Several studies of distance education in Slovenia (Yugoslavia) have been conducted. Questionnaires and individual in-depth interviews were the most frequently used tools. In the studies, the relationship between social isolation and efficiency in distance education was observed through three sets of variables: (1) two different concepts of education and learners' perception of social isolation; (2) types, quality, and quantity of social relations and impact of social isolation on distance education; and (3) individual psychological characteristics in relation to the impact of social isolation on the effectiveness of distance education. Although the studies are not directly comparable, they lead to several basic findings (which cannot be generalized). For example, review of the studies showed that the learners' approach to education can predetermine their expectations. Learners who feel they must be taught are more likely to feel deprived of social relations if they study at a distance, whereas learners who have self-confidence and believe they can get the knowledge by themselves function effectively. Learners who lack good social relationships also may not function effectively in distance education. Finally, learners with low self-confidence appreciate distance education because they do not have to perform in front of peers. (KC)
Ana Krajnc

Social isolation and learning effectiveness in distance education

PERCEPTION OF SOCIAL ISOLATION

- quality of other social relations
- frequency of social relations
- satisfaction of basic social needs
- social background
- past social experience
- repressive/ permissive education

Zentrales Institut für Fernstudienforschung
Hagen, Juni 1988
Vorwort des Herausgebers

Schon der Titel dieser Arbeit stellt die im Fernstudium altbekannte Frage. Ana Krajnc präsentiert in dieser Studie eine Fülle von Beobachtungen und Forschungsergebnissen. Nach der Lektüre bedürfen für mich zwei wesentliche Punkte der Erwähnung:

1) Wir brauchen mehr Grundlagenforschung im Bereich des Lernens als sozialer Funktion, ganz besonders im Fernstudium.

2) Dankbar müssen wir Ana Krajnc sein, daß sie zwei Forschungsmethoden versucht hat zu integrieren: Bildungsbiografie und klassische Evaluation.

Der nächste Schritt muß also eine Studie sein, die wiederum beide Methoden integriert und dabei auch die einzelnen Daten zwecks intersubjektiver Nachprüfbarkeit präsentiert: Schlußfolgerungen sollten dann übertragbar sein. Vielleicht erreichen wir ja nie eine Ebene der Generalisierbarkeit von Ergebnissen so wie wir uns das erträumen, aber wir sollten zumindest eine gemeinsame Ebene vergleichbarer Fragestellungen anstreben.

Helmut Fritsch

Editor's note

The title of this paper "Social isolation and learning effectiveness in distance education" pose one of the old and central questions that always accompany distance education. Ana Krajnc presents a lot of observations and evaluation results. After having read her paper two conclusions come to my mind:

1) Basic research in the field of learning as a social function is still an underdeveloped field in distance education.

2) We have to be grateful to Ana Krajnc that she showed two possible ways to reach necessary information: educational biographics and evaluative studies.

So the next step must be an elaborated study again integrating the two methods of observation but clearly presenting the data so that other researchers can crossevaluate and so that the conclusions will be transferable. Probably we never will reach the level of generalization of results we are striving to but we at least should try to find a common level of asking comparable questions.

Helmut Fritsch
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FOREWORD

Education basically represents a social relationship and it has always been an important and interesting question to observe "how people learn in social isolation". It became one of the central issues for distance education. Findings from several studies allow basic conclusions about how people react and what their learning effectiveness is when learning in social isolation. Individual learners react very differently to the lack of social interactions and the fulfilment of basic social needs. The reaction of individuals might be diametrically different, depending on their social situation. Characteristics of individual students are important for the perception of social isolation, which, in the educational process, may not be automatically valued negatively. Some students can bear social isolation and accept it, others even prefer to study this way.

This text had been prepared for my presentation at ZIFF, FernUniversität, in Hagen, February 1988. I am thankful to Prof. Dr. Börje Holmberg, who stimulated me to reflect and summarise several findings. I would also like to thank other colleagues at ZIFF and other research centres, who enabled me to discuss the problems of distance studies and to learn a great deal.

Ljubljana, Mai 1988

Prof. Dr. Ana Krajnc
INTRODUCTION

Social isolation in distance education has been frequently treated by researchers and has always been an attractive subject of studies, because it was seen as an inevitable companion of correspondence education or distance education. Typical of most of these studies was that social isolation was almost always observed and interpreted as a negative influence on education and learning. Nothing good or positive was ever expected to result from it.

Even though the possibly positive, favourable effects on learning had been neglected, it became clear that not all distance students react in the same way to the necessity to learn in isolation. The effects range from high to rather low independence of other characteristics of the learning situation, the characteristics of the distant learners and their social relations.

Learning in distance education is a highly individualized process. Therefore only small groups of correspondence students and others learning in social isolation have been selected and studied separately. Conclusions made on the basis of the average performance results of different sub-groups would not necessarily raise the validity. Therefore numerous small-scale studies and observations were made in the eighties to help the researchers in Jugoslavia to draw more valid conclusions and make new discoveries about distance education.

After the introduction of the educational reform of the regular school system (between 1976 and 1980) in Slovenia correspondence education and distance studies became even more attractive to many people as these types of learning were expected partly to become a substitute for the school system. In this complementary function, distance education was expected, because of the economic crisis, to diminish
the proportion of students in regular schools. The compensatory function of adult education was meant to be brought about primarily by means of distance education.

Some observations were made on the basis of the data collected in a study of Educational Biographies made by the author between 1982 and 1985. The progress of each person treated was carefully followed. Specific biographical data, together with the influences of the environment, which were included in the research, explained several variables in the educational process (continuation of education, selection of educational programs, other initial and accompanying decisions and the effectiveness of learning).

In their educational biographies, independent learners tended to interpret the influences of the environment very subjectively. In some cases their perception and reactions were completely unexpected and difficult to foresee. Individuals reacted to the same event or change in their environment in different, opposing ways. The individual responses were treated separately. Later they were compared and several general tendencies were identified.

The evaluation of effectiveness was based on concrete results (evaluation of papers, examinations, frequency of contacts with the educational institution etc.). This was possible where the students were in the process of obtaining formal education. Several studies of smaller groups, however, concentrated on the learners' attitudes and primarily recorded the reactions and individual perceptions of the educational process.
Social isolation differed from sample to sample. It was measured by frequency of:

- contacts with other students,
- contacts with individual tutors,
- group consultations,
- attendance at short seminars,
- possibility to discuss personal learning problems with a relative or friend.

Specially treated were the learners who learned in complete isolation, because of handicaps, for geographical reasons, or simply because of the type of distance education program. This set of independent learners studying on their own without a chance to communicate about their learning process with anybody, reported on their education in complete social isolation. Most of our distance education programs are mixed models. They make use of several forms of face-to-face education and combine them with distance education. Sometimes this is done for practical reasons, for example, when necessary educational materials are not available. When social isolation is a reflection of a given situation, a necessity rather than choice, the reactions of the students cannot be predicted and will show, when examined, a great diversity.

The responses of the students who consciously chose to study at a distance, in social isolation, differed greatly from those who did not have any objective possibility to attend face-to-face adult education programs (geographical distance, living far from educational institutions, responsibility for young family, working shifts were the most frequent reasons preventing them from attending "evening schools") and therefore did not study at a distance by choice. In the latter group the perception of educational experience in distance study tended to be negative and their readiness to adapt to specific methods of learning was relatively low. This clearly demonstrates
the unwillingness of those participants to learn outside the group. They expected adult education to be very similar to the school type of learning.

The findings of several researchers (Z. Jelenc, M. Matijevic, and S. Pongrac) were compared and summarized and are included in the considerations on which this paper is based.

In international literature the problem of social isolation in distance education is frequently treated from various points of view, revealing a variety of reactions of distance students. For this reason continued studies are required, again and again in new specific settings.

Various Concepts of Education and Participants' Perception of Social Isolation

The usual general statements about distance education rarely do justice to its real value. It is very common that distance or correspondence education is not supposed to have the same value as the face-to-face forms of adult education. Such an evaluation is not typical only of individual countries, it can be found almost anywhere in the world. What is the cause of such suspicious attitudes towards distance education in spite of good learning results?

Statements of this kind show that in our social and cultural environment distance education is undervalued for two basic reasons. First, the general image of education is still the traditional formal classroom learning with a teacher. Therefore adult education in general is usually compared to school education. The closer it resembles school in its approach to learning, the better it is considered to be. Such social stereotypes require just the opposite of what one should expect of high-quality adult
education and independent learning. This stereotypical view of adult education as schooling automatically influences even adult educators, or as Malcolm Knowles says, students make those educators abandon their modern, contemporary understanding of adult education so that they resort to conservative "face-to-face learning with the teacher"\(^1\)

This view generates many negative attitudes which in a particular social climate and social surrounding influence individual learning in social isolation, which is the case in distance education. The prejudices of the environment influence the expectation of the students.

Secondly, the basic approach to learning (either at schools or in adult education) is that somebody must teach the learner, and that students are not capable of learning by themselves. The students then basically lack confidence that they can learn and discover knowledge by themselves. The hierarchical social relations where the students are subordinated to the will and decisions of the teachers are absent in independent learning and indirect educational communications (between tutors and students or the authors of educational aids and users), which are characteristic of distance education. Therefore, in this conservative concept of education, an essential part of "proper education" is felt to be missing in distance studies. Only very slowly has the belief been growing that students can gain knowledge by themselves and that the help needed can occur in the form of guidance, coordination of influences and selection of educational means.

In the evaluation of distance education two basically contradicting approaches and concepts tend to appear: one, in which education means teaching others and is primarily subject-oriented, and the other, in which everything concentrates on helping students to discover knowledge, the student-oriented concept. Even Rowntree's dictionary in its definition of teaching methods reflects what most people

\(^1\) Knowles, Malcolm: Andragogy in Action
mean when they speak of educational method, identifying it
with the management of face-to-face teaching encounters.\textsuperscript{2)}
It does not even suggest that there may be gradations in
teacher domination within face-to-face work, neither does
it consider the fact that teaching is organised in
different ways in different educational institutions, such
as correspondence education centres or distance studies
institutes.

In the expected hierarchical social relation between the
adult educator and the students, the learners are kept in a
dependent social position and are taken care of. In this
situation students feel helpless and their natural reaction
is constantly to expect help to come from outside, from
other persons (the adult educator). Seeing themselves as
dependent and "addicted" to teachers the students
automatically exclude from their behaviour and
psychological reactions a set of mechanisms which would
allow them primarily to use their own abilities and would
make them function independently.

\textsuperscript{2)} Rowntree, D.: \textit{A Dictionary of Education}
Two concepts of education and social isolation:

<table>
<thead>
<tr>
<th>Concept I</th>
<th>Concept II</th>
</tr>
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<tbody>
<tr>
<td>- Education is teaching</td>
<td>- Education means helping others to learn</td>
</tr>
<tr>
<td>- Educator's activities: lecturing, explaining</td>
<td>- Educator's activities: guiding, coordinating, directing</td>
</tr>
<tr>
<td>- Educator makes decisions</td>
<td>- Student is helped to make his/her own decisions</td>
</tr>
<tr>
<td>- Students are dependent</td>
<td>- Students are independent</td>
</tr>
<tr>
<td>- Predominant communication is face-to-face communication, direct communication</td>
<td>- Predominant communication is indirect, at a distance, by educational aids</td>
</tr>
<tr>
<td>- Students expect social contact and miss them when not available</td>
<td>- Students do not expect and, as a consequence, do not miss social contacts</td>
</tr>
<tr>
<td>- Highly developed need for direct social relations</td>
<td>- Low expectation of direct social relations</td>
</tr>
<tr>
<td>- Social isolation disturbs learning</td>
<td>- Social isolation is sufficiently mastered</td>
</tr>
</tbody>
</table>
Two concepts of education and the amount of need for direct social contacts:

Although most of the studies were on the attitudinal level (groups expressed their expectation and reactions towards learning in social isolation), the same responses were found through observations of direct behaviour and reactions in specific cases, where the persons were forced to learn in extreme isolation. This applies to handicapped persons who chose to learn even when no outside help and support were available and managed to learn efficiently (foreign languages, drawing, astronomy, geography) in total social isolation in a completely independent way. In spite of social isolation they later never complained about or felt deprived by social isolation. They took it as a natural part of the total situation and as a good way of learning. Interviews with these "isolated learners" have even revealed several positive sides of independent
individual learning. One of these positive effects of learning in social isolation reported in the interviews is that they have felt rewarded not only by the knowledge and skills gained but also by the efficient techniques and methods independently discovered. They also felt creative and enjoyed the freedom to shape their learning, because no outside help in learning was expected. They felt to be in command of the learning situation, which inspired them with self-confidence rarely experienced elsewhere in their lives. They felt more impeded by their physical immobility, dependence on medicine and other forms of therapeutic treatment in their lives generally than in the learning situation.

Here it is possible to draw some basic conclusions: the effects of learning in social isolation are relative and differ greatly. They depend a great deal on students' expectations and their basic understanding of education. If students expect direct social relations, then they will miss them; if not, they will not miss them to the same extent. If they believe "that somebody must teach them" (the conservative concept of adult education), then they are hampered by social isolation. On the other hand, when their initial expectation and idea of learning is independent and self-directed learning, their learning will continue to be efficient ever in social isolation. In extreme cases isolated individual learning may even be psychologically rewarding.

Positive results of education in social isolation have also been reported by some researchers from China. At the international symposium for adult education in Shanghai Wang Yongxian presented distance studies of architecture at the University of Tajgi. The graduates doing organized distance studies for several years developed specific positive characteristics and abilities which have not been
observed in the population of graduates in regular studies. Distance-education graduates appear to be much more goal-oriented, determined in their decisions and activities, ready for critical analyses and for taking initiative, with a great sense of responsibility. These abilities enable them to take on management jobs and leading posts immediately after the diploma, whereas the graduates from regular studies mature for such positions only after a decade of practical work in jobs taken after the diploma.  

When the necessary amount of social relations is not present in the educational process (correspondence education, distance studies), the students try harder to establish them individually, both formally and informally. Through such repeated attempts they become socially more independent, self-confident, and their sociability increases.

Regular students, on the other hand, are protected by their daily organisation of studies which is taken care of by others (the teachers and managerial staff). They gain very little, or no direct experience in establishing and sustaining the social relations needed. Others do this for them and part of their personal development is delayed to the time when they take on their first jobs.

Learning in social isolation through distance study has more rarely been observed from a positive point of view, than from the point of view of its negative consequences. For this reason planners in distance studies most frequently try to eliminate social isolation from education to the greatest possible degree. So far there are no positive data on the optimal proportion of social isolation in any one model of adult education.

Other Social Relations and Learning in Social Isolation

Students' reactions to specific conditions of distance education depend on their overall social situation. In the cases observed distance education never occurred without any social contacts.4)

The extent of supplementary face-to-face forms of education varies. The students may work in informal study circles of three or four, where they meet and discuss the issues, they have consultations organized at the seat of Correspondence Schools and in centres all over the country, or they attend short seminars where lecturers give additional explanations on a subject.

All these forms are considered to be supplementary. Their aim is to improve the effectiveness of learning and reinforce the contact between the institution and the student. They are not compulsory. Students are free to attend them or not. The population of students can be divided into several categories:

- students who regularly make use of supplementary forms of education,
- students who would like to attend supplementary forms, but are not able to,
- students who do not attend additional forms and do not want to,
- students who attend additional forms occasionally when they are able to or when they feel they need additional help.

4) Main distance education centers in Yugoslavia: Center for Correspondence Education (Center Zadopisno Izobrazevanje Univerzum), Ljubljana; Birotehnika, Zagreb; various distance studies organized at the universities.
The reaction to social isolation in distance education observed in individual groups shows significant differences. The first group, who have regular access to face-to-face education are relatively neutral in their statements concerning the need for social contacts with teachers and other students. They show noticeable differences of opinion, especially if they belong to various programs.

The reactions of the third group are similar to those of the first group. The students in this group develop relatively neutral attitudes to social isolation. In general they feel comfortable when studying on their own using various educational means and more so if they feel they are progressing. Self-evaluation tests are very important for this group, and they would wish to have more than they can get at present.

The second group experiences a relatively high level of frustration; the participants complain about the negative effects of learning in social isolation. They feel that learning is very difficult or virtually impossible without social relations. They are very critical of educational institutions and many of them are about to drop out of their study programs. Some of them report a feeling of helplessness and criticise existing learning opportunities. Their personal motivation for education encounters too many obstacles and the formal education desired seems to be out of their reach.

The fourth group is the most unpredictable. Their opinion varies with time. Sometimes the students report they have no problems studying by themselves, but after a while the need to meet others develops. This happens especially when the program is difficult and they do not make much progress
in learning, when they feel they cannot understand the content and look for help. In some cases where the units of distance courses are too large (they may include several books and manuals), the students try to obtain face-to-face help and attend short courses, which help them to structure the program they have to master.

Additional face-to-face forms in distance education play an important part in the process of teaching students and providing them with the necessary knowledge. They compensate for the insufficient educational aids (course units, books, audio cassettes, films). Their secondary role appears to be educational motivation support and the creation of a positive social learning climate.5)

Why do some students need more social contacts than others? The reasons are very complex. A combination of the data from various groups enables researchers to draw some conclusions and find explanations which need to be further developed.

How the students feel about social isolation in distance education and how it effects them depends to a great extent on the social environment in which they live. Those who are basically isolated, who live mainly alone or work in isolation in their jobs, tend to compensate it with social relations in educational programs. Their motivation for education is partly to meet people, to make new friends, to be with people. To students with such a social deficit it is more difficult to adjust to the distance-education model than to others.

5) Pongrac, S.: Communications in correspondence education
The amount of social contact needed by distance-education students also depends on the quality of social relations which they have managed to establish and not only on their quantity or the frequency of social contact. "People need people, they need each other, they use each other, but they may not misuse each other. If they do so, the basic social needs are satisfied only by one partner and the other is deprived. Such social relations can never last long, because those who are deprived must find their satisfactions elsewhere."6)

The students who feel deprived in their usual social relations are more critical and see more problems in studying socially isolated than those who find their social relations in family and work satisfactory. Only persistently negative experience in relations with other people will make individuals completely withdraw from learning together with others in groups. However this tendency is not common, on the contrary, it is rarely found and represents an extreme reaction to social reality.

The study of educational biographies showed that students educated in an extremely repressive way prefer to learn in social isolation and by themselves to compensate for earlier lack of independence.

6) Brajsa, P.: Management as interpersonal process, p. 42
Social relations of individuals and their perception of social isolation in distance education. 7)

7) Krajnc, A.: Educational biographies of independent learners
Well-developed social relations of students with their partners, friends or relatives diminish the negative perception of social isolation. The respondents who have managed to develop at least one deep emotional relation with another person experience learning in social isolation as less problematic and do not complain about it.

If the primary social needs of a person have been at least partly satisfied through social contacts of various types he/she does not eagerly try to find more social contacts. The educational process develops alongside other social relations which the person has established in his or her social surrounding.

In his psychodynamic theory P. Brajsa stresses how much past experience (of previous social relations) shape present reactions of a person. They sometimes make individual behaviour appear ridiculous and illogical.8) If a student in correspondence education reports about his traumatic experience of education in social isolation, this is not necessarily related to the present set of his social relations; it may be an expression of his past social experience.

Similar findings are reported by Berne in his transactional analyses.9) An individual can exist only for a limited period in social isolation. Not all activities lead to satisfaction of basic social needs. One social group may, however, compensate for the deficiency of others in providing security, the feeling of social belonging, self-esteem, self-actualisation. Education in social isolation is likely to be constantly deficient in providing satisfaction of these needs. They must be given compensation elsewhere.

8) Brajsa, P.: General psychodynamics of selfgoverment behaviour
9) Ibid. p. 124
If in the social background of an individual the social relations are relatively limited, social isolation is felt to be negative. This will quickly result in reduced learning motivation and an overall decrease in educational effectiveness. In the opposite cases, a positive correlation exists.

**Characteristics of Individual Students and Social Isolation in Distance Education**

The findings of several small-scale studies allow us to determine a third set of variables related to the reactions of students to social isolation in education. The programs on the average consisted of correspondence-education aids (60%), audio-visual aids (17%), and face-to-face additional forms (13%). Individual expectations ("what they will find in education", "how they will learn") were different, and their reactions to the reality of distance education varied significantly. For the purposes of this study several psychological characteristics were measured. The correlations were not very high, but the data revealed some tendencies of coincidence.10)

Individual characteristics, which affect acceptance of social isolation:

<table>
<thead>
<tr>
<th>SOCIAL ISOLATION CHARACTERISTICS (perception of and reactions to)</th>
<th>INDIVIDUAL</th>
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<tbody>
<tr>
<td>- self confidence</td>
<td></td>
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<tr>
<td>- motivation for education</td>
<td></td>
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<tr>
<td>- independence in learning</td>
<td></td>
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<tr>
<td>- independence in other activities</td>
<td></td>
</tr>
<tr>
<td>- sociability</td>
<td></td>
</tr>
<tr>
<td>- extrovert/introvert behaviour</td>
<td></td>
</tr>
<tr>
<td>- adaptability</td>
<td></td>
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</table>

10) Krajnc, A.: The evaluation of education; Pongrac, S.: Communications in correspondence education
Although the students knew they would learn in social isolation by themselves after a certain period, the length of which depended on the length of the program, they became disturbed by this fact. This happened more quickly and with a greater negative impact (delaying examinations, end of communications with tutors and educational institutions by mail, smaller amounts of knowledge obtained, or finally dropping out of the program) to students with specific characteristics.

Self-confident students report about problems which they met in distance education, but they expect to be able to overcome them; they do not see them as fatal although they "feel that" another way of studying might be better. They use several possible solutions to solve the problem of social isolation (friendly relations with experts in the field, meeting people and making friends with those in similar or completely different programs, frequent communications with relatives about their studies - they communicate all details to the partner, brother, sister, parents etc.).

Persons with lower self-confidence develop more quickly the feeling of helplessness and personal inability to master the situation. Their attitudes show rigidity and a fear of taking risks in all circumstances. This is why their attempts to compensate for the social isolation in education are very limited. They go on learning in the old way with unchanged reactions, and they do not even try to find compensatory social relations and contacts; so their readiness to learn and motivation almost completely disappear after a while.11)

11) Vrajnc, A.: Educational Biographies
Contrary to what one would expect, there is a general tendency among adults with lower self-confidence to select the distance-education model even in situations where they could learn in the face-to-face manner. They are too shy to take part in an educational group and to be in the public, confronted with others when making trials and errors, or simply showing a lack of knowledge. In these situations they feel embarrassed and insecure.

Such students prefer distance education to face-to-face learning, but at the same time they are the first to find it difficult. The contradiction between their personal characteristics and their decisions soon shows itself in a series of conflicts.

The primary motivation (or internal motivation), the general wish to know and to discover the unknown as the basic individual inclination is combined with the secondary motivation (or external motives). Sometimes (or very frequently) the secondary motives are in a given situation stronger than the primary motivation. People wish to get education because they want to improve their working conditions, or they want to earn more money, or they compete with others in their surrounding, or they simply want to fill their free time. Some motives are very specific, still they can fit into a category. One of the categories which may appear among learners is "to find new friends and to be with other people, to meet people". This "social motivation for education" may occur as a predominant motive.
The student cannot know in advance how he/she will find learning at a distance, but it is possible at the time of enrolment to prevent a negative experience from actually occurring, as the counselling staff can advise the students so that they may find the most suitable decision. The potential students are not likely to discover by themselves what dangers they have to face and what might make them inefficient in distance study. Not all who wish are really ready to learn at a distance.

Two other prerequisites for effective learning at a distance are the ability of the student to learn independently and his general personal independence. This is so, because he will have to make decisions by himself and be able to organize all his micro activities. School education does not correlate directly with the ability for independent learning. People have been used for many years to the teacher teaching them and carrying all responsibility for the results of their learning, at least in our social and cultural surrounding. The years spent at school do not help to develop the abilities for independent learning. There exists a closer correlation between those abilities and the level of cultural and social development of the social surroundings in which the student has grown up and now lives. The development of habits and skills needed to engage in various cultural activities (attending concerts, theatres, exhibitions, reading books and newspapers, critically watching television etc.) foster the development of the ability for independent learning. Through cultural and social activities a person develops the mechanisms for acquiring knowledge without a teacher.
If the students have not developed this routine, they face many difficulties in situations where they have neither a possibility to ask for help or advice, nor anybody else to decide for them. The troubles in learning accumulate quickly and seem to reach the point where they become unbearable. In distance education the students have to rely mainly on their own skills and abilities of independently exploring and discovering knowledge. To this set of habits also belong the skills of individual decision making and the abilities for selection or making the right choices, aggressive instead of defensive behaviour.12)

Related to the already presented characteristics of distance students are some additional findings, made on the basis of observations of the hierarchical structure of work organisation at the students' place of work.13) The students who enrol in correspondence educational programs because they want to obtain formal secondary education usually have very low positions at work. They have to follow regulations, rules and other orders of their bosses, the low managerial staff. Managers make daily decisions and they are used to following them. In this division of social roles a set of conditioned responses is linked with the behaviour of dependency, and the inclination towards subordination becomes evident. The correspondence students in secondary school education programs show how the behaviour of dependence is transferred from the working situation to their educational process. In order to learn they need a teacher, and they need a lot of help to develop new skills for more independent behaviour in the process of learning. No matter how difficult this change might be for

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12) Krajnc, A.: Educational Biographies
13) Pongrac, S.: Communication in correspondence education
them, some correspondence students are forced to undergo it, because they have no other choice if they are not able to do part-time face-to-face studies for some reasons (such as family responsibilities, geographical distance, question of time, absence of face-to-face educational programs, to name only the most frequent). 14) More than 30% of them work in shifts, and they are not free to learn at a particular time of the day. Distance education is for them the only chance to obtain the necessary formal education and they do it in spite of the great difficulties they are faced with in the process of learning.

Troubles expressed by distance students on the lowest educational level: 15)

- do not understand certain parts of the subject-matter
- the explanations are missing in course units
- the rhythm set by the educational model is too fast
- not enough time for preparation for examinations
- not sufficient written material
- lack of possibility for attending short face-to-face seminars
- difficulties in adjusting to the general organisational structure (examination terms, frequency of course units, days for consultations)
- the organisation does not allow for individualised studies
- to distinguish between the essential and the less essential in course units
- loneliness and social isolation (very few of their acquaintances study, nobody to talk to)
- too much to learn in one unit

14) Krajnc, A.: Method of correspondence education, p. 47
15) Ibid.
All the complaints stated derive from the personal inclination to be dependent on another person for guidance in learning, help in learning and decision-making. Changing from the dependent social position at work to the independent one in the learning process causes a lot of trouble and frustration especially during the initial period. Distance students on a lower educational level need more individual psychological counselling and help to develop to independent learners. To a certain extent help in this process is provided through social roles in the family, where partners or parents foster more self-dependent behaviour, image of independence and individual responsibility. In our social and cultural surroundings man is through his social role in the family better prepared for independent, self-governing behaviour than woman. The positive transfer of independent behaviour from family to distance study is more likely to occur in male groups than in female groups, because women, in spite of their great family responsibilities, tend to adopt subordinate behaviour.16)

Presence or absence of independency in other adult activities can support or hinder learning in social isolation. Independency in learning is closely connected with independency in other adult activities.

16) This is one of the reasons why women in our country do not want to be engaged in politics, public life, management
Sociability in interaction with extrovert and introvert behaviour affect the relation between social isolation and effectiveness of learning. Most of the data referred to were collected among potential participants in distance education programs and those groups already involved in adult education who have some experience of their own.¹⁷) A generalisation of these findings is not possible, as in different social and cultural environments there exist different criteria for what is sociable behaviour and what constitutes an introvert or extrovert person.

Still, the studies show how social isolation can either facilitate or hinder learning, making it more or less efficient. Counsellors and tutors can help to solve individual difficulties in distance learning in an adequate manner and prevent low effectiveness. This is what distance-education institutions always try to do at the preparatory stage. If detailed studies are made, a battery of diagnostic tests to be used in initial counselling can be prepared. In this way it is possible to advise the students who are likely to fail not to engage in distance study. Not all who want to take part in distance education are really capable of doing it effectively.

Individuals with developed sociability have relatively good success in distance learning. If this sociability is extremely low, the individual finds it difficult to establish social contacts and new social relations; if it is extremely high, social contacts are so plentiful and easy that the person constantly creates a flow of constantly new social relations and contacts, leaving old

¹⁷) Krajnc, A.: Types of learners and independent learning
ones for new ones. People with low sociability automatically give preference to distance education, because they feel that this type of learning can help them to avoid the unpleasant experiences of trying to establish new social contacts and meet new people. Such people automatically select distance education and not face-to-face programs even though they are inefficient in compensating for the existing lack of social relations elsewhere (at work or in friendships). Social stimulation thus remains at a very low level. Soon they feel a deficit in the satisfaction of social needs, which diminishes the effects of education and produces a feeling of discomfort.

18) The schematic presentation of sociability and efficiency of learning in distance education is based on the findings of the study by A. Krajnc: 'Types of learners and independent learning' and the study 'Educational biographies', by the same author.
The behaviour and reactions of people with low sociability are somewhat different from their expectations. In cases of extremely low sociability the problems start soon after they start learning.

The participants with fairly satisfactory social relations and contacts enjoy the benefit of individualized learning in distance education longer and are efficient enough to get the necessary reward from their own progress in learning. This category of people are not "lonely" or asocial; their individual needs are well-expressed, but they are too shy to protect them in public, in confrontation with other participants of a social group. When entering social relations, they prefer pairs or triads, but are less ready to enter larger social groups. They tend to have close social relations, generally avoiding superficial contacts.

Sometimes they develop and even depend on symbiotic social relations, in which they satisfy most of their social needs (social security, belonging to a social group, self-confirmation). Generally they manage to maintain a satisfactory social life.

Subjects with extremely high demand for sociability usually discover soon that distance education is not the adequate way of learning for them. They do not feel well if they are not in constant social interaction. The lack of social contacts and social relations gives rise to a feeling of deprivation. It is more important for them to be among people (in a learning group, face-to-face consultation etc.) than it is to have an objective possibility to learn
something new individually in an organised way. Many of their social relations, which they keep establishing, soon die off so that new social contacts must be introduced as a substitute. High sociability is their mode of living and is repeated in all the social situations and activities these subjects carry through. Educational activities are no exception. Learning in educational groups and with a tutor is for them more suitable than distance education.

There is also a correlation between the degree of sociability and extrovert/introvert characteristics in distance learners. The subjects with an introvert inclination, whom we call "observers", show a relatively passive attitude towards other people. They stand aside and watch from a distance, but they feel happier if they do not have to interact directly with social groups or other individuals. In many respects they are withdrawn from social reality, although they profit from it. Their attitudes show that they feel comfortable in distance education. When their sociability is high enough, it finds an indirect expression in their personal interests. Various means and materials are applied for indirect communication, but in principle these people tend to do everything by themselves.
In extrovert learners self-confirmation requires contacts with others. Personal progress in learning is perceived as success only if it is reflected in other people's opinion, their reactions and behaviour toward the learner. All the basic patterns of behaviour of extrovert learners are oriented towards other people. They constantly seek social contacts and social relations and in this sense they behave as dependents. They never feel comfortable if they do not exercise social contacts, without which they think life is impossible.

For the above described sub-group of learners it is impossible to compensate elsewhere for the lack of social contacts in distance education as their life style dictates functioning "in front of others" or in "relation to others". An activity becomes for them meaningful only when other people react to it or, at least, notice it. A great deal of energy of extrovert subjects is devoted to social relations. They never seem to have enough social contacts and therefore are not able to compensate for learning in social isolation elsewhere (among friends, in family, at work, or in public life generally). They do not belong to the efficient group of distance learners, or rather, they are efficient only for a relatively short time.
SUMMARY

In the last decade distance education has gained in Slovenia in importance. One reason is that the formal school system became much more repressive and selective after the educational reform (1976 - 1981) than it had been. On the one hand it excluded far greater numbers of potential students than the previous school system did, on the other hand the repressive patterns of regular education became unacceptable to many potential students. For both reasons and also because of the pressure of the economic crisis, the younger generation, their parents and adults looked for alternative solutions, other possibilities to obtain the necessary education. Distance education appeared to be one of them.

Education basically represents a social relationship and depends on communication among people, especially in its intensive form of face-to-face education. In several studies by a number of authors (S. Pongrac, M. Matijewic, M. Novak, M. Span, Z. Jelenc), on which we rely for the conclusions presented in this paper, a variety of distance education models for various educational levels, practised in small groups were observed. The results are not directly comparable, but they lead to several basic findings and show several trends. From a methodological point of view we are aware that there are limitations in the degree to which the findings can be generalised, given distance education is a very complex process and greatly depends on macro- and micro-social, cultural and economic variables. Therefore some of the relations among the variables might be different in different socio-cultural environments. In a few cases the relations between the variables were studied on the basis of practical observations of independent learning and through educational biographies, the aim of which was to study efficiency of individual informal
methods of learning. Our research into distance education must be seen as a mosaic of relatively small samples (20 to 50 respondents), which allow us to take into account all the special conditions and differences. This is true especially of the studies examining social, psychological and educational variables. The studies of the general organisation of distance education should, on the contrary, be based on larger samples (S. Pongrac).

An additional remark concerning the methodology should be made in connection with the instruments employed. Questionnaires and individual in-depth interviews were the most frequently used tools. The studies remained on the attitudinal level, even though data were collected about the social relations and psychological characteristics. Several independent variables (level of education, age, sex, subjects, duration of studies, number of examinations or other forms of evaluation of knowledge) were examined on the basis of quantitative data and secondary analyses of available materials.
The relation between social isolation and efficiency in distance education was observed through the following three sets of variables:

- two different concepts of education and learners' perception of social isolation

- types, quality and quantity of social relations and impact of social isolation on distance education

- individual psychological characteristics in relation to the impact of social isolation on the effectiveness of distance education.

The basic approach of the learners to education, their understanding of the concept of education, can predetermine their expectations. On the one hand there are learners who believe that "they must be taught, and that the lecturer must take the responsibility for it", on the other hand we come across a concept according to which "the educator only guides and coordinates the learner's activities and helps him to learn by himself". The learners adhering to the first (conservative) concept of education are more likely to feel deprived of social relations if they study at a distance and vice versa. If the learners have confidence in themselves and believe that they can get at the necessary knowledge by themselves, then they function effectively learning even in social isolation, where they receive help in various forms "from a distance".

How much the social contacts and face-to-face experience are missed in distance education to a certain extent also depends on the overall situation of a learner, i.e. his connectedness with other social groups to which he belongs and with his general social environment. The learners who
are not effective in family social relations, at work and with friends, are even more sensitive to the social relations in education, when they have to learn in isolation for a considerable length of time. Social isolation in the process of distance education can be compensated for by satisfactory social relations elsewhere. The complementary function of social relations which help to satisfy the basic personal social needs is evident.

The individual psychological characteristics of learners and their influence on the relation between social isolation and the effectiveness of distance education were the third set of variables studied. Self-confidence, types of motivation for education, independence in learning and independence in other life situations, sociability, introvert/extrovert tendencies and adaptability were observed.

To sum up, learners with low self-confidence appreciate education in social isolation, because being confronted with an educational group is a great additional burden and demand on these learners. The primary motivation permits learners to find their own means and combinations in the learning process and always gives them new necessary energy for more learning even when they learn in isolation. Secondary motives on the other hand (better income, better conditions for work, competition with other people etc.) function negatively in education in social isolation.

Dependency in learning is closely connected with dependency in other activities in everyday life. Low independency asks for more person-to-person help, and learners quickly feel deprived of the necessary help from others (lecturers, teachers, tutors). They do not feel comfortable if they have to make decisions by themselves in the process of learning. Sociability can correct this tension to
a certain extent and can delay the onset of poor examination results, withdrawal from examinations and the drop out stage. Both extreme subgroups of learners (those with extremely low sociability and those with extremely high sociability) do not function favourably in distance education in social isolation. In both groups the results are relatively poor. The first subgroup does not have any chance to compensate for social contacts in other life situations because they are too rare. For the second group social relations and frequent social contacts represent the basic style of life; therefore they cannot do without them in any segment of their life including adult education.

Adaptability and rigidity on the other hand did not prove to exert any important impact on the relationship between isolation and effectiveness of distance education. A higher level of adaptability of particular persons evidenced in their educational biographies appeared to act in support of the changed situation and social environment; it also helped to change their study method more quickly and with less reported trouble. But apart from that, the category of adaptability in our studies was too broad to allow us to define its role in the educational process, although it is likely to be a constituent part.
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