Applied Transactional Analysis in Music Education: Naturally Occurring Teacher Ego State Behaviours and Their Effect on Student Motivation

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Abstract

The aim of this study was to investigate the influence of teacher behaviour on student motivation during teacher-pupil interaction in music education. Observations of communication between music teachers and their students were made by the author from the perspective of Transactional Analysis. The students who participated were between 7 and 12 years old, and there were 7 adult teacher participants. Naturally occurring ego-state behaviour in these teachers during interactions with their students was observed and recorded with the intention of assessing the impact on student motivation. The hypothesis was that the effects of teacher behaviour that manifests as Adult, Nurturing Parent, and Free Child ego states significantly increases student motivation. The results of the study suggest that this hypothesis is valid.

Key Words

Teacher Behaviour, Student Motivation, Teacher-Pupil Interaction, Music Education., Transactional Analysis, Ego States

Introduction

As any instructor would, a music teacher attempts to teach children with the best possible techniques and in the most encouraging way to engage students in the process of learning, with the hope of achieving optimal results. This approach to teaching most certainly benefits from effective communication, and teachers play a crucial role in improving the art of communicating with students. According to Flaro (1979), one of the critical factors related to teacher effectiveness is "teacher behavioural transactions" with the student. Webb (1971) states: "The way a teacher behaves, not what he knows, may be the most important issue in the transmission of the teaching-learning exchange. The psychological behaviour and the quality of how the teacher relates

to the child is perhaps the most important basis for the learning attitude held by the child." (p. 455).

Gage (1972) described four factors as important and more readily observed in successful teachers, when compared to others. Grant (2004) paraphrased these as " ... They are warm: They are accepting and supportive. ... They are enthusiastic: about teaching, about the subject, and about their students. ... They use indirect/discovery learning methods: They allow students to find things out of themselves ... They have a high level of cognitive organization: they know the subject matter well." (p.273).

One of the important and fundamental questions that need to be addressed at the beginning of this research is: What are student's needs or expectations from their teachers? Students need good communication. They need to receive a feeling of confidence from teachers, which also requires respect and encouragement throughout the process of education. All of those will be present when teachers and students develop a strong bond of communication. In this research, the author observed that based on his observations, many times teachers talk about their concerns related to a lack of motivation among their students.

Teachers describe how they talk with poorly motivated students in this way: "We advise them; we encourage them to practise; we talk with their parents." They say that sometimes these work, and sometimes they do not. Thinking deeply on these approaches to improving motivation used by teachers, in this respect, a few questions arose, such as: "When teachers advise or encourage their students, what kind of words, what tone of voice, and what facial expressions do they use?" These questions led the author to seek out a more scientific way of analysing communication, to gain a new perspective on interactions between teachers and

students. In this process, the author discovered Transactional Analysis (TA), and thought it might serve as an effective approach to improving communication between teachers and students.

Learning about TA was an opportunity to gain new insights into communication and inter-personal transactions. It introduced new approaches for analysing communication between people, such as understanding the different "ego states" in which a person may be in when he or she communicates. It became evident that this kind of approach might be applicable to music education. Surprisingly, very little research has been carried out in music psychology which analyses teacher-pupil communication from the perspective of TA. In fact, there is only one study that looks at music psychology from the perspective of TA. That study, designed by Thomas and Judith Kruse (1994), had a different objective from this one.

TA may offer a valuable approach for anyone who wants to assess behaviour with the intention of improving interpersonal communication. Effective communication between teachers and students is an important factor for increasing student motivation in the process of education. The aim of this study is to investigate the value of TA in understanding teacher/student communication. To assess its impact in a measurable way, the author used the approach of observing the various ego states of teachers during their interactions with students, and the effect of these on student motivation.

Research

Research in Music Psychology from the Perspective of TA

TA is a theory of communication. Knowing about TA can be useful for improving communication skills. There is a body of research that supports the idea that in the majority of instances where experts successfully used TA, it was for improving communications skills and developing relationship among people. Whether in a company, a school, a hospital, or other setting, wherever there is need for understanding individuals, TA has been shown to be effective. However, research relative to teaching and specifically to teaching music is limited.

Kruse and Kruse (1994) used TA game theory to solve problems existing among the triad of teachers, students, and parents involved in the Suzuki (1983) Method of stringed instrument instruction. Shinichi Suzuki, Japanese violinist and teacher, was one of the more innovative and influential pedagogues of the twentieth century. He created a new method of music instruction based on simple observation that all children learn to speak their native language with ease through listening and repetition. According to observations made by Kruse and Kruse, sometimes the Suzuki triad is dysfunctional, does not work well, and leads to confusion, frustration and problems in teacher, parent and student interactions. They also investigated the problems which occurred within the Suzuki teaching triad from the perspective of TA by using Berne's (1964) game theory and the drama triangle (Karpman, 1968). (Cited by Le Guernic, 2004). By using these TA tools, Kruse and Kruse found solutions for problems that occurred during the process of teaching.

Rajan and Chacko (2012) found positive effects of TA tools on creating new teaching styles among teachers, as well as improving relationships with students. In their study, they had an experienced trainer hold a basic TA training course for the teachers. The results showed that the practice of ego state awareness helps teachers to improve self-awareness. They described their results in this way: "This awareness in turn is helping teachers to become aware of their own and students' behaviour in different situations and makes (sic) appropriate modifications. This in turn helps them to practise new teaching styles and improve teacher student relationships." (p.7) Additionally, Rajan and Chacko showed how improving teacher-student relationship caused improvement in the educational environment that is vital for promoting student learning.

According to the research by Garrison and Fischer (1978), teaching TA concepts to students in third and sixth grade classrooms led to improved communication. Students used the Parent, Child, Adult model of ego states to solve to internal conflicts, as well as those between themselves and others. Garrison and Fischer demonstrated an example in this way: "students would express their Child "want",' their Parent 'should,' and then use their Adult to solve inner conflicts between the two ego states. In one specific situation, a student's Child wanted to go out and play after school but his Parent reminded him of homework that should be completed. The student decided to play for a shorter period of time and then come inside to complete his homework." (p. 241).

Myrow (1978) designed research to investigate the role of TA in developing teachers, both personally and professionally. The research included a university course for teachers and reports on teachers' evaluations of their experiences. Results indicated a noticeable influence from TA, including some teachers being less negative and critical and more nurturing of students, while others found themselves to be more aware of children's feelings, listening more attentively, and even becoming more playful with their own children. Some reported being more positive, less duplicative, and more open and direct in their behaviour towards their students

Overall, the results of this research showed that teachers' awareness of TA concepts helped them to improve relationship with friends, students and families.

Temple (1999) proposed the term Functional Fluency to describe the ability that an educator can develop to respond flexibly and effectively by using a range of ego states, and to increase the intimacy with students in order to decrease the likelihood of unhealthy symbiotic transactions. She also believed developing self-awareness in ego state terms is particularly suitable for teachers. She wrote: "Increased autonomy raises a teacher's energy and motivation, creativity, and effectiveness. Autonomy also brings enhanced awareness (sensitivity, rationality, objectivity, realism, and "with-it-ness"), enhanced spontaneity (choice, range, and fluency of behavioural options, and freedom of self-expression), and enhanced capacity for intimacy (willingness to be candid, open and direct, congruent, empathic, and affectionate)." (p.172).

According to an Educational Transactional Analysis approach mentioned by Tafoya (2004), teacher-student relationships should be based on the "I'm OK, You're OK" life position. Actually, the learning process influenced by this TA principle provides an atmosphere of respect and equality for both teacher and student, in which teachers are entrusted to create the best teaching to develop potential of their students. Tafoya depicted an example of the educators' job through the process of learning in this way: "In transactional analysis terms, the teacher can create a situation (Nurturing Parent) in which students feel safe and respected in an environment that promotes the joy of learning through their Natural Child; in such circumstances, students are much more likely to be free of tension or anxiety. Grown-ups, especially, often wear rigid masks (Critical Parent) that cover the creative part of the personality and thus limit the learning process. It is the teacher's job to arrange the learning situation so as to remove such defenses without stimulating resistance." (p. 329).

Also in the area of teacher training, Lerkkanen and Temple (2004) pointed out the importance of TA as a tool for increasing student teachers' self-awareness and personal growth. Additionally, they demonstrated the role of TA in making an effective contribution to teacher education. Their research indicated that TA as a practical approach to educational psychology can explain and describe human behaviour and relationships in a manner useful for teachers' psychological development. From their point of view, TA can be an effective source of support for teachers in their personal and professional development. TA plays a crucial role in building positive relationships that underpin teacher effectiveness in the classroom.

Ego States

Flaro (1979) believed that ego states provide an opportunity for teachers to be aware of how their positive or negative aspects of behaviour can impact the classroom environment or student behaviour. In fact, achieving awareness of their ego states' negative or positive aspects helps teachers to become more aware of the positive or negative aspects of their total personality. He wrote that teachers might benefit from clarification of both aspects of Critical Parent. The Protective or positive aspects of this ego state manifest in such behaviours as being firm, direct, guiding, commanding and telling. This dimension of Critical Parent ego state communicates messages such as 'you can be a good musician, practise well and do things carefully'. On the other hand, the negative aspects of Critical Parent or Persecuting Critical Parent admonishes, orders, threatens, blames and ridicules. This aspect of Critical Parent communicates injunctive and attributional messages such as 'You do not have enough intelligence for doing this exercise."

According to Flaro, these messages communicated from Persecuting Critical Parent destroy the process of student growth rather than enhancing it. In fact, teachers using the negative aspects of ego state can create a negative environment which will invite students into negative, rebellious or compliant behaviours, whereas using positive ego states can create a positive environment which will invite students into learning, fun, spontaneity, curiosity and growth. In this research, he investigated the behaviour of two high school teachers, which he named Jim Myrgatroid and Steve Medusa, during the process of teaching. Flaro explains Jim's personality as a combination of enthusiasm, care, energy, discipline, and a sense of humour that show through his actions in class, while Steve's personality is depressed, angry and aloof, and his behaviour towards his students is brusque, uncaring, tyrannical and at times abusive.

Flaro analysed the impact of teachers' behaviour on students, and understood the harmony of responses from Adult, Free Child, Nurturing Parent and Critical Parent in the case of Jim. From Flaro's point of view, Jim could create an environment in which students felt free from any fear, catastrophic events, and anxiety. Because of the positive environment in this classroom, learning is fun for students. Students have permission to think, to do things well, to learn, and solve their own problems and enjoy themselves. However, in Steve's classroom students were under constant threat. Steve's inconsistencies and irregular

behaviour created an environment in which students had to be on constant guard. Flaro explained: "... the students' perpetual catastrophic and anticipatory expectations can only inhibit learning, breed resentment and escalate game playing." (p. 198). In fact, students in this class did not have permission to learn.

Kenney (1981) investigated the impact of student behaviour on teachers, in terms of the relationship between the existence of problem students and the teachers' behaviour. In this research, two teachers were observed for 30 minutes daily, and records were made of each teacher's ego state functioning. The main goal of this research was to improve teachers' behaviours with problem students by helping teachers to change ego state responses. Critical Parent, Nurturing Parent and Free Child were targeted through observation. During the presence and absence of the problem students, the teachers' ego state behaviours were observed and recorded. The results showed that on days when the problem student was absent, the Nurturing Parent and Free Child responses from both teachers were more and the Critical Parent was reduced.

According to the researches above, TA tools play an effective role in improving communication skills and developing relationships among individuals. Knowing about using ego states, individuals learn how people communicate with each other, and how others communicate with them. Using effective ego states creates effective communication with others, while using ineffective ego states frustrates our communication. These results show TA as a useful and functional social interaction theory. TA tools give ability to teachers to work on OKness of themselves and their students. Students who are receiving the You're OK response from their teachers can improve self-efficacy, self-determination and self-concept and increase motivation during the process of education. In other words, all of these social cognition factors improve when each individual feels OK about themself.

For instance, when teachers interpret their students' behaviour as meaningful and as showing intention, they are supporting the students' developing sense of agency. Having the experience of being able to mobilise the resources one needs also exerts a strong influence on behaviour. Bandura (1993) called this "self-efficacy." A music teacher might facilitate this when offering scaffolding, that is, support for the person who is learning to put new behaviours and skills into practice.

Non-TA Research

There are several non-TA concepts that were taken into account during this research, including:

Scaffolding - in teacher-student interactions, this is important in the process of learning, according to Küpers, Dijk, McPherson, and van Geert (2014). Reporting on Vygotsky's (1978) work in this field, they describe scaffolding as a form of teaching in which teachers provide a situation and create an atmosphere of support for students during the process of learning, to help them learn deeply. Küpers et al and studies by Van de Pol, Volman and Beishuizen (2010) describe how transfer of responsibility implies that scaffolding should result in autonomous competence.

Motivation – there is much material about the importance of teacher personality in terms of student motivation – readers can refer to the original dissertation for a summary and references (see author details).. Although West (2013) cautions "...it is certainly possible that the teacher's personality, interactions with students, instructional strategies, classroom environment, and a number of other factors might have influenced student motivation. Even the best research cannot account for the myriad intervening variables." (p.17), factors identified by others included: being supportive, cooperative and able to explain material well; being more extraverted and intuitive; a teacher–student relationship where the student is treated with respect and consideration; using teaching moments as caring occasions; the teacher models 'desirable' patterns of interaction; the degree of responsiveness between pupil and teacher.

Self-Actualising - Hallam (2002) said that the source of motivation was found in self-actualising individuals in their efforts towards self-fulfilment, to improve one's self, efforts which are often supported by environmental factors and feedback from others. Campbell and Scott-Kassner (2006) described motivation as: "any factor that increases the vigor of an individual's activity." (p. 274). Hruska (2011) cites the variables related to student motivation in studying instrumental music as: 1) when expectations for success were reasonable, 2) students received individual attention as needed, and 3) the class atmosphere was non-competitive in nature. Noels, Clément and Pelletier (1999) argued that people who are doing an activity voluntarily in order to challenge their existing competences, and who use their creative capabilities in their actions, are intrinsically motivated. Campbell & Scott-Kassner (2006) mentioned that a music teacher can play a crucial role in stimulating internal motivation among students by explaining to them how a particular lesson or task will help them understand themselves better, or how it can help them communicate their feelings or relate better to others.

Self-Concept - Greenberg (1970) defined self-concept as the perception people have about themselves. It refers to the ways in which individuals characteristically see themselves and feel about themselves. Greenberg believed that to understand the behaviour of any individual, self-concept can play a key role. Similarly, McPherson and McCormick (2006) stated that how students think about themselves, the task, and their performance is just as important as the time they devote to practicing their instrument (Cited by S. Zelenak, 2015, p.390). Leflot, Onghena and Colpin (2010) reported that children in the classroom have high levels of self-concept, at least in the social and academic domain, with teachers who are more involved, structuring, and autonomy-supportive towards them.

Self-Efficacy - Bandura (1993) has defined self-efficacy theory as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments". (Cited by Cogdill, 2014, p. 50). In their research, McPherson and McCormick (2006) clarified the difference between self-concept and self-efficacy in this way: "It is important to note that self-efficacy can be distinguished from self-concept in specificity and content. Whereas self-concept comprises perceptions of personal competence in general or in a domain (e.g. academic, social, motor skills), self-efficacy refers to personal beliefs that one is able to learn or perform specific tasks."(p. 323). Self-efficacy thus refers to people's beliefs about their abilities to do a task in a particular situation.

Self-Determination - Vansteenkiste, Niemiec, and Soenens (2010) stated, "Self-determination theory is a macro-theory of motivation, emotion, and personality in social contexts". (Cited by Evans, 2015, p.105). Nowadays, researchers in music education investigate the role of Self-Determination Theory (SDT) as a comprehensive theory of motivation. According to an explanation by Küpers et al (2014), SDT plays a crucial role in understanding the dynamic of motivation. This theory is about how intrinsic and extrinsic motivation differ. They described SDT as developmental, in which the locus of control gradually moves from external to internal. SDT also identifies three basic human needs: competence - the capacity to achieve goals; relatedness - the ability to develop meaningful relationships with others; and autonomy - the ability to initiate and control one's own actions. According to Evans (2015), self-determination theory also considers the social environment, in addition to individual factors, and is concerned with the qualitative aspect of motivation, coming from a sense of self, as well as quantitative.

Methodology

Research Questions and Aims

The aim of this study was to investigate the relationship between ego states used by teachers during the process of education, and student motivation. There is evidence that student motivation to learn from a teacher is an indicator of success in music education, and that TA can improve teacher-student communication.. More precisely, the hypothesis of this study is that teachers who use more of the specific ego states of Free Child, positive Nurturing Parent, and Adult ego states are more successful in motivating students to learn.

Variables

The researcher considered as independent variables the ego states of Adult, Nurturing Parent (NP) both positive and negative, Free Child (FC), Critical Parent (CP) both negative and positive, and Adapted Child (AC) both negative and positive.

The set of dependent variables includes motivation in general, and Intrinsic Motivation (IM) and Extrinsic Motivation (EM) in particular. General motivation can be seen as the Sum of Intrinsic and Extrinsic Motivation, abbreviated as SM.

Population

Research observations were carried out at a music institute in the Alborz Province of Iran. Three music classrooms were observed, with a total of 7 teachers and 11 students. Each class session was 30 minutes long. Three of the teachers were female and three were male. The student population consisted of five girls and five boys, aged 7-12 years. One teacher/student pair had to be eliminated because the student discontinued her studies mid-way through the research period.

Based on Erikson's (1963) psychosocial theory, school-age children are in the stage of industry versus inferiority; therefore, the social challenge is to develop the art of socialisation, collaboration, teamwork, and social comparison. However, this age group also has to learn to adapt to social comparison and performance differences. In this case, the music teacher's feedback and criticism on performance may be interpreted as negative, and may lead to low self-esteem and sub-standard performance.

Procedure

The research procedure was based on direct observation and one-on-one interview data collection tools. The direct observation procedure was based on the researcher observing behaviour on location as the behaviour took place. This method of observation, also known as behavioural diagnosis, is commonly used in recognising ego states in TA.

Stewart and Joines (1987) point out the behavioural diagnosis approach is one of the important ways to recognise ego states. In this manner, and refer to words, tones, gestures, postures, and facial expressions used by each person during the course of observation. These were therefore used as observational factors to distinguish between ego states (as shown in Appendix 2).

Kenney and Lyons (1979) comment on the importance of researching the ego states used by teachers and provide several examples of how they classified them. They did not mention gestures and these and posture factors were deemed unimportant in this analysis due to the fact that in all observations, the teacher maintained a normal stance with a non-interpretive posture. Very few gestures were used, which were at the time the students were looking down or involved in practice. The conclusion reached regarding gesture and posture is that these types of non-verbal communication used by teachers did not play a significant role through observation in this study.

The data used for this research included the recorded observations of facial expression, tone of voice and the statements used by teachers, as well as recordings of the dialogue between teacher and student. After collecting the data, the researcher listened to the audio recording of each class and compared it with the written observation form to assess teacher behaviour and determine which teacher ego states were apparent during teacher-pupil interactions. All of this data was recorded in tables (as the example in Appendix 2), which were then used to determine each teacher's ego states.

For instance, in one of the observed dialogues, the music teacher said in a firm and directive voice, "The necessary thing for this exercise is to smile," with a normal expression and in a calm and firm manner. This verbal and non-verbal command was seen as indicating the teacher being in her Adult ego state. In another observed dialogue the teacher said: "Do not push your voice when you are singing. Please sing again and relax your voice," with a serious and firm facial expression, and a firm and purposeful of tone of voice. This verbal and non-verbal command was regarded as an indication that the teacher was exhibiting her positive Critical Parent ego state.

The number of occurrences for five ego states were counted: Critical Parent (both positive and negative), Nurturing Parent (both positive and negative), Adult, Free Child, and Adapted Child (both positive and negative). To measure student motivation a questionnaire was used. Since the students were between 7 and 12 years old, considering the possible difficulties in answering these questions, the questions were asked during 10-minute interviews.

Instruments

One of the measuring instruments in this study was the egogram, devised by Dusay (1972). This is a simple bar chart to show how much time is spent in each ego state. Stewart and Joines (1987) suggest dividing up each the bars into negative and positive parts, but for this study we included bars for each.

The egogram is also regarded as an illustration of Berne's theory of psychic energy or cathexis in the personality (Messina & Sambin, 2015). In this study, both negative and positive aspects of Critical Parent, Nurturing Parent and Adapted Child were analysed; however no negative Adapted Child or negative Nurturing Parent behaviour was observed at any time throughout this study.

Dusay (1972) quoted several research studies and much application for TA therapist when affirming that the validity and reliability of egograms had been tested in several areas.. He also described how the shift in someone's psychic energy means that when one ego state increases, another one decreases. Years later, Nishikawa (2001) developed Dusay's ideas, commenting that: "Egograms are useful in diagnosing a client's ego state functioning in an objective way."(p. 199).I

In addition to direct observation and as a supplementary data collection research tool, a closed ended one-on-one interview with students was used, employing the Likert measurement scale (Jafari, 2013) (Appendix 1). This was done to attain a deeper understanding of students' motivation in relation to the teacher's transactions.

The interview questions were divided in three parts. Questions in the first and second part were adapted from Schmidt (2005) and were designed to elicit information on the state of students' extrinsic motivation (items 1-6) and intrinsic motivation (items 7-12) motivation. The third part of the interview questions was an adaptation of Mojavazi and Poodineh Tamiz (2012), reflecting students' opinions about their teacher's style of interaction and communication (items 13-19).

Results

The first step in analysing the results was to collect the data for each teacher during the three class sessions, and use it to create egograms. The different egograms show the intensity of psychic energy according to the ego state exhibited by the teacher during each of the three classes. In the second step, the information for assessing motivation is extracted from the questionnaires.

The egogram and questionnaire data is summarised in Table 1. The correlation between each pair of variables is shown in Table 2. These results support

the hypothesis that a positive correlation exists between student motivation and effective teacher ego states (Adult, NP+, and FC).

Overall, there was a positive correlation between the two variable sums: 1) the sum of (Adult, NP+, FC) by the teacher and 2) SM, the sum of the intrinsic and extrinsic motivation of the student, $r(8) = 0.733$, $p = < .05$.

Variables	Correlation
FC & SM	0.707
FC & EM	0.876
NP+ & SM	0.646
NP+ & EM	0.692
Adult & SM	0.422
Adult & EM	0.536
Sum of (Adult, NP+, FC) & SM	**0.733**

Table 2: Correlation between different variables in this study.

These results are a composite of the correlation between subset pairs of variables. The evidence indicates the highest correlation pairs are both for FC (FC & EM, $r(8) = 0.876$, $p = < .05$, and FC & SM, $r(8) = 0.707$, $p = < .05$). The second highest correlation pairs are for NP+ (NP+ & EM, $r(8) = 0.692$, $p = < .05$, and NP+ & SM, $r(8) = 0.707$, $p = < .05$). Neither correlation pair for Adult (neither SM nor EM) is significant on their own, because they fall below the $r(8)$ .632 critical value threshold for Pearson product-moment correlation coefficients. But when compiled with FC and NP+, the overall correlation of 0.733 is significant.

Although neuroscience has moved on from the idea that the brain is in two halves, the correlation between the Free Child (FC) ego state and extrinsic motivation (EM) is still significant in terms of what led to previous beliefs. According to research by Nims (1981), the Adult ego state correlates with left hemisphere brain functioning, while the FC ego state with the right hemisphere.

Teacher	Student	CP+	CP-	Adult	FC	AC+	AC-	NP-	NP+	IM	EM	SM
1	1-3	18	5	20	4	0	0	0	2	28	18	46
1	1-4	18	9	22	17	0	0	0	21	25	24	49
1	1-5	18	9	22	17	0	0	0	23	29	26	55
2	2-1	12	0	10	3	0	0	0	4	27	11	38
3	3-1	20	2	7	1	0	0	0	6	30	15	45
3	3-2	18	13	10	4	2	0	0	10	30	19	49
3	3-3	16	7	8	4	0	0	0	15	30	17	47
4	4-1	15	7	26	6	0	0	0	6	30	19	49
5	5-1	17	17	7	4	0	0	0	16	30	14	44
7	7-1	19	3	20	2	0	0	0	5	29	12	41

Table 1: Abundance, consisting of data from each egogram and each questionnaire.
Keys:

CP - Critical Parent (+ positive, - negative)
FC – Free Child
AC – Adapted Child (+ positive, - negative)
NP – Nurturing Parent (+ positive, - negative)

IM – Intrinsic motivation
EM – Extrinsic motivation
SM – Sum of intrinsic and extrinsic motivation

A research article on the bibliographic instruction of the brain (Gedeon, 1998) stated that the left hemisphere functions in processing of data and the right side focuses on visual thinking. The results of the present study suggest that a high proportion of FC in teacher behaviour plays an important role in increasing enthusiasm among students. This suggests that music teachers who exhibit right-hemisphere thinking (or whatever it is that led people to recognise such a pattern) may provide more motivation for students.

Teacher behaviour in this study was assessed from the perspective of TA by analysing the effect of ego states during communication. The TA ego-state natural observation method used provides a comprehensive picture of teacher behaviour, both verbal and nonverbal. This information can lead to more effective intervention techniques for improving and developing teacher-student communication.

For instance, one of the results in this research indicates that a significant correlation exists between Free Child (FC) and extrinsic motivation (EM). This suggests that being enthusiastic and enjoying the process has a great impact on student motivation, because these kinds of behaviours are related to FC. Consequently, the TA approach is a practical approach for a teacher who wants to improve his or her behaviour, develop communication skills, and increase student motivation.

Egograms
An egogram for each teacher-student interaction is provided in the following 10 charts, with a few summary comments.
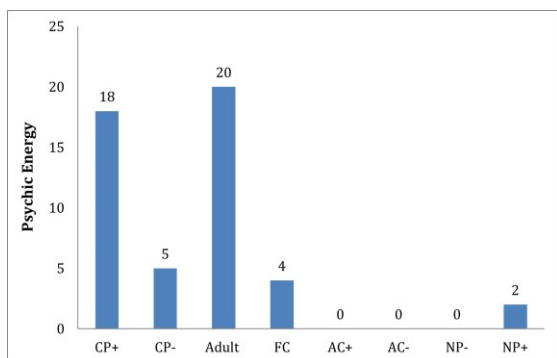

Chart 1: Egogram Teacher 1 with Student 3

Chart 1 shows that Teacher 1 exhibited a low level of FC and NP+ ego state with Student 1-3, and NP+ in particular was significantly lower that most of the other charts.
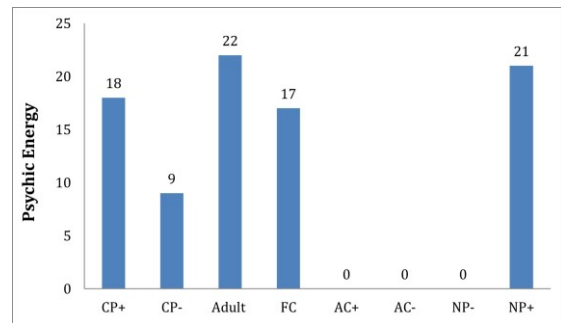

Chart 2: Egogram Teacher 1 with Student 4

Chart 2 demonstrates more of both FC and NP+ ego states in Teacher 1 with student 1-4
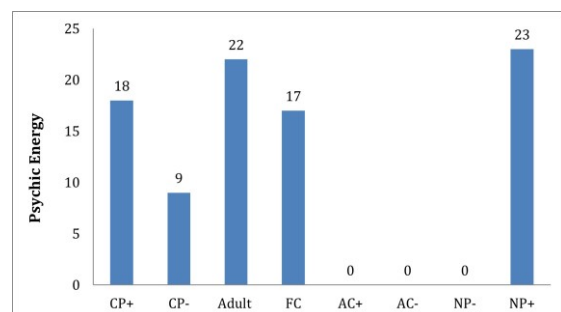

Chart 3: Egogram Teacher 1 with Student 5

The proportion of NP+ in Chart 3 is also high, even higher than NP+ in Chart 2. Other than this, Charts 2 and 3 are essentially identical. This indicates that this teacher's behaviour with Students 1-4 and 1-5 was similar, in contrast to Student 1-3.
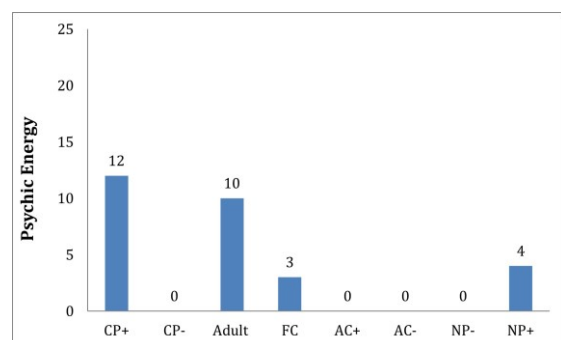

Chart 4: Egogram Teacher 2 with Student 1

Chart 4 shows the egogram of Teacher 2 with Student 2-1. The proportion of psychic energy of Adult is lower than the proportion of psychic energy for Adult in Charts 1, 2, and 3. There is a low proportion of FC and NP+, similar to Chart 1.
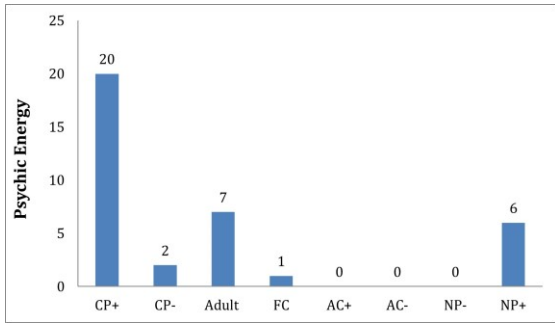
Chart 5: Egogram Teacher 3 with Student 1

Chart 5 shows Teacher 3 with Student 3-1. In this chart FC was the lowest proportion among all the egograms. Additionally, the proportion of Adult in this egogram is one of the lowest. Student motivation with this teacher would be expected to be low.
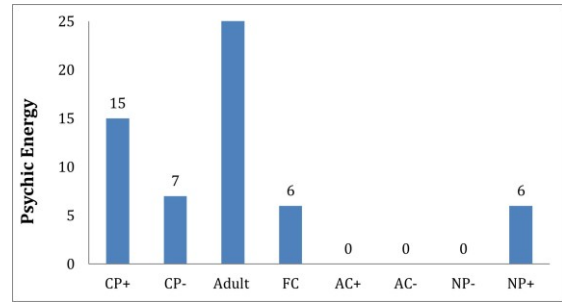

Chart 6: Egogram Teacher 3 with Student 2

Chart 6 shows Teacher 3 with Student 3-2. The level of CP+ is the highest proportion of psychic energy during the session. There is the same proportion of FC as Chart 1, 6, 7, and 9, and the proportion of Adult and NP+ psychic energy is the same.

Chart 7: Egogram Teacher 3 with Student 3

Chart 7 shows the egogram of Teacher 3 with Student 3-3. In this egogram, the proportion of NP+ is higher than the proportion of Adult and FC. The proportion NP+, FC, and Adult are nearly the same as those in Chart 9.

Chart 8: Egogram Teacher 4 with Student 1

In chart 8 the proportion of Adult is the highest of all the egograms. There is a similarity between the proportion NP+ in this chart and Chart 5. Also the proportion of psychic energy of FC and NP+ in this chart are the same.
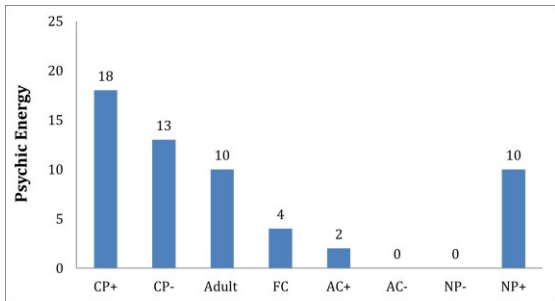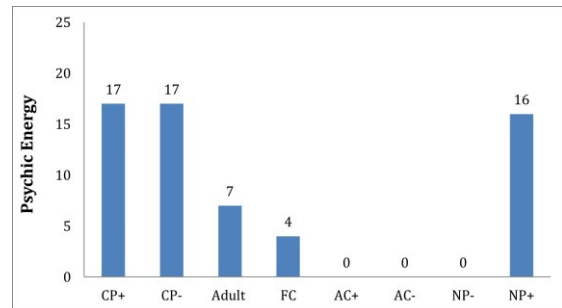

Chart 9: Egogram Teacher 5 with Student 1

Chart 9 illustrates the egogram of Teacher 5 with Student 5-1. The proportion of NP+ is higher than the proportion of Adult and FC in this chart. The proportion of FC is that same as Charts 1, 6, 7, and 9.
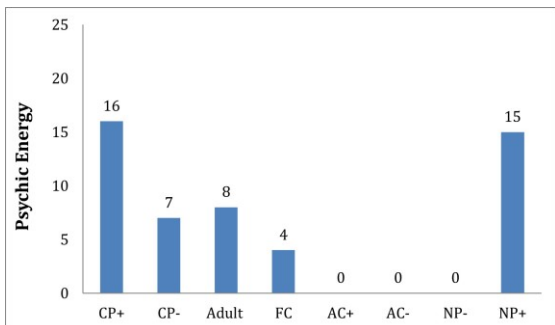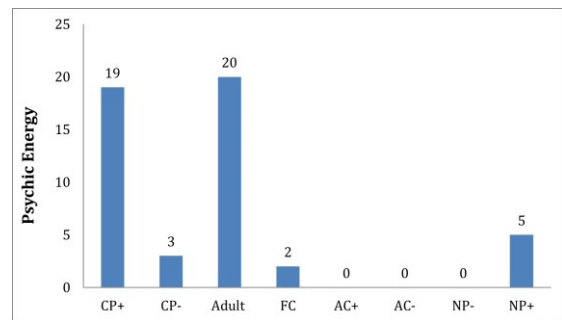

Chart 10: Egogram Teacher 7 with Student 1

Chart 10 shows the egogram of Teacher 7 with student 7-1. The highest proportion of psychic energy in this egogram is related to Adult. This chart had the second lowest proportion of FC compared to all the other charts.

Discussion

This research clearly suggests that the quality of teachers' behavioural transactions with students can play a crucial role in teacher effectiveness. Actually, awareness among teachers regarding the ways they transmit their educational message is important both verbally with regards to the words they use, and nonverbally based on facial expression and tone of voice. (Tafoya, 2004). According to an earlier (1970) ITAA definition, referred to by Stewart & Joines (1987), TA works wherever the understanding of individuals, relationships, and communication is needed, such as for teaching or collaborative work. TA tools provide a well-proven method for improving communication and interpersonal transactions. (Garrison and Fischer, 1978; Myrow 1978; Temple 1999; Smischenko 2004). In this respect, learning to use TA tools is an opportunity for each teacher to achieve new insights, and to improve communication by modifying unsatisfactory behaviour, when communicating with their students. Additionally, understanding the concept of ego states can help teachers manage their behaviour during interactions with students. For instance, in TA terms, various behaviours from different ego states have an impact on creating the appropriate atmosphere for student learning. Teachers who attempt to create a situation in which students feel safe use the Nurturing Parent ego state. Teachers may also use the Free Child ego state to bring the joy of learning into the classroom. Teachers who use these ego states in communicating with students have been shown to be more effective.

As previously mentioned, a teacher's personality has a great impact on their students' motivation, and certain personal characteristics of a teacher have an impact on their teaching effectiveness. (Teachout 2001, Campbell & Scott-Kassner 2006, West 2013). Rath (1993) describes ego states as representing the human personality. Teachers who are using appropriate ego states to communicate You're OK to students can be become effective since they project a feeling of OKness to their students. The feeling of OKness increases the students' self-efficacy, self-determination, and self-concept, which as discussed previously, are significant factors in social motivation. For instance, in Chart 3 a high level of FC, NP+, and Adult ego states can be observed. And it can be noted that the amount of EM and SM is higher than the others. In another example, Chart 4 represents the one of lowest proportions of psychic energy of FC, NP+, and Adult ego state. Notice that the amount of SM and EM in this case is correspondingly the lowest. These observations indicate that the ability to function in these three ego states is an important factor in increasing a student's intrinsic and extrinsic motivation.

The relationship between effective ego states (Free Child, Adult, positive Nurturing Parent) and student motivation has been demonstrated in this study. Direct observation of interactions between teachers and students from the perspective of TA provided a tool for analysing teacher-student communication, while the closed-ended one-on-one interviews explored the corresponding student motivation.

Limitations

An obvious limitation with this study that it was a small group of teachers and students, within a specific institution, so the findings might not apply more generally.

The fact that no negative Critical Parent or negative Adapted Child behavioural ego state was observed may mean that teachers and students were influenced by the presence of the observer - that they were on their 'best behaviour'.

Another possible limitation is the way in which many different models of ego states exist within the TA community. This means that different individuals might categorise behavioural ego states inconsistently. The researcher is relatively untrained in TA so might well have drawn different conclusions to a qualified TA practitioner, especially one with many years' experience as a psychotherapist, organisational consultant or educator.

Finally, no account was taken of any factors such as the student's home circumstances, childhood experiences before the time of the study, genetic predispositions or biological factors, or physical or mental health considerations.

The Future

Research in TA in education is limited, infrequent, and out of date. This topic was deemed popular and very much pursued by researchers in the 1970's and 1980's; however, interest has since decreased. Therefore, finding relevant and up-to-date research for the purpose of this research study was problematic and difficult. In addition, the amount of available research conducted in this area did not necessarily focus on teaching music, nor on the correlation of the instructor's role or the importance of the teacher in a student's motivation and learning.

As can be seen in the literature review section, most of the current valid and reliable research in the area of TA concentrates on the role of TA tools in establishing effective communication and interpersonal relationships. However, only one study has touched upon the effects of TA tools on music teacher-pupil communication, and that study did not consider the effects on student motivation.

The scarcity of research in this area motivated the author of this paper to conduct a more thorough

study of the value of TA concepts and tools for music teaching. Through the research methods described, the author was able to show correlation between a teacher's ego states and student motivation. The study provided evidence that indicates that the teacher-student relationship can be beneficial or detrimental to the development of motivation and learning processes of the student. Additional studies with larger sample sizes would be helpful in corroborating these findings.

Future work in this field should also take into account the presence of confounding factors. For example, it may be valuable to control for other influences in motivation, such as the role of innate ability, the environment, and context. Theorists such as Freud, Vygotsky, and Erikson have long brought to the psychologist's attention that a child's innate abilities or cultural influences can significantly affect the degree of motivation, desire, and willingness to learn. Hence the researcher of this study recommends that future studies consider the role of other factors when investigating the value of TA in understanding and improving interpersonal relationships between teacher and student, with the goal of increasing student motivation.

Kianush Habibi completed this project as his Dissertation submitted in partial fulfilment of the requirements for the degree MA Music Psychology in Education at University of Sheffield. He is currently principal and lead teacher of the Avadisheh School of Music in Karaj, Iran, and continues his research into effective methods for teaching music to children and young people. He can be contacted at kianoosh.habibi@gmail.com.

The dissertation can be seen, in English, at https://taresearch.org/publications/

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Appendix 1 Questionnaire

Dear student,

This questionnaire is designed to help us improve teaching music. Please indicate your opinions about each of the following statements by circling the appropriate number. Your answers will be kept strictly confidential.

A.1 Answer according to the following scale:

Strongly disagree (1) Moderately disagree (2) slightly agree (3) moderately agree (4) strongly agree (5)

The main reason I am taking music and practicing my instrument is that my parents want me to do this.

(1) (2) (3) (4) (5)

I want to do well in the music class and play my instrument because it is important to show my ability to my friends.

(1) (2) (3) (4) (5)

I want to learn to play an instrument so that I can play on different occasions when my parents and other family members are present.

(1) (2) (3) (4) (5)

I am going to music class because my friends go.
(1) (2) (3) (4) (5)

If I play my instrument better, my parents and friends will pay more attention to me. (1) (2) (3) (4) (5) I go to music class because I want to be as a famous musician.
(1) (2) (3) (4) (5)

Playing instruments is really important for me because it makes me calm. (1) (2) (3) (4) (5)

I want to learn music because it is a really nice entertaining activity for me. (1) (2) (3) (4) (5)

I really enjoy playing my instrument.   (1) (2) (3) (4) (5)

I love playing, listening, and going to music concerts.   (1) (2) (3) (4) (5)

Music class is one of my favourite activities, and I am really happy when I go there. (1) (2) (3) (4) (5)

I am really happy with my choice of this instrument.   (1) (2) (3) (4) (5)

Appendix 2: Extract to show Sample Data Table

Student: 4/1 Teacher: 4 Date: 3 March Recording number: 37

Phrases and actions	Time	Ego-state	Facial Expression	Tone of Voice
Singing and doing exercises	00:00	Adult		
"Listen to me."	0:30	Critical Parent positive	Serious	Alarmed and stiff
"We do not want to sing in this way, we want to sing in natural way."	0:43	Adult	Normal	Calm, soft and firm
Teacher laughs	0:54	Free Child	Happy face	Passionately
"Pay attention, do not force yourself to sing high pitch."	1:02	Critical Parent positive	With the firm smile	Alarming voice and firm
"Do not push your voice when you are singing. Please sing again and relax your voice."	1:18	Critical Parent positive	Serious and firm	Firm and purposeful
"Please correct your mouth position."	2:04	Critical Parent positive	Serious and firm	Alarming voice and firm
"You sang very well. I am pleased. You have succeeded in singing with your head voice."	2:16	Nurturing Parent/ Free Child	Happy face with smile	Warm and passionately
"Very good. You followed my structures very well."`	3:02	Adult	With the firm smile	Gentle and firm
Teacher and students practice together."	3:04	Adult		
"I repeat, don't force your voice to sing."	3:28	Critical Parent positive	Serious and firm	Alarming voice and firm
"Making gestures doesn't mean you are singing correctly. Please sing naturally."	3:54	Critical Parent positive	Serious and firm	Alarming voice and firm
"For singing high pitches you should open your mouth."	4:38	Adult	Serious and firm	Gentle and firm
Teacher and students practice together."	5:50	Adult		
Teacher explains to students.	6:10	Adult	Serious and firm	Gentle and firm
Students sing with the teacher.	6:44	Adult		
"Your voice is not loud enough for this place, sing another way."	8:25	Critical Parent positive	Serious and firm	Alarming voice and firm