

THE LONG-TERM RESULTS OF USING THE COMPLEX INSTRUCTION PROGRAM (KIP)

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The purpose of this paper is to illustrate the long-term outcomes of using of the Complex Instruction Program (KIP). KIP is a Hungarian innovation of Stanford University's Complex Instructional Model, which is suitable for managing student status, which is excellent for eliminating students' under-motivation and thus improving their academic performance.

In the course of our work, we first present the phenomenon of the status problem occurring in academically heterogeneous groups of learners. We then examine how teamwork affects student performance. We focus with teacher-student interaction, including the teacher-student relationship. Finally, we address the effectiveness of status management, with a particular focus on disadvantaged students.

Keywords: complex, instruction, program, status

Introduction

The problem of children from disadvantaged backgrounds lagging behind in school and their backwardness can be compensated for by radically changing and reforming education, and therefore it is necessary to look for teaching methods that are suitable for children of all social groups. The question arises: is there is an educational method that provides an opportunity to reduce disparities between students and contributes to equal opportunities? The paper presents the Complex Instruction Program (KIP), which is a Hungarian innovation of the Stanford University's Complex Instruction teaching model appropriate for managing status position between students, and which is eminently suitable for achieving the above goal.

The short-term plan of KIP is to address the status problem of students from disadvantaged backgrounds, to increase children's knowledge, and to ensure their success in school. In addition to the development of cognitive skills, one of the proven results of the program is the positive change in the socialization of students, the impact of which on siblings and parents appears in a measurable way within families as well. The long-term goal of the program is to help all children to continue their education

at secondary school level, which will lay the foundation for their successful entry into the labour market, and thus the future of the country. An important goal is to improve teacher competencies and change the pedagogical culture within the teaching staff.

The phenomenon of status problem

We encounter status problems in heterogeneous groups of students. A situation arises in student groups where more popular students participate more actively in class work and have a bigger effect on the group than their peers whose performance is weaker in class or are socially isolated.

We are often faced with the fact that one student dominates the group, or on the contrary, one student refuses to do work in the classroom. One of our most important statements is that a significant positive correlation can be seen between students' discussion, collaboration and knowledge acquisition. (Smith 1998; Lord 2001; Cohen & Lotan 2014; K. Nagy 2015, 2019). Observations carried out in classes working with KIP show that students who have better educational achievements and are popular in class – in other words, who have a higher status –, speak, perform and work more in the lesson. The possibility of oral manifestation and collaboration lead to more frequent participation in the lesson and better educational achievements because good students have more opportunities to reach a higher level of knowledge acquisition than their lesser skilled peers. Contrary to this, low status, mostly passive students may make some progress but not as much as their more active peers. On the basis of our findings, we can state that group work organised in accordance with the principles of KIP provides an opportunity for student groups of both statuses to participate more actively in class, and thereby to acquire knowledge. However, while frontal teaching favours students of higher status, group work – although it also provides more opportunities for talented students – decreases the distance between the two opposite sides.

In KIP there are students of different status in every group, i.e. due to the heterogeneity of the class, heterogeneity is also manifested in the group, which students are aware of. All the status information is at their disposal, which influences their decision of who is most suitable for performing a task. Cooperation is facilitated by roles and rules. The results show that by assigning roles and abiding by collaborative rules, teachers can avoid that one person dominates the group, and everybody feels that they are member of a group whose work he/she can contribute to in creative ways. Tasks designed according to the principles of KIP are the key of successful group work, an important criterion of which is the use of open-endedness tasks, the use of multiple skills, interdependency, but also individual responsibility.

Different rankings are created between students in the group. One of the rankings can be established on the basis of knowledge when the individual is judged by his/

her peers on the basis of his/her educational performance. The other ranking is based on roles, which can have the same influence on group work as the status created by knowledge. There is a strong relationship between the frequency of using the role of the “student teacher”, which enhances status, and knowledge acquisition because this is the role that encourages problem-solving thinking most in a student. The student seems to be more appealing in the role of the “student teacher” in the eyes of his/her peers, which influences student performance. The mandatory rotation of roles between students is important because the equal possession of the role of the “student teacher” does not allow for students from disadvantaged backgrounds to be ignored or isolated, i.e. there is a bigger chance for everybody to take part in the work. Roles, primarily the role of the “student teacher” are of utmost importance in group dynamics.

Cooperation and collaboration between students influence the success of status treatment. Reducing teacher leadership activity and the direct relationship between students and using roles make peer-to-peer interaction more frequent and increase student performance in class. We stated that the use of roles applied in performing open-ended tasks facilitates while direct teacher leadership decreases collaboration between students. If the teacher decreases her/his direct leadership activity, independent work without teacher engagement increases between students while students become more experienced in playing the assigned role. Competency expectations change with the frequent application of KIP.

Low status students learn that there are some skills in possession of which they have the opportunity to perform the assigned task and recognise that their activity in group work is acknowledged by the others. Being disadvantaged is considered to be one of the factors influencing the status position between students. In the course of our investigation we concluded that because non-disadvantaged students are more active than their disadvantaged peers, their oral presentation is significantly more frequent while performing tasks. As we pointed out above, during class work students of different status do not participate in the work in equal extents, and because of this, their participation in learning will also be unequal.

During group work high status students are more active than low status ones. When the group is working with an open-ended task, the students who have better educational achievements are more active and more popular among the group members than those whose popularity is low and have poor educational achievements, that is, they are of low status. In the case when disadvantaged students successfully perform a task, they can get closer in status to students occupying a higher position in status, namely a status situation approach can occur. The achievement of this status is facilitated by the fact that every student takes new status information into consideration when formulating their expectations. This combining skill is of crucial importance in changing the status situation.

That is why we presume that compared to frontal class work, frequent group work participation of lower status students decreases the status difference between students with different capabilities. This decrease of difference leads to the mitigation of inequality in the group and, in certain extent, to the change of the hierarchical order. Knowing this, the aim of the teacher is to assign tasks in such a way that they widen the relationship between the established ranking of students in class and the frequency of performance. That is why two of the most important indicators of successful group work are what percent of the group contributes actively to collaboration, as well as what kind of methods the teacher uses to treat status problems. Multiple skills and the use of roles and rules in KIP facilitate participation in work and the establishment of relationship between students, and prevent the exclusion of low status children from performing tasks or using tools and equipment. The high and low status show a reciprocal relationship with disadvantage. If the student is of low status in learning, then, if he/she is not disadvantaged, he/she occupies a higher position in her/his status among his peers than as if he were disadvantaged. As a consequence, the student who suffers the most from status problem is a disadvantaged student showing poor educational achievements.

Although as a result of collaboration, the relationship and cooperation between students improve, the status position between students is still a significant determinant of participation in a group task. The relationship between students is a determining factor of status position. The established status ranking influences schoolwork which, in our opinion, can be used by teachers as a more reliable starting point when ranking disadvantages into categories.

The effect of group work on student performance

Organising class work during a small group work differs from organising traditional classroom work, which is one of the reasons for the changing of the role of the teacher and the student. By handing over control, the teacher delegates his/her power to students, endows the group and the members of the group with performing the task, the characteristic of which is that students become responsible for their joint performance. When students work together, the teacher no longer stands in the centre, he/she is not the only source of information and he/she does not have a direct influence on the behaviour and learning of students. Many teachers find it hard to re-evaluate their changed role. Some of them suffer from no longer being in the centre, others fear that without their constant supervision, work in the classroom is disorganised, students make too many mistakes and are unable to perform their task.

When the teacher hands over control, students discuss the task and determine together what the teacher expects from them, and how this expectation should be met.

While performing tasks, the more children communicate and act together, the more they learn.

As a result of group work, there is a positive change in the ranking developed between students. Furthermore, the ratio of low status students situated at the periphery decreases. Although the result in the class community presumes only a few students; the result is not negligible.

As a result of reciprocal interdependence, a coordinated cooperation is established between students. During the use of group work this “by-product” of cooperation, this positive group spirit is used by teacher to teach behavioural rules to students. The established status ranking does not only depend on the strength of friendship developed between students. As a result of group work organised according to KIP, expectations of competency change. Low status students learn that they have strong skills, which are acknowledged by the others.

The extent of interdependency facilitating trust and helpfulness is measured with sociometry, which is carried out the second time. During the sociometric test we intend to point out that status is primarily a social perception and does not necessarily depend on the knowledge of the subject.

The result of teacher-student interaction

The relationship between the leadership role of the teacher and the work of students

In this method the success of classroom work lies in the extent and quality of the cooperation between students. A strong correlation can be seen between the frequency of teacher intervention and student group work. Children behave differently in a situation where the teacher plays a leadership role, and differently where he/she is present, but transfers his/her leadership role. As teacher control decreases and stops – as his/her organising role strengthens – children will become more relaxed, playful, curious and thoughtful while forgetting about the fact that they are learning. This playful curiosity is one of the driving forces of the new, creative problem-solving.

Transferring the leadership role bears extraordinary significance. Students' collaborative work brings different skills to the surface and generates discussions. This positive confrontation plays a key role in the increase of students' knowledge. Thus, the teacher must grab the opportunity to make use of this. Therefore, the factors that hinder, restrict the development of skills, or impede classroom discussions must be removed. Adult leadership and supervision in this process, therefore, appear as an impeding factor. Children behave differently in a situation where the teacher plays a leadership role and differently in one where he/she is present, but transfers her/his leadership role.

When the teacher directs learning, provides information and facilitates children's problem-solving with guidance, the frequency of students' cooperation decreases as

the teacher – due to her/his status and role – is the only help and source of knowledge for students. If the teacher does not transfer his/her leadership role, students will turn to the teacher for help and collaboration decreases. Therefore, when the teacher is the leader of class work, students work together less.

In contrast, when the teacher steps back, transfers her/his leadership role, moreover, he/she makes students aware of the fact that the group can perform the assigned task individually, student interaction increases. In this case, students use each other as source of knowledge; cooperation is more effective between them, which ultimately leads to increase of knowledge.

Direct teacher leadership influences student cooperation adversely. As a result of constant teachers' instruction, leadership, intervention, student collaboration in the group becomes rarer, and disappears because direct leadership decreases the effort of students to perform the task and come to a solution by relying on each other, by asking each other, and by arguing with each other. If the teacher considers the constant guidance of students' individual work to be important, student will not strive to be cooperative. The more frequent teacher intervention in class work is, the more inclined children are to suspend collaboration. In contrast, the more the teacher hands over her/his leadership role to students, the more the student group will work together. In accordance with this aim, the leadership role of the teacher decreases, and at the same time, peer-to-peer interaction increases.

While applying KIP, we can talk about results when the leadership activity of the teacher significantly decreases and, at the same time, the relationship, interdependence between students increases. The traditional roles of the teacher (instruction, explanation, assistance, guidance etc.) must be consciously changed because they hinder student collaboration and the achievement of the ultimate goal, i.e. to improve the performance of each student by changing the hierarchical order between them.

Organising group work is of crucial importance for the success of status treatment. Students' work is greatly affected by the diversity and complexity of tasks. If students receive creative tasks requiring the use of abstract knowledge, their answer will be complex and wide-ranging. Due to the effect of multiple tasks, teacher's instruction decreases, and communication between students increases, which helps the members of the group to use each other as sources of knowledge while performing a task: they ask questions, interpret them, express assumptions, ask and receive help, the aim of which is to increase peer-to-peer interaction and share knowledge among them. Within one group, serious work starts when the members of the group recognise that they should rely on each other and ask each other for help.

In order to complete a task successfully, students performing group tasks divide the task among each other. One crucial point of KIP is developing leadership, organisational and labour division skills. Students must learn to perform an unfamiliar task

together in such a way that all members of the group take part actively and usefully in the work.

In return, the teacher must learn to avoid constant leadership, instruction, intervention in group work. The success of status treatment takes shape in endowing high and low status student and his/her peers with new characteristics. When these new characteristics are combined with old status characteristics, the high status student will have fewer pre-visualised advantages in the eyes of the lower status one than he/she would have had without the use of deliberate group work. Due to its' direct effect on group work, new status characteristics will have a strong influence on the expectations of the group task.

The effect of status treatment

In KIP assistance directed at status treatment positively affects teachers' class work and the acquisition of how to deal with status problems. Acquiring practical and theoretical knowledge about KIP, developing the skill in using it and giving feedback on classwork facilitate teachers' the professional development. Giving regular feedback on the teacher's classroom work and behaviour is of crucial importance because this helps him/her to analyse and solve any arising problems. One of the most important characteristics of analytic feedback is the unambiguous and clear formulation of criteria. One crucial point of the result is that teachers should understand the importance of the new pedagogical role and the importance of status management.

Exploiting the multiple skills of students is a crucial requirement, primarily, for a successful status treatment of students from disadvantaged backgrounds. In order to facilitate status treatment, teachers must acquire the technique of creating tasks that require the use of multiple skills, during which the main problem can be that a significant part of teachers do not consider it important to take this aspect into account in the beginning. During KIP courses we teach teachers how to revive the skills of students that they will need to perform complex tasks. One of the tasks of providing assistance is to change teachers' approach, particularly that of those who view the skills of children from the "one-dimensional" perspective of intelligence and approve of the smart-dumb scale.

Reciprocal classroom visits, discussions among teacher provide further assistance to it, which give them opportunities for reflective thinking. During courses and follow-up, we help teachers to recognise multiple skills. During class work the teacher constantly draws students' the attention to the use of multiple skills, expresses his/her expectations of requiring certain competence from everybody without exception.

All in all, in KIP one of the crucial aspects of developing pedagogical competence is providing assistance through the expansion of theoretical knowledge. Teachers need more time to acquire new knowledge, develop new skills and form a new attitude.

Adapting and introducing the method is a long process: it takes both students and teachers some time to acquire this unusual class role. Sharing the leading role, the new form of cooperation, the use of roles and rules are unusual, and last but not least, it is the treatment of status problems that poses a challenge for the teacher.

The impact of the program on students from disadvantaged backgrounds

Classwork can be measured and analysed from several aspects. As was pointed out above, teacher and individual observer sheets are used for measuring teacher and student intervention and guidance; observer sheets meant for the whole group are used for recording interactions between students, and worksheets are used for measuring educational achievements.

The efficiency of status treatment can be measured with the examination of educational achievements as well. However, we do not consider the examination of the grade point average to be a reliable method for measuring status treatment because it can be influenced by several factors (change of year-, teacher, textbook etc.). We cannot rely on the measurement results of the National Centre for Assessment and Examination in Public Education, either as the results of national competency measurements are not sufficient for judging the efficiency of the method.

During the examination, we came to the conclusion that the students who worked with status treating KIP, consistently achieved better results than those who worked in traditional lessons – so it is very likely that students’ active participation in KIP has a positive effect on the extent of knowledge acquisition.

Based on the positive results, the effect of KIP on knowledge acquisition is summarised in the following flow chart. (Figure 1.).

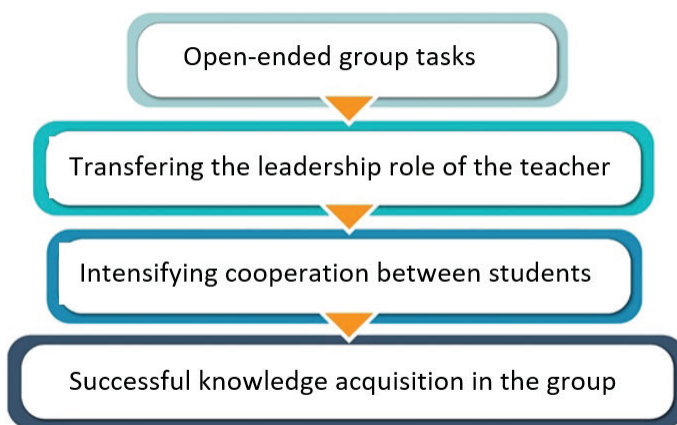


Figure 1.: The effect of KIP on knowledge acquisition

Although improving educational achievements is one of the important elements of KIP, we think that it is not its most relevant characteristic. Levelling the status difference between the members of the class, reducing the differences between students and ensuring that everybody achieves the highest level according to her/his skills, motivation and aims are a more important result.

During class work the development of social skills provides an opportunity to enable students to achieve their goals in such a way that it should be socially acceptable. In group work ethical norms and action models, which have a significant motivating affect, are shared. The established standards accelerate personality development, the establishment and strengthening of correct principles and forms of behaviour. Students' active participation in class work, the use of multiple skills, class collaboration, learning from peers, the elimination of competition between individuals and the recognition of similarities and differences are a key to achieving success. Success motivates and motivation is always a positive experience, a long-term incentive which helps avoid failure, unsuccessfulness and negative experiences.

The great virtue of the method provides the opportunity for developing effective communications skills. If students acquire knowledge of the rules of communication, they will probably be effective in their human relationships as well. In developing communicative skills, increased attention is given to the development of communicative competence as the student who does not have language difficulties will be more successful in learning. The improvement of communitive competence poses a challenge to students who come from a stimulus-poor environment, and whose vocabulary lags behind that of the community. The most successful method of developing them is to get students to speak and act at the same time.

Collaboration and cooperation of students is perfectly suitable for community education. In our view, one of the results of KIP is (see the results of sociometric measurements) that as a result of regular work, students engaged in group work can accept, tolerate and appreciate their peers from disadvantaged backgrounds to a greater extent, and therefore, this form of work can be applied well in classes with different levels of knowledge and socialisation.

Students can act as role models for each other, their joint work helps them in learning, and therefore, group work is a significant step forward in developing collaboration. During the process children's behaviour is affected by the manners and etiquette of the group, the acquisition of this etiquette is one of the crucial points and requirements of group learning. On the one hand, group work gives students experience, and on the other hand, it enables them to acquire such experience which facilitates their future integration into society.

One of the distinctive features of KIP is that it has a positive effect both on students at the top of status ranking and the examined disadvantaged group. Besides the

strengthening of their confidence and growth of their knowledge, they have the opportunity to practise the norms of behaviour and roles which they will use with their peers as adult members of society – possibly as a leader.

Summarise

KIP is a form of work organisation which during the organisation and management of learning takes into account all interaction possibilities, communication channels of the class in order to achieve the learning and educational goals, not narrowing them down to the unilateral use of a particular form of work. The inappropriate, or unilaterally used educational and teaching methods make it more difficult to achieve this goal, which is frequently attributed to disorganisation in class, the lack of flexibility of teachers and the scantiness of adequate tools and equipment used for education. Currently, curriculums used in public education are still characterised by the accumulation of quantitative and lexical knowledge, as a result of which teachers put less emphasis on the simultaneous development of multiple skills. As ranking between students primarily depends on skills, the duty of the school is to apply a teaching method which offers a solution to the above problem.

An educational reform is needed to produce results, and therefore, the different possibilities of adapting various, well-established curriculums must be considered, with particular attention to the use of cooperative learning methods, including KIP as a status treatment teaching method. This group work-based method facilitates such an educational and socialisation process that – focusing on the development of students and their activities – contributes to the prevention of students' social exclusion.

School is supposed to prepare children for adult life and acquaint them with the manners and etiquette rules of adult society, the acquisition of which does not occur individually but in the community. The individual becomes a valuable person performing intellectual work while coexisting within the community. While during frontal class teaching the teacher has a central role, group work provides opportunities for students to do active work, to get engaged actively in the learning process and to acquire cooperation norms. Through the use of group work, the school approaches the forms of work which enable children to choose the activity that are most appropriate to ensure their development. A well-organised group provides an opportunity to allow personal interests to compete with general interests, and at the same time, it eliminates egoistic tendencies as well as it establishes a target system in which there is a harmony between the personal and group interests.

However, group work cannot be an exclusive method in the process of knowledge acquisition. Beside the use of the method, frontal class teaching, pair work and individual work are still justified.

With regard to KIP, the extent to which the results appear partly depends on the fact how well teachers understand the point of well-structured group work and the conditions of its use. The aim of classroom work is to give a sense of accomplishment to all students, one tool of which is to facilitate active student participation. Teachers acquire a new way of thinking and new methods while learning to “think as sociologists”, and therefore, they understand how student behaviour is influenced by peers’ expectations, and in what way these expectations can be changed. As the teacher chooses the theme of the lesson, he/she determines the structure, process of the lesson and the evaluation system, it is his/her responsibility to turn theory into practice. The teacher must be aware of the fact that the maintenance of class hierarchy is preserved by task consistency. However, if consistency changes, a change occurs in the structure of the hierarchy as well.

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