group dynamics and team roles which is similar to Elaine King's 2004 findings where social collaboration is affected by sociocultural factors and team roles, and the musical collaboration is a coordination of content and process (King, 2004).

7.3 Success and productivity of the music groups.

This study attempted to measure the objective success of each music group based on the answers from the interviews with questions on Media exposure, Frequency of performing and Output of music. The study did find data to measure within the results from the unstructured interviews but it is debatable how valid the data on objective success actually are. Hence, this study cannot accurately measure the success of the teams/groups that were researched, neither find a valid relationship between team role composition and any success of the music groups.

However, based on the interview data, the research suggests that it's safe to assume that both good interpersonal and group dynamic have a positive effect on the teamwork and collective output of the music groups. The pianist of Trio A states "*all members contribute with music for the trio...we interact a lot during rehearsals when trying out the music and arranging...everybody have their say in the music that we play...*"

Team role composition is one of the cornerstones of Belbin's theory where in order to be successful a team must have a well balanced representation of relevant team roles. One of Belbin's criterion for a strong team is to establish the nucleus pairing in the leadership of the roles Plant and Coordinator. This research could not find a obvious pairing of such kind among the groups in the study. The BTRSPI test shows that there are overall few Plant team roles in the music groups, not a single primary Plant in all of the sample population but one secondary Plant in the Trio A. There are no primary Coordinators in the population, but two secondary Coordinators, and there is a over representation of Shapers in the sample population both as primary roles and as secondary/third team roles.

There is seemingly a connection between the Leadership role and music composition/arranging within the Quartet, in where the two leader type role members Shaper and Coordinator are solely productive writing original compositions and

providing arrangements than the members with non-leader type team roles Monitor Evaluator and Implementer. This is similar to the findings of Tim Sheinman where a majority of bandleaders also were the main composers of original music for their respective rock bands (Sheinman, 2013). But other music groups such as Trio A seems to share the responsibility of arranging among it's members, the pianist states *"...usually if the guitarist has written something for the band, then he has an idea in mind how he wants the piece to sound, but we all pitch in when arranging. Also, when we play it's a lot of solos y'know? So every member can take the music in a certain direction during the solos if he wants to...."*

In this aspect however, Trio A displays more evidence of the shared leadership and self managed team characteristics found in Gilboa and Tal Schmotkins research with all group members sharing the responsibility for the development of the music group (Gilboa and Tal Schmotkin 2010).

Similar findings that supports that notion is found in Trio B which consists of two Shapers and a Team worker who is also the leader of the trio. Bass player of Trio B feels that even though the group has a distinct musical director that leads the group, members have room to express themselves both as individuals (solos etc) and as part of the group (interpretation of arrangements), so the boundaries set by the musical director are stretchable. Bass player of Trio B says:

"Well, the piano player act as a musical-director for the trio so we follow his lead so to speak during rehearsals and performances, he counts off the tempos for the band etc,....even though it's pretty strict arrangements I feel that I can express my personal playing despite that...the music is open for interpretations and I have a lot of possibilities to do what I want within the arrangements".

The most productive group in the research is the Quartet and this music group seems to handle conflict in a way that does not disrupt the groups efforts, the conflict between the two leader Shapers is still active but does not overpower the groups shared goals. The guitarist says during the interview that *"..me and (other primary Shaper) do not always agree on certain aspects, but we don't let that stand in the way for the bands progress...we both want the band to succeed and go to the next level..."*

Members of all the music groups complained over lack of time to commit fully to the music groups efforts and goals, in some instances the lack of involvement brought on a sense of being non-leading or a shift in the role hierarchy. The pianist of Trio A

states during the interview *"...it's hard to get a continuity with communication and social relationships in the band since we are very busy working with other projects (individual freelance work), this is mainly because the hardened working climate for musicians...our drummer takes on the managerial role since he has a lot more experience in that area than the rest of us...I have very little time on my hands that I can devote for such work...it's very hard making ends meet when you're a musician...I wish I could do more of that (Managerial work) for the band"*

Although the musicians in the study do complain over insufficient time to participate fully in the groups work, there is evidence found in this research that supports Ballestrina and Ciardo argument that successful music groups rely on a clear allocation of labor among the group which enables each member to fully utilize their capabilities. All three music groups have seemingly been capable of achieving and sustaining the groups career over a extended period of time through an efficient allocation of their individual skills, in where members specialized on the basis of their comparative advantage. All three music groups exhibit some form of leader-follower team dynamic within the team but also acknowledge the collective input. Guitarist from Quartet says *"...even though I and (Woodwind player) take the lead, all members of the band do their share and partake in their own way to help out"*. Pianist from Trio A *"...i'm not as good at promoting the band like our drummer who runs our webpage, I try to focus on what i'm good at, like writing new material for the band..."*. Bass player from Trio B *"...he (Pianist) brings in the arranged music to the rehearsals but me and the drummer play in our characteristic way so we do put our personal touch on those tunes"*

7.4 Small group sizes.

The relatively small sizes of the groups in this study are apparent, Belbins research favored teams with 4-6 members since they seemed to be of size that were prone to a successful team composition.

A majority of the groups in this study are Trios, i.e the group has three members. Belbin points out some risks with small sized teams, a team of three members with high ability and compatible skills could be very successful if they act in unison, the small size might make for stability but it also makes the team vulnerable. Belbin reasons that a small sized team of three members runs the risk of becoming *"One individual with two supporters"* (Belbin 2010, p116)

A team of four members will have a intimacy and involvement that a larger team cannot have, but the inter personal relations and interactions can also be more intense than those in a larger team.

Another aspect to take into account when discussing the small size of the groups is the finding of several Shapers among the music groups. Macrosson and Hemphill research on Machiavellianism in Belbin Team Roles points out that Shapers are prone to Machiavellian behavior such as manipulative tactics and deceit. (Macrosson and Hemphill 2001). Small groups like a trio with one (or in some instances, two) leader who also are the team role Shaper can easily become what Belbin calls "*One Boss with two subordinates*" (Belbin 2010,p 116). It was not possible to assess the importance of secondary or third team role within the music groups in this study, though previous research suggests that in small groups the secondary and third roles could be more applied and important due to the small size of the teams.

8 Conclusion and suggestion for further research.

This research finds that Belbin's team role theory can be applied to music groups and that members self-perceptive team roles are seemingly valid, there is however no data found that indicates that certain compositions of team roles perform better than others. The findings of the research suggests that there seemingly a relationship between Team role behavior and group-dynamic, productivity and longevity of the music groups work. The research attempted to measure the possible relationship between the music groups team roles and success and productivity, but cannot accurately measure success due to the subjective nature of such measurements. The research findings indicated that music groups that managed to work and stay together over an extended period of time had accumulated better knowledge on how to communicate within the group, more experience on how to solve interpersonal issues and good understanding on how to implement functioning teamwork. Leader-type members in the music groups displayed more involvement in the music group by investing more of their time into the music groups efforts than non-leader team members. The data from the interviews and the case studies suggests that the leader member were more likely to be one of the Belbin leadership roles Shaper or Coordinator and the results from the individual BTRSPI test lends some support to that suggestion. Groups that have been active for more than three years are seemingly more productive than the ones that have had a shorter activity. One group in particular, Trio A, exhibited shared leadership characteristics.

The results of this study are by no means presented as definite since they are drawn from a small sample and can only provide preparatory findings for future research. There are several limitations to this study, the most apparent one is the small size of the population sample in where only three music groups participated in the research. There is not enough diversity within the population sample with the music groups having too similar group size and instrumentation. There is a great imbalance in the gender composition of the population sample in this research with only male participants. The study should have included female participants in order to give a clearer overview of the possible relationship between team role theory and the teamwork within music groups. The research by Hildur Vala Einarsdottir on

women in the Icelandic music scene comes to the conclusion that women are in a minority and have fewer possibilities than men for work (Einarsdottir, 2013). Another limitation to this study is that all groups that undertook the Belbin Self Perception Test are located and working in the capitol city area of Reykjavik, no music groups from other areas were subject for the research and can therefore not give a full picture of the work situation and how team role theory might apply to ensembles in a broader sense.

It turned out to be a complicated task to measure efficiency and success since a music group can, unlike a traditional profit enterprise, be successful without having actual monetary profits.

Bluck (Bluck, 1994) writes about team management in his research on non-profit organizations and states that Belbin team roles should be used with great caution in such a work context and argues that Belbin's results only apply to private sector profit enterprises. Being successful as a musician or in a broader sense, as an artist, is a concept that has many dimensions. Scholars have investigated success and tried to define it in different ways such as aesthetic success or through objective success such as career achievements and have found that though musical skills are relevant, having a professional network and a well balanced personality is the best single predictor of success (Zwaan, Bogt and Raaijmakers, 2009).

In order to draw accurate conclusions it would be necessary to examine a larger spectrum of ensemble sizes performing more varied musical styles and context over a longer period of time with extensive observation, interviews must be done with all members, and the music groups should also take the Belbin's peer assessment test in order to get a 360 degree overview of the team roles and team role behavior. The problem of effectively measuring success could possibly be solved by constructing some form of evaluation process that would measure the possible progress and success of the music group over a set period of time, including measuring progress of rehearsals and performances.

A interesting finding of this research was how few active music groups that were present within the population. The author expected a larger number of music groups within the population of members of the Icelandic musicians union but when the study reached the stage of approaching groups to partake in the study, the author had great trouble finding a sufficient number of groups to use in the research. Why are there so few working groups and ensembles within the population? Could it be

due to monetary reasons? Several members of the music groups stated during the interviews that the climate for a professional musician had become harder over the past years in Iceland. It could be that since the market for jobs are limited it might prove to be more economically efficient for each individual musician to participate in several independent projects instead of focusing on one group that takes the majority of time and effort to promote and receive income from.

There seems to have taken place a shift in the music scene over the past 10 years with a majority of professional musicians no longer choosing to focus their work around one primary music group. Instead of playing in a traditional "Band" setting, more musicians opt to work as independent freelance contractors where music groups are assembled for each individual project, so teams are composed according to the needs of each project (size of ensemble, number of instruments and stylistic knowledge required etc). The leader of each project is usually the person who "got the call" , i.e the person who got contacted by the purchaser of the service, that person becomes the leader since he/she usually oversees the project and makes sure the requirements that the buyer of the service demands are met. The composition of each project might be influenced by the members previous work and network, and as some research have shown, persona traits and professional reputation can play into the amount of work that will be presented/offered to individual musicians.

A Job description for working musicians, (this includes members of bands and orchestras) could be described as performing and recording music for both live and remote (Tv, Radio, Web) audiences. Musicians can specialize in one style or in many styles of music; Classical, Folk Music, Jazz, Rock etc. In addition to playing and performing, musicians also engage in promotional activities. Many musicians may begin the necessary training in elementary and high school, but a formal education is not always required in order for a career as a working musician. Some key elements are talent, endurance, stamina necessary for practice and performance over extended periods of time, dedication and discipline. The work situation for professional musicians can take many forms, a musician may work on their own as a independent freelance, as a employed member of a orchestra or in collaboration with other musicians in ensembles. The genres of music that a musician might be asked to perform are many and varies greatly between those musicians specializing in classical music or the African-American tradition. There are however tasks that can apply to musicians of all genres and traditions such as a regular practice routine,

preparing for and attending rehearsals, music performance and concerts. The competition in the field of music is very high and musicians must dedicate considerable amounts of time for practice, and to develop and maintain both individual skills, as well as those needed in a group. Other skills necessary for a professional musician might include handling the administration of business activities such as promotion, handling accounts, negotiating fees, organizing distribution of recorded music, etc. But good interpersonal skills and group dynamic seems to be essential for working together with other musicians. To be able to contribute to a musical ensemble, musicians need to develop a range of skills and techniques. But being a competent instrumentalist is only one of many requirements since a musician also needs to be a good communicator, team player and engaging performer.

Appendix

Individual Belbin team roles of the Quartet members.

Table A1. Bassplayer of Quartet. Primary team role Teamworker, secondary role Monitor-Evaluator.

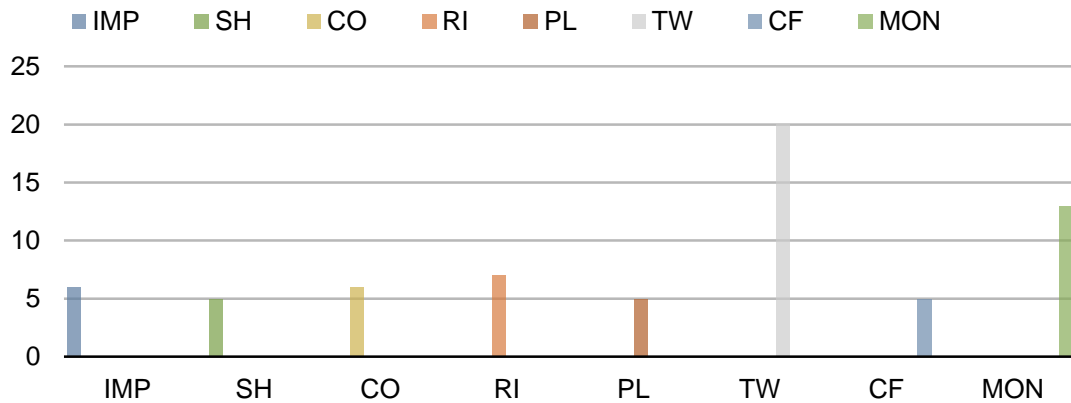


Table A2. Guitar player of Quartet. Primary team role Resource Investigator, secondary role Shaper.

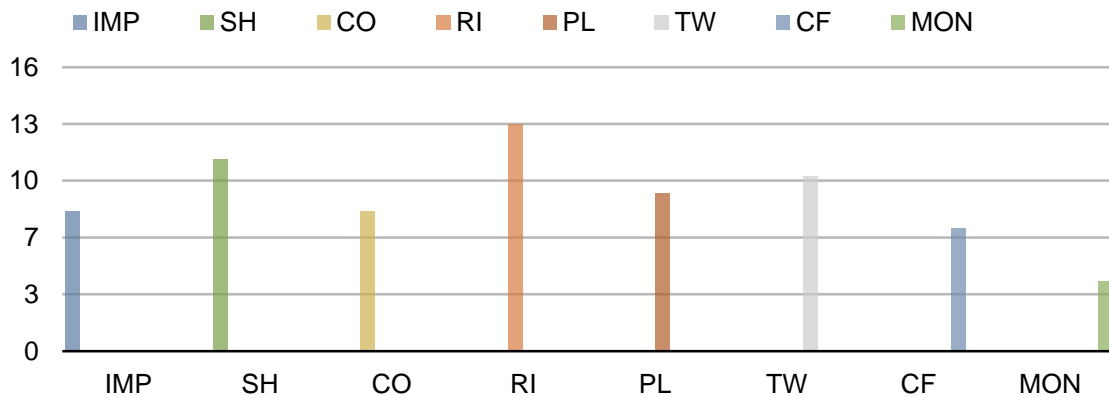


Table A3. Drummer of Quartet. Primary team role Monitor Evaluator, secondary role team worker

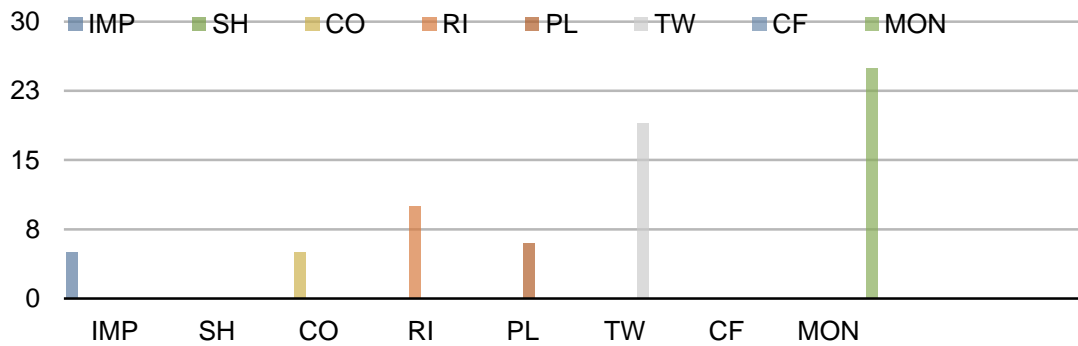
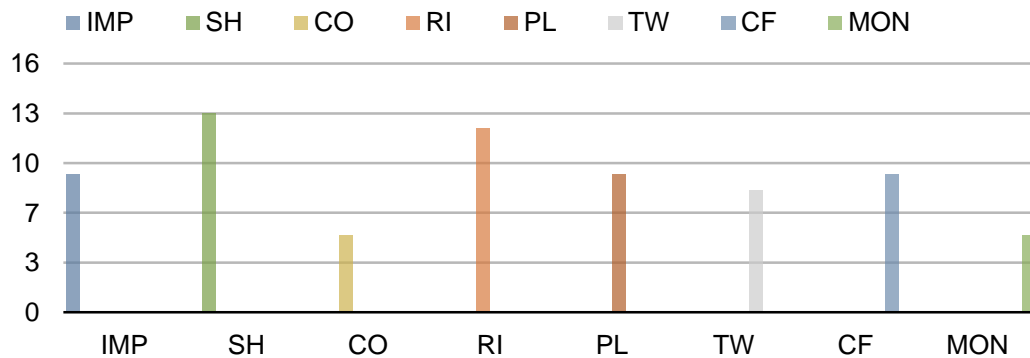


Table A4 Woodwind Player of Quartet. Primary team role Shaper, secondary role Resource Investigator.



Individual Team Roles of Trio A members.

Table A5. Drummer of Trio A. Primary role Implementer, secondary Shaper.

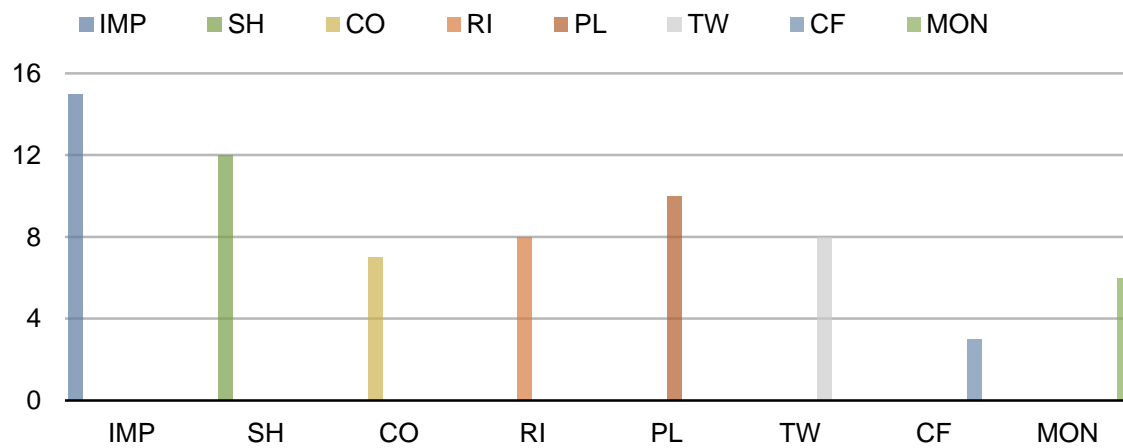


Table A6. Guitarist of Trio A. Primary role Shaper, secondary Co ordinator.

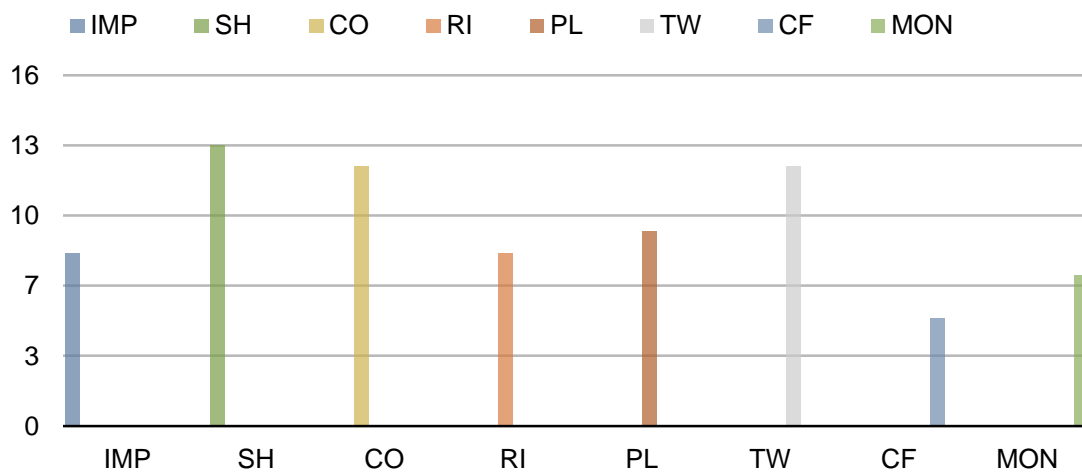
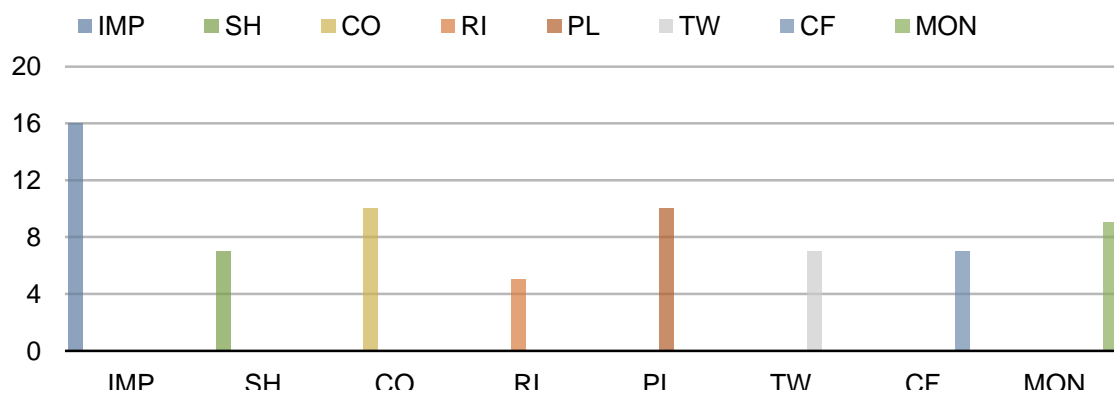


Table A7. Pianist of Trio A. Primary role Implementer, secondary Plant.



Individual Team Roles of Trio B members.

Table A8. Pianist of Trio B. Primary Team worker, secondary Monitor Evaluator.

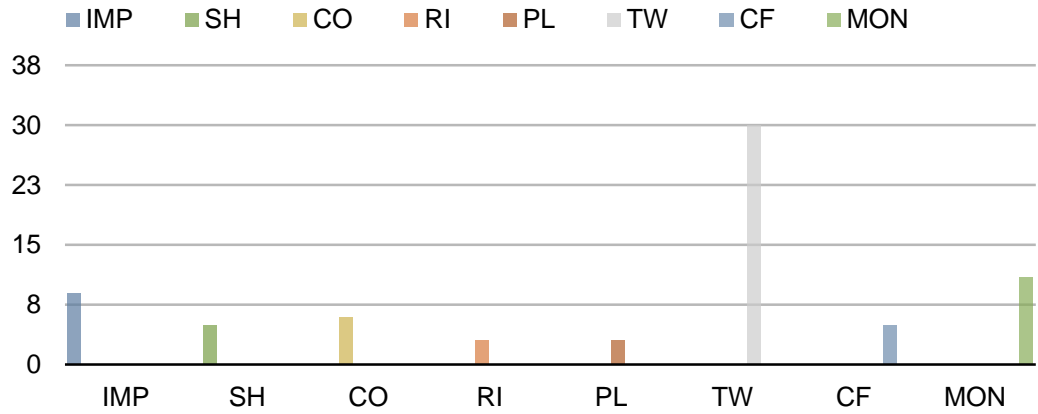


Table A9. Doublebass player of Trio B. Primary Shaper, secondary Implementer.

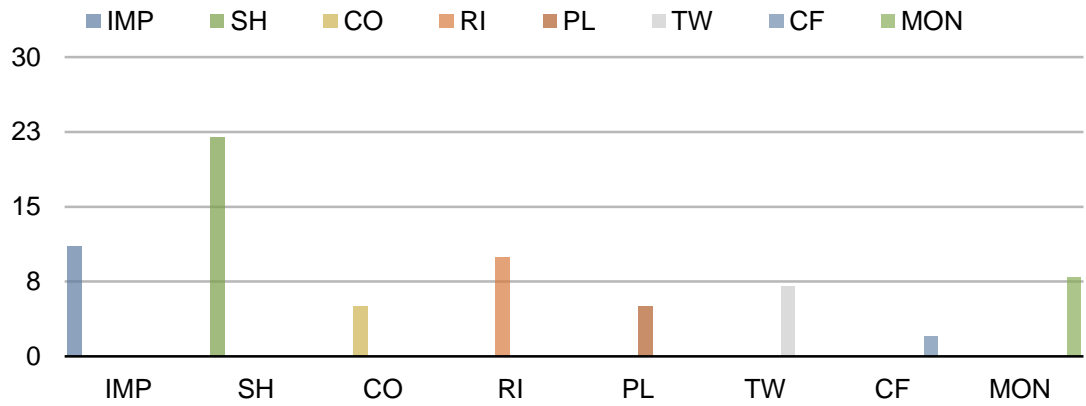
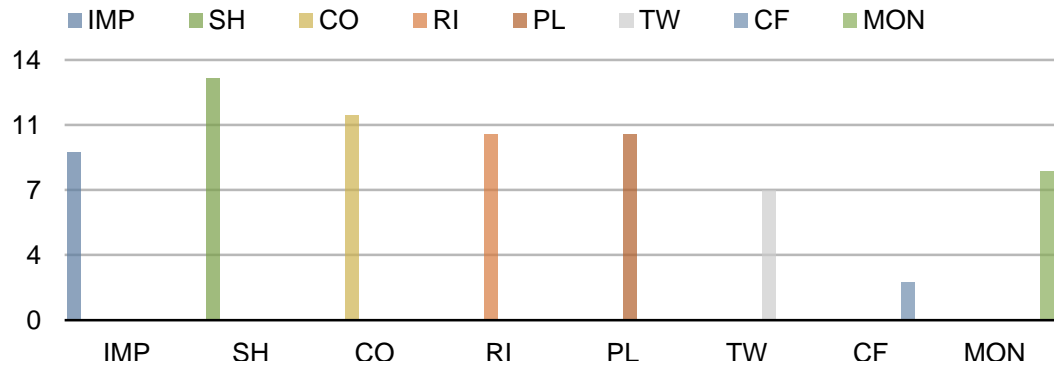


Table A10. Drummer of Trio B. Primary Shaper, secondary Co Ordinator.



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